

Personal Systems Reference

Version 354 - April 2009

SATA disk	80 or 160GB / SATA150 / 7200 rpm / vibration /	L2 cache	2MB / on die (at processor speed) / ECC	Intel Pentium 4 Processor
SATA controller	Serial ATA 1.0 / 300 MB/sec SATA300 / Integr	Memory	512MB std / 2GB max* / PC2-4200 / 533MHz DDR2 / non-parity / CL4 / dual ch	Intel Pentium 4 Processor
SATA cables	One SATA cable (one 1-drop to disk) / 4 SATA		capable / two 200-pin SO-DIMM sockets / std mem in one socket / one socke	Intel Pentium 4 Processor
EIDE Combo	One SATA cable (one 1-drop to disk) / 4 SATA	Diskette drive	None standard / use optional USB-based diskette drive	Intel Pentium 4 Processor
EIDE DVD-RW	Some: DVD and CD burner / Multi-Burner PC	Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X* speed / removable from Ultrabay Slim	Intel Pentium 4 Processor
EIDE controller	Enhanced IDE / ATA-100 / Integrated I/O Cn	Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay	Intel Pentium 4 Processor
EIDE cables	One 2-drop EIDE cable to optical / one conn	Serial ATA disk	60GB* (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high ba	Intel Pentium 4 Processor
Diskette drive	3.5" 1.44MB diskette drive	(SATA150)	supports 2nd disk / HDD Protection Pack (shock absorber) /	Intel Pentium 4 Processor
Chipset	Intel 945G Express Chipset / 82945G Graph	Display	Active Protection System**	Intel Pentium 4 Processor
Front ports	Two USB (Version 2.0), microphone stereo, 3	Graphics	Widescreen / 14.0" (355.4mm) WXGA (1280x768) TFT color / 200 nits / 15"	Intel Pentium 4 Processor
Rear ports	Six USB (Version 2.0), one 9-pin serial, parall	Keyboard	stainless steel hinges / one hand activates dual latches / secure screen surro	Intel Pentium 4 Processor
Audio	Line-in (stereo), headset, line-out, 40W, 8.5m	TrackPoint®	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 9	Intel Pentium 4 Processor
Speakers	High Definition Audio / 40W, 8.5m	ThinkPad	GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz	Intel Pentium 4 Processor
Beeper	External speaker / 40W, 8.5m	Display	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Window	Intel Pentium 4 Processor
EEE 1304	One internal / 40W, 8.5m	Graphics	TrackPoint pointing device / UltraNav® multi-pointing system (touchpad)	Intel Pentium 4 Processor
Ethernet	Some: PCI / 40W, 8.5m	Case	illumination / improves visibility in low light condit	Intel Pentium 4 Processor
Modem	Some: PCI / 40W, 8.5m	Battery	(WXGA) / 14.0" (355.4mm) x 228mm x 25.6-	Intel Pentium 4 Processor
Security chip	Some: PCI / 40W, 8.5m	Power	14.5" (368.3mm) x 228mm x 25.6-	Intel Pentium 4 Processor
Keyboard	Some: PCI / 40W, 8.5m	Power	14.5" (368.3mm) x 228mm x 25.6-	Intel Pentium 4 Processor
Mouse	Some: PCI / 40W, 8.5m	Power	14.5" (368.3mm) x 228mm x 25.6-	Intel Pentium 4 Processor
Cooling fans	Some: PCI / 40W, 8.5m	Power	14.5" (368.3mm) x 228mm x 25.6-	Intel Pentium 4 Processor
Power supply	Some: PCI / 40W, 8.5m	Power	14.5" (368.3mm) x 228mm x 25.6-	Intel Pentium 4 Processor

Personal Systems Reference (PSREF) - Index - Version 354

Index	Sheet Name	Date on Bottom	Title	Sheet Name	Date on Bottom
Personal Systems Reference - Index	INDEX	Apr 09	ThinkPad T500 photography	CR5-P	Aug 08
Index - Withdrawn Products	INDEXW**	Feb 09	ThinkPad T500 2242 (GMA) - TopSeller	CR5-1	Jan 09
ThinkPad Notebooks (Version 354)	<i>tabook.pdf</i>		ThinkPad T500 2242 (GMA) - TopSeller (Mar 09)	CR5-12	Apr 09
ThinkPad Accessories photography	ACC-P	Oct 08	ThinkPad T500 2243 (GMA) - TopSeller	CR5-11	Dec 08
ThinkPad R61e 15W (GMA Graphics) - 1-year	KON11-2	Jul 07	ThinkPad T500 2082 (Switchable) - TopSeller	CR5-2	Apr 09
<i>ThinkPad R61e 15W Accessories</i>	O-R61E	Feb 09	ThinkPad T500 2089 (GMA)	CR5-3	Dec 08
ThinkPad R61 14W 7733 (GMA) - Linux	LAG1-9	Jan 08	ThinkPad T500 2055 (Switchable)	CR5-4	Dec 08
ThinkPad R61 14W (GMA)	LAG1-3	Dec 07	ThinkPad T500 2241 (GMA) - Onsite	CR5-5	Dec 08
ThinkPad R61 14W 7735 (GMA) - Onsite	LAG1-11	Feb 08	ThinkPad T500 2056 (Switchable) - Onsite	CR5-6	Dec 08
ThinkPad R61 14W (GMA) - Education (EasyServ)	LAG1-5	May 07	ThinkPad T500 2089 (GMA) - Educ (EasyServ)	CR5-7	Apr 09
ThinkPad R61 14W (GMA) - Education (Onsite)	LAG1-6	May 07	ThinkPad T500 2055 (Switchable) - Ed (EasyServ)	CR5-8	Apr 09
ThinkPad R61u 14W 7733 (GMA) - Ed (EasyServ)	LAG2-1	Apr 08	ThinkPad T500 2241 (GMA) - Education (Onsite)	CR5-9	Apr 09
ThinkPad R61u 14W 7733 (GMA) - Ed (ES) - Linux	LAG2-3	Feb 08	ThinkPad T500 2056 (Switchable) - Educ (Onsite)	CR5-10	Apr 09
ThinkPad R61u 14W 7743 (NVIDIA) - Ed (EasyS)	LAG2-2	Apr 08	ThinkPad W500 photography	CR5W-P	Aug 08
ThinkPad R61u 14W 7743 (NVIDIA) - Ed (ES) - Lin	LAG2-4	Feb 08	ThinkPad W500 4062 (Switchable) - TopSeller	CR5W-1	Apr 09
<i>ThinkPad R61 14W Accessories</i>	O-R61-14W	Feb 09	ThinkPad W500 4061 (Switchable)	CR5W-2	Sep 08
ThinkPad R61 15W (GMA) - 3-year (TopSeller)	WKK11-2	Aug 08	ThinkPad W500 4063 (Switchable) - Onsite	CR5W-3	Nov 08
ThinkPad R61u 15W 8933 (GMA) - Ed (EasyServ)	WKK2-1	Feb 08	<i>ThinkPad T500, W500 Accessories</i>	O-T500	Feb 09
<i>ThinkPad R61 15W Accessories</i>	O-R61-15W	Feb 09	ThinkPad W700 photography	NIC1-P	Sep 08
ThinkPad R61i 14W 7732 (GMA) - TopS (Mar 08)	B-LAG1-2	Aug 08	ThinkPad W700 2758 (TopSeller)	NIC1-1	Aug 08
ThinkPad R61i 15W 7650 (GMA) - TopSeller	B-KON11-1	Jul 08	ThinkPad W700 2752	NIC1-2	Aug 08
ThinkPad R61i 15W 8932 (GMA) - TopS (Jan 08)	B-WKK11-2	Jul 08	ThinkPad W700 2752 (Extreme)	NIC1-3	Aug 08
ThinkPad R400 photography	LAG3-P	Aug 08	ThinkPad W700 2752 (Quad-Core Extreme)	NIC1-4	Aug 08
ThinkPad R400 7438 (TopSeller)	LAG3-1	Apr 09	ThinkPad W700 2753 (Onsite)	NIC1-5	Apr 09
ThinkPad R400 7439	LAG3-2	Dec 08	ThinkPad W700 2752 - Education	NIC1-6	Apr 09
ThinkPad R400 7440 (Onsite)	LAG3-3	Dec 08	ThinkPad W700ds photography	NIC15-P	Jan 09
ThinkPad R400 7439 (Education) - EasyServ	LAG3-4	Apr 09	ThinkPad W700ds 2758 (TopSeller)	NIC15-3	Apr 09
ThinkPad R400 7440 (Education) - Onsite	LAG3-5	Aug 08	ThinkPad W700ds 2752	NIC15-1	Jan 09
<i>ThinkPad R400 Accessories</i>	O-R400	Feb 09	ThinkPad W700ds 2753 (Onsite)	NIC15-2	Jan 09
ThinkPad R500 photography	WKK3-P	Aug 08	<i>ThinkPad W700, W700ds Accessories</i>	O-W700	Feb 09
ThinkPad R500 2714 (TopSeller)	WKK3-6	Mar 09	ThinkPad X61 (7675) - TopSeller	SM3-1	Mar 08
ThinkPad R500 2717 (TopSeller)	WKK3-1	Apr 09	ThinkPad X61 (7673)	SM3-2	Feb 08
ThinkPad R500 2716	WKK3-2	Sep 08	ThinkPad X61s (7669) - TopSeller	KB3-1	Sep 07
ThinkPad R500 2718 (Onsite)	WKK3-3	Sep 08	ThinkPad X61s (7666)	KB3-2	Feb 08
ThinkPad R500 2716 (Education)	WKK3-4	Apr 09	ThinkPad X61s (7667) - Onsite	KB3-3	Feb 08
ThinkPad R500 2718 (Education) - Onsite	WKK3-5	Feb 09	<i>ThinkPad X60 and X61 Series Accessories</i>	O-X60	Feb 09
<i>ThinkPad R500 Accessories</i>	O-R500	Feb 09	ThinkPad X61 Tablet (7762)	DL2-2	Jun 08
ThinkPad T61 14W 7658 (GMA) - TopSeller	ML1-1	May 08	ThinkPad X61 Tablet (7762) - Onsite	DL2-6	Feb 08
ThinkPad T61 14W 7664 (NVIDIA) - TopSeller	ML1-2	Aug 08	ThinkPad X61 Tablet (7767) - TopSeller (3-year)	DL2-3	Sep 07
ThinkPad T61u 14W 7659 (GMA) - Educ (EasyServ)	ML2-1	Apr 08	ThinkPad X61 Tablet (Education) - EasyServ	DL2-4	Jul 07
ThinkPad T61u 14W 7659 (GMA) - Educ (Linux)	ML2-3	Feb 08	ThinkPad X61 Tablet (Education) - Onsite	DL2-5	Jul 07
ThinkPad T61u 14W 7663 (NVIDIA) - Ed (EasySrv)	ML2-2	Apr 08	<i>ThinkPad X60 Tablet and X61 Tablet Accessories</i>	O-X60-T	Feb 09
ThinkPad T61u 14W 7663 (NVIDIA) - Educ (Linux)	ML2-4	Feb 08	ThinkPad X200 photography	MOC1-P	Sep 08
ThinkPad T61 15W (GMA Graphics)	CR3-2	May 07	ThinkPad X200 (7454) - TopSeller	MOC1-1	Mar 09
ThinkPad T61 15W 6464 (GMA) - Onsite	CR3-14	Feb 08	ThinkPad X200 (7455) - TopSeller	MOC1-7	Apr 09
ThinkPad T61 15W 6460 (NVIDIA) - TopSeller	CR3-9	Sep 08	ThinkPad X200 (7458)	MOC1-2	Jan 09
ThinkPad T61 15W (NVIDIA Graphics)	CR3-5	Mar 08	ThinkPad X200 (7458) - December 2008	MOC1-6	Dec 08
ThinkPad T61 15W 6458 (NVIDIA) - Onsite	CR3-12	Feb 08	ThinkPad X200 (7459) - Onsite	MOC1-3	Oct 08
ThinkPad T61 15W 6457 (NVIDIA) - Educ (EasyS)	CR3-7	Feb 08	ThinkPad X200 (7458) - Education (EasyServ)	MOC1-4	Apr 09
ThinkPad T61 15W (NVIDIA) - Educ (Onsite)	CR3-8	Jul 07	ThinkPad X200 (7459) - Education (Onsite)	MOC1-5	Nov 08
ThinkPad T61u 15W 6463 (GMA) - Ed (EasySrv)	CR4-2	Apr 08	ThinkPad X200s photography	PEC1-P	Sep 08
ThinkPad T61u 15W 6457 (NVIDIA) - Ed (EasySrv)	CR4-1	Apr 08	ThinkPad X200s (7466) - TopSeller	PEC1-1	Sep 08
ThinkPad T61p 15W 6460 (NVIDIA) - TopSeller	CR3-10	Jan 08	ThinkPad X200s (7469)	PEC1-2	Mar 09
ThinkPad T61p 15W 6457 (NVIDIA) - Ed (EasySrv)	CR4-4	Apr 08	ThinkPad X200s (7470) - Onsite	PEC1-3	Mar 09
<i>ThinkPad T61 Accessories</i>	O-T61	Feb 09	<i>ThinkPad X200, X200s Accessories</i>	O-X200	Apr 09
ThinkPad T400 photography	ML3-P	Dec 08	ThinkPad X200 Tablet photography	CML1-P	Sep 08
ThinkPad T400 6473 (GMA) - TopSeller	ML3-9	Apr 09	ThinkPad X200 Tablet (7448) - TopSeller	CML1-7	Mar 09
ThinkPad T400 7417 (GMA) - TopSeller	ML3-1	Mar 09	ThinkPad X200 Tablet (7449) - TopSeller	CML1-1	Apr 09
ThinkPad T400 2764 (Switchable) - TopSeller	ML3-12	Mar 09	ThinkPad X200 Tablet (7450)	CML1-2	Sep 08
ThinkPad T400 2765 (Switchable) - TopSeller	ML3-2	Apr 09	ThinkPad X200 Tablet (7450) - December 2008	CML1-6	Jan 09
ThinkPad T400 6474 (GMA)	ML3-3	Feb 09	ThinkPad X200 Tablet (7453) - Onsite	CML1-3	Sep 08
ThinkPad T400 2767 (Switchable)	ML3-4	Jan 09	ThinkPad X200 Tablet (7450) - Educ (EasyServ)	CML1-4	Apr 09
ThinkPad T400 2767 (Switchable) - October 2008	ML3-10	Jan 09	ThinkPad X200 Tablet (7453) - Educ (Onsite)	CML1-5	Feb 09
ThinkPad T400 6475 (GMA) - Onsite	ML3-5	Jan 09	<i>ThinkPad X200 Tablet Accessories</i>	O-X200-T	Feb 09
ThinkPad T400 2768 (Switchable) - Onsite	ML3-6	Jan 09	ThinkPad X300, X301 photography	KOD1-P	Feb 08
ThinkPad T400 2768 (Switchable) - Educ Onsite	ML3-11	Feb 09	ThinkPad X300 (6478) - TopSeller	KOD1-1	Feb 08
ThinkPad T400 6474 (GMA) - Education	ML3-7	Apr 09	ThinkPad X300 (6477)	KOD1-2	May 08
ThinkPad T400 2767 (Switchable) - Education	ML3-8	Apr 09	ThinkPad X300 (4052) - Onsite	KOD1-3	Apr 08
<i>ThinkPad T400 Accessories</i>	O-T400	Feb 09	ThinkPad X301 (2776) - TopSeller	KOD2-1	Dec 08
			ThinkPad X301 (2774)	KOD2-2	Dec 08
			ThinkPad X301 (4057) - Onsite	KOD2-3	Sep 08
			ThinkPad X301 (2774) - Education	KOD2-4	Feb 09
			ThinkPad X301 (4057) - Education (Onsite)	KOD2-5	Feb 09
			<i>ThinkPad X300, X301 Accessories</i>	O-X300	Feb 09
			<i>ThinkPad - ThinkPlus Services</i>	S-TA	Dec 08

Personal Systems Reference (PSREF) - Index - Version 354

Title	Sheet Name	Date on Bottom	Title	Sheet Name	Date on Bottom
ThinkPad SL Notebooks (Version 354)	<i>slbook.pdf</i>		ThinkCentre M58, M58p photography	MLAN1-P	Nov 08
ThinkPad SL300 photography	CAR1-P	Aug 08	ThinkCentre M58 Eco Ultra Small (8820) - TopSeller	MLAN1-17	Nov 08
ThinkPad SL300 2738 (GMA) - TopSeller	CAR1-1	Dec 08	ThinkCentre M58 Eco Ultra Small (8820) - TS (Jan)	MLAN2-1	Apr 09
ThinkPad SL300 2738 (GMA) - TopSeller (Jan 2009)	CAR11-1	Feb 09	ThinkCentre M58 Eco Ultra Small (7359)	MLAN1-18	Nov 08
ThinkPad SL300 2738 (NVIDIA) - TopSeller	CAR1-2	Feb 09	ThinkCentre M58 Eco Ultra Small (7359) - Jan 09	MLAN2-2	Apr 09
<i>ThinkPad SL300 Series Accessories</i>	O-SL300	Feb 09	ThinkCentre M58 Eco Ultra Small (7637) - GMP	MLAN2-3	Jan 09
ThinkPad SL400 photography	CAY1-P	Sep 08	ThinkCentre M58p Eco Ultra Small (9961) - TopS	MLAN1-19	Nov 08
ThinkPad SL400 2743 (GMA) - TopSeller (Celeron)	CAY1-3	Apr 09	ThinkCentre M58p Eco USFF (9961) - TopS (Apr 09)	MLAN2-10	Apr 09
ThinkPad SL400 2743 (GMA) - TopSeller	CAY1-1	Oct 08	ThinkCentre M58p Eco Ultra Small (7479)	MLAN1-20	Nov 08
ThinkPad SL400 2743 (GMA) - TopSeller (Jan 2009)	CAY11-1	Jan 09	ThinkCentre M58p Eco Ultra Small (7479) - Apr 09	MLAN2-11	Apr 09
ThinkPad SL400 2743 (GMA) - TopSeller (Apr 2009)	CAY11-2	Apr 09	ThinkCentre M58p Eco Ultra Small (6136) - GMP	MLAN1-21	Nov 08
ThinkPad SL400 2743 (NVIDIA) - TopSeller	CAY1-2	Jul 08	ThinkCentre M58 Small (8910) - TopSeller	MLAN1-3	Oct 08
<i>ThinkPad SL400 Series Accessories</i>	O-SL400	Feb 09	ThinkCentre M58 Small (8910) - TopSeller (Jan 09)	MLAN2-4	Apr 09
ThinkPad SL500 photography	TAR1-P	Jul 08	ThinkCentre M58 Small (7360)	MLAN1-1	Oct 08
ThinkPad SL500 2746 (GMA) - TopSeller (Celeron)	TAR1-3	Apr 09	ThinkCentre M58 Small (7360) - January 2009	MLAN2-5	Apr 09
ThinkPad SL500 2746 (GMA) - TopSeller	TAR1-1	Jul 08	ThinkCentre M58 Small (6258) - ENERGY STAR 4.0	MLAN1-2	Oct 08
ThinkPad SL500 2746 (GMA) - TopSeller (Sep 2008)	TAR1-4	Jan 09	ThinkCentre M58 Small (6258) - ES 4.0 (Jan 09)	MLAN2-6	Apr 09
ThinkPad SL500 2746 (GMA) - TopSeller (Apr 2009)	TAR1-5	Apr 09	ThinkCentre M58 Small (7638) - GMP	MLAN1-22	Dec 08
ThinkPad SL500 2746 (NVIDIA) - TopSeller	TAR1-2	Feb 09	ThinkCentre M58 Tower (9960) - TopSeller	MLAN1-11	Nov 08
<i>ThinkPad SL500 Series Accessories</i>	O-SL500	Feb 09	ThinkCentre M58 Tower (9960) - TopSeller (Jan 09)	MLAN2-7	Apr 09
			ThinkCentre M58 Tower (7373)	MLAN1-9	Nov 08
ThinkCentre Desktops (Version 354)	<i>tcbook.pdf</i>		ThinkCentre M58 Tower (7373) - January 2009	MLAN2-8	Apr 09
ThinkCentre M57e photography	MONA1-P	Feb 08	ThinkCentre M58 Tower (6239) - ENERGY STAR 4.0	MLAN1-10	Nov 08
ThinkCentre M57e Small (6305) - TopSeller	MONA2-4	Aug 08	ThinkCentre M58 Tower (6239) - ES 4.0 (Jan 09)	MLAN2-9	Apr 09
ThinkCentre M57e Small (6305) - TopSeller (Oct 08)	MONA3-4	Oct 08	ThinkCentre M58p Small (9964) - TopSeller	MLAN1-5	Oct 08
ThinkCentre M57e Small (9482)	MONA1-4	Mar 08	ThinkCentre M58p Small (7483)	MLAN1-4	Oct 08
ThinkCentre M57e Small (9482) - August 2008	MONA2-12	Aug 08	ThinkCentre M58p Small (7483) - April 2009	MLAN2-12	Apr 09
ThinkCentre M57e Small (9482) - Vista	MONA1-1	Feb 08	ThinkCentre M58p Small (7220) - ES 4.0	MLAN1-6	Oct 08
ThinkCentre M57e Small (9482) - Vista (Mar 2008)	MONA1-8	Aug 08	ThinkCentre M58p Small (7220) - ES 4.0 (April 09)	MLAN2-13	Apr 09
ThinkCentre M57e Small (9482) - Vista (June 2008)	MONA2-1	Aug 08	ThinkCentre M58p Small (6137) - GMP	MLAN1-7	Feb 09
ThinkCentre M57e Small (9482) - Vista (Oct 2008)	MONA3-1	Oct 08	ThinkCentre M58p Small (6234) - ES 4.0 (GMP)	MLAN1-8	Oct 08
ThinkCentre M57e Small (9487) - ENERGY STAR 4.0	MONA1-7	Mar 08	ThinkCentre M58p Tower (9965) - TopSeller	MLAN1-16	Nov 08
ThinkCentre M57e Small (9487) - ES 4.0 (June 2008)	MONA2-2	Aug 08	ThinkCentre M58p Tower (7484)	MLAN1-12	Nov 08
ThinkCentre M57e Small (6178) - ES 4.0 (GMP)	MONA2-3	Jun 08	ThinkCentre M58p Tower (7484) - April 2009	MLAN2-14	Apr 09
ThinkCentre M57e Small (7066) - GMP	MONA1-11	Mar 08	ThinkCentre M58p Tower (7188) - ES 4.0	MLAN1-13	Nov 08
ThinkCentre M57e Desktop (9481)	MONA1-5	Mar 08	ThinkCentre M58p Tower (7188) - ES 4.0 (Apr 09)	MLAN2-15	Apr 09
ThinkCentre M57e Desktop (9481) - August 2008	MONA2-13	Aug 08	ThinkCentre M58p Tower (6138) - GMP	MLAN1-14	Nov 08
ThinkCentre M57e Desktop (9481) - Vista	MONA1-2	Mar 08	ThinkCentre M58p Tower (6209) - ES 4.0 (GMP)	MLAN1-15	Nov 08
ThinkCentre M57e Desktop (9481) - Vista (Jun 2008)	MONA2-5	Jun 08	<i>ThinkCentre M58, M58p Accessories</i>	O-M58	Feb 09
ThinkCentre M57e Desktop (9481) - Vista (Oct 08)	MONA3-2	Oct 08	ThinkCentre A57 photography	TUNS1-P	Mar 08
ThinkCentre M57e Desktop (9438) - ES 4.0	MONA2-6	Aug 08	ThinkCentre A57 Small (9704) - TopSeller	TUNS1-1	Mar 08
ThinkCentre M57e Desktop (6177) - ES 4.0 (GMP)	MONA2-7	Jun 08	ThinkCentre A57 Small (9704) - TopSeller (Oct 08)	TUNS3-1	Feb 09
ThinkCentre M57e Desktop (7065) - GMP	MONA1-12	Mar 08	ThinkCentre A57 Small (9704) - TopSeller (Vista)	TUNS1-2	Apr 08
ThinkCentre M57e Tower (6179) - TopSeller	MONA2-11	Aug 08	ThinkCentre A57 Tower (9702) - TopSeller	TUNS1-3	Apr 08
ThinkCentre M57e Tower (6179) - TopSeller (Oct 08)	MONA3-5	Oct 08	ThinkCentre A57 Tower (9702) - TopSeller (Oct 08)	TUNS3-2	Oct 08
ThinkCentre M57e Tower (9439)	MONA1-6	Mar 08	ThinkCentre A57 Tower (9702) - TopSeller (Vista)	TUNS1-4	May 08
ThinkCentre M57e Tower (9439) - August 2008	MONA2-14	Aug 08	ThinkCentre A57 Tower (9702) - TopS (Vista) - Dec	TUNS2-1	Dec 08
ThinkCentre M57e Tower (9439) - Vista	MONA1-3	Feb 08	ThinkCentre A57 Tower (9851) - TopSeller	TUNS1-5	Apr 08
ThinkCentre M57e Tower (9439) - Vista (Mar 2008)	MONA1-10	Aug 08	ThinkCentre A57 Tower (9851) - TopSeller (Vista)	TUNS1-6	May 08
ThinkCentre M57e Tower (9439) - Vista (June 2008)	MONA2-8	Jun 08	<i>ThinkCentre A57 Accessories</i>	O-A57	Feb 09
ThinkCentre M57e Tower (9439) - Vista (Oct 2008)	MONA3-3	Oct 08	ThinkCentre A58 Small (7522) - TopSeller	TAMP1-1	Apr 09
ThinkCentre M57e Tower (9356) - ENERGY STAR 4.0	MONA1-9	Mar 08	ThinkCentre A58 Small (7705) - TopSeller	TAMP1-3	Apr 09
ThinkCentre M57e Tower (9356) - ES 4.0 (June 2008)	MONA2-9	Aug 08	ThinkCentre A58 Tower (7515) - TopSeller	TAMP1-2	Apr 09
ThinkCentre M57e Tower (6176) - ES 4.0 (GMP)	MONA2-10	Jun 08	<i>ThinkCentre A58 Accessories</i>	O-A58	Mar 09
ThinkCentre M57e Tower (7064) - GMP	MONA1-13	Mar 08	ThinkCentre A62 photography	ATHN1-P	Aug 08
ThinkCentre M57e Accessories	O-M57E	Feb 09	ThinkCentre A62 Desktop (9486)	ATHN1-7	Sep 08
ThinkCentre M58e Small (7259) - TopSeller	MIAM1-14	Apr 09	ThinkCentre A62 Desktop (9486) - Vista	ATHN1-1	Sep 08
ThinkCentre M58e Small (7269) - TopSeller	MIAM1-1	Apr 09	ThinkCentre A62 Desktop (7057) - ENERGY STAR	ATHN1-2	Dec 08
ThinkCentre M58e Small (7279)	MIAM1-2	Mar 09	ThinkCentre A62 Desktop (3658) - ES 4.0 (GMP)	ATHN2-1	Dec 08
ThinkCentre M58e Small (7303)	MIAM1-3	Apr 09	ThinkCentre A62 Desktop (7062) - GMP	ATHN1-3	Aug 08
ThinkCentre M58e Small (7303) - Vista	MIAM1-4	Mar 09	ThinkCentre A62 Tower (9705) - TopSeller	ATHN1-10	Dec 08
ThinkCentre M58e Small (7506) - ENERGY STAR 4.0	MIAM1-5	Apr 09	ThinkCentre A62 Tower (9705) - TopSeller (Dec 08)	ATHN2-3	Jan 09
ThinkCentre M58e Small (7408) - GMP	MIAM1-6	Mar 09	ThinkCentre A62 Tower (9935) - TopSeller	ATHN1-9	Sep 08
ThinkCentre M58e Small (7514) - ES 4.0 (GMP)	MIAM1-7	Mar 09	ThinkCentre A62 Tower (9935) - TopSeller (Apr 09)	ATHN2-4	Apr 09
ThinkCentre M58e Tower (7268) - TopSeller	MIAM1-8	Apr 09	ThinkCentre A62 Tower (9485)	ATHN1-8	Sep 08
ThinkCentre M58e Tower (7270)	MIAM1-9	Mar 09	ThinkCentre A62 Tower (9485) - April 2009	ATHN2-5	Apr 09
ThinkCentre M58e Tower (7298)	MIAM1-10	Apr 09	ThinkCentre A62 Tower (9485) - Vista	ATHN1-4	Sep 08
ThinkCentre M58e Tower (7298) - Vista	MIAM1-15	Apr 09	ThinkCentre A62 Tower (9625) - ENERGY STAR 4.0	ATHN1-5	Dec 08
ThinkCentre M58e Tower (7491) - ENERGY STAR 4.0	MIAM1-11	Apr 09	ThinkCentre A62 Tower (3656) - ES 4.0 (GMP)	ATHN2-2	Dec 08
ThinkCentre M58e Tower (7307) - GMP	MIAM1-12	Mar 09	ThinkCentre A62 Tower (7061) - GMP	ATHN1-6	Aug 08
ThinkCentre M58e Tower (7508) - ES 4.0 (GMP)	MIAM1-13	Mar 09	<i>ThinkCentre A62 Accessories</i>	O-A62	Feb 09
<i>ThinkCentre M58e Accessories</i>	O-M58E	Mar 09	<i>ThinkCentre - ThinkPlus Services</i>	S-TC	Feb 09

Personal Systems Reference (PSREF) - Index - Version 354

<u>Title</u>	<u>Sheet Name</u>	<u>Date on Bottom</u>	<u>Title</u>	<u>Sheet Name</u>	<u>Date on Bottom</u>
ThinkStation Workstations (Version 354)	<i>tsbook.pdf</i>				
ThinkStation S10 photography	S10-P	Mar 08			
ThinkStation S10 (6423) - TopSeller	BARC1-1	Dec 07			
ThinkStation S10 (6423) - TopSeller (April 2008)	BARC1-5	Apr 08			
ThinkStation S10 (6423) - TopSeller (August 2008)	BARC11-1	Sep 08			
ThinkStation S10 (6483)	BARC1-2	Dec 07			
ThinkStation S10 (6483) - April 2008	BARC1-6	Apr 08			
ThinkStation S10 (6483) - August 2008	BARC11-2	Aug 08			
☞ ThinkStation S20 photography	S20-P	Mar 09			
☞ ThinkStation S20 (4105) - TopSeller	SEV1-1	Mar 09			
☞ ThinkStation S20 (4157)	SEV1-2	Mar 09			
ThinkStation D10 photography	D10-P	Mar 08			
ThinkStation D10 (6427) - TopSeller	BARC1-3	Apr 08			
ThinkStation D10 (6427) - TopSeller (August 2008)	BARC11-3	Sep 08			
ThinkStation D10 (6493)	BARC1-4	Mar 08			
ThinkStation D10 (6493) - April 2008	BARC1-7	May 08			
ThinkStation D10 (6493) - August 2008	BARC11-4	Aug 08			
☞ ThinkStation D20 photography	D20-P	Mar 09			
☞ ThinkStation D20 (4155) - TopSeller (UDIMM)	SEV1-3	Mar 09			
☞ ThinkStation D20 (4155) - TopSeller (RDIMM)	SEV1-4	Mar 09			
☞ ThinkStation D20 (4158) - UDIMM	SEV1-5	Mar 09			
☞ ThinkStation D20 (4158) - RDIMM	SEV1-6	Mar 09			
☞ <i>ThinkStation S10, S20, D10, D20 Accessories</i>	O-BARC	Mar 09			
<i>ThinkStation - ThinkPlus Services</i>	S-TS	Dec 08			

Personal Systems Reference (PSREF) - Index - Version 354

Title	Sheet Name	Date on Bottom	Title	Sheet Name	Date on Bottom
ThinkServer Servers (Version 352)	<i>svbook.pdf</i>		IdeaPad Y730 photography	MB2-P	Aug 08
ThinkServer TS100 photography	TS100-P	Sep 08	IdeaPad Y730 (4053) - GMA	MB2-2	Sep 08
ThinkServer TS100 (6432) - TopSeller	TS100-1	Mar 09	IdeaPad Y730 (ATI)	MB2-3	Dec 08
ThinkServer TS100 (6434) - TopSeller	TS100-2	Mar 09	IdeaPad Y730 (4053) - ATI	MB2-1	Sep 08
ThinkServer TD100 photography	TD100-P	Sep 08	IdeaPad Y730 (4053) - ATI (November 2008)	MB2-4	Mar 09
ThinkServer TD100 (6399) - TopSeller	TD100-1	Jan 09	<i>IdeaPad Accessories</i>	O-IP	Feb 09
ThinkServer TD100 (6429) - TopSeller	TD100-2	Oct 08	IdeaCentre Desktops (Version 354)	<i>icbook.pdf</i>	
ThinkServer TD100x (4206) - TopSeller	TD100X-1	Oct 08	IdeaCentre K210 (Celeron and Pentium)	KW1-1	May 08
ThinkServer RS110 photography	RS110-P	Sep 08	IdeaCentre K210	KW1-2	Jul 08
ThinkServer RS110 (6436) - TopSeller	RS110-1	Oct 08	IdeaCentre K210 (5313) - Celeron and Pentium	KW1-3	Nov 08
ThinkServer RS110 (6438) - TopSeller	RS110-2	Oct 08	IdeaCentre K210 (5313)	KW1-4	Feb 09
ThinkServer RD120 photography	RD120-P	Sep 08	IdeaCentre K220	KW2-1	Mar 09
ThinkServer RD120 (6445) - TopSeller	RD120-1	Feb 09	IdeaCentre K220 (5358)	KW2-2	Mar 09
ThinkServer RD120 (6447) - TopSeller	RD120-2	Feb 09	IdeaCentre K230	KW3-1	Mar 09
<i>ThinkServer Accessories</i>	O-SRVR	Feb 09	IdeaCentre K230 (5359)	KW3-2	Mar 09
<i>ThinkServer - ThinkPlus Services</i>	S-SV	Feb 09	☞ IdeaCentre A600 photography	BL1-P	Apr 09
			☞ IdeaCentre A600 (3011)	BL1-1	Apr 09
			<i>IdeaCentre Accessories</i>	O-IC	Feb 09
ThinkVision Monitors (Version 352)	<i>mbook.pdf</i>		Lenovo Consumer Monitors (Version 350)	<i>cmbook.pdf</i>	
Lenovo E75 Monitor	E75	Jan 07	Lenovo L195 Wide	L195-1	Aug 08
Lenovo D156 Wide	D156	Jan 09	Lenovo L195 Wide (4418)	L195-2	Aug 08
Lenovo D185 Wide	D185	Mar 09	Lenovo L222 Wide	L222-1	Aug 08
Lenovo L215 Wide	L215	Feb 09	Lenovo L222 Wide (4432)	L222-2	Aug 08
Lenovo L215p Wide	L215P	Feb 09			
Lenovo ThinkVision L151	L151-07	Mar 08	Lenovo Value Line Notebooks (Version 354)	<i>3book.pdf</i>	
Lenovo ThinkVision L174	L174	Jan 09	Lenovo N200 15W (0769) - October 2007	SN2-2	Feb 09
Lenovo ThinkVision L1700p	L1700P	Jan 09	<i>Lenovo N200 Accessories</i>	O-N200	Feb 09
Lenovo ThinkVision L197 Wide	L197W	Jan 09	Lenovo N500 photography	DOV1-P	Feb 09
Lenovo ThinkVision L1900p	L1900P	Jan 09	Lenovo N500 15W (4233)	DOV1-1	Feb 09
Lenovo ThinkVision L1940p Wide	L1940P	Jan 09	Lenovo V200 12W (0764)	FS2-1	Feb 09
Lenovo ThinkVision L2240p Wide	L2240P	Jan 09	<i>Lenovo V200 Accessories</i>	O-V200	Feb 09
Lenovo ThinkVision L2440p Wide	L2440P	Jan 09	Lenovo Y410 14W	ALK2-1	Feb 09
Lenovo ThinkVision L2440x Wide	L2440X	Jan 09	Lenovo G530 photography	ACN1-P	Feb 09
			Lenovo G530 (4151) - GMA	ACN1-1	Mar 09
			☞ Lenovo G530 (4446) - GMA	DOV2-1	Apr 09
			<i>Value Line Notebooks - Lenovo Care Services</i>	S-VLN	Mar 09
IdeaPad Notebooks (Version 354)	<i>ipbook.pdf</i>		Lenovo Value Line Desktops (Version 353)	<i>jbook.pdf</i>	
IdeaPad S9e, S10e photography	KRL1-P	Dec 08	Lenovo H200	SCL2-1	Mar 09
IdeaPad S9e (4187)	KRL1-1	Mar 09	Lenovo H200 (5357)	SCL2-2	Mar 09
IdeaPad S9e (4187) - Linux	KRL1-2	Feb 09	Lenovo H210	SCL1-1	Mar 09
☞ IdeaPad S10e (4187)	KRL1-5	Apr 09	Lenovo H210 (5355)	SCL1-2	Mar 09
IdeaPad S10e (4187) - Linux	KRL1-6	Feb 09	<i>Lenovo Value Line Desktops - Lenovo Care Services</i>	S-VLD	Mar 09
<i>IdeaPad S9e, S10e Accessories</i>	O-KRL	Jan 09			
<i>IdeaPad S9e, S10e - Lenovo Care Services</i>	S-IP	Feb 09	Intel PC Processors (Version 351)	<i>tecbook.pdf</i>	
IdeaPad S10 photography	MRA1-P	Sep 08	[Notebook] Intel Celeron M Processor 5xx	M5C	Sep 07
IdeaPad S10	MRA1-2	Mar 09	[Notebook] Intel Celeron Processor 5xx	CEL5	Sep 08
☞ IdeaPad S10 (April 2009)	MRA1-4	Apr 09	[Notebook] Intel Celeron Processor	DCELM	Jan 09
IdeaPad S10 (4231)	MRA1-1	Mar 09	[Notebook] Intel Pentium Processor	P2	Jan 09
IdeaPad S10 (4231) - March 2009	MRA1-3	Mar 09	[Notebook] Intel Core 2 Solo Processor	C2S	Sep 08
IdeaPad U110 photography	LEO1-P	Oct 08	[Notebook] Intel Core 2 Duo Processor (Socket M)	C2DT	Sep 08
IdeaPad U110 11W	LEO1-1	Jul 08	[Notebook] Intel Core 2 Duo Processor (Socket P)	C2DP	Nov 08
IdeaPad U110 11W (2304)	LEO1-2	Sep 08	[Notebook] Intel Core 2 Duo Processor (Penryn)	PENRYN	Jan 09
IdeaPad U330 photography	OLP1-P	Aug 08	[Notebook] Intel Core 2 Duo Processor (SFF)	PENSFF	Sep 08
IdeaPad U330	OLP1-2	Nov 08	[Notebook] Intel Core 2 Quad Processor	C2QUAD	Jan 09
IdeaPad U330 (2267)	OLP1-1	Sep 08	[Notebook] Intel Core 2 Extreme Processor	XM	Aug 08
IdeaPad Y430 photography	RSM1-P	Sep 08	[Desktop] Intel Celeron Processor 4xx	CEL4	Sep 08
☞ IdeaPad Y430 (GMA)	RSM1-2	Apr 09	[Desktop] Intel Celeron Processor	DCEL	Jan 09
IdeaPad Y430 (2781) - GMA	RSM1-1	Mar 09	[Desktop] Intel Pentium Processor	E2	Jan 09
IdeaPad Y430 (2781) - NVIDIA	RSM1-3	Feb 09	[Desktop] Intel Core 2 Duo Processor	C2DE	Mar 08
IdeaPad Y510 photography	MKL1-P	Sep 08	[Desktop] Intel Core 2 Duo Processor (Wolfdale)	WOLF	Jan 09
IdeaPad Y510 15W	MKL1-1	Apr 08	[Desktop] Intel Core 2 Extreme Processor	C2DX	Feb 08
IdeaPad Y510 15W (July 2008)	MKL1-6	Sep 08	[Desktop] Intel Core 2 Quad Processor	C2Q	Dec 08
IdeaPad Y510 15W (May 2008) - GMA	MKL1-2	Jun 08	[Desktop] Intel Core i7 Processor	I7	Dec 08
IdeaPad Y510 15W (May 2008) - NVIDIA	MKL1-3	May 08	[Desktop] Intel Core i7 Processor Extreme Edition	I7E	Dec 08
IdeaPad Y510 15W (7758) - GMA	MKL1-4	Aug 08			
IdeaPad Y510 15W (7758) - NVIDIA	MKL1-5	Aug 08			
IdeaPad Y530 photography	MKL2-P	Sep 08			
☞ IdeaPad Y530 (GMA)	MKL2-3	Apr 09			
IdeaPad Y530 (4051) - GMA	MKL2-2	Mar 09			
IdeaPad Y530 (4051) - GMA (February 2009)	MKL2-5	Feb 09			
IdeaPad Y530 (4051) - NVIDIA	MKL2-1	Dec 08			
IdeaPad Y530 (4051) - NVIDIA (February 2009)	MKL2-4	Feb 09			
IdeaPad Y650 photography	BM1-P	Feb 09			
☞ IdeaPad Y650 (GMA)	BM1-3	Apr 09			
IdeaPad Y650 (4185) - GMA	BM1-1	Feb 09			
IdeaPad Y650 (4185) - NVIDIA	BM1-2	Feb 09			
IdeaPad Y710 photography	MB1-P	May 08			
IdeaPad Y710 17W	MB1-1	Apr 08			
IdeaPad Y710 17W (May 2008)	MB1-2	Jun 08			
IdeaPad Y710 17W (July 2008)	MB1-4	Jul 08			
IdeaPad Y710 17W (4054)	MB1-3	Aug 08			



Personal Systems Reference Lenovo® ThinkPad® Notebooks

April 2009 - Version 354



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



128GB Solid State Drive SATA 3.0Gb/s 1.8" (with 2.5" cover)
43N3406



160GB Disk 9.5mm SATA 1.5Gb/s (7200 rpm)
41N5737



T/R 14W High Capacity Battery 9-cell
43R2499



Verizon WWAN EV-DO Rev. A Mini PCIe
43R1818



USB 2.0 Security Memory Key 4GB
41U5120



Laser Tilt Wheel Travel Mouse (Bluetooth)
41U5008



USB 2.0 Lenovo Webcam
40Y8519



USB 2.0 Lenovo Enhanced Port Replicator
43R8770

ThinkPad® R61e 15W (GMA Graphics) - 1-year

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Graphics controller	Disk SATA GB ⁵ rpm	EIDE optical	Mini PCIe 802.11 wireless	Finger print reader	Blue- tooth	Bat- tery cells	Preload	Workhorse (W) Global (G)	Avail date
7649-22U	T7300	2.00	1GB	15.4" WXGA	GMA	80GB 5400	Combo	* Intel 11a/b/g ³²	None	None	6	Business 32	G	Jul 07
• This model has a 1-year limited warranty ¹²														
Positioning Processor	Everyday computing; two spindles Intel® Core™ 2 Duo processor T7300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache										Preloaded operating system ²⁰ - Microsoft® Windows® Vista™ Business Edition (32-bit) ♦ Vista Premium logo			
Memory	512MB or 1GB 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										Preloaded applications ¹⁴ • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper™ Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (combo) • Corel® WinDVD® (combo)			
Diskette drive	None (use optional USB-based diskette drive)													
EIDE Combo	DVD-ROM/CD-RW, 24X/24X/24X/8X ²¹ , fixed, not removable, 12.7mm high													
Ultrabay Enhanced	None (no support for removable Ultrabay™ options)													
Serial ATA disk	80GB ⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™													
Widescreen display	15.4" (391mm) WXGA (1280x800) color, anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio													
Camera	None													
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100), integrated in GM965, no DVI pass-through (no port replicator or docking station support)													
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ (no touch pad)													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	6-cell 15.4W" (WxDxH): 14.1" x 10.2" x 1.39–1.52"; 358.5 x 260.0mm x 35.3–38.5mm													
Weight ²	6-cell: starting at 6.4 lb (2.9kg); 9-cell: starting at 6.7 lb (3.1kg)													
Case material	Black color, Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic													
Battery - type	Lithium Ion 6-cell													
Battery - life ¹⁰	6-cell Celeron: up to 2.1 hr; 6-cell Core 2 Duo: 5.0 hr; 9-cell Core 2 Duo: up to 7.0 hr													
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], / PCI bus (Ricoh® R5C804 Cardbus) /													
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit										Supports ThinkVantage® technologies			
ExpressCard slot	None										65-watt (GMA graphics) ThinkPad Roll Cage (one-piece magnesium frame) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Smart Card Read	None													
Multicard Reader	None													
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet)													
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios										ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968			
Mini PCI Express	One Mini PCI Express slot / not customer upgradable													
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG													
WWAN	None													
Modem	56K V.92 ⁶ modem, on systemboard, Conexant® CX20548										ThinkPlus 2-year LOR 9x5 NBD 45K5969			
Bluetooth™	None										ThinkPlus 3-year LOR 9x5 NBD 45K5970			
Ethernet	Gigabit ethernet, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE										ThinkPlus 4-year LOR 9x5 NBD 45K5973			
Intel AMT	None										ThinkPlus 5-year LOR 9x5 NBD 45K5975			
Audio support	High Definition (HD) Audio, CX20549 codec / stereo speakers, 1 watt / volume up, down, mute buttons / microphone input jack, headphone jack										ThinkPlus 2-year P&L P/U Depot 45K5971			
Security	Power-on password, hard disk password, supervisor password, security keyhole										ThinkPlus 3-year P&L P/U Depot 45K5972			
Security chip	None										ThinkPlus 4-year P&L P/U Depot 45K5974			
Fingerprint reader	None										ThinkPlus 5-year P&L P/U Depot 45K5976			
Limited warranty ¹²	1-year - EasyServ™.19 depot repair service / service upgrades ²² available										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
1GB PC2-5300 DDR2 SODIMM					40Y7734	T/R/W/SL Series Li-Ion Battery 6-cell				40Y6799				
2GB PC2-5300 DDR2 SODIMM					40Y7735	T/R/W/SL Series Li-Ion Battery 9-cell				40Y6797				
160GB Disk 9.5mm SATA 1.5Gb/s (7200)					41N5737	ThinkPad 90W AC Adapter				40Y7659				
250GB Disk FDE SATA 1.5Gb/s (7200 rpm)					43N3410	90W Slim AC/DC Combo Adapter				41N8460				
320GB Disk SATA 1.5Gb/s (7200 rpm)					43N3411	ThinkPad Business Topload Case				43R2476				
USB 2.0 Lenovo Multimedia Headset					40Y8518	ThinkPad Business Backpack				43R2482				
USB 2.0 Security Memory Key 4GB					41U5120	ThinkVision® L1940p Wide 19" Monitor				4424HB6				
USB 2.0 Super Multi-Burner Drive					41N5565	ThinkVision L2240p Wide 22" Monitor				4422HB6				
USB 2.0 Lenovo Enhanced Port Replicator					43R8770	ThinkVision L2440p Wide 24" Monitor				4420HB2				
Other accessories on O-R61E sheet						Other accessories at lenovo.com/accessories								

See footnotes for important warranty information
US model announced July 10, 2007

* Intel Centrino® processor technology

© Lenovo
(KON11-2) July 2007

Partial list of accessories supported on:**• ThinkPad R61e 15W originally announced on July 10, 2007****Memory**

512MB PC2-5300 DDR2 SODIMM	40Y7733	ann	01/05/06
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	ann	03/25/08
1GB PC2-5300 DDR2 SODIMM	40Y7734	ann	01/05/06
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	ann	03/25/08
2GB PC2-5300 DDR2 SODIMM	40Y7735	ann	11/28/06

Ultrabay Slim 9.5mm

None (no removable bay options)

Ultrabay Enhanced 12.7mm

None (no removable bay options)

Storage and removable storage

160GB Disk 9.5mm SATA 1.5Gb/s (5400 rpm)	41N5692	ann	03/20/07
160GB Disk 9.5mm SATA 1.5Gb/s (7200 rpm)	41N5737	ann	10/16/07
250GB Disk 9.5mm SATA 1.5Gb/s (5400 rpm)	43R8152	ann	01/15/08
250GB Disk FDE SATA 1.5Gb/s (7200 rpm)	43N3410	ann	01/20/09
320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3403	ann	08/05/08
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411	ann	01/20/09
USB 2.0 Essential Memory Key 1GB	41U4940	ann	01/23/07
USB 2.0 Essential Memory Key 2GB	41U4944	ann	01/23/07
USB 2.0 Essential Memory Key 4GB	45J7904	ann	06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann	07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann	10/28/08
USB 2.0 Security Memory Key 1GB	41U5118	ann	07/17/07
USB 2.0 Security Memory Key 2GB	41U5119	ann	07/17/07
USB 2.0 Security Memory Key 4GB	41U5120	ann	07/17/07
USB 2.0 Ultra Secure Memory Key 1GB	45J5915	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann	08/26/08
USB Portable Diskette Drive	05K9276	ann	06/05/00
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann	01/05/06
USB 2.0 Portable 160GB Hard Disk	43R1784	ann	09/23/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
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
USB 2.0 Super Multi-Burner Drive	41N5565	ann	01/23/07

Wireless LAN (Mini PCI Express)

No Mini PCI Express upgrade supported (use PC Card)

ThinkPad Expansion

USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ann	02/26/08
ThinkPad Adjustable Notebook Stand	40Y7676	ann	09/20/05

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann	12/07/04
USB Keyboard with UltraNav	31P8950	ann	01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann	04/27/04
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Optical Wheel Mouse (USB)	06P4069	ann	05/21/03
Optical ScrollPoint® Mouse (USB, PS/2)	31P7405	ann	08/27/02
Optical Wheel Travel Mouse (USB, PS/2)	31P7410	ann	06/04/02
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	ann	01/23/07
Lenovo Wireless Laser Mouse (blk, via USB)	45K1696	ann	11/25/08
Lenovo Wireless Laser Mouse (red, via USB)	51J0198	ann	11/25/08
Laser Tilt Wheel Travel Mouse (Bluetooth)	41U5008	ann	01/22/08
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann	12/07/04

Security

Kensington® Cable Lock from Lenovo	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06
PC Card Gemplus Smart Card Reader	41N3004	ann	12/13/05

Multimedia

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann	06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann	08/29/06

Batteries

T/R/W/SL Series Li-Ion Battery 6-cell	40Y6799	ann	01/05/06
T/R/W/SL Series Li-Ion Battery 9-cell	40Y6797	ann	09/20/05
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann	09/20/05

⁴⁴ Requires the *ThinkPad 90W AC Adapter*

40Y7659 (adapter provided with some systems).

ThinkPad 65W AC Adapter ⁴⁵	40Y7696	ann	01/05/06
---------------------------------------	---------	-----	----------

⁴⁵ Only compatible with the 945GM and GM965 chipset models.

ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
ThinkPad 90W Slim AC/DC Combo Adapter	41N8460	ann	11/27/07

Charging tips for 90W Slim AC/DC Combo Adapter 41N8460

• Dual (ThinkPad+Phone) Charging Y-Cable	41R4345	ann	12/18/07
• 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

Carrying Cases**Up to 15.4" widescreen models:**

Lenovo Carrying Case - Messenger Max	41U5253	ann	05/01/07
Lenovo Carr Case - Performance BackPack	41U5254	ann	05/01/07
Lenovo Standard Case	45K1697	ann	11/25/08
Lenovo Standard Backpack	45K1698	ann	11/25/08
Checkpoint Friendly Business Topload Case	51J0418	ann	02/24/09
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08

Up to 17.0" widescreen models:

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

Monitors

ThinkVision® L174 17" Monitor	9227AE1	ann	04/15/08
ThinkVision L1700p 17" Monitor	9417HE2	ann	09/17/08
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1940p Wide 19" Monitor	4424HB6	ann	09/17/08
ThinkVision L200p Wide 20.1" Monitor	4438HB6	ann	04/15/08
ThinkVision L2240p Wide 22" Monitor	4422HB6	ann	09/17/08
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08
ThinkVision L2440x Wide 24" Monitor	4421HB2	ann	09/17/08

Monitor Accessories⁴⁶

ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington Cable Lock from Lenovo	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
ThinkPad Convertible Monitor Stand	40Y7620	ann	01/05/06
Radial Arm	19K4464	ann	05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.More information at www.lenovo.com/support/monitoraccessoriesOther accessories at www.lenovo.com/accessoriesAccessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad® R61 14W 7733 (GMA) - Linux

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Graphics controller	Disk SATA GB ⁵ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Finger print reader	Bat- tery cells	Linux preload	Workhorse (W) Global (G) Entry	Avail date
7733-3BU	T7500	2.20	1GB	14.1" WXGA	GMA	80G 5400	Combo	*Intel 11a/b/g ³²	None	/54	None	None	6	SLED10	W G Jan 08
Positioning Processor	Everyday computing; two spindles Intel® Core™ 2 Duo processor T7500 with dual-core , Intel 64 Technology, Enhanced Intel SpeedStep technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache										Preloaded operating system²⁰ - SUSE® Linux™ Enterprise Desktop10 Service Pack 1 Preloaded applications¹⁴ • None				
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 1 socket; 1 socket available										Supported devices (only some listed) • HD Audio • Intel 3945ABG wireless • Intel Graphics Media Accelerator X3100 (GMA X3100) • NVIDIA Quadro NVS 140M • Fingerprint reader • Bluetooth • Function keys • ThinkPad Advanced Dock				
Diskette drive	None (use optional USB-based diskette drive)										Non-supported devices (only some listed) • Intel 4965AG, Intel 4965AGN, ThinkPad 11a/b/g, ThinkPad 11n wireless • WWAN • Active Protection System™ • ThinkVantage® button • Security chip • Intel Turbo Memory • Intel AMT technology • Integrated camera Non-supported applications (only some listed) • ThinkPad Utilities • ThinkVantage technologies • Presentation Director • Encrypted DVD playback • Keyboard Customizer				
EIDE Combo	DVD-ROM/CD-RW (73P3288), 24X/24X/24X/8X ²¹ , removable Ultrabay™ Enhanced														
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high														
Serial ATA disk	80GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive														
Widescreen display	14.1" (358.1mm) WXGA (1280x800) color , anti-glare, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio														
Camera	None														
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	6-cell 14.1W" (WxDxH): 13.2" x 10.2" x 1.2–1.37" ; 335mm x 261mm x 30.6–34.9mm														
Weight ²	6-cell: starting at 5.5 lb (2.5kg)														
Case material	<i>Top:</i> Super-Elastic PolyCarconate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic														
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim														
Battery - life ¹⁰	Not published														
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)														
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit														
ExpressCard slot	[54] One ExpressCard/34 or ExpressCard/54														
Smart Card Read	None														
Multicard Reader	None														
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet); IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG														
WWAN	None														
Turbo Memory	None														
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket														
Bluetooth™	None														
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE														
Intel AMT	None														
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant														
Fingerprint reader	None														
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available														
1GB PC2-5300 DDR2 SODIMM					40Y7734	T/R 14W Standard Battery 4-cell				41U3196	ThinkPlus 4-year LOR 9x5 NBD 45K6021				
2GB PC2-5300 DDR2 SODIMM					40Y7735	T/R 14W Enhanced Battery 6-cell				41U3198	ThinkPlus 5-year LOR 9x5 NBD 45K6022				
ThinkPad DVD Ultrabay Slim Burner (flat)					41N5643	T/R 14W High Capacity Batt 9-cell				43R2499	ThinkPlus 4-year P&L P/U Depot 45K6023				
Serial Hard Drive Ultrabay Slim Adapter (flat)					40Y8725	Advanced Ultrabay Battery II 3-cell				43R9250	ThinkPlus 5-year P&L P/U Depot 45K6024				
320GB Disk SATA 1.5Gb/s (7200 rpm)					43N3411	ThinkPad External Battery Charger				40Y7625	ThinkPlus 4-year P&L P/U Depot 45K6025				
USB 2.0 Essential Memory Key 32GB					45K1258	90W Slim AC/DC Combo Adapter				41N8460	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
USB 2.0 Ultra Secure Memory Key 8GB					45J5918	ThinkPad Business Topload Case				43R2476					
ThinkPad Essential Port Replicator					250510W	ThinkPad Business Backpack				43R2482					
ThinkPad Advanced Mini Dock					250410U	ThinkVision® L2240p Wide 22" Monitor				4422HB6					
ThinkPad Advanced Dock					250310U	ThinkVision L2440p Wide 24" Monitor				4420HB2					
Check Linux compatibility for other accessories						Other accessories at lenovo.com/accessories									

See footnotes for important warranty information
US model announced January 15, 2008

* Intel Centrino® processor technology

© Lenovo
(LAG1-9) January 2008

Proc- Type-model	essor GHz	Memory	Wide- screen display	Graphics controller	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe Intel Turbo	Card slot	Bat- tery Blue- tooth cells	Vista preload	Limited warranty ¹²	Whorse (W) Gbl (G) Avail Entry date	
7733-2UU 540	1.86	1GB	14.1" WXGA	GMA 80G	5400 Combo		Intel 11a/b/g ³²	None	/54	Blue 4	Business32	3-yr	W G Nov 07	
7738-1GU T7300	2.00	1GB	14.1" WXGA+	GMA 120G	5400 DVD±RW		*Intel 11a/b/g	None	/54	Blue 4	Business32	1-yr	W G Jun 07	
7738-11U T7300	2.00	1GB	14.1" WXGA+	GMA 120G	5400 DVD±RW		*Intel 11a/b/g	None	/54	Blue 4	Business64	1-yr	W G May 07	
7733-1GU T7300	2.00	1GB	14.1" WXGA	GMA 80G	5400 Combo		*Intel 11a/b/g	None	Smart	Blue 4	Business32	3-yr	W G Jun 07	
7733-11U T7300	2.00	1GB	14.1" WXGA	GMA 80G	5400 Combo		*Intel 11a/b/g	None	Smart	Blue 4	Business64	3-yr	W G May 07	
7733-01U T7300	2.00	1GB	14.1" WXGA	GMA 100G	7200 Combo		*Intel 11a/b/g	None	/54	6	XP Pro	3-yr	Aug 07	
7733-1EU T7300	2.00	1GB	14.1" WXGA	GMA 80G	5400 Combo		*Intel 11a/b/g	None	Smart	Blue 4	XP Pro	3-yr	G Sep 07	
Italic MTM: not a base model for building a custom model														
Positioning Processor	Everyday computing; two spindles Intel® Celeron® Processor 540 with single-core, Intel 64 Technology, Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or Intel® Core™ 2 Duo processor T7300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache										Preloaded operating system ²⁰ - Some: Microsoft® Windows® XP Professional - Some: Microsoft Windows Vista® Business Edition (32-bit) - Some: Microsoft Windows Vista Business Edition (64-bit) ♦ Vista models: Vista Basic logo			
Memory	1GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; Non-italics: standard memory in 1 socket; 1 socket available										Preloaded applications ¹⁴ (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskkeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings (XP) • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (combo, DVD±RW) • Corel® WinDVD® (combo, DVD±RW)			
Diskette drive	None (use optional USB-based diskette drive)													
EIDE Combo	Some: DVD-ROM/CD-RW (73P3288), 24X/24X/24X/8X ²¹ , removable Ultrabay™ Enh													
EIDE DVD±RW	Some: DVD burner, Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay Enh													
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high													
Serial ATA disk	80GB ⁸ (5400 rpm), 100GB (7200 rpm), or 120GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™													
Widescreen display	Some: 14.1" (358.1mm) WXGA (1280x800) color, anti-glare, 185 nits, 16:10, 300:1													
Camera	Some: 14.1" (358.1mm) WXGA+ (1440x900) color, anti-glare, 200 nits, 16:10, 300:1													
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100), integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock													
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	4-cell 14.1W" (WxDxH): 13.2" x 9.3" x 1.2–1.37"; 335mm x 237mm x 30.6–34.9mm													
Weight ²	4-cell: starting at 5.2 lb (2.4kg); optional 6-cell: starting at 5.5 lb (2.5kg)													
Case material	Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic													
Battery - type	Lithium Ion 4-cell or 6-cell, supports unique 2nd battery in Ultrabay Slim													
Battery - life ¹⁰	4-cell: up to 3.6 hr; 6-cell: up to 5.7 hr; 6-cell plus Ultrabay battery: up to 7.2 hr													
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)													
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit													
ExpressCard slot	Some: [/54] One ExpressCard/34 or ExpressCard/54													
Smart Card Read	Some: Smart Card Reader													
Multicard Reader	None													
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet); Model 1EU: IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios													
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable													
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG													
WWAN	None													
Turbo Memory	None													
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket													
Bluetooth™	Some: Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator													
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE													
Intel AMT	None													
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack										Supports ThinkVantage® technologies			
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module, Atmel chip, TCG 1.2-compliant										65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium)			
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip										ENERGY STAR® 4.0-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	7738: 1-year - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available 7733: 3-years/1-yr battery - EasyServ depot repair service / srv upgrades ²² available													
1GB PC2-5300 DDR2 SODIMM	40Y7734										T/R 14W Standard Battery 4-cell 41U3196			
2GB PC2-5300 DDR2 SODIMM	40Y7735										T/R 14W Enhanced Battery 6-cell 41U3198			
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643										T/R 14W High Capacity Batt 9-cell 43R2499			
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725										Advanced Ultrabay Battery II 3-cell 43R9250			
250GB Disk FDE SATA 1.5Gb/s (7200 rpm)	43N3410										90W Slim AC/DC Combo Adapter 41N8460			
USB 2.0 Security Memory Key 4GB	41U5120										ThinkPad Business Topload Case 43R2476			
USB 2.0 Portable Secure 320GB Hard Disk	43R2019										ThinkVision® L2240p Wide 22" Monitor 4422HB6			
ThinkPad Advanced Mini Dock	250410U										ThinkVision L2440x Wide 24" Monitor 4421HB2			
Other accessories on O-R61-14W sheet											Other accessories at lenovo.com/accessories			

See footnotes for important warranty information

* Intel Centrino® processor technology

© Lenovo

US models announced May 9, June 19, Aug 21, Sept 4, or Nov 20, 2007

(LAG1-3) December 2007

⚡ US models withdrawn effective May 2008

ThinkPad® R61 14W 7735 (GMA) - Onsite

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Graphics controller	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe Intel Turbo	Card slot	Blue- tooth	Bat- tery cells	Preload	Whorse (W) Limited warranty ¹²	Gbl (G) GMP (P)	Avail date
7735-2UU	540	1.86	1GB	14.1" WXGA	GMA	80G 5400	Combo	Intel 11a/b/g ³²	None	/54	Blue	4	Business32	3-yr	W G P	Nov 07
7735-1GU	T7300	2.00	1GB	14.1" WXGA	GMA	80G 5400	Combo	*Intel 11a/b/g	None	Smart	Blue	4	Business32	3-yr	W G P	Jun 07
7735-11U	T7300	2.00	1GB	14.1" WXGA	GMA	80G 5400	Combo	*Intel 11a/b/g	None	Smart	Blue	4	Business64	3-yr	W G P	May 07
≧ 7735-1EU	T7300	2.00	1GB	14.1" WXGA	GMA	80G 5400	Combo	*Intel 11a/b/g	None	Smart	Blue	4	XP Pro	3-yr	W G P	May 07

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

Positioning Processor	<i>Everyday computing; two spindles</i> Intel® Celeron® Processor 540 with single-core, Intel 64 Technology, Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo processor T7300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache			Preloaded operating system ²⁰ <ul style="list-style-type: none">- <i>Some:</i> Microsoft® Windows® XP Professional- <i>Some:</i> Microsoft Windows Vista® Business Edition (32-bit)- <i>Some:</i> Microsoft Windows Vista Business Edition (64-bit) ◇ <i>Vista models:</i> Vista Basic logo Preloaded applications ¹⁴ (all OSes) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• System Migration Assistant• Norton Internet Security (90 days of virus definitions)• Diskkeeper® Home• PC-Doctor™ (diagnostics)• ThinkPad Utilities (Power Manager and Presentation Director)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Picasa from Google• Fingerprint Software (fingerprint models)• Multimedia Center for Think Offerings (XP)• Microsoft Office 2007 Trial (60-day)• Sonic RecordNow and Drive Letter Access (combo)• Corel® WinDVD® (combo)
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 1 socket; 1 socket available			
Diskette drive	None (use optional USB-based diskette drive)			
EIDE Combo	DVD-ROM/CD-RW (73P3288), 24X/24X/24X/8X ²¹ , removable Ultrabay™ Enhanced			
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high			
Serial ATA disk	80GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™			
Widescreen display	14.1" (358.1mm) WXGA (1280x800) color , anti-glare, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio			
Camera	None			
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock			
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass			
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions			
Dimensions ³	4-cell 14.1W" (WxDxH): 13.2" x 9.3" x 1.2–1.37"; 335mm x 237mm x 30.6–34.9mm			
Weight ²	4-cell: starting at 5.2 lb (2.4kg); <i>optional 6-cell:</i> starting at 5.5 lb (2.5kg)			
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic			
Battery - type	Lithium Ion 4-cell , supports unique 2nd battery in Ultrabay Slim			
Battery - life ¹⁰	4-cell: up to 3.6 hr; 6-cell: up to 5.7 hr; 6-cell plus Ultrabay battery: up to 7.2 hr			
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)			
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit			
ExpressCard slot	<i>Some:</i> [54] One ExpressCard/34 or ExpressCard/54			
Smart Card Read	<i>Some:</i> Smart Card Reader			
Multicard Reader	None			
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet); <i>Model 1EU:</i> IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)			
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios			
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable			
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG			
WWAN	None			
Turbo Memory	None			
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket			
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator			
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE			
Intel AMT	None			
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack			
Security	Power-on password, hard disk password, supervisor password, security keyhole			
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant			
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip			
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available			
1GB PC2-5300 DDR2 SODIMM	40Y7734	T/R 14W Standard Battery 4-cell	41U3196	
2GB PC2-5300 DDR2 SODIMM	40Y7735	T/R 14W Enhanced Battery 6-cell	41U3198	
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	T/R 14W High Capacity Batt 9-cell	43R2499	
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	Advanced Ultrabay Battery II 3-cell	43R9250	
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411	90W Slim AC/DC Combo Adapter	41N8460	
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ThinkPad Business Topload Case	43R2476	
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ThinkPad Business Backpack	43R2482	
USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ThinkVision® L2240p Wide 22" Monitor	4422HB6	
ThinkPad Advanced Mini Dock	250410U	ThinkVision L2440x Wide 24" Monitor	4421HB2	
Other accessories on O-R61-14W sheet	Other accessories at lenovo.com/accessories			

Supports ThinkVantage® technologies
65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-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
ThinkPlus 5-year LOR 9x5 NBD 43R2162
Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information

* Intel Centrino® processor technology

© Lenovo

US models announced May 9, June 19, or November 20, 2007

(LAG1-11) February 2008

≧ US models withdrawn effective May 2008

ThinkPad® R61 14W (GMA Graphics) - Education (EasyServ)

Personal Systems Reference (PSREF)

Proc- Type-model	essor	GHz	Memory	Wide- screen display	Graphics controller	Disk SATA GB ⁵ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe Intel Turbo	Card slot	Finger print reader	Bat- tery cells	Vista pre- load	Educ pre- load	Workhorse (W) Limited Gbl (G) Avail warranty ¹² date
7733-1BU	T7300	2.00	1GB	14.1" WXGA	GMA	120G 5400	DVD±RW	11a/b/g ³²	None	4-in-1	Fing	6	B32	HE	EasyServ W May07
7733-1CU	T7300	2.00	1GB	14.1" WXGA	GMA	80G 5400	Combo	11a/b/g	None	4-in-1		6	B32	K12	EasyServ W May07

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

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

Positioning Processor	Everyday computing; two spindles Intel® Core™ 2 Duo processor T7100 or T7300 with dual-core , Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache			Preloaded operating system ²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ✧ Vista Basic logo		
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 1 socket; 1 socket available			Preloaded applications ¹⁴ • Microsoft Office OneNote® 2007 (and CD) • <i>Some (K12):</i> K-12 education software - VitalSource Library School Edition - Adobe® Instructor Resource Center - Adobe Digital School Collection – Photoshop Elements 5 (and CD) – Premier Elements 3 (and DVD) – Acrobat 8 Professional – Contribute 4 • <i>Some (HE):</i> Higher education software - VitalSource Library College Edition - Adobe Instructor Resource Center - Adobe Photoshop Elements 5 (and CD) - Adobe Premier Elements 3 (and DVD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskkeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Windows Live™ Toolbar • Picasa from Google • <i>Some:</i> Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (combo, DVD±RW) • Corel® WinDVD® (combo, DVD±RW)		
Diskette drive	None (use optional USB-based diskette drive)			Supports ThinkVantage® technologies 65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-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		
EIDE Combo	Some: DVD-ROM/CD-RW (73P3288), 24X/24X/24X/8X ²¹ , removable Ultrabay™ Enh					
EIDE DVD±RW	Some: DVD burner, Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay Enh					
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high					
Serial ATA disk	80GB ⁸ (5400 rpm) or 120GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™					
Widescreen display	14.1" (358.1mm) WXGA (1280x800) color , anti-glare, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio			Supports ThinkVantage® technologies		
Camera	None					
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100), integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock			Supports ThinkVantage® technologies		
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys					
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass			Supports ThinkVantage® technologies		
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones					
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions			Supports ThinkVantage® technologies		
Dimensions ³	6-cell 14.1W" (WxDxH): 13.2" x 10.2" x 1.2–1.37"; 335 x 261mm x 30.6–34.9mm					
Weight ²	6-cell: starting at 5.5 lb (2.5kg)			Supports ThinkVantage® technologies		
Case material	Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic					
Battery - type	Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Slim			Supports ThinkVantage® technologies		
Battery - life ¹⁰	6-cell: up to 5.7 hr; 6-cell plus Ultrabay battery: up to 7.2 hr					
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)			Supports ThinkVantage® technologies		
PC Card Std	One slot (Type I, Type II), CardBus 32-bit					
ExpressCard slot	None			Supports ThinkVantage® technologies		
Smart Card Read	None					
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)			Supports ThinkVantage® technologies		
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)					
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios			Supports ThinkVantage® technologies		
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable					
11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX			Supports ThinkVantage® technologies		
WWAN	None					
Turbo Memory	None			Supports ThinkVantage® technologies		
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket					
Bluetooth™	None			Supports ThinkVantage® technologies		
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE					
Intel AMT	None			Supports ThinkVantage® technologies		
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack					
Security	Power-on password, hard disk password, supervisor password, security keyhole			Supports ThinkVantage® technologies		
Security chip	Trusted Platform Module, Atmel chip, TCG 1.2-compliant					
Fingerprint reader	Some: Fingerprint reader on palm rest, swipe sensor, supports the security chip			Supports ThinkVantage® technologies		
Limited warranty ¹²	3-years/1-yr battery - EasyServ™,19 depot repair service / service upgrades ²² avail					
1GB PC2-5300 DDR2 SODIMM	40Y7734	T/R 14W Standard Battery 4-cell	41U3196	ThinkPlus™,22 2-year LOR ²⁴ 9x5 NBD		
2GB PC2-5300 DDR2 SODIMM	40Y7735	T/R 14W Enhanced Battery 6-cell	41U3198	41C9175		
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	T/R 14W High Capacity Batt 9-cell	43R2499	ThinkPlus 3-year LOR 9x5 NBD		
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	Advanced Ultrabay Battery II 3-cell	43R9250	45K6021		
250GB Disk FDE SATA 1.5Gb/s (7200 rpm)	43N3410	ThinkPad External Battery Charger	40Y7625	ThinkPlus 4-year LOR 9x5 NBD		
USB 2.0 Essential Memory Key 32GB	45K1258	ThinkPad 90W AC Adapter	40Y7659	45K6022		
USB 2.0 Lenovo Enhanced Port Replicator	43R8770	90W Slim AC/DC Combo Adapter	41N8460	ThinkPlus 5-year LOR 9x5 NBD		
ThinkPad Essential Port Replicator	250510W	ThinkVision® L1940p Wide 19" Monitor	4424HB6	45K6024		
ThinkPad Advanced Mini Dock	250410U	ThinkVision L2240p Wide 22" Monitor	4422HB6	ThinkPlus 4-year P&L P/U Depot		
ThinkPad Advanced Dock	250310U	ThinkVision L2440x Wide 24" Monitor	4421HB2	45K6023		
Other accessories on O-R61-14W sheet		Other accessories at lenovo.com/accessories		ThinkPlus 5-year P&L P/U Depot		
				45K6025		

See footnotes for important warranty information
US models announced May 9, 2007

© Lenovo
(LAG1-5) May 2007

ThinkPad® R61 14W (GMA Graphics) - Education (Onsite)

Personal Systems Reference (PSREF)

Proc- Type-model		GHz	Memory	Wide- screen display	Graphics controller	Disk SATA GB ³	rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe Intel Turbo	Card slot	Finger print reader	Bat- tery cells	Vista pre- load	Educ pre- load	Workhorse (W) Limited Gbl (G) warranty ¹²	Avail date
7735-1BU	T7300	2.00	1GB	14.1" WXGA	GMA	120G	5400	DVD±RW	11a/b/g ³²	None	4-in-1	Fing	6	B32	HE	Onsite	W May 07
7735-1CU	T7100	1.80	1GB	14.1" WXGA	GMA	80G	5400	Combo	11a/b/g	None	4-in-1		6	B32	K12	Onsite	W May 07

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

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

Positioning Processor	Everyday computing; two spindles Intel® Core™ 2 Duo processor T7100 or T7300 with dual-core , Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, and 800MHz system bus; <i>T7100</i> : 2MB shared L2 cache; <i>T7300</i> : 4MB shared L2 cache			Preloaded operating system ²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ✧ Vista Basic logo Preloaded applications ¹⁴ (all) • Microsoft Office OneNote® 2007 (and CD) • <i>Some (K12)</i> : K-12 education software - VitalSource Library School Edition - Adobe® Instructor Resource Center - Adobe Digital School Collection - Photoshop Elements 5 (and CD) - Premier Elements 3 (and DVD) - Acrobat 8 Professional - Contribute 4 • <i>Some (HE)</i> : Higher education software - VitalSource Library College Edition - Adobe Instructor Resource Center - Adobe Photoshop Elements 5 (and CD) - Adobe Premier Elements 3 (and DVD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskkeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • <i>Some</i> : Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (combo, DVD±RW) • Corel® WinDVD® (combo, DVD±RW)		
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 1 socket; 1 socket available					
Diskette drive	None (use optional USB-based diskette drive)					
EIDE Combo	<i>Some</i> : DVD-ROM/CD-RW (73P3288), 24X/24X/24X/8X ²¹ , removable Ultrabay™ Enh					
EIDE DVD±RW	<i>Some</i> : DVD burner, Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay Enh					
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high					
Serial ATA disk	80GB⁸ (5400 rpm) or 120GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™					
Widescreen display	14.1" (358.1mm) WXGA (1280x800) color , anti-glare, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio					
Camera	None					
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock					
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys					
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass					
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones					
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions					
Dimensions ³	<i>6-cell 14.1W"</i> (WxDxH): 13.2" x 10.2" x 1.2–1.37"; 335 x 261mm x 30.6–34.9mm					
Weight ²	<i>6-cell</i> : starting at 5.5 lb (2.5kg)					
Case material	<i>Top</i> : Super-Elastic PolyCarbonate (SEPC); <i>Bottom</i> : Carbon-Fiber Reinforced Plastic					
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim					
Battery - life ¹⁰	<i>6-cell</i> : up to 5.7 hr; <i>6-cell plus Ultrabay battery</i> : up to 7.2 hr					
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)					
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit					
ExpressCard slot	None					
Smart Card Read	None					
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)					
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)					
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios					
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable					
11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX					
WWAN	None					
Turbo Memory	None					
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket					
Bluetooth™	None					
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE					
Intel AMT	None					
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack					
Security	Power-on password, hard disk password, supervisor password, security keyhole					
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant					
Fingerprint reader	<i>Some</i> : Fingerprint reader on palm rest , swipe sensor, supports the security chip					
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time					
1GB PC2-5300 DDR2 SODIMM 40Y7734 T/R 14W Enhanced Battery 6-cell 41U3198						
2GB PC2-5300 DDR2 SODIMM 40Y7735 T/R 14W High Capacity Batt 9-cell 43R2499						
ThinkPad DVD Ultrabay Slim Burner (flat) 41N5643 Advanced Ultrabay Battery II 3-cell 43R9250						
Serial Hard Drive Ultrabay Slim Adapter (flat) 40Y8725 ThinkPad External Battery Charger 40Y7625						
320GB Disk SATA 1.5Gb/s (7200 rpm) 43N3411 90W Slim AC/DC Combo Adapter 41N8460						
USB 2.0 Portable Secure 320GB Hard Disk 43R2019 ThinkPad Business Topload Case 43R2476						
USB 2.0 Super Multi-Burner Drive 41N5565 ThinkPad Business Backpack 43R2482						
USB 2.0 Lenovo Enhanced Port Replicator 43R8770 ThinkVision® L1940p Wide 19" Monitor 4424HB6						
ThinkPad Essential Port Replicator 250510W ThinkVision L2240p Wide 22" Monitor 4422HB6						
ThinkPad Advanced Dock 250310U ThinkVision L2440p Wide 24" Monitor 4420HB2						
Other accessories on O-R61-14W sheet Other accessories at lenovo.com/accessories						
Supports ThinkVantage® technologies						
65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-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						
Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty						

See footnotes for important warranty information
US models announced May 9, 2007

© Lenovo
(LAG1-6) May 2007

ThinkPad® R61u 14W 7733 (GMA) - Education (EasyServ)

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Graphics controller	Cam- era	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe Intel Turbo	Card slot	Blue- tooth	Finger print reader	Bat- tery cells	Vista pre- load	Workhorse (W) Limited Gbl warranty ¹²	Avail date	
7733-PAU	T8300	2.40	1GB	14.1" WXGA	GMA	80G 5400	Combo	11a/b/g	None	/54			6	B32	EasyServ	No Feb 08	
7733-PBU	T8300	2.40	1GB	14.1" WXGA+	GMA	100G 7200	DVD±RW	11a/b/g	None	/54	Blue	Fing	6	B32	EasyServ	No Feb 08	
7733-05U	T8300	2.40	2GB	14.1" WXGA	GMA	160G 5400	DVD±RW	11a/b/g	None	4-in-1	Blue	Fing	6	B32	EasyServ	No Apr 08	
<i>Italic MTM: not a base model for building a custom model</i>																	
• These models have an EasyServ™,19 depot repair service 3-year limited warranty																	
Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.																	
Positioning Processor	<i>Everyday computing; two spindles</i> Intel® Core™ 2 Duo processor T8300 with dual-core. Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 3MB shared L2 cache											Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ♦ Vista Basic logo					
Memory	1GB or 2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											Preloaded applications¹⁴ • Microsoft Office OneNote® 2007 (and CD) • Education software - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection - Photoshop Elements (and CD) - Premier Elements (and DVD) - Acrobat 8 Professional - Contribute 4 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • <i>Some:</i> Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (combo, DVD±RW) • Corel® WinDVD® (combo, DVD±RW)					
Diskette drive	None (use optional USB-based diskette drive)																
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW (73P3288), 24X/24X/24X/8X ²¹ , removable Ultrabay™ Enh																
EIDE DVD±RW	<i>Some:</i> DVD burner, Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay Enh																
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high																
Serial ATA disk	80GB⁸ (5400 rpm), 100GB (7200 rpm), or 160GB (5400 rpm) / SATA 1.5Gb/s 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™																
Widescreen display	<i>Some:</i> 14.1" (358.1mm) WXGA (1280x800) color , anti-glare, 185 nits, 16:10, 300:1 <i>Some:</i> 14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, 200 nits, 16:10, 300:1																
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0																
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock																
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys																
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass																
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones																
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions																
Dimensions ³	<i>6-cell 14.1W" (WxDxH):</i> 13.2" x 10.2" x 1.2–1.37"; 335 x 261mm x 30.6–34.9mm																
Weight ²	<i>6-cell:</i> starting at 5.5 lb (2.5kg)																
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic																
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim																
Battery - life ¹⁰	<i>6-cell:</i> up to 5.7 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.2 hr																
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)																
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit																
ExpressCard slot	<i>Some:</i> [/54] One ExpressCard/34 or ExpressCard/54																
Smart Card Read	None																
Multicard Reader	<i>Some:</i> 4-in-1 reader (MultiMediaCard, Mem Stick® PRO, Sec Digital, xD-Picture Card™)																
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)																
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios																
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable																
11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX																
WWAN	None																
Turbo Memory	None																
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket																
Bluetooth™	<i>Some:</i> Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator																
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE																
Intel AMT	None																
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack																
Security	Power-on password, hard disk password, supervisor password, security keyhole																
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant																
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest , swipe sensor, supports the security chip																
Limited warranty ¹² 3-years/1-yr battery - EasyServ™,19 depot repair service / service upgrades ²² available																	
1GB PC2-5300 DDR2 SODIMM						40Y7734	T/R 14W Standard Battery 4-cell										41U3196
2GB PC2-5300 DDR2 SODIMM						40Y7735	T/R 14W Enhanced Battery 6-cell										41U3198
ThinkPad DVD Ultrabay Slim Burner (flat)						41N5643	T/R 14W High Capacity Batt 9-cell										43R2499
Serial Hard Drive Ultrabay Slim Adapter (flat)						40Y8725	Advanced Ultrabay Battery II 3-cell										43R9250
320GB Disk SATA 1.5Gb/s (7200 rpm)						43N3411	ThinkPad External Battery Charger										40Y7625
USB 2.0 Essential Memory Key 32GB						45K1258	ThinkPad 90W AC Adapter										40Y7659
ThinkPad Adjustable Notebook Stand						40Y7676	90W Slim AC/DC Combo Adapter										41N8460
ThinkPad Essential Port Replicator						250510W	ThinkVision® L1940p Wide 19" Monitor										4424HB6
ThinkPad Advanced Mini Dock						250410U	ThinkVision L2240p Wide 22" Monitor										4422HB6
ThinkPad Advanced Dock						250310U	ThinkVision L2440p Wide 24" Monitor										4420HB2
Other accessories on O-R61-14W sheet							Other accessories at lenovo.com/accessories										
Supports ThinkVantage® technologies																	
65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-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 2-year LOR ²⁴ 9x5 NBD 41C9175																	
ThinkPlus 3-year LOR 9x5 NBD 45K6021																	
ThinkPlus 4-year LOR 9x5 NBD 45K6022																	
ThinkPlus 5-year LOR 9x5 NBD 45K6024																	
ThinkPlus 4-year P&L P/U Depot 45K6023																	
ThinkPlus 5-year P&L P/U Depot 45K6025																	
Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty																	

See footnotes for important warranty information

US model announced April 10, 2008; previous models on February 19, 2008

© Lenovo
(LAG2-1) April 2008

ThinkPad® R61u 14W 7733 (GMA) - Education (EasyServ) - Linux

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Graphics controller	Cam- era	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe Intel Turbo	Card slot	Bat- tery cells	Linux preload	Limited warranty ¹²	Workhorse (W) Gbl (G) Avail date
7733-3AU	T8100	2.10	1GB	14.1" WXGA	GMA	No	80G 5400	Combo	*Intel 11a/b/g ³²	None	/54	6	SLED10	EasyServ No Feb 08

• **This model has an EasyServ™.19 depot repair service 3-year limited warranty**

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

Positioning Processor	Everyday computing; two spindles Intel® Core™ 2 Duo processor T8100 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 3MB shared L2 cache				Preloaded operating system ²⁰ - SUSE® Linux™ Enterprise Desktop10 Service Pack 1 Preloaded applications ¹⁴ • None			
Memory	1GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; Non-italics: standard memory in 1 socket; 1 socket available				Supported devices (only some listed) • HD Audio • Intel 3945ABG wireless • Intel Graphics Media Accelerator X3100 (GMA X3100) • NVIDIA Quadro NVS 140M • Fingerprint reader • Bluetooth • Function keys • ThinkPad Advanced Dock			
Diskette drive	None (use optional USB-based diskette drive)				Non-supported devices (only some listed) • Intel 4965AG, Intel 4965AGN, ThinkPad 11a/b/g, ThinkPad 11n wireless • WWAN • Active Protection System™ • ThinkVantage® button • Security chip • Intel Turbo Memory • Intel AMT technology • Integrated camera Non-supported applications (only some listed) • ThinkPad Utilities • ThinkVantage technologies • Presentation Director • Encrypted DVD playback • Keyboard Customizer			
EIDE Combo	DVD-ROM/CD-RW (73P3288), 24X/24X/24X/8X ²¹ , removable Ultrabay™ Enhanced							
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high							
Serial ATA disk	80GB ⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™							
Widescreen display	Some: 14.1" (358.1mm) WXGA (1280x800) color, anti-glare, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio							
Camera	None				Supports ThinkVantage® technologies 65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-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 2-year LOR ²⁴ 9x5 NBD 41C9175 ThinkPlus 3-year LOR 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			
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100), integrated in GM965							
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys							
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass							
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones							
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions							
Dimensions ³	6-cell 14.1W" (WxDxH): 13.2" x 10.2" x 1.2–1.37"; 335 x 261mm x 30.6–34.9mm							
Weight ²	6-cell: starting at 5.5 lb (2.5kg)							
Case material	Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic							
Battery - type	Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Slim							
Battery - life ¹⁰	6-cell: up to 5.7 hr; 6-cell plus Ultrabay battery: up to 7.2 hr							
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)							
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit							
ExpressCard slot	[/54] One ExpressCard/34 or ExpressCard/54							
Smart Card Read	None							
Multicard Reader	None							
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)							
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios							
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable							
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG							
WWAN	None							
Turbo Memory	None							
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket							
Bluetooth™	None							
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE							
Intel AMT	None							
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack							
Security	Power-on password, hard disk password, supervisor password, security keyhole							
Security chip	Trusted Platform Module, Atmel chip, TCG 1.2-compliant							
Fingerprint reader	None							
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available							
1GB PC2-5300 DDR2 SODIMM	40Y7734	T/R 14W Standard Battery 4-cell	41U3196					
2GB PC2-5300 DDR2 SODIMM	40Y7735	T/R 14W Enhanced Battery 6-cell	41U3198					
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	T/R 14W High Capacity Batt 9-cell	43R2499					
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	Advanced Ultrabay Battery II 3-cell	43R9250					
250GB Disk FDE SATA 1.5Gb/s (7200 rpm)	43N3410	ThinkPad External Battery Charger	40Y7625					
USB 2.0 Essential Memory Key 32GB	45K1258	ThinkPad 90W AC Adapter	40Y7659					
ThinkPad Adjustable Notebook Stand	40Y7676	90W Slim AC/DC Combo Adapter	41N8460					
ThinkPad Essential Port Replicator	250510W	ThinkVision® L1940p Wide 19" Monitor	4424HB6					
ThinkPad Advanced Mini Dock	250410U	ThinkVision L2240p Wide 22" Monitor	4422HB6					
ThinkPad Advanced Dock	250310U	ThinkVision L2440x Wide 24" Monitor	4421HB2					
Check Linux compatibility for other accessories	Other accessories at lenovo.com/accessories							

See footnotes for important warranty information
US model announced February 19, 2008

* Intel Centrino® processor technology

© Lenovo
(LAG2-3) February 2008

ThinkPad® R61u 14W 7743 (NVIDIA) - Education (EasyServ)

Personal Systems Reference (PSREF)

Proc- Type-model	GHz	Memory	Wide- screen display	Graphics controller	Disk SATA GB ¹ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe Intel Turbo	Card slot	Cam- era	Blue- tooth	Finger print reader	Bat- tery cells	Vista pre- load	Workhorse (W) Limited Gbl (G) Avail warranty ¹² date
7743-N4U T8300	2.40	1GB	14.1" WXGA+	128MB	100G 7200	DVD±RW	11a/b/g	None	4-in-1	Cam	Blue	Fing	6	B32	EasyServ No Feb 08
7743-05U T8300	2.40	2GB	14.1" WXGA+	128MB	160G 5400	DVD±RW	11a/b/g	None	4-in-1	Cam	Blue	Fing	6	B32	EasyServ No Apr 08

Italic MTM: not a base model for building a custom model

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

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

Positioning Processor	Everyday computing; two spindles Intel® Core™ 2 Duo processor T8300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 3MB shared L2 cache			Preloaded operating system ²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ✧ Vista Basic logo		
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 1 socket; 1 socket available			Preloaded applications ¹⁴ • Microsoft Office OneNote® 2007 (and CD) • Education software - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection – Photoshop Elements (and CD) – Premier Elements (and DVD) – Acrobat 8 Professional – Contribute 4 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Some: Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW)		
Diskette drive	None (use optional USB-based diskette drive)			Supports ThinkVantage® technologies 65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-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 2-year LOR ²⁴ 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 41U3198 ThinkPlus 5-year LOR 9x5 NBD 43R2499 ThinkPlus 4-year P&L P/U Depot 45K6024 ThinkPlus 5-year P&L P/U Depot 45K6023 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		
EIDE DVD±RW	DVD burner, Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay Enhanced					
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high					
Serial ATA disk	100GB (7200 rpm) or 160GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™					
Widescreen display	14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio					
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0					
Graphics	NVIDIA® Quadro® NVS 140M , PCI Express® x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock					
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys					
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass					
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones					
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions					
Dimensions ³	6-cell 14.1W" (WxDxH): 13.2" x 10.2" x 1.2–1.37"; 335 x 261mm x 30.6–34.9mm					
Weight ²	6-cell: starting at 5.5 lb (2.5kg)					
Case material	Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic					
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim					
Battery - life ¹⁰	6-cell: up to 5.7 hr; 6-cell plus Ultrabay battery: up to 7.2 hr					
Chipset	Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)					
PC Card	One slot (Type I, Type II), CardBus 32-bit					
ExpressCard slot	None					
Smart Card Read	None					
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)					
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)					
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios					
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable					
11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX					
WWAN	None					
Turbo Memory	None					
Modem	56K V.92® modem in Communications Daughter Card socket					
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator					
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE					
Intel AMT	None					
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack					
Security	Power-on password, hard disk password, supervisor password, security keyhole					
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant					
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip					
Limited warranty ¹²	3-years/1-yr battery - EasyServ™¹⁹ depot repair service / service upgrades²² available					
1GB PC2-5300 DDR2 SODIMM	40Y7734	T/R 14W Standard Battery 4-cell	41U3196			
2GB PC2-5300 DDR2 SODIMM	40Y7735	T/R 14W Enhanced Battery 6-cell	41U3198			
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	T/R 14W High Capacity Batt 9-cell	43R2499			
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	Advanced Ultrabay Battery II 3-cell	43R9250			
250GB Disk FDE SATA 1.5Gb/s (7200 rpm)	43N3410	ThinkPad External Battery Charger	40Y7625			
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411	ThinkPad 90W AC Adapter	40Y7659			
USB 2.0 Essential Memory Key 32GB	45K1258	90W Slim AC/DC Combo Adapter	41N8460			
ThinkPad Essential Port Replicator	250510W	ThinkVision® L1940p Wide 19" Monitor	4424HB6			
ThinkPad Advanced Mini Dock	250410U	ThinkVision L2240p Wide 22" Monitor	4422HB6			
ThinkPad Advanced Dock	250310U	ThinkVision L2440x Wide 24" Monitor	4421HB2			
Other accessories on O-R61-14W sheet	Other accessories at lenovo.com/accessories					

See footnotes for important warranty information

US model announced April 10, 2008; previous model on February 19, 2008

© Lenovo
(LAG2-2) April 2008

ThinkPad® R61u 14W 7743 (NVIDIA) - Education (EasyServ) - Linux

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Graphics controller	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe Intel Turbo	Card Blue- tooth	Finger print reader	Bat- tery cells	Linux pre- load	Workhorse (W) Limited Gbl (G) Avail warranty ¹² date
7743-3BU T8300	2.40	1GB	14.1" WXGA+	128MB	120G 5400	DVD±RW	*Intel 11a/b/g ³²	None	/54	Blue	None	6	SLED10 EasyServ No Feb 08

• This model has an EasyServ™.19 depot repair service 3-year limited warranty

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

Positioning Processor	Everyday computing; two spindles Intel® Core™ 2 Duo processor T8300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 3MB shared L2 cache			Preloaded operating system ²⁰ - SUSE® Linux™ Enterprise Desktop10 Service Pack 1 Preloaded applications ¹⁴ • None		
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 1 socket; 1 socket available			Supported devices (only some listed) • HD Audio • Intel 3945ABG wireless • Intel Graphics Media Accelerator X3100 (GMA X3100) • NVIDIA Quadro NVS 140M • Fingerprint reader • Bluetooth • Function keys • ThinkPad Advanced Dock		
Diskette drive	None (use optional USB-based diskette drive)			Non-supported devices (only some listed) • Intel 4965AG, Intel 4965AGN, ThinkPad 11a/b/g, ThinkPad 11n wireless • WWAN • Active Protection System™ • ThinkVantage® button • Security chip • Intel Turbo Memory • Intel AMT technology • Integrated camera Non-supported applications (only some listed) • ThinkPad Utilities • ThinkVantage technologies • Presentation Director • Encrypted DVD playback • Keyboard Customizer		
EIDE DVD±RW	DVD burner, Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay Enhanced					
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high					
Serial ATA disk	120GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™					
Widescreen display	14.1" (358.1mm) WXGA+ (1440x900) color, anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio					
Camera	None					
Graphics	NVIDIA® Quadro® NVS 140M, PCI Express® x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock					
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys					
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass					
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones					
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions					
Dimensions ³	6-cell 14.1W" (WxDxH): 13.2" x 10.2" x 1.2–1.37"; 335 x 261mm x 30.6–34.9mm					
Weight ²	6-cell: starting at 5.5 lb (2.5kg)					
Case material	Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic					
Battery - type	Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Slim					
Battery - life ¹⁰	6-cell: up to 5.7 hr; 6-cell plus Ultrabay battery: up to 7.2 hr					
Chipset	Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)					
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit					
ExpressCard slot	[54] One ExpressCard/34 or ExpressCard/54					
Smart Card Read	None					
Multicard Reader	None					
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)					
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios					
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable					
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG					
WWAN	None					
Turbo Memory	None					
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket					
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator					
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE					
Intel AMT	None					
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack					
Security	Power-on password, hard disk password, supervisor password, security keyhole					
Security chip	Trusted Platform Module, Atmel chip, TCG 1.2-compliant					
Fingerprint reader	None					
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available					
1GB PC2-5300 DDR2 SODIMM	40Y7734	T/R 14W Standard Battery 4-cell	41U3196			
2GB PC2-5300 DDR2 SODIMM	40Y7735	T/R 14W Enhanced Battery 6-cell	41U3198			
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	T/R 14W High Capacity Batt 9-cell	43R2499			
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	Advanced Ultrabay Battery II 3-cell	43R9250			
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411	ThinkPad External Battery Charger	40Y7625			
USB 2.0 Essential Memory Key 32GB	45K1258	ThinkPad 90W AC Adapter	40Y7659			
ThinkPad Adjustable Notebook Stand	40Y7676	90W Slim AC/DC Combo Adapter	41N8460			
ThinkPad Essential Port Replicator	250510W	ThinkVision® L1940p Wide 19" Monitor	4424HB6			
ThinkPad Advanced Mini Dock	250410U	ThinkVision L2240p Wide 22" Monitor	4422HB6			
ThinkPad Advanced Dock	250310U	ThinkVision L2440p Wide 24" Monitor	4420HB2			
Check Linux compatibility for other accessories	Other accessories at lenovo.com/accessories					
Supports ThinkVantage® technologies						
65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-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 2-year LOR ²⁴ 9x5 NBD 41C9175						
ThinkPlus 3-year LOR 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 February 19, 2008

* Intel Centrino® processor technology

© Lenovo
(LAG2-4) February 2008

Partial list of accessories supported on:**• ThinkPad R61 14W originally announced on May 9, 2007****Memory**

512MB PC2-5300 DDR2 SODIMM	40Y7733	ann	01/05/06
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	ann	03/25/08
1GB PC2-5300 DDR2 SODIMM	40Y7734	ann	01/05/06
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	ann	03/25/08
2GB PC2-5300 DDR2 SODIMM	40Y7735	ann	11/28/06

Ultrabay Slim 9.5mm (supports both flat and curved bezel options)Serial Hard Drive Ultrabay Slim Adapter (flat)⁴⁸ 40Y8725 ann 09/20/05ThinkPad DVD Ultrabay Slim Burner (flat)⁴⁸ 41N5643 ann 05/31/07⁴⁸ Slim 9.5mm device in 12.7mm bay shows gap above the device.**Ultrabay Enhanced 12.7mm** (supports both flat and curved bezel)

CD-RW/DVD Combo Ultrabay Enhanced (cur) 73P3275 ann 10/07/03

Storage and removable storage

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

⁴¹ Can be used as the main HDD or with ThinkPad

Serial ATA Hard Drive Ultrabay Slim Adapter 40Y8725

in the Ultrabay or in the ThinkPad Advanced Dock 250310U.

USB 2.0 Essential Memory Key 4GB	45J7904	ann	06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann	07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann	10/28/08
USB 2.0 Security Memory Key 2GB	41U5119	ann	07/17/07
USB 2.0 Security Memory Key 4GB	41U5120	ann	07/17/07
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann	08/26/08

USB Portable Diskette Drive	05K9276	ann	06/05/00
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann	01/05/06
USB 2.0 Portable 160GB Hard Disk	43R1784	ann	09/23/05
USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
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
USB 2.0 Super Multi-Burner Drive	41N5565	ann	01/23/07

ThinkPad Expansion

USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ann	02/26/08
ThinkPad Adjustable Notebook Stand	40Y7676	ann	09/20/05
ThinkPad Essential Port Replicator	250510W	ann	09/20/05
ThinkPad Advanced Mini Dock	250410U	ann	09/20/05
ThinkPad Advanced Dock	250310U	ann	09/20/05

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann	12/07/04
USB Keyboard with UltraNav	31P8950	ann	01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann	04/27/04
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Optical Wheel Mouse (USB)	06P4069	ann	05/21/03
Optical ScrollPoint® Mouse (USB, PS/2)	31P7405	ann	08/27/02
Optical Wheel Travel Mouse (USB, PS/2)	31P7410	ann	06/04/02
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	ann	01/23/07
Lenovo Wireless Laser Mouse (blk, via USB)	45K1696	ann	11/25/08
Lenovo Wireless Laser Mouse (red, via USB)	51J0198	ann	11/25/08
Laser Tilt Wheel Travel Mouse (Bluetooth)	41U5008	ann	01/22/08
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann	12/07/04

Security

Kensington® Cable Lock from Lenovo	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06
PC Card Gemplus Smart Card Reader	41N3004	ann	12/13/05
ExpressCard Gemplus Smart Card Reader	41N3043	ann	06/27/06

Multimedia

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann	06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann	08/29/06

Batteries

T/R 14W Standard Battery 4-cell	41U3196	ann	05/09/07
T/R 14W Enhanced Battery 6-cell	41U3198	ann	05/09/07
T/R 14W High Capacity Battery 9-cell	43R2499	ann	03/04/08
Advanced Ultrabay Battery II 3-cell ⁴³	43R9250	ann	04/22/08

⁴³ Used in Ultrabay Slim bay.ThinkPad External Battery Charger⁴⁴ 40Y7625 ann 09/20/05⁴⁴ Requires the ThinkPad 90W AC Adapter

40Y7659 (adapter provided with some systems).

ThinkPad 65W AC Adapter⁴⁵ 40Y7696 ann 01/05/06⁴⁵ Only compatible with the 945GM and GM965 chipset models.

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

ThinkPad 90W Slim AC/DC Combo Adapter 41N8460 ann 11/27/07

Charging tips for 90W Slim AC/DC Combo Adapter 41N8460

• Dual (ThinkPad+Phone) Charging Y-Cable	41R4345	ann	12/18/07
• BlackBerry charge tip (L8a)	41R4478	ann	12/18/07
• iPod and iPhone charge tip (L10a)	41R4481	ann	12/18/07

Carrying Cases*Up to 14.1" widescreen models:*

ThinkPad Expander Case	43R9118	ann	06/24/08
ThinkPad Women's Microfiber Tote	22P8855		
ThinkPad Women's Leather Trim Tote	22P8856		
ThinkPad Convertible Carrying Case	22P8860		
ThinkPad Women's Executive Leather Tote	22P8857		
Women's Executive Red Leather Tote	22P8858		

Up to 15.4" widescreen models:

Lenovo Carrying Case - Messenger Max	41U5253	ann	05/01/07
Lenovo Carr Case - Performance BackPack	41U5254	ann	05/01/07
Lenovo Standard Case	45K1697	ann	11/25/08
Lenovo Standard Backpack	45K1698	ann	11/25/08
Checkpoint Friendly Business Topload Case	51J0418	ann	02/24/09
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08

Up to 17.0" widescreen models:

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

Monitors

ThinkVision® L174 17" Monitor	9227AE1	ann	04/15/08
ThinkVision L1700p 17" Monitor	9417HE2	ann	09/17/08
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1940p Wide 19" Monitor	4424HB6	ann	09/17/08
ThinkVision L200p Wide 20.1" Monitor	4438HB6	ann	04/15/08
ThinkVision L2240p Wide 22" Monitor	4422HB6	ann	09/17/08
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08
ThinkVision L2440x Wide 24" Monitor	4421HB2	ann	09/17/08

Monitor Accessories⁴⁶

ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington Cable Lock from Lenovo	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
ThinkPad Convertible Monitor Stand	40Y7620	ann	01/05/06
Radial Arm	19K4464	ann	05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.More information at www.lenovo.com/support/monitoraccessoriesOther accessories at www.lenovo.com/accessoriesAccessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad® R61 15W 8934 (GMA) - 3-year (TopSeller)

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Cam-era	Graphics controller	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Card slot	Finger-print reader	Blue-tooth	Bat-tery cells	Workhorse (W) Global (G) Avail date
8934-A7U T7100	1.80	1GB	15.4" WXGA			GMA	120G 5400	DVD±RW	*Intel 11a/b/g ³²	/54	Fing		6	XP Pro Jul 07
8934-BTU T7250	2.00	1GB	15.4" WXGA			GMA	160G 5400	DVD±RW	*Intel 11a/b/g	/54	Fing		6	Bus 32 Sep 07
8934-F9U T8100	2.10	1GB	15.4" WXGA			GMA	160G 5400	DVD±RW	*Intel 11a/b/g	/54	Fing		6	XP Pro Jan 08
8934-FAU T8300	2.40	1GB	15.4" WXGA			GMA	160G 5400	DVD±RW	*Intel 11a/b/g	/54	Fing		6	Bus 32 Jan 08
8934-01U T8100	2.10	2GB	15.4" WXGA			GMA	160G 5400	DVD±RW	*Intel 11a/b/g	/54	Fing		6	Bus 32 Educ May 08
8934-02U Celeron 550	2.00	1GB	15.4" WSXGA+	Cam	GMA	80G 5400	DVD±RW	Intel 4965AG ³²	4-in-1	Fing	Blue	6	Bus 32 Educ Aug 08	
• These small and medium business (SMB) models are part of the US TopSeller™ Program • These models have a 3-year limited warranty ¹²														
Positioning Processor	Everyday computing; two spindles Intel® Celeron® Processor 550 with single-core, 533MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo processor T7100, T7250, T8100, or T8300 with dual-core, 800MHz system bus, T7100/T7250: 2MB L2 cache; T8100/T8300: 3MB L2 cache										Preloaded operating system ²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) ◇ Vista models: Vista Basic logo			
Memory	1GB or 2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications ¹⁴ (all OSes) • Some: Education software - Microsoft Office OneNote® 2007 (and CD) - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection – Photoshop Elements (and CD) – Premier Elements (and DVD) – Acrobat 8 Professional – Contribute 4 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings (XP Pro) • Microsoft Office 2007 Trial (60-day) • Sonic RecordNOW and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW) • Corel WinDVD Creator (XP Pro DVD±RW models)			
Diskette drive	None (use optional USB-based diskette drive)										Supports ThinkVantage® technologies 65-watt (GMA graphics) ThinkPad Roll Cage (one-piece magnesium frame) ENERGY STAR® 4.0-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			
EIDE DVD±RW	DVD burner, Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay™ Enhanced													
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high													
Serial ATA disk	80GB ⁸ (5400 rpm), 120GB (5400 rpm) or 160GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™													
Widescreen display	Some: 15.4" (391mm) WXGA (1280x800) color, anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: 15.4" (391mm) WSXGA+ (1680x1050) color, anti-glare, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio										ThinkPlus™ 22 2-year LOR ²⁴ 9x5 NBD 41C9175			
Camera	Some: camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0										ThinkPlus 3-year LOR 9x5 NBD 45K6021			
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100), integrated in GM965, no DVI pass-through support to optional Advanced Mini Dock or Advanced Dock										ThinkPlus 4-year LOR 9x5 NBD 45K6022			
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys										ThinkPlus 5-year LOR 9x5 NBD 45K6024			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										ThinkPlus 4-year P&L P/U Depot 45K6023			
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones										ThinkPlus 5-year P&L P/U Depot 45K6025			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Dimensions ³	6-cell 15.4W" (WxDxH): 14.1" x 10.2" x 1.39–1.52"; 358.5 x 260.0mm x 35.3–38.5mm													
Weight ²	6-cell: starting at 6.4 lb (2.9kg); 9-cell: starting at 6.7 lb (3.1kg)													
Case material	Black color, Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic													
Battery - type	Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Enhanced													
Battery - life ¹⁰	6-cell: up to 5.0 hr; 9-cell: up to 7.0 hr; 6-cell plus Ultrabay battery: up to 8.5 hr													
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)													
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit													
ExpressCard slot	Some: /54 One ExpressCard/34 or ExpressCard/54													
Smart Card Read	None													
Multicard Reader	Some: 4-in-1 reader (MultiMediaCard, Mem Stick® PRO, Sec Digital, xD-Picture Card™)													
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard), S-Video out													
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios													
Mini PCI Express	One Mini PCI Express slot / 802.11 wireless is customer upgradable													
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG													
Intel 4965AG ³²	Some: 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG													
WWAN	None													
Turbo Memory	None													
Modem	56K V.92 ⁶ modem, on systemboard, Conexant® CX20548													
Bluetooth™	Some: Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator													
Ethernet	Gigabit ethernet, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE													
Intel AMT	None													
Audio support	High Definition (HD) Audio, CX20549 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module, Atmel chip, TCG 1.2-compliant													
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supported with security chip													
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available													
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	T/R/W/SL Series Li-Ion Battery 6-cell	40Y6799											
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	T/R/W/SL Series Li-Ion Battery 9-cell	40Y6797											
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	Advanced Ultrabay Battery II 3-cell	43R9250											
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411	90W Slim AC/DC Combo Adapter	41N8460											
USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ThinkPad Business Topload Case	43R2476											
ThinkPad Advanced Mini Dock	250410U	ThinkVision® L2240p Wide 22" Monitor	4422HB6											
ThinkPad Advanced Dock	250310U	ThinkVision L2440x Wide 24" Monitor	4421HB2											
Other accessories on O-R61-15W sheet	Other accessories at lenovo.com/accessories													

See footnotes for important warranty information

* Intel Centrino® processor technology

© Lenovo

US model announced August 1, 2008; previous models on July 10, Sep 18, 2007, Jan 8, or May 9, 2008

(WKK11-2) August 2008

US model withdrawn effective December 2007

ThinkPad® R61u 15W 8933 (GMA) - Education (EasyServ)

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Cam- era	Graphics controller	Disk SATA GB ⁵ rpm	EIDE optical	Mini PCIe 802.11 wireless	Card slot	Finger print reader	Blue- tooth	Bat- tery cells	Preload	Workhorse (W) Global (G)	Avail date	
8933-ESU T8100	2.10	1GB	15.4" WXGA	Cam	GMA	80G 5400	Combo	11a/b/g	/54			6	Business32	No	Jan 08	
8933-ETU T8300	2.40	1GB	15.4" WSXGA+	Cam	GMA	100G 7200	Combo	11a/b/g	/54	Finger	Blue	6	Business32	No	Jan 08	
• These models have an EasyServ™, 19 depot repair service 3-year limited warranty																
Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.																
Positioning Processor	Everyday computing; two spindles Intel® Core™ 2 Duo processor T8100 or T8300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology¹, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 3MB shared L2 cache										Preloaded operating system ²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ♦ Vista Basic logo					
Memory	1GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications ¹⁴ • Education software - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection – Photoshop Elements (and CD) – Premier Elements (and DVD) – Acrobat 8 Professional – Contribute 4 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskkeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Some: Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (Combo) • Corel® WinDVD® (Combo)					
Diskette drive	None (use optional USB-based diskette drive)															
EIDE Combo	DVD-ROM/CD-RW (73P3288), 24X/24X/24X/8X21, removable Ultrabay™ Enh, curved															
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high															
Serial ATA disk	80GB⁸ (5400 rpm) or 100GB (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™															
Widescreen display	<i>Some:</i> 15.4" (391mm) WXGA (1280x800) color , anti-glare, 200 nits, 16:10, 300:1 <i>Some:</i> 15.4" (391mm) WSXGA+ (1680x1050) color , anti-glare, 200 nits, 16:10, 300:1															
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0															
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965, no DVI pass-through support to optional Advanced Mini Dock or Advanced Dock															
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys															
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass															
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones															
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³	6-cell 15.4W" (WxDxH): 14.1" x 10.2" x 1.39–1.52"; 358.5 x 260.0mm x 35.3–38.5mm															
Weight ²	6-cell: starting at 6.4 lb (2.9kg); 9-cell: starting at 6.7 lb (3.1kg)															
Case material	Black color, Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic															
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Enhanced															
Battery - life ¹⁰	6-cell: up to 5.0 hr; 9-cell: up to 7.0 hr; 6-cell plus Ultrabay battery: up to 8.5 hr															
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)															
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit															
ExpressCard slot	[54] One ExpressCard/34 or ExpressCard/54															
Smart Card Read	None															
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)															
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard), S-Video out															
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios															
Mini PCI Express	One Mini PCI Express slot / 802.11 wireless is customer upgradable															
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX															
WWAN	None															
Turbo Memory	None															
Modem	56K V.92 ⁶ modem, on systemboard, Conexant® CX20548															
Bluetooth™	<i>Some:</i> Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator															
Ethernet	Gigabit ethernet, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE															
Intel AMT	None															
Audio support	High Definition (HD) Audio, CX20549 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack															
Security	Power-on password, hard disk password, supervisor password, security keyhole															
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant															
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest , swipe sensor, supported with security chip															
Limited warranty ¹²	3-years/1-yr battery - EasyServ™, 19 depot repair service / service upgrades²² available															ThinkPlus™, 22 2-year LOR ²⁴ 9x5 NBD 41C9175
1GB PC2-5300 DDR2 SODIMM	40Y7734					T/R/W/SL Series Li-Ion Battery 6-cell	40Y6799					ThinkPlus 3-year LOR 9x5 NBD 45K6021				
2GB PC2-5300 DDR2 SODIMM	40Y7735					T/R/W/SL Series Li-Ion Battery 9-cell	40Y6797									
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725					Advanced Ultrabay Battery II 3-cell	43R9250					ThinkPlus 4-year LOR 9x5 NBD 45K6022				
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643					ThinkPad External Battery Charger	40Y7625									
250GB Disk FDE SATA 1.5Gb/s (7200 rpm)	43N3410					ThinkPad 90W AC Adapter	40Y7659					ThinkPlus 5-year LOR 9x5 NBD 45K6024				
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411					90W Slim AC/DC Combo Adapter	41N8460									
USB 2.0 Ultra Secure Memory Key 8GB	45J5918					ThinkPad Business Topload Case	43R2476					ThinkPlus 4-year P&L P/U Depot 45K6023				
USB 2.0 Super Multi-Burner Drive	41N5565					ThinkPad Business Backpack	43R2482									
ThinkPad Convertible Monitor Stand	40Y7620					ThinkPad Deluxe Expander Case	43R2478					ThinkPlus 5-year P&L P/U Depot 45K6025				
ThinkPad Essential Port Replicator	250510W					ThinkVision® L1940p Wide 19" Monitor	4424HB6					Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
ThinkPad Advanced Mini Dock	250410U					ThinkVision L2240p Wide 22" Monitor	4422HB6									
ThinkPad Advanced Dock	250310U					ThinkVision L2440p Wide 24" Monitor	4420HB2									
Other accessories on O-R61-15W sheet																

See footnotes for important warranty information
 US models announced February 19, 2008

© Lenovo
 (WKK2-1) February 2008

Partial list of accessories supported on:**• ThinkPad R61 15W originally announced on May 31, 2007****Memory**

512MB PC2-5300 DDR2 SODIMM	40Y7733	ann 01/05/06
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	ann 03/25/08
1GB PC2-5300 DDR2 SODIMM	40Y7734	ann 01/05/06
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	ann 03/25/08
2GB PC2-5300 DDR2 SODIMM	40Y7735	ann 11/28/06

Ultrabay Slim 9.5mm (supports both flat and curved bezel options)

Serial Hard Drive Ultrabay Slim Adapter (flat) ⁴⁸	40Y8725	ann 09/20/05
ThinkPad DVD Ultrabay Slim Burner (flat) ⁴⁸	41N5643	ann 05/31/07

⁴⁸ Slim 9.5mm device in 12.7mm bay shows gap above the device.**Ultrabay Enhanced 12.7mm** (supports both flat and curved bezel)

CD-RW/DVD Combo Ultrabay Enhanced (cur)	73P3275	ann 10/07/03
---	---------	--------------

Storage and removable storage

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

⁴¹ Can be used as the main HDD or with ThinkPad

Serial ATA Hard Drive Ultrabay Slim Adapter 40Y8725

in the Ultrabay or in the ThinkPad Advanced Dock 250310U.

USB 2.0 Essential Memory Key 2GB	41U4944	ann 01/23/07
USB 2.0 Essential Memory Key 4GB	45J7904	ann 06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann 07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann 10/28/08
USB 2.0 Security Memory Key 2GB	41U5119	ann 07/17/07
USB 2.0 Security Memory Key 4GB	41U5120	ann 07/17/07
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann 08/26/08
USB Portable Diskette Drive	05K9276	ann 06/05/00
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann 01/05/06
USB 2.0 Portable 160GB Hard Disk	43R1784	ann 09/23/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
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
USB 2.0 Super Multi-Burner Drive	41N5565	ann 01/23/07

ThinkPad Expansion

USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ann 02/26/08
ThinkPad Adjustable Notebook Stand	40Y7676	ann 09/20/05
ThinkPad Essential Port Replicator	250510W	ann 09/20/05
ThinkPad Advanced Mini Dock	250410U	ann 09/20/05
ThinkPad Advanced Dock	250310U	ann 09/20/05

Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann 12/07/04
USB Keyboard with UltraNav	31P8950	ann 01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann 04/27/04
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

Mouse

Optical Wheel Mouse (USB)	06P4069	ann 05/21/03
Optical ScrollPoint® Mouse (USB, PS/2)	31P7405	ann 08/27/02
Optical Wheel Travel Mouse (USB, PS/2)	31P7410	ann 06/04/02
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	ann 01/23/07
Lenovo Wireless Laser Mouse (blk, via USB)	45K1696	ann 11/25/08
Lenovo Wireless Laser Mouse (red, via USB)	51J0198	ann 11/25/08
Laser Tilt Wheel Travel Mouse (Bluetooth)	41U5008	ann 01/22/08

Security

Kensington® Cable Lock from Lenovo	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06
PC Card Gemplus Smart Card Reader	41N3004	ann 12/13/05
ExpressCard Gemplus Smart Card Reader	41N3043	ann 06/27/06

Multimedia

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann 06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann 08/29/06

Batteries

T/R/W/SL Series Li-Ion Battery 6-cell	40Y6799	ann 01/05/06
T/R/W/SL Series Li-Ion Battery 9-cell	40Y6797	ann 09/20/05
Advanced Ultrabay Battery II 3-cell ⁴³	43R9250	ann 04/22/08

⁴³ Used in Ultrabay Slim bay.

ThinkPad External Battery Charger ⁴⁴	40Y7625	ann 09/20/05
---	---------	--------------

⁴⁴ Requires the ThinkPad 90W AC Adapter

40Y7659 (adapter provided with some systems).

ThinkPad 65W AC Adapter ⁴⁵	40Y7696	ann 01/05/06
---------------------------------------	---------	--------------

⁴⁵ Only compatible with the 945GM and GM965 chipset models.

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

ThinkPad 90W Slim AC/DC Combo Adapter	41N8460	ann 11/27/07
---------------------------------------	---------	--------------

Charging tips for 90W Slim AC/DC Combo Adapter 41N8460

•Dual (ThinkPad+Phone) Charging Y-Cable	41R4345	ann 12/18/07
•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

Carrying Cases**Up to 15.4" widescreen models:**

Lenovo Carrying Case - Messenger Max	41U5253	ann 05/01/07
Lenovo Carr Case - Performance Backpack	41U5254	ann 05/01/07
Lenovo Standard Case	45K1697	ann 11/25/08
Lenovo Standard Backpack	45K1698	ann 11/25/08
Checkpoint Friendly Business Topload Case	51J0418	ann 02/24/09
ThinkPad Business Topload Case	43R2476	ann 05/13/08
ThinkPad Business Backpack	43R2482	ann 05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann 05/13/08
ThinkPad Executive Leather Case	43R2480	ann 05/13/08

Up to 17.0" widescreen models:

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

Monitors

ThinkVision® L174 17" Monitor	9227AE1	ann 04/15/08
ThinkVision L1700p 17" Monitor	9417HE2	ann 09/17/08
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1940p Wide 19" Monitor	4424HB6	ann 09/17/08
ThinkVision L200p Wide 20.1" Monitor	4438HB6	ann 04/15/08
ThinkVision L2240p Wide 22" Monitor	4422HB6	ann 09/17/08
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann 09/17/08
ThinkVision L2440x Wide 24" Monitor	4421HB2	ann 09/17/08

Monitor Accessories⁴⁶

ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington Cable Lock from Lenovo	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
ThinkPad Convertible Monitor Stand	40Y7620	ann 01/05/06
Radial Arm	19K4464	ann 05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.More information at www.lenovo.com/support/monitoraccessoriesOther accessories at www.lenovo.com/accessoriesAccessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad® R61i 14W 7732 (GMA) - TopSeller (March 2008)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Screen type	Cam- era	Graphics controller	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Card slot	Bat- tery 1394 port cells Preload	Workhorse (W) Global (G) Educ	Avail date
7732-2KU	T2370	1.73	1GB	14.1" WXGA+		Cam	GMA	120G 5400	DVD±RW	Intel 11a/b/g	/54	1394 4 XP Pro		Mar 08
7732-2LU	T2370	1.73	1GB	14.1" WXGA			GMA	120G 5400	DVD±RW	Intel 11a/b/g	/54	1394 4 XP Pro		Mar 08
7732-2MU	T5550	1.83	1GB	14.1" WXGA			GMA	120G 5400	DVD±RW	*Intel 11a/b/g	/54	1394 4 XP Pro		Mar 08
7732-B1U	T2390	1.86	1GB	14.1" WXGA			GMA	160G 5400	DVD±RW	Intel 11a/b/g	/54	1394 4 Business 32		Apr 08
7732-B2U	T2390	1.86	1GB	14.1" WXGA	Glossy	Cam	GMA	160G 5400	DVD±RW	Intel 11a/b/g	/54	1394 4 Business 32		Apr 08
7732-B3U	T2390	1.86	1GB	14.1" WXGA	Glossy	Cam	GMA	160G 5400	DVD±RW	Intel 11a/b/g	/54	1394 4 Home Prem		Apr 08
7732-B4U	T5750	2.00	1GB	14.1" WXGA			GMA	160G 5400	DVD±RW	*Intel 11a/b/g	/54	1394 4 Business 32		Apr 08
7732-B5U	T5750	2.00	1GB	14.1" WXGA+		Cam	GMA	160G 5400	DVD±RW	*Intel 11a/b/g	/54	1394 4 Business 32		Apr 08
7732-01U	T8100	2.10	1GB	14.1" WXGA			GMA	120G 5400	DVD±RW	*Intel 11a/b/g	4-in-1	1394 6 Business 32	Educ	May 08
7732-D1U	T2390	1.86	2GB	14.1" WXGA			GMA	160G 5400	DVD±RW	Intel 11n ²⁸	/54	1394 4 XP Pro		Aug 08
• These small and medium business (SMB) models are part of the US TopSeller™ Program														
Processor	Intel® Pentium® Dual-Core Processor T2370 or T2390 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Execute Disable Bit, 533MHz system bus, and 1MB shared L2 cache or Intel Core™ 2 Duo processor T5550 or T5750 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache Intel Core 2 Duo processor T8100 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 3MB shared L2 cache											Preloaded operating system ²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) - Some: Microsoft Windows Vista® Home Premium Ed (32-bit) ♦ D1U/Vista models: Vista Basic logo		
Memory	1GB or 2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; Italics: standard memory in both sockets; no sockets available; Non-italics: standard memory in 1 socket; 1 socket available											Preloaded applications ¹⁴ (all OSes; only some listed) • Some: Education software - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection - Photoshop Elements (and CD) - Premier Elements (and DVD) - Acrobat 8 Professional - Contribute 4 • Lenovo Care SM for Think • Rescue and Recovery™ • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Multimedia Center for Think Offerings (XP Pro models) • Microsoft Office OneNote® 2007 and CD (01U model) • Microsoft Office 2007 Trial (60-day) • Network Magic™ • Corel® Small Business Center™ with WordPerfect® Office 12 • QuickBooks Financial Center • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel WinDVD® (DVD±RW) • Corel WinDVD Creator (XP Pro DVD±RW models)		
Diskette drive	None (use optional USB-based diskette drive)											Supports ThinkVantage® technologies 65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-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		
EIDE DVD±RW	DVD burner, Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay™ Enhanced													
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high													
Serial ATA disk	120GB ⁸ (5400 rpm) or 160GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™													
Widescreen display	Some: 14.1" (358.1mm) WXGA (1280x800) TFT color, anti-glare, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: 14.1" (358.1mm) WXGA (1280x800) TFT color, VibrantView (glossy), 185 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: 14.1" (358.1mm) WXGA+ (1440x900) TFT color, anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio													
Camera	Some: camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0													
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100), integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock													
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	4-cell 14.1W" (WxDxH): 13.2" x 9.3" x 1.2–1.37"; 335mm x 237mm x 30.6–34.9mm													
Weight ²	4-cell: starting at 5.2 lb (2.4kg)													
Case material	Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic													
Battery - type	Lithium Ion 4-cell or 6-cell, supports unique 2nd battery in Ultrabay Slim													
Battery - life ¹⁰	4-cell: up to 3.6 hr; optional 6-cell: up to 5.7 hr; 6-cell plus Ultrabay battery: up to 7.2 hr													
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)													
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit													
ExpressCard slot	Some: [/54] One ExpressCard/34 or ExpressCard/54													
Smart Card Read	None													
Multicard Reader	Some: 4-in-1 reader (MultiMediaCard, Mem Stick® PRO, Sec Digital, xD-Picture Card™)													
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios											ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968		
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable											ThinkPlus 2-year LOR 9x5 NBD 45K5969		
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG											ThinkPlus 3-year LOR 9x5 NBD 45K5970		
Intel 11n ²⁸	Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)											ThinkPlus 4-year LOR 9x5 NBD 45K5973		
WWAN	None											ThinkPlus 5-year LOR 9x5 NBD 45K5975		
Turbo Memory	None											ThinkPlus 2-year P&L P/U Depot 45K5971		
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket											ThinkPlus 3-year P&L P/U Depot 45K5972		
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator											ThinkPlus 4-year P&L P/U Depot 45K5974		
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE											ThinkPlus 5-year P&L P/U Depot 45K5976		
Intel AMT	None													
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module, Atmel chip, TCG 1.2-compliant													
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip													
Limited warranty ¹²	1-year - EasyServ™.19 depot repair service / service upgrades ²² available													

See footnotes for important warranty information

*Intel Centrino® processor technology

® US model announced August 5, 2008; previous models on March 4, April 8, or May 12, 2008

© Lenovo

(B-LAG1-2) August 2008

ThinkPad® R61i 15W 7650 (GMA) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Graphics controller	Disk SATA GB ⁵ rpm	EIDE optical	Mini PCIe 802.11 wireless	Finger print reader	Blue- tooth	Bat- tery cells	Preload	Workhorse (W) Global (G) Educ	Avail date
7650-8CU	T5250	1.50	512MB	15.4" WXGA	GMA	80GB 5400	Combo	* Intel 11a/b/g ³²	None	None	6	XP Pro		July 07
7650-8DU	T5250	1.50	1GB	15.4" WXGA	GMA	80GB 5400	DVD±RW	* Intel 11a/b/g	None	None	6	XP Pro		July 07
7650-9LU	T2330	1.60	1GB	15.4" WXGA	GMA	80GB 5400	DVD±RW	Intel 11a/b/g	None	None	6	XP Pro		Oct 07
7650-9MU	T2330	1.60	1GB	15.4" WXGA	GMA	80GB 5400	DVD±RW	Intel 11a/b/g	None	None	6	Business 32		Oct 07
7650-CDU	T5450	1.66	1GB	15.4" WXGA	GMA	80GB 5400	DVD±RW	* Intel 11a/b/g	None	None	6	XP Pro		Jan 08
7650-DHU	T2370	1.73	1GB	15.4" WXGA	GMA	80GB 5400	DVD±RW	Intel 11a/b/g	None	None	6	XP Pro		Feb 08
7650-DGU	T5550	1.83	1GB	15.4" WXGA	GMA	80GB 5400	DVD±RW	* Intel 11a/b/g	None	None	6	XP Pro		Feb 08
7650-DRU	T2390	1.86	1GB	15.4" WXGA	GMA	80GB 5400	DVD±RW	Intel 11a/b/g	None	None	6	Business 32		Apr 08
7650-02U	T2390	1.86	1GB	15.4" WXGA	GMA	80GB 5400	DVD±RW	Intel 11a/b/g	None	None	6	Business 32	Educ	May 08
7650-ELU	T2390	1.86	1GB	15.4" WXGA	GMA	80GB 5400	DVD±RW	Intel 11n ²⁸	None	None	6	XP Pro		July 08
7650-DSU	T5750	2.00	1GB	15.4" WXGA	GMA	80GB 5400	DVD±RW	* Intel 11a/b/g	None	None	6	Business 32		Apr 08
7650-01U	T5750	2.00	2GB	15.4" WXGA	GMA	160G 7200	DVD±RW	* Intel 11a/b/g	None	None	6	Business 32		May 08
7650-F6U	T5750	2.00	1GB	15.4" WXGA	GMA	80GB 5400	DVD±RW	* Intel 11n	None	None	6	XP Pro		July 08
• These small and medium business (SMB) models are part of the US TopSeller™ Program • These models have a 1-year limited warranty ¹²														
Processor	Intel® Pentium® Dual-Core Processor T2330, T2370, or T2390 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Execute Disable Bit, 533MHz system bus, and 1MB shared L2 cache or Intel Core™ 2 Duo processor T5250, T5450, T5550, or T5750 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep technology, Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache										Preloaded operating system ²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) ♦ Vista 1GB models: Vista Basic logo ♦ 01U model: Vista Premium logo			
Memory	512MB or 1GB 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										Preloaded applications ¹⁴ (all OSes; only some listed) • Some: Education software - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection - Photoshop Elements (and CD) - Premier Elements (and DVD) - Acrobat 8 Professional - Contribute 4 • Lenovo Care SM for Think (9MU and 2008 models) • Microsoft Office OneNote® 2007 and CD (02U model) • Network Magic™ (9MU and 2008 models) • Corel® Small Business Center™ with WordPerfect® Office 12 (9MU and 2008 models) • QuickBooks Financial Center (9MU and 2008 models) • Corel WinDVD® (DVD±RW) • Corel WinDVD Creator (XP Pro DVD±RW model)			
Diskette drive	None (use optional USB-based diskette drive)										Supports ThinkVantage® technologies 65-watt (GMA graphics) ThinkPad Roll Cage (one-piece magnesium frame) ENERGY STAR® 4.0-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			
EIDE Combo	Some: DVD-ROM/CD-RW, 24X/24X/24X/8X ²¹ , fixed, not removable, 12.7mm high													
EIDE DVD±RW	Some: DVD burner, Super Multi-Burner, dual-layer, not removable, 12.7mm high													
Ultrabay Enhanced	None (no support for removable Ultrabay™ options)													
Serial ATA disk	80GB ⁸ (5400 rpm) or 160GB (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™													
Widescreen display	15.4" (391mm) WXGA (1280x800) color, anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio													
Camera	None													
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100), integrated in GM965, no DVI pass-through (no port replicator or docking station support)													
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Apl keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ (no touch pad)													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	6-cell 15.4W" (WxDxH): 14.1" x 10.2" x 1.39–1.52"; 358.5 x 260.0mm x 35.3–38.5mm													
Weight ²	6-cell: starting at 6.4 lb (2.9kg); 9-cell: starting at 6.7 lb (3.1kg)													
Case material	Black color, Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic													
Battery - type	Lithium Ion 6-cell													
Battery - life ¹⁰	Not published													
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], / PCI bus (Ricoh® R5C804 Cardbus) /													
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit													
ExpressCard slot	None													
Smart Card Read	None													
Multicard Reader	None													
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet)													
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios													
Mini PCI Express	One Mini PCI Express slot / not customer upgradable													
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG													
Intel 11n ²⁸	Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)													
WWAN	None													
Modem	56K V.92 ⁶ modem, on systemboard, Conexant® CX20548													
Bluetooth™	None													
Ethernet	Gigabit ethernet, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE													
Intel AMT	None													
Audio support	High Definition (HD) Audio, CX20549 codec / stereo speakers, 1 watt / volume up, down, mute buttons / microphone 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 - EasyServ™.19 depot repair service / service upgrades ²² available														
1GB PC2-5300 DDR2 SODIMM (TopSeller)					43R1999	T/R/W/SL Series Li-Ion Battery 9-cell					40Y6797	ThinkPlus 3-year P&L P/U Depot 45K5972		
2GB PC2-5300 DDR2 SODIMM (TopSeller)					43R2000	90W Slim AC/DC Combo Adapter					41N8460	ThinkPlus 4-year P&L P/U Depot 45K5974		
320GB Disk SATA 1.5Gb/s (7200 rpm)					43N3411	ThinkPad Business Topload Case					43R2476	ThinkPlus 5-year P&L P/U Depot 45K5976		
USB 2.0 Lenovo Enhanced Port Replicator					43R8770	ThinkVision® L2440p Wide 24" Monitor					4420HB2	ThinkPlus 5-year P&L P/U Depot 45K5976		
Other accessories on O-R61E sheet						Other accessories at lenovo.com/accessories								

See footnotes for important warranty information

* Intel Centrino® processor technology

© Lenovo

US models announced July 1, 2008; previous models on July 10, Oct 2, 2007, Jan 8, Feb 26, April 8, or May 5, 2008

(B-KON11-1) July 2008

US models withdrawn effective December 2007

ThinkPad® R61i 15W 8932 (GMA) - TopSeller (January 2008)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Screen type	Cam- era	Graphics controller	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Card slot	Blue- tooth	Bat- tery cells	Preload	Workhorse (W) Global (G) Avail date	
8932-DZU	T5450	1.66	1GB	15.4"	WXGA		GMA	120G 5400	DVD±RW	* Intel 11a/b/g ³²	/54		6	XP Pro	No Jan 08	
8932-E2U	T5450	1.66	1GB	15.4"	WXGA	Glossy	Cam	GMA	160G 5400	DVD±RW	* Intel 11a/b/g	/54	Blue	6	XP Pro	No Jan 08
8932-E9U	T2370	1.73	1GB	15.4"	WXGA		Cam	GMA	120G 5400	DVD±RW	Intel 11a/b/g	/54	Blue	6	XP Pro	No Jan 08
8932-EAU	T5450	1.66	1GB	15.4"	WXGA		Cam	GMA	160G 5400	DVD±RW	* Intel 11a/b/g	/54	Blue	6	Business32	No Jan 08
8932-FWU	T2370	1.73	1GB	15.4"	WXGA			GMA	120G 5400	DVD±RW	Intel 11a/b/g	/54		6	XP Pro	No Mar 08
8932-FXU	T5550	1.83	1GB	15.4"	WXGA			GMA	120G 5400	DVD±RW	* Intel 11a/b/g	/54		6	XP Pro	No Mar 08
8932-G8U	T2390	1.86	1GB	15.4"	WXGA			GMA	160G 5400	DVD±RW	Intel 11a/b/g	/54		6	Business32	No Apr 08
8932-G9U	T2390	1.86	1GB	15.4"	WXGA	Glossy	Cam	GMA	160G 5400	DVD±RW	Intel 11a/b/g	/54	Blue	6	Business32	No Apr 08
8932-GBU	T2390	1.86	1GB	15.4"	WXGA	Glossy	Cam	GMA	160G 5400	DVD±RW	Intel 11a/b/g	/54	Blue	6	Home Prem	No Apr 08
8932-GZU	T2390	1.86	2GB	15.4"	WXGA			GMA	160G 5400	DVD±RW	Intel 11n ²⁸	/54		6	XP Pro	No July 08
8932-GCU	T5750	2.00	1GB	15.4"	WXGA			GMA	160G 5400	DVD±RW	* Intel 11a/b/g	/54		6	Business32	No Apr 08
8932-GDU	T5750	2.00	1GB	15.4"	WXGA		Cam	GMA	160G 5400	DVD±RW	* Intel 11a/b/g	/54	Blue	6	Business32	No Apr 08
8932-H2U	T5750	2.00	2GB	15.4"	WXGA			GMA	160G 5400	DVD±RW	* Intel 11n	/54		6	XP Pro	No July 08
<ul style="list-style-type: none">• These small and medium business (SMB) models are part of the US TopSeller™ Program• These models have a 1-year limited warranty¹²																
Processor	Intel® Pentium® Dual-Core Processor T2370 or T2390 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Execute Disable Bit, 533MHz system bus, and 1MB shared L2 cache or Intel Core™ 2 Duo processor T5450, T5550, or T5750 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache											Preloaded operating system ²⁰ <ul style="list-style-type: none">- Some: Microsoft® Windows® XP Professional with Vista® COA- Some: Microsoft Windows Vista Business Edition (32-bit)- Some: Microsoft Windows Vista® Home Premium Ed (32-bit) ♦ Vista models: Vista Basic logo				
Memory	1GB or 2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; Italics: standard memory in both sockets; no sockets available; Non-italics: standard memory in 1 socket; 1 socket available											Preloaded applications ¹⁴ (all OSes; only some listed) <ul style="list-style-type: none">• Lenovo CareSM for Think• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage System Update• System Migration Assistant• Norton Internet Security (90 days of virus definitions)• PC-Doctor™ (diagnostics)• ThinkPad Utilities (Power Manager and Presentation Director)• Multimedia Center for Think Offerings (XP Pro models)• Microsoft Office 2007 Trial (60-day)• Corel® Small Business Center™ with WordPerfect® Office 12• Sonic RecordNow and Drive Letter Access (DVD±RW)• Corel WinDVD® (DVD±RW)• Corel WinDVD Creator (XP Pro DVD±RW models)				
Diskette drive	None (use optional USB-based diskette drive)															
EIDE DVD±RW	DVD burner, Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay™ Enhanced															
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high															
Serial ATA disk	120GB ⁸ (5400 rpm) or 160GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™															
Widescreen display	Some: 15.4" (391mm) WXGA (1280x800) TFT color, anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: 15.4" (391mm) WXGA (1280x800) TFT color, VibrantView (glossy), 200 nits, 16:10 aspect ratio, 300:1 contrast ratio															
Camera	Some: camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0															
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100), integrated in GM965, no DVI pass-through support to optional Advanced Mini Dock or Advanced Dock															
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys															
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass															
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones															
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³	6-cell 15.4W" (WxDxH): 14.1" x 10.2" x 1.39–1.52"; 358.5 x 260.0mm x 35.3–38.5mm															
Weight ²	6-cell: starting at 6.4 lb (2.9kg); 9-cell: starting at 6.7 lb (3.1kg)															
Case material	Black color, Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic															
Battery - type	Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Enhanced															
Battery - life ¹⁰	6-cell: up to 5.0 hr; 9-cell: up to 7.0 hr; 6-cell plus Ultrabay battery: up to 8.5 hr															
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)											Supports ThinkVantage® technologies				
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit											65-watt (GMA graphics)				
ExpressCard slot	[54] One ExpressCard/34 or ExpressCard/54											ThinkPad Roll Cage (one-piece magnesium frame)				
Smart Card Read	None											ENERGY STAR® 4.0-compliant				
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)											RoHS-compliant				
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard), S-Video out											International Warranty Service ¹⁷				
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios											24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Mini PCI Express	One Mini PCI Express slot / 802.11 wireless is customer upgradable											ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD				
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG											45K5968				
Intel 11n ²⁸	Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)											ThinkPlus 2-year LOR 9x5 NBD				
WWAN	None											45K5969				
Turbo Memory	None											ThinkPlus 3-year LOR 9x5 NBD				
Modem	56K V.92 ⁶ modem, on systemboard, Conexant® CX20548											45K5970				
Bluetooth™	Some: Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator											ThinkPlus 4-year LOR 9x5 NBD				
Ethernet	Gigabit ethernet, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE											45K5973				
Intel AMT	None											ThinkPlus 5-year LOR 9x5 NBD				
Audio support	High Definition (HD) Audio, CX20549 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack											45K5975				
Security	Power-on password, hard disk password, supervisor password, security keyhole											ThinkPlus 2-year P&L P/U Depot				
Security chip	Trusted Platform Module, Atmel chip, TCG 1.2-compliant											45K5971				
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supported with security chip											ThinkPlus 3-year P&L P/U Depot				
Limited warranty ¹²	1-year - EasyServ™.19 depot repair service / service upgrades ²² available											45K5972				
												ThinkPlus 4-year P&L P/U Depot				
												45K5974				
												ThinkPlus 5-year P&L P/U Depot				
												45K5976				

See footnotes for important warranty information

* Intel Centrino® processor technology

® US models announced July 1, 2008; previous models on January 8 March 11, or April 8, 2008

© Lenovo
(B-WKK11-2) July 2008

ThinkPad®



Lenovo ThinkPad R400



ThinkLight on
Lenovo ThinkPad R400



Lenovo ThinkPad R400



ThinkPad Business Backpack
part number 43R2482



Lenovo ThinkPad R400



Lenovo ThinkPad R400

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue- tooth	Bat- tery cells	Preload	Avail date
7438-T6U	P8400	2.26	2GB	14.1" WXGA		GMA	160G 5400	DVD±RW	✚ Intel 5100 ²⁸	None	None	Finger		6	XP Pro	Aug 08
7438-T7U	T9400	2.53	2GB	14.1" WXGA		GMA	160G 7200	DVD±RW	✚ Intel 5100	None	None	Finger	Blue	6	XP Pro	Aug 08
7438-PAU	P8600	2.40	2GB	14.1" WXGA		GMA	160G 5400	DVD±RW	✚ Intel 5100	None	None	Finger		6	XP Pro	Mar 09

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

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ 2 Duo processor P8400, P8600, or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; <i>P8400/P8600: 3MB L2 cache; T9400: 6MB L2 cache</i>		Preloaded operating system ²⁰ - Microsoft® Windows® XP Professional with Vista® COA ✦ 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 <i>Non-italics:</i> standard memory in one socket; one socket available		Preloaded applications ¹⁴ <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions)• PC-Doctor™ (diagnostics)• ThinkPad Utilities (Power Manager and Presentation Director)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Fingerprint Software (fingerprint models)• Microsoft Office 2007 Trial (60-day)• Roxio® Creator® Business Edition• Roxio MyDVD® (DVD±RW)	
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high 160GB⁸ (5400 or 7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™			
Widescreen display	14.1" (358.1mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus			
Camera				
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock <i>Maximum external resolution: 2048x1536 @75Hz</i>			
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass			
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions			
Dimensions ³	<i>6-cell 14.1W" (WxDxH):</i> 13.2" x 9.4" x 1.2–1.4"; 335.5 x 238mm x 31–35mm			
Weight ²	<i>6-cell:</i> starting at 5.1 lb (2.3kg)			
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic			
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Enhanced			
Battery - life ¹⁰	<i>6-cell:</i> up to 5 hr; <i>6-cell plus Ultrabay battery:</i> up to 6.5 hr; <i>9-cell:</i> up to 7.5 hr			
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)			
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)			
PC Card	One slot (Type I, Type II), CardBus 32-bit			
Smart Card Read	None			
Multicard Reader	None			
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)			
Mini PCI Express	Three Mini PCI Express slots		Supports ThinkVantage® technologies	
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)			
WWAN	Not supported			
2G Turbo	None			
UWB	Not supported			
Modem	56K V.92 ⁶ modem			
Bluetooth™	<i>Some:</i> Bluetooth 2.0 wireless, LED indicator			
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1			
Intel AMT	None			
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack		65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) EPEAT™ Silver rating ENERGY STAR® 4.0-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	Power-on password, hard disk password, supervisor password, security keyhole			
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant			
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip		ThinkPlus™.22 2-year LOR ²⁴ 9x5 NBD 41C9175	
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available		ThinkPlus 3-year LOR 9x5 NBD 45K6021	
1GB PC3-8500 DDR3 SODIMM (TopSeller)	43R2045	T/R 14W Standard Battery 4-cell	41U3196	
2GB PC3-8500 DDR3 SODIMM (TopSeller)	43R2046	T/R 14W Enhanced Battery 6-cell	41U3198	
Blu-ray™ Burner Ultrabay Enhanced	43R9150	T/R 14W High Capacity Battery 9-cell	43R2499	ThinkPlus 4-year LOR 9x5 NBD 45K6022
Serial ATA Hard Drive Bay Adapter II	43R1980	Advanced Ultrabay Battery II 3-cell	43R9250	ThinkPlus 5-year LOR 9x5 NBD 45K6024
64GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3400	90W Slim AC/DC Combo Adapter	41N8460	
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411	ThinkPad Business Topload Case	43R2476	ThinkPlus 4-year P&L P/U Depot 45K6023
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Business Backpack	43R2482	
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	T400/R400 Series 14W Privacy Filter	43R2472	ThinkPlus 5-year P&L P/U Depot 45K6025
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkVision® L1940p Wide 19" Monitor	4424HB6	
ThinkPad Adjustable Notebook Stand	40Y7676	ThinkVision L2240p Wide 22" Monitor	4422HB6	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
ThinkPad Advanced Dock	250310U	ThinkVision L2440x Wide 24" Monitor	4421HB2	
Other accessories on O-R400 sheet		Other accessories at lenovo.com/accessories		

See footnotes for important warranty information

✚ Intel Centrino® 2 processor technology

© Lenovo

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

(LAG3-1) April 2009

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger Card slot	Blue- tooth	Bat- tery	Whorse (W) Gbl (G) Avail	date
7439-1WU	Cel 575	2.00	2GB	14.1" WXGA		GMA 160G 5400 DVD±RW	Intel 5100 ²⁸	None	Intel 5100 ²⁸	None		PC	Fing	Blue	6 Bus 32	Sep 08
7439-11U	P8400	2.26	1GB	14.1" WXGA		GMA 80G 5400 Combo	Intel 5100	None	Intel 5100	None		PC	Fing	Blue	6 Bus 32	G Aug 08
7439-12U	T9400	2.53	1GB	14.1" WXGA		GMA 160G 5400 Combo	Intel 5100	None	Intel 5100	None		PC	Fing	Blue	6 Bus 32	WG Aug 08
7439-V1U	T9400	2.53	2GB	14.1" WXGA	Cam	GMA 160G 7200 DVD±RW	Intel 5100	None	Intel 5100	None	2G Turbo	7-in-1	Fing	Blue	6 Bus 32	WG Aug 08
7439-V2U	P8400	2.26	1GB	14.1" WXGA	Cam	GMA 160G 5400 Combo	Intel 5100	None	Intel 5100	None		7-in-1	Fing	Blue	6 Bus 32	WG Aug 08
7439-V5U	T9400	2.53	1GB	14.1" WXGA	Cam	GMA 160G 5400 DVD±RW	Intel 5100	None	Intel 5100	None		7-in-1	Fing	Blue	6 Bus 32	WG Aug 08
7439-1BU	P8600	2.40	2GB	14.1" WXGA+		GMA 160G 5400 DVD±RW	Intel 5100	None	Intel 5100	None	2G Turbo	7-in-1	Fing	Blue	6 Bus 32	WG Aug 08
7439-1CU	T9400	2.53	2GB	14.1" WXGA		GMA 160G 5400 DVD±RW	Intel 5300 ²⁸	None	Intel 5300 ²⁸	None	2G Turbo	7-in-1	Fing	Blue	6 Bus 32	WG Aug 08
7439-1TU	P8600	2.40	1GB	14.1" WXGA		GMA 160G 5400 DVD±RW	Intel 5100	None	Intel 5100	None		Smart			6 Bus 32	TAA Aug 08
7439-PAU	P8600	2.40	2GB	14.1" WXGA		GMA 160G 5400 Combo	Intel 5100	None	Intel 5100	None		PC	Fing	Blue	6 XP Pro	G Sep 08
7439-PCU	P8600	2.40	2GB	14.1" WXGA+		GMA 160G 5400 DVD±RW	Intel 5100	None	Intel 5100	None	2G Turbo	7-in-1	Fing	Blue	6 XP Pro	G Sep 08
7439-T1U	P8600	2.40	2GB	14.1" WXGA		GMA 160G 5400 Combo	Intel 5100	None	Intel 5100	None		PC	Fing	Blue	6 XP Pro	G Sep 08
7439-V3U	T9400	2.53	2GB	14.1" WXGA	Cam	GMA 160G 7200 DVD±RW	Intel 5100	None	Intel 5100	None	UWB	7-in-1	Fing	Blue	9 Bus 32	W Oct 08
7439-T2U	P8600	2.40	1GB	14.1" WXGA		GMA 160G 5400 DVD±RW	Intel 5100	None	Intel 5100	None		Smart			6 Bus 32	TAA Oct 08
7439-PDU	P8600	2.40	2GB	14.1" WXGA		GMA 160G 5400 DVD±RW	Intel 5100	None	Intel 5100	None		PC	Fing	Blue	6 Bus 32	WG Dec 08
US Govt (TAA) ⁵ Processor												Preloaded operating system ²⁰				
Intel® Celeron® Processor 575 with single-core, 667MHz system bus, and 1MB L2 cache												- Some: Microsoft® Windows® XP Professional with Vista® COA				
Intel Core™ 2 Duo processor P8400, P8600, or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; P8400/P8600: 3MB L2 cache; T9400: 6MB L2 cache												- Some: Microsoft Windows Vista Business Edition (32-bit)				
Memory												♦ Vista Premium logo				
1GB or 2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets;												Preloaded applications ¹⁴ (all OSes)				
Italics: standard memory in both sockets; no sockets available;												• Rescue and Recovery™				
Non-italics: standard memory in one socket; one socket available												• Access Connections™				
SATA Combo												• Client Security Solution™				
SATA DVD±RW												• ThinkVantage Productivity Center				
Ultrabay Enhanced												• ThinkVantage System Update				
SATA disk												• McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions)				
Some: DVD-ROM/CD-RW, SATA 1.5Gb/s, 12.7mm Ultrabay Enh, removable (43R9148)												• PC-Doctor™ (diagnostics)				
Some: DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149)												• ThinkPad Utilities (Power Manager and Presentation Director)				
One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high												• Adobe® Reader				
80GB ⁸ (5400 rpm) or 160GB (5400 or 7200 rpm) /												• Windows Live™ Toolbar				
SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk,												• Windows Live Search				
ThinkPad Shock Mounted Hard Drive, Active Protection System™												• Fingerprint Software (fingerprint models)				
Widescreen display												• Microsoft Office 2007 Trial (60-day)				
Some: 14.1" (358.1mm) WXGA (1280x800) color, anti-glare, CCFL backlight,												• Roxio® Creator® Business Edition				
185 nits, 16:10 aspect ratio, 300:1 contrast ratio												• Roxio MyDVD® (DVD±RW)				
Some: 14.1" (358.1mm) WXGA+ (1440x900) color, anti-glare, CCFL backlight,																
200 nits, 16:10 aspect ratio, 300:1 contrast ratio																
Camera																
Some: camera on top of screen, 1.3-megapixel, fixed focus																
Integrated graphics																
Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock																
Maximum external resolution: 2048x1536@75Hz (VGA DB-15)																
Keyboard																
89-key, ThinkVantage button, spill-resistant, multimedia Fn keys																
TrackPoint®																
TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass																
Touch pad																
UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label																
ThinkLight™																
Illuminates the keyboard to improve visibility in low-light conditions																
Dimensions ³																
6-cell 14.1W" (WxDxH): 13.2" x 9.4" x 1.2-1.4"; 335.5 x 238mm x 31-35mm																
Weight ²																
6-cell: starting at 5.1 lb (2.3kg)																
Case color																
Black																
Case material																
Top: Super-Elastic Polycarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic																
Battery - type																
Lithium Ion 6-cell or 9-cell, supports unique 2nd battery in Ultrabay Enhanced																
Battery - life ¹⁰																
6-cell: up to 5 hr; 6-cell plus Ultrabay battery: up to 6.5 hr; 9-cell: up to 7.5 hr																
Chipset																
Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub),												Supports ThinkVantage® technologies				
ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1,																
PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)																
ExpressCard/54												65-watt (GMA graphics) AC adapter				
One slot (ExpressCard/34, ExpressCard/54)												ThinkPad Roll Cage and Top Cover				
PC Card												Roll Cage (one-piece magnesium)				
Some: One slot (Type I, Type II), CardBus 32-bit												EPEAT™ Silver rating				
Smart Card read												ENERGY STAR® 4.0-compliant				
Some: Smart Card reader												RoHS-compliant				
Multicard reader												International Warranty Service ¹⁷				
Some: 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)												24 hour x 7 day ¹⁸ toll-free support				
Ports												during the warranty period ¹²				
Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45),												via 800-426-7378				
IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)																
Mini PCI Express																
Three Mini PCI Express slots												ThinkPlus™.22 2-year LOR ²⁴ 9x5 NBD				
Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)												41C9175				
Intel 5100 ²⁸												ThinkPlus 3-year LOR 9x5 NBD				
Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5300, 3x3 (Shirley Peak)												45K6021				
Intel 5300 ²⁸												ThinkPlus 4-year LOR 9x5 NBD				
WWAN												45K6022				
None												ThinkPlus 5-year LOR 9x5 NBD				
2G Turbo												45K6024				
Some: Intel Turbo Memory, Mini PCIe adapter, 2GB flash, disk-cache accelerator												ThinkPlus 4-year P&L P/U Depot				
UWB												45K6023				
Wireless USB based on Ultra-Wideband (UWB), Half-Mini PCIe adapter												ThinkPlus 5-year P&L P/U Depot				
Modem												45K6025				
56K V.92 ⁶ modem												Post-warranty annual maintenance				
Bluetooth™												agreements at				
Some: Bluetooth 2.0 wireless, LED indicator												lenovo.com/thinkplus/warranty				
Ethernet																
Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1																
Intel AMT																
None																
Audio support																
High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt /																
volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack																
Security																
Power-on password, hard disk password, supervisor password, security keyhole																
Security chip																
Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant																
Fingerprint reader																
Some: Fingerprint reader on palm rest, swipe sensor, supports the security chip																
Limited warranty ¹² 3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available																
320GB Disk SATA 1.5Gb/s (7200 rpm)												43N3411				
Other accessories on O-R400 sheet												T/R 14W High Capacity Battery 9-cell 43R2499				
												Other accessories at lenovo.com/accessories				

See footnotes for important warranty information

♦ Intel Centrino® 2 processor technology

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

© Lenovo
(LAG3-2) December 2008

Proc- Type-model	essor GHz	Memory	Wide- screen display	Cam-Integrated era graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Card slot	Blue/ Fing	Bat- tery cells	Whorse (W) Gbl (G) Avail Preload GMP (P) date	
7440-11U	P8400	2.26	1GB	14.1" WXGA	GMA 80G	5400 Combo	⇄ Intel 5100 ²⁸	None		PC	Yes	6	Bus 32 G P Aug 08	
7440-12U	T9400	2.53	1GB	14.1" WXGA	GMA 160G	5400 Combo	⇄ Intel 5100	None		PC	Yes	6	Bus 32 W G P Aug 08	
7440-V1U	T9400	2.53	2GB	14.1" WXGA	Cam	GMA 160G	7200 DVD±RW	⇄ Intel 5100	None	2G Turbo	7-in-1	Yes	6	Bus 32 W G P Aug 08
7440-V5U	T9400	2.53	1GB	14.1" WXGA	Cam	GMA 160G	5400 DVD±RW	⇄ Intel 5100	None		7-in-1	Yes	6	Bus 32 W G P Aug 08
7440-T1U	P8600	2.40	2GB	14.1" WXGA	GMA 160G	5400 Combo	⇄ Intel 5100	None		PC	Yes	6	XP Pro G P Sep 08	
7440-PDUP	P8600	2.40	2GB	14.1" WXGA	GMA 160G	5400 DVD±RW	⇄ Intel 5100	None		PC	Yes	6	Bus 32 W G P Dec 08	
• These models are part of the Global Models Plus program with limited onsite service ²⁴ 3-year limited warranty														
Positioning Processor	Mainstream business performance; two spindles Intel® Core™ 2 Duo processor P8400, P8600, or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; P8400/P8600: 3MB L2 cache; T9400: 6MB L2 cache										Preloaded operating system ²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) ◇ Vista Premium logo			
Memory	1GB or 2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications ¹⁴ (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW)			
SATA Combo SATA DVD±RW Ultrabay Enhanced SATA disk	Some: DVD-ROM/CD-RW, SATA 1.5Gb/s, 12.7mm Ultrabay Enh, removable (43R9148) Some: DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high 80GB ⁸ (5400 rpm) 160GB (5400 or 7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™													
Widescreen display Camera	14.1" (358.1mm) WXGA (1280x800) color, anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: camera on top of screen, 1.3-megapixel, fixed focus													
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock Maximum external resolution: 2048x1536@75Hz													
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	6-cell 14.1W" (WxDxH): 13.2" x 9.4" x 1.2–1.4"; 335.5 x 238mm x 31–35mm 6-cell: starting at 5.1 lb (2.3kg) Black Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Enhanced 6-cell: up to 5 hr; 6-cell plus Ultrabay battery: up to 6.5 hr; 9-cell: up to 7.5 hr													
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub) / ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)													
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	One slot (ExpressCard/34, ExpressCard/54) Some: One slot (Type I, Type II), CardBus 32-bit None Some: 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
Mini PCI Express Intel 5100 ²⁸ WWAN 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) None Some: Intel Turbo Memory, Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem Bluetooth 2.0 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack													
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip										Supports ThinkVantage® technologies			
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										65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) EPEAT™ Silver rating ENERGY STAR® 4.0-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			
1GB PC3-8500 DDR3 SODIMM 2GB PC3-8500 DDR3 SODIMM Blu-ray™ Burner Ultrabay Enhanced SATA Serial ATA Hard Drive Bay Adapter II SATA 64GB SSD SATA 3.0Gb/s 1.8" (2.5" cover) 320GB Disk SATA 1.5Gb/s (7200 rpm) USB 2.0 Essential Memory Key 32GB USB 2.0 Ultra Secure Memory Key 8GB USB 2.0 Super Multi-Burner Drive ThinkPad Adjustable Notebook Stand ThinkPad Advanced Dock Other accessories on O-R400 sheet	43R1987 43R1988 43R9150 43R1980 43N3400 43N3411 45K1258 45J5918 41N5565 40Y7676 250310U T/R 14W Standard Battery 4-cell T/R 14W Enhanced Battery 6-cell T/R 14W High Capacity Battery 9-cell Advanced Ultrabay Battery II 3-cell 90W Slim AC/DC Combo Adapter ThinkPad Business Topload Case ThinkPad Business Backpack T400/R400 Series 14W Privacy Filter ThinkVision® L1940p Wide 19" Monitor ThinkVision L2240p Wide 22" Monitor ThinkVision L2440p Wide 24" Monitor Other accessories at lenovo.com/accessories										41U3196 41U3198 43R2499 43R9250 41N8460 43R2476 43R2482 43R2472 4424HB6 4422HB6 4420HB2			
ThinkPlus™.22 4-year LOR 9x5 NBD 45K6038 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty														

See footnotes for important warranty information

⇄ Intel Centrino® 2 processor technology

© Lenovo

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

(LAG3-3) December 2008

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam-Integrated era graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Card slot	Finger print reader	Bat- tery cells	Whorse (W) Gbl (G)	Avail date	
7439-E1U	Cel 585	2.16	1GB	14.1" WXGA	Cam GMA 80G	5400 Combo		Intel 5100 ²⁸	None	2G Turbo	7-in-1		6	Bus 32	W	Sep 08
7439-E2U	T9400	2.53	1GB	14.1" WXGA	Cam GMA 80G	5400 Combo		Intel 5100	None	2G Turbo	7-in-1		6	Bus 32	W	Aug 08
7439-E3U	T9400	2.53	1GB	14.1" WXGA	Cam GMA 160G	5400 DVD±RW		Intel 5100	None	2G Turbo	7-in-1	Fing	6	Bus 32	W	Aug 08
7439-E4U	T9400	2.53	2GB	14.1" WXGA+	Cam GMA 160G	7200 DVD±RW		Intel 5100	None	2G Turbo	7-in-1	Fing	9	Bus 32	W	Aug 08
7439-E5U	P8600	2.40	2GB	14.1" WXGA	Cam GMA 160G	5400 DVD±RW		Intel 5100	None		7-in-1		6	Bus 32	W	Dec 08
7439-E9U	P8700	2.53	2GB	14.1" WXGA	Cam GMA 250G	5400 DVD±RW		Intel 5100	None		7-in-1	Fing	6	Bus 32	W	Mar 09
7439-EAU	T9600	2.80	3GB	14.1" WXGA	Cam GMA 160G	7200 DVD±RW		Intel 5100	None		7-in-1	Fing	6	Bus 32	W	Mar 09
• These models have an EasyServ™,19 depot repair service 3-year limited warranty																
These educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.																
Positioning Processor	Mainstream business performance; two spindles Intel® Celeron® Processor 585 with single-core, 667MHz system bus, and 1MB L2 cache Intel Core™ 2 Duo processor P8600, P8700, T9400, or T9600 with dual-core, Intel HD Boost, 1066MHz system bus; P8600/P8700: 3MB L2 cache; T9400/T9600: 6MB L2 cache											Preloaded operating system ²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ♦ Vista Premium logo				
Memory	1GB, 2GB, or 3GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; Italics: standard memory in both sockets; no sockets available; Non-italics: standard memory in one socket; one socket available											Preloaded applications ¹⁴ • E1u/E2U/E3U/E4U/E5U models: Education software - Microsoft Office OneNote® 2007 (and CD) - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection – Photoshop Elements (and CD) – Premier Elements (and DVD) – Acrobat 8 Professional – Contribute 4 • E9U/EAU models: 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) – Premier Elements 7 (and DVD) – Acrobat 9 Professional (DVD) – Contribute CS4 (and DVD) – Soundbooth CS4 (and DVD) • Rescue and Recovery™ • Access Connections™ • ThinkVantage Productivity Center • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW)				
SATA Combo SATA DVD±RW Ultrabay Enhanced SATA disk	Some: DVD-ROM/CD-RW, SATA 1.5Gb/s, 12.7mm Ultrabay Enh, removable (43R9148) Some: DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high 80GB ⁸ (5400 rpm), 160GB (5400 or 7200 rpm), or 250GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™															
Widescreen display	Some: 14.1" (358.1mm) WXGA (1280x800) color, anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: 14.1" (358.1mm) WXGA+ (1440x900) color, anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio															
Camera	Some: camera on top of screen, 1.3-megapixel, fixed focus															
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock Maximum external resolution: 2048x1536@75Hz															
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	6-cell 14.1W" (WxDxH): 13.2" x 9.4" x 1.2–1.4"; 335.5 x 238mm x 31–35mm 6-cell: starting at 5.1 lb (2.3kg) Black Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell, supports unique 2nd battery in Ultrabay Enhanced 6-cell: up to 5 hr; 6-cell plus Ultrabay battery: up to 6.5 hr; 9-cell: up to 7.5 hr															
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54)															
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	None None 7-in-1 reader (MMC, Memory Stick, Mem Stick PRO™, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)															
Mini PCI Express Intel 5100 ²⁸ WWAN 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) None Some: Intel Turbo Memory, Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem Bluetooth 2.0 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack															
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Some: Fingerprint reader on palm rest, swipe sensor, supports the security chip															
Limited warranty ¹² 3-years/1-yr battery - EasyServ™,19 depot repair service / service upgrades ²² available																
1GB PC3-8500 DDR3 SODIMM				43R1987				T/R 14W Enhanced Battery 6-cell				41U3198				
2GB PC3-8500 DDR3 SODIMM				43R1988				T/R 14W High Capacity Battery 9-cell				43R2499				
320GB Disk SATA 1.5Gb/s (7200 rpm)				43N3411				90W Slim AC/DC Combo Adapter				41N8460				
USB 2.0 Ultra Secure Memory Key 8GB				45J5918				ThinkPad Business Topload Case				43R2476				
USB 2.0 Super Multi-Burner Drive				41N5565				T400/R400 Series 14W Privacy Filter				43R2472				
ThinkPad Advanced Dock				250310U				ThinkVision® L2440x Wide 24" Monitor				4421HB2				
Other accessories on O-R400 sheet								Other accessories at lenovo.com/accessories								
Supports ThinkVantage® technologies																
65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) EPEAT™ Silver rating ENERGY STAR® 4.0-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 2-year LOR ²⁴ 9x5 NBD 41C9175																
ThinkPlus 3-year LOR 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																

ThinkPad® R400 7440 (Education) - Onsite

Personal Systems Reference (PSREF)

Proc-				Wide-				Disk		Mini PCIe	Mini PCIe	Mini PCIe		Finger	Bat-	Whorse (W)	
Type-model	essor	GHz	Memory	screen	Cam-	Integrated	SATA	SATA	802.11	WWAN	UWB	Card	print	Blue-	tery	Gbl (G)	Avail
				display	era	graphics	GB ³	rpm	wireless		or Turbo	slot	reader	tooth	cells	Preload	date
7440-1NU	P8600	2.40	1GB	14.1"	WXGA	None	GMA	80G 5400	Combo	✚ Intel 5100	None	2G Turbo	7-in-1	None	Blue	6	Bus 32 W Aug 08

• **This model has a limited onsite service²⁴ 3-year limited warranty**

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

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ 2 Duo processor P8600 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache										Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ✚ Vista Premium logo Preloaded applications¹⁴ • Education software - Microsoft Office OneNote® 2007 (and CD) - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection - Photoshop Elements (and CD) - Premier Elements (and DVD) - Acrobat 8 Professional - Contribute 4 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW)					
Memory	1GB 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 Combo Ultrabay Enhanced SATA disk	DVD-ROM/CD-RW, SATA 1.5Gb/s, 12.7mm Ultrabay Enh, removable (43R9148) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high 80GB⁸ (5400 rpm) 160GB (5400 or 7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™															
Widescreen display Camera	14.1" (358.1mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio None															
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock <i>Maximum external resolution:</i> 2048x1536@75Hz															
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>6-cell 14.1W" (WxDxH):</i> 13.2" x 9.4" x 1.2-1.4"; 335.5 x 238mm x 31-35mm <i>6-cell:</i> starting at 5.1 lb (2.3kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Enhanced <i>6-cell:</i> up to 5 hr; <i>6-cell plus Ultrabay battery:</i> up to 6.5 hr; <i>9-cell:</i> up to 7.5 hr															
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)															
ExpressCard slot PC Card Std slot Smart Card Read Multicard Reader Ports	One ExpressCard/34 or ExpressCard/54 None None 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)															
Mini PCI Express Intel 5100 ²⁸ WWAN 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) None Intel Turbo Memory, Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem Bluetooth 2.0 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack															
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant 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										Supports ThinkVantage® technologies					
1GB PC3-8500 DDR3 SODIMM 2GB PC3-8500 DDR3 SODIMM DVD Burner Ultrabay Enh SATA 1.5Gb/s Blu-ray™ Burner Ultrabay Enhanced SATA Serial ATA Hard Drive Bay Adapter II SATA 64GB SSD SATA 3.0Gb/s 1.8" (2.5" cover) 320GB Disk SATA 1.5Gb/s (7200 rpm) USB 2.0 Security Memory Key 4GB USB 2.0 Ultra Secure Memory Key 8GB USB 2.0 Super Multi-Burner Drive ThinkPad Adjustable Notebook Stand ThinkPad Advanced Dock Laser Tilt Wheel Travel Mouse (Bluetooth) Other accessories on O-R400 sheet	43R1987 43R1988 43R9149 43R9150 43R1980 43N3400 43N3411 41U5120 45J5918 41N5565 40Y7676 250310U 41U5008										65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) EPEAT™ Silver rating ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™. ²² 4-year LOR 9x5 NBD 45K6038 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty					
T/R 14W Standard Battery 4-cell T/R 14W Enhanced Battery 6-cell T/R 14W High Capacity Battery 9-cell Advanced Ultrabay Battery II 3-cell 90W Slim AC/DC Combo Adapter ThinkPad Business Topload Case ThinkPad Business Backpack T400/R400 Series 14W Privacy Filter ThinkVision® L1700p 17" Monitor ThinkVision L1940p Wide 19" Monitor ThinkVision L2240p Wide 22" Monitor ThinkVision L2440x Wide 24" Monitor ThinkVision USB Soundbar (up to 22") Other accessories at lenovo.com/accessories	41U3196 41U3198 43R2499 43R9250 41N8460 43R2476 43R2482 43R2472 9417HE2 4424HB6 4422HB6 4421HB2 40Y7616															

See footnotes for important warranty information
US models announced August 5, 2008

✚ Intel Centrino® 2 processor technology

© Lenovo
(LAG3-5) August 2008

Partial list of accessories supported on:**• ThinkPad R400 originally announced on August 5, 2008****Memory**

1GB PC3-8500 DDR3 SODIMM (TopSeller)	43R2045	ann	11/04/08
1GB PC3-8500 DDR3 SODIMM	43R1987	ann	08/05/08
2GB PC3-8500 DDR3 SODIMM (TopSeller)	43R2046	ann	11/04/08
2GB PC3-8500 DDR3 SODIMM	43R1988	ann	08/05/08

Ultrabay Slim 9.5mm

Serial ATA Hard Drive Bay Adapter II SATA ⁴⁸	43R1980	ann	08/05/08
DVD-ROM Ultrabay Slim SATA 1.5Gb/s ⁴⁸	43N3212	ann	08/05/08
CD-RW/DVD-ROM Ultrabay Slim SATA ⁴⁸	43N3213	ann	08/05/08
DVD Burner Ultrabay Slim SATA 1.5Gb/s ⁴⁸	43N3214	ann	08/05/08
Blu-ray™ Burner Ultrabay Slim SATA 1.5Gb/s ⁴⁸	43N3215	ann	08/05/08

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

Ultrabay Enhanced 12.7mm

DVD-ROM Ultrabay Enhanced SATA 1.5Gb/s	43R9147	ann	08/05/08
CD-RW/DVD-ROM Ultrabay Enh SATA	43R9148	ann	08/05/08
DVD Burner Ultrabay Enh SATA 1.5Gb/s	43R9149	ann	08/05/08
Blu-ray™ Burner Ultrabay Enh SATA 1.5Gb/s	43R9150	ann	08/05/08

Storage and removable storage

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

⁴¹ Can be used as the main HDD or with Serial ATA Hard Drive Bay Adapter 43R1980 in the Ultrabay or (in the ThinkPad Advanced Dock 250310U with Serial Hard Drive Ultrabay Slim Adapter 40Y8725)

128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ann	08/26/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann	07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann	10/28/08
USB 2.0 Security Memory Key 4GB	41U5120	ann	07/17/07
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann	08/26/08
USB Portable Diskette Drive	05K9276	ann	06/05/00
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann	01/05/06
USB 2.0 Portable 160GB Hard Disk	43R1784	ann	09/23/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
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
USB 2.0 Super Multi-Burner Drive	41N5565	ann	01/23/07

ThinkPad Expansion

USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ann	02/26/08
ThinkPad Adjustable Notebook Stand	40Y7676	ann	09/20/05
ThinkPad Essential Port Replicator	250510W	ann	09/20/05
ThinkPad Advanced Mini Dock	250410U	ann	09/20/05
ThinkPad Advanced Dock	250310U	ann	09/20/05

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann	12/07/04
USB Keyboard with UltraNav	31P8950	ann	01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann	04/27/04
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Optical Wheel Mouse (USB)	06P4069	ann	05/21/03
Optical ScrollPoint® Mouse (USB, PS/2)	31P7405	ann	08/27/02
Optical Wheel Travel Mouse (USB, PS/2)	31P7410	ann	06/04/02
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	ann	01/23/07
Lenovo Wireless Laser Mouse (blk, via USB)	45K1696	ann	11/25/08
Lenovo Wireless Laser Mouse (red, via USB)	51J0198	ann	11/25/08
Laser Tilt Wheel Travel Mouse (Bluetooth)	41U5008	ann	01/22/08

Security

Kensington® Cable Lock from Lenovo	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
T400/R400 Series 14W Privacy Filter	43R2472	ann	08/05/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06
PC Card Gemplus Smart Card Reader	41N3004	ann	12/13/05
ExpressCard Gemplus Smart Card Reader	41N3043	ann	06/27/06

Multimedia

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann	06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann	08/29/06

Batteries

T/R 14W Standard Battery 4-cell	41U3196	ann	05/09/07
T/R 14W Enhanced Battery 6-cell	41U3198	ann	05/09/07
T/R 14W High Capacity Battery 9-cell	43R2499	ann	03/04/08
Advanced Ultrabay Battery II 3-cell ⁴³	43R9250	ann	04/22/08

⁴³ Used in Ultrabay Slim bay.

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

⁴⁴ Requires the ThinkPad 90W AC Adapter 40Y7659 (adapter provided with some systems).

More information at www.lenovo.com/alldaycomputing

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

⁴⁵ Only compatible with the GM45 chipset models.

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

ThinkPad 90W Slim AC/DC Combo Adapter 41N8460 ann 11/27/07

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

Charging tips for 90W Slim AC/DC Combo Adapter 41N8460

•Dual (ThinkPad+Phone) Charging Y-Cable	41R4345	ann	12/18/07
•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 14.1" widescreen models:

ThinkPad Expander Case	43R9118	ann	06/24/08
ThinkPad Women's Microfiber Tote	22P8855		
ThinkPad Women's Leather Trim Tote	22P8856		
ThinkPad Convertible Carrying Case	22P8860		
ThinkPad Women's Executive Leather Tote	22P8857		
Women's Executive Red Leather Tote	22P8858		

Up to 15.4" widescreen models:

Lenovo Carrying Case - Messenger Max	41U5253	ann	05/01/07
Lenovo Carr Case - Performance Backpack	41U5254	ann	05/01/07
Lenovo Standard Case	45K1697	ann	11/25/08
Lenovo Standard Backpack	45K1698	ann	11/25/08
Checkpoint Friendly Business Topload Case	51J0418	ann	02/24/09
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08

Up to 17.0" widescreen models:

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

Lenovo luxury cases at www.lenovoluxurycases.com

Monitors

ThinkVision® L174 17" Monitor	9227AE1	ann	04/15/08
ThinkVision L1700p 17" Monitor	9417HE2	ann	09/17/08
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1940p Wide 19" Monitor	4424HB6	ann	09/17/08
ThinkVision L200p Wide 20.1" Monitor	4438HB6	ann	04/15/08
ThinkVision L2240p Wide 22" Monitor	4422HB6	ann	09/17/08
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08
ThinkVision L2440x Wide 24" Monitor	4421HB2	ann	09/17/08

Monitor Accessories⁴⁶

ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington Cable Lock from Lenovo	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
ThinkPad Convertible Monitor Stand	40Y7620	ann	01/05/06
Radial Arm	19K4464	ann	05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide



Lenovo ThinkPad R500



Lenovo ThinkPad R500



Lenovo ThinkPad R500



Lenovo ThinkPad R500

ThinkPad® R500 2714 (TopSeller)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe Turbo	Finger print reader	Blue- tooth	Bat- tery cells	Whorse (W) Gbl (G)	Avail date
2714-96U	T6570	2.10	2GB	15.4" WXGA	Cam	GMA	250G 5400	DVD±RW	* Intel 5100 ²⁸	None	Finger	Blue	6	Ult 32	Educ Mar 09

- **This small and medium business (SMB) model is part of the US TopSeller™ Program**
- **This model has an EasyServ™¹⁹ depot repair service 1-year limited warranty**

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ 2 Duo processor T6570 with dual-core, 800MHz system bus, and 2MB L2 cache			Preloaded operating system ²⁰ - Microsoft Windows® Vista® Ultimate Edition (32-bit) ↳ Vista Premium logo Preloaded applications ¹⁴ <ul style="list-style-type: none">• Education software<ul style="list-style-type: none">- Microsoft Office Ultimate 2007 Academic Edition (and CD)• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions)• PC-Doctor™ (diagnostics)• ThinkPad Utilities (Power Manager and Presentation Director)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Fingerprint Software (fingerprint models)• Roxio® Creator® Business Edition• Roxio MyDVD® (DVD±RW)		
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available					
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high 250GB ⁸ (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™					
Widescreen display Camera	15.4" (391mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus					
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution: 2048x1536@75Hz</i>					
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions					
Dimensions ³ Weight ² Case	6-cell 15.4W" (WxDxH): 14.1" x 10.2" x 1.4–1.5"; 358.6mm x 260mm x 36–39mm 6-cell: starting at 6.4 lb (2.93kg) <i>Color:</i> black; <i>Material:</i> Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic					
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Enhanced 6-cell: up to 4.5 hr; 6-cell plus Ultrabay battery: up to 6.0 hr; 9-cell: up to 7.1 hr					
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)					
ExpressCard/54 PC Card Smart Card Read Multicard Reader Ports	One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit None 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)					
Mini PCI Express Intel 5100 ²⁸ 2G Turbo WWAN UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Two Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) None Not supported Not supported Not supported 56K V.92 ⁶ modem Bluetooth 2.0 wireless, LED indicator Gigabit ethernet, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack					
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip					
Limited warranty ¹² 1-year - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available						
1GB PC3-8500 DDR3 SODIMM (TopSeller)		43R2045	T/R/W/SL Series Li-Ion Battery 6-cell	40Y6799		
2GB PC3-8500 DDR3 SODIMM (TopSeller)		43R2046	T/R/W/SL Series Li-Ion Battery 9-cell	40Y6797		
Blu-ray Burner Ultrabay Enhanced SATA		43R9150	Advanced Ultrabay Battery II 3-cell	43R9250		
Serial ATA Hard Drive Bay Adapter II SATA		43R1980	90W Slim AC/DC Combo Adapter	41N8460		
64GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)		43N3400	ThinkPad Business Topload Case	43R2476		
320GB Disk SATA 1.5Gb/s (7200 rpm)		43N3411	ThinkPad Business Backpack	43R2482		
USB 2.0 Security Memory Key 4GB		41U5120	ThinkPad Deluxe Expander Case	43R2478		
USB 2.0 Ultra Secure Memory Key 8GB		45J5918	T500/R500/W500 15W Privacy Filter	43R2474		
USB 2.0 Super Multi-Burner Drive		41N5565	ThinkVision® L1940p Wide 19" Monitor	4424HB6		
ThinkPad Adjustable Notebook Stand		40Y7676	ThinkVision L2240p Wide 22" Monitor	4422HB6		
ThinkPad Advanced Dock		250310U	ThinkVision L2440p Wide 24" Monitor	4420HB2		
Other accessories on O-R500 sheet			Other accessories at lenovo.com/accessories			
Supports ThinkVantage® technologies						
65-watt (GMA graphics) AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Silver rating ENERGY STAR® 4.0-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 2-year LOR ²⁴ 9x5 NBD 41C9175						
ThinkPlus 3-year LOR 9x5 NBD 45K6021						
ThinkPlus 4-year LOR 9x5 NBD 45K6022						
ThinkPlus 5-year LOR 9x5 NBD 45K6024						
ThinkPlus 4-year P&L P/U Depot 45K6023						
ThinkPlus 5-year P&L P/U Depot 45K6025						
Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty						

See footnotes for important warranty information
US model announced March 17, 2009

* Intel Centrino® processor technology

© Lenovo
(WKK3-6) March 2009

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe Turbo	Finger print reader	Bat- tery Blue- tooth cells	Workhorse (W) Global (G) Avail date
2717-5GU	P8400	2.26	2GB	15.4" WXGA		GMA	160G 5400	DVD±RW	✧ Intel 5100 ²⁸	None	Finger	6	XP Pro Aug 08
2717-5HU	T9400	2.53	2GB	15.4" WXGA	Cam	GMA	160G 7200	DVD±RW	✧ Intel 5100	None	Finger	Blue 6	XP Pro Aug 08
2717-8VU	T6570	2.10	2GB	15.4" WXGA	Cam	GMA	250G 5400	DVD±RW	✧ Intel 5100	None	Finger	Blue 6	Ult 32 Educ Mar 09
2717-8WU	P8600	2.40	2GB	15.4" WXGA		GMA	160G 5400	DVD±RW	✧ Intel 5100	None	Finger	6	XP Pro Mar 09
<ul style="list-style-type: none"> • These small and medium business (SMB) models are part of the US TopSeller™ Program • These models have an EasyServ™,19 depot repair service 3-year limited warranty 													
Positioning Processor	Mainstream business performance; two spindles Intel® Core™ 2 Duo processor T6570 with dual-core, Intel HD Boost, 800MHz system bus, and 2MB L2 cache or Intel® Core™ 2 Duo processor P8400, P8600 or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; P8400/P8600: 3MB L2 cache; T9400: 6MB L2 cache											Preloaded operating system²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Ultimate (32-bit) ✧ Vista Premium logo	
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available <i>Italics:</i> standard memory in both sockets; no sockets available;											Preloaded applications¹⁴ (all OSes) • 8VU model: Education software - Microsoft Office Ultimate 2007 Academic Edition (and CD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • FingerPrint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW)	
SATA DVD±RW	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149)												
Ultrabay Enhanced SATA disk	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high 160GB⁸ (5400 or 7200 rpm) or 250GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™												
Widescreen display	15.4" (391mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio												
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus												
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536@75Hz												
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	6-cell 15.4W" (WxDxH): 14.1" x 10.2" x 1.4–1.5"; 358.6mm x 260mm x 36–39mm												
Weight ²	6-cell: starting at 6.4 lb (2.93kg)												
Case	<i>Color:</i> black; <i>Material:</i> Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic												
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Enhanced												
Battery - life ¹⁰	6-cell: up to 4.5 hr; 6-cell plus Ultrabay battery: up to 6.0 hr; 9-cell: up to 7.1 hr												
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)												
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)												
PC Card	One slot (Type I, Type II), CardBus 32-bit												
Smart Card Read	None												
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)												
Ports	Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)												
Mini PCI Express	Two Mini PCI Express slots												
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)												
2G Turbo	None												
WWAN	Not supported												
UWB	Not supported												
Modem	56K V.92 ⁶ modem												
Bluetooth™	<i>Some:</i> Bluetooth 2.0 wireless, LED indicator												
Ethernet	Gigabit ethernet, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE												
Intel AMT	None												
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant												
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip												
Limited warranty ¹²	3-years/1-yr battery - EasyServ™,19 depot repair service / service upgrades ²² available												
1GB PC3-8500 DDR3 SODIMM (TopSeller)	43R2045	T/R/W/SL Series Li-Ion Battery 6-cell 40Y6799											
2GB PC3-8500 DDR3 SODIMM (TopSeller)	43R2046	T/R/W/SL Series Li-Ion Battery 9-cell 40Y6797											
Blu-ray Burner Ultrabay Enhanced SATA	43R9150	Advanced Ultrabay Battery II 3-cell 43R9250											
Serial ATA Hard Drive Bay Adapter II SATA	43R1980	90W Slim AC/DC Combo Adapter 41N8460											
64GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3400	ThinkPad Business Topload Case 43R2476											
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411	ThinkPad Business Backpack 43R2482											
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Deluxe Expander Case 43R2478											
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	T500/R500/W500 15W Privacy Filter 43R2474											
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkVision® L1940p Wide 19" Monitor 4424HB6											
ThinkPad Adjustable Notebook Stand	40Y7676	ThinkVision L2240p Wide 22" Monitor 4422HB6											
ThinkPad Advanced Dock	250310U	ThinkVision L2440p Wide 24" Monitor 4420HB2											
Other accessories on O-R500 sheet		Other accessories at lenovo.com/accessories											

See footnotes for important warranty information

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

* Intel Centrino® processor technology

✧ Intel Centrino 2 processor technology

© Lenovo
(WKK3-1) April 2009

See footnotes for important warranty information. Intel Centrino® 2 processor technology
 US model announced September 30, 2008; previous models on August 5 or September 2, 2008

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

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

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ 2 Duo processor P8400 or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; P8400: 3MB L2 cache; T9400: 6MB L2 cache			Preloaded operating system²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) ✧ Vista Premium logo Preloaded applications¹⁴ (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW)		
Memory	1GB or 2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available					
SATA Combo SATA DVD±RW Ultrabay Enhanced SATA disk	<i>Some:</i> DVD-ROM/CD-RW, SATA 1.5Gb/s, 12.7mm Ultrabay Enh, removable (43R9148) <i>Some:</i> DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high 80GB⁸ (5400 rpm) or 160GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™					
Widescreen display Camera	15.4" (391mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus					
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536@75Hz			Supports ThinkVantage® technologies 65-watt (GMA graphics) AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Silver rating ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™. ²² 4-year LOR 9x5 NBD 45K6038 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions					
Dimensions ³ Weight ² Case	<i>6-cell 15.4W"</i> (WxDxH): 14.1" x 10.2" x 1.4–1.5"; 358.6mm x 260mm x 36–39mm <i>6-cell:</i> starting at 6.4 lb (2.93kg) <i>Color:</i> black; <i>Material:</i> PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic					
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell , supports unique 2nd battery in Ultrabay Enhanced <i>6-cell:</i> up to 4.5 hr; <i>6-cell plus Ultrabay battery:</i> up to 6.0 hr; <i>9-cell:</i> up to 7.1 hr					
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit					
ExpressCard/54 PC Card	None One slot (Type I, Type II), CardBus 32-bit					
Smart Card Read	None					
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)					
Ports	Three USB 2.0, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)					
Mini PCI Express	Two Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)					
Intel 5100 ²⁸	None					
2G Turbo	None					
WWAN	Not supported					
UWB	Not supported					
Modem	56K V.92 ⁶ modem					
Bluetooth™	<i>Some:</i> Bluetooth 2.0 wireless, LED indicator					
Ethernet	Gigabit ethernet, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE					
Intel AMT	None					
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack					
Security	Power-on password, hard disk password, supervisor password, security keyhole					
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant					
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest, swipe sensor, supports the security chip					
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available					
1GB PC3-8500 DDR3 SODIMM	43R1987	T/R/W/SL Series Li-Ion Battery 6-cell	40Y6799			
2GB PC3-8500 DDR3 SODIMM	43R1988	T/R/W/SL Series Li-Ion Battery 9-cell	40Y6797			
Blu-ray Burner Ultrabay Enhanced SATA	43R9150	Advanced Ultrabay Battery II 3-cell	43R9250			
Serial ATA Hard Drive Bay Adapter II SATA	43R1980	90W Slim AC/DC Combo Adapter	41N8460			
64GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3400	ThinkPad Business Topload Case	43R2476			
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411	ThinkPad Business Backpack	43R2482			
USB 2.0 Essential Memory Key 32GB	45K1258	ThinkPad Deluxe Expander Case	43R2478			
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	T500/R500/W500 15W Privacy Filter	43R2474			
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkVision® L1940p Wide 19" Monitor	4424HB6			
ThinkPad Adjustable Notebook Stand	40Y7676	ThinkVision L2240p Wide 22" Monitor	4422HB6			
ThinkPad Advanced Dock	250310U	ThinkVision L2440x Wide 24" Monitor	4421HB2			
Other accessories on O-R500 sheet	Other accessories at lenovo.com/accessories					

See footnotes for important warranty information

✚ Intel Centrino® 2 processor technology

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

© Lenovo

(WKK3-3) September 2008

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe Turbo	Finger print reader	Blue- tooth	Bat- tery cells	Preload	Global (G) Avail date		
2716-ECU	Cel 575	2.00	1GB	15.4" WXGA	Cam	GMA 80G	5400	Combo	Intel 5100 ²⁸	None	Finger	Blue	6	Bus 32	No Sep 08		
2716-5PU	P8400	2.26	1GB	15.4" WXGA	Cam	GMA 80G	5400	Combo	Intel 5100	None	Finger	Blue	6	Bus 32	No Aug 08		
2716-5QU	T9400	2.53	2GB	15.4" WXGA	Cam	GMA 160G	5400	DVD±RW	Intel 5100	None	Finger	Blue	6	Bus 32	No Aug 08		
2716-8SU	P8600	2.40	2GB	15.4" WXGA	Cam	GMA 160G	7200	DVD±RW	Intel 5100	None	Finger	Blue	6	Ult 32	No Feb 09		
2716-8YU	Cel T1600	1.66	1GB	15.4" WXGA	Cam	GMA 160G	5400	Combo	Intel 5100	None	Finger	Blue	6	Bus 32	No Mar 09		
2716-8ZU	P8700	2.53	2GB	15.4" WXGA	Cam	GMA 250G	5400	DVD±RW	Intel 5100	None	Finger	Blue	6	Bus 32	No Mar 09		
<ul style="list-style-type: none">• These models have an EasyServ™,19 depot repair service 3-year limited warranty• Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.• Microsoft® Office Ultimate 2007 Academic Edition: Only valid for sale to students, faculty and staff of accredited educational institutions in the United States.																	
Positioning Processor	Mainstream business performance; two spindles Intel® Celeron® Processor 575 with single-core, 667MHz system bus, and 1MB L2 cache or Intel Celeron Processor T1600 with dual-core , 667MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo processor P8400, P8600, P8700, or T9400 with dual-core , Intel HD Boost, 1066MHz system bus; <i>P8400/P8600/P8700:</i> 3MB L2 cache; <i>T9400:</i> 6MB L2 cache											Preloaded operating system²⁰ - <i>Some:</i> Microsoft® Windows® Vista® Business Edition (32-bit) - <i>Some:</i> Microsoft Windows Vista Ultimate Edition (32-bit) ♦ Vista Premium logo Preloaded applications¹⁴ (all OSes; only some listed) • 8SU model: Education software - Microsoft Office Ultimate 2007 Academic Edition (and CD) • ECU/5PU/5QU models: Education software - Microsoft Office OneNote® 2007 (and CD) - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection - Photoshop Elements (and CD) - Premier Elements (and DVD) - Acrobat 8 Professional - Contribute 4 • 8YU/8ZU models: 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) - Premier Elements 7 (and DVD) - Acrobat 9 Professional (DVD) - Contribute CS4 (and DVD) - Soundbooth CS4 (and DVD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • PC-Doctor™ (diagnostics)					
Memory	1GB or 2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available																
SATA Combo SATA DVD±RW Ultrabay Enhanced SATA disk	<i>Some:</i> DVD-ROM/CD-RW, SATA 1.5Gb/s, 12.7mm Ultrabay Enh, removable (43R9148) <i>Some:</i> DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high 80GB⁸ (5400 rpm), 160GB (5400 or 7200 rpm), or 250GB (5400rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™																
Widescreen display Camera	15.4" (391mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus																
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536@75Hz																
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions																
Dimensions ³ Weight ² Case	6-cell 15.4W" (WxDxH): 14.1" x 10.2" x 1.4–1.5"; 358.6mm x 260mm x 36–39mm 6-cell: starting at 6.4 lb (2.93kg) Color: black; Material: PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic																
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Enhanced 6-cell: up to 4.5 hr; 6-cell plus Ultrabay battery: up to 6.0 hr; 9-cell: up to 7.1 hr																
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One ExpressCard/34 or ExpressCard/54																
ExpressCard slot PC Card Std slot Smart Card Read Multicard Reader Ports	One Type I or Type II slot, CardBus 32-bit None 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											Supports ThinkVantage® technologies 65-watt (GMA graphics) AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Silver rating ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378					
Mini PCI Express Intel 5100 ²⁸ 2G Turbo WWAN UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Two Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) None Not supported Not supported 56K V.92 ⁶ modem Bluetooth 2.0 wireless, LED indicator Gigabit ethernet, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack											ThinkPlus™,22 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty					
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip																
Limited warranty ¹² 3-years/1-yr battery - EasyServ™,19 depot repair service / service upgrades²² available																	
1GB PC3-8500 DDR3 SODIMM						43R1987		USB 2.0 Ultra Secure Memory Key 8GB 45J5918									
2GB PC3-8500 DDR3 SODIMM						43R1988		USB 2.0 Super Multi-Burner Drive 41N5565									
Serial ATA Hard Drive Bay Adapter II SATA						43R1980		ThinkPad Adjustable Notebook Stand 40Y7676									
320GB Disk SATA 1.5Gb/s (7200 rpm)						43N3411		ThinkPad Advanced Dock 250310U									
USB 2.0 Security Memory Key 4GB						41U5120		T/R/W/SL Series Li-Ion Battery 9-cell 40Y6797									
Other accessories on O-R500 sheet						Other accessories at lenovo.com/accessories											

See footnotes for important warranty information

♦ Intel Centrino® 2 processor technology

© Lenovo

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

(WKK3-4) April 2009

ThinkPad® R500 2718 (Education) - Onsite

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe Turbo	Finger print reader	Blue- tooth	Bat- tery cells	Whorse (W) Gbl (G) Preload GMP (P)	Avail date
2718-8SU	P8600	2.40	2GB	15.4" WXGA	Cam	GMA	160G 7200	DVD±RW	Intel 5100 ²⁸	None	Finger	Blue	6	Ultimate	Feb 09
<ul style="list-style-type: none">• This model has a limited onsite service²⁴ 3-year limited warranty• Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.• Microsoft® Office Ultimate 2007 Academic Edition: Only valid for sale to students, faculty and staff of accredited educational institutions in the United States.															
Positioning Processor	Mainstream business performance; two spindles Intel® Core™ 2 Duo processor P8600 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache											Preloaded operating system²⁰ - Microsoft Windows® Vista® Ultimate Edition (32-bit) ✧ 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; <i>Non-italics:</i> standard memory in one socket; one socket available											Preloaded applications¹⁴ <ul style="list-style-type: none">• Education software<ul style="list-style-type: none">- Microsoft Office Ultimate 2007 Academic Edition (and CD)• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions)• PC-Doctor™ (diagnostics)• ThinkPad Utilities (Power Manager and Presentation Director)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Fingerprint Software (fingerprint models)• Roxio® Creator® Business Edition• Roxio MyDVD® (DVD±RW)			
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high 160GB (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™														
Widescreen display Camera	15.4" (391mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus														
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536@75Hz														
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ² Case	<i>6-cell 15.4W"</i> (WxDxH): 14.1" x 10.2" x 1.4–1.5"; 358.6mm x 260mm x 36–39mm <i>6-cell:</i> starting at 6.4 lb (2.93kg) <i>Color:</i> black; <i>Material:</i> PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic														
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Enhanced <i>6-cell:</i> up to 4.5 hr; <i>6-cell plus Ultrabay battery:</i> up to 6.0 hr; <i>9-cell:</i> up to 7.1 hr														
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)														
ExpressCard/54 PC Card Smart Card Read Multicard Reader Ports	One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit None 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
Mini PCI Express Intel 5100 ²⁸ 2G Turbo WWAN UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Two Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) None Not supported Not supported 56K V.92 ⁶ modem <i>Some:</i> Bluetooth 2.0 wireless, LED indicator Gigabit ethernet, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack														
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant <i>Some:</i> Fingerprint reader on palm rest, swipe sensor, supports the security chip														
Limited warranty ¹²	3-years/1-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 (GMA graphics) AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Silver rating ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
												ThinkPlus™. ²² 4-year LOR 9x5 NBD 45K6038 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			

See footnotes for important warranty information
US model announced February 17, 2009

Intel Centrino® 2 processor technology

© Lenovo
(WKK3-5) February 2009

Partial list of accessories supported on:**• ThinkPad R500 originally announced on August 5, 2008****Memory**

1GB PC3-8500 DDR3 SODIMM (TopSeller)	43R2045	ann	11/04/08
1GB PC3-8500 DDR3 SODIMM	43R1987	ann	08/05/08
2GB PC3-8500 DDR3 SODIMM (TopSeller)	43R2046	ann	11/04/08
2GB PC3-8500 DDR3 SODIMM	43R1988	ann	08/05/08

Ultrabay Slim 9.5mm

Serial ATA Hard Drive Bay Adapter II SATA ⁴⁸	43R1980	ann	08/05/08
DVD-ROM Ultrabay Slim SATA 1.5Gb/s ⁴⁸	43N3212	ann	08/05/08
CD-RW/DVD-ROM Ultrabay Slim SATA ⁴⁸	43N3213	ann	08/05/08
DVD Burner Ultrabay Slim SATA 1.5Gb/s ⁴⁸	43N3214	ann	08/05/08
Blu-ray™ Burner Ultrabay Slim SATA 1.5Gb/s ⁴⁸	43N3215	ann	08/05/08

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

Ultrabay Enhanced 12.7mm

DVD-ROM Ultrabay Enhanced SATA 1.5Gb/s	43R9147	ann	08/05/08
CD-RW/DVD-ROM Ultrabay Enh SATA	43R9148	ann	08/05/08
DVD Burner Ultrabay Enh SATA 1.5Gb/s	43R9149	ann	08/05/08
Blu-ray™ Burner Ultrabay Enh SATA 1.5Gb/s	43R9150	ann	08/05/08

Storage and removable storage

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

⁴¹ Can be used as the main HDD or with Serial ATA Hard Drive Bay Adapter 43R1980 in the Ultrabay or (in the ThinkPad Advanced Dock 250310U with Serial Hard Drive Ultrabay Slim Adapter 40Y8725)

128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ann	08/26/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann	07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann	10/28/08
USB 2.0 Security Memory Key 4GB	41U5120	ann	07/17/07
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann	08/26/08
USB Portable Diskette Drive	05K9276	ann	06/05/00
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann	01/05/06
USB 2.0 Portable 160GB Hard Disk	43R1784	ann	09/23/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
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
USB 2.0 Super Multi-Burner Drive	41N5565	ann	01/23/07

ThinkPad Expansion

USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ann	02/26/08
ThinkPad Adjustable Notebook Stand	40Y7676	ann	09/20/05
ThinkPad Essential Port Replicator	250510W	ann	09/20/05
ThinkPad Advanced Mini Dock	250410U	ann	09/20/05
ThinkPad Advanced Dock	250310U	ann	09/20/05

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann	12/07/04
USB Keyboard with UltraNav	31P8950	ann	01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann	04/27/04
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Optical Wheel Mouse (USB)	06P4069	ann	05/21/03
Optical ScrollPoint® Mouse (USB, PS/2)	31P7405	ann	08/27/02
Optical Wheel Travel Mouse (USB, PS/2)	31P7410	ann	06/04/02
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	ann	01/23/07
Lenovo Wireless Laser Mouse (blk, via USB)	45K1696	ann	11/25/08
Lenovo Wireless Laser Mouse (red, via USB)	51J0198	ann	11/25/08
Laser Tilt Wheel Travel Mouse (Bluetooth)	41U5008	ann	01/22/08

Security

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

Multimedia

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann	06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann	08/29/06

Batteries

T/R/W/SL Series Li-Ion Battery 6-cell	40Y6799	ann	01/05/06
T/R/W/SL Series Li-Ion Battery 9-cell	40Y6797	ann	09/20/05
Advanced Ultrabay Battery II 3-cell ⁴³	43R9250	ann	04/22/08

⁴³ Used in Ultrabay Slim bay.

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

⁴⁴ Requires the ThinkPad 90W AC Adapter

40Y7659 (adapter provided with some systems).

More information at www.lenovo.com/alldaycomputing

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

⁴⁵ Only compatible with the GM45 chipset models.

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

ThinkPad 90W Slim AC/DC Combo Adapter 41N8460 ann 11/27/07

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

Charging tips for 90W Slim AC/DC Combo Adapter 41N8460

•Dual (ThinkPad+Phone) Charging Y-Cable 41R4345 ann 12/18/07

•Palm device charge tip (L7) 41R4315 ann 12/18/07

•BlackBerry charge tip (L8a) 41R4478 ann 12/18/07

•iPod and iPhone charge tip (L10a) 41R4481 ann 12/18/07

More information at www.lenovopowertips.com

Carrying Cases

Up to 15.4" widescreen models:

Lenovo Carrying Case - Messenger Max	41U5253	ann	05/01/07
Lenovo Carr Case - Performance Backpack	41U5254	ann	05/01/07
Lenovo Standard Case	45K1697	ann	11/25/08
Lenovo Standard Backpack	45K1698	ann	11/25/08
Checkpoint Friendly Business Topload Case	51J0418	ann	02/24/09
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08

Up to 17.0" widescreen models:

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

Lenovo luxury cases at www.lenovoluxurycases.com

Monitors

ThinkVision® L174 17" Monitor	9227AE1	ann	04/15/08
ThinkVision L1700p 17" Monitor	9417HE2	ann	09/17/08
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1940p Wide 19" Monitor	4424HB6	ann	09/17/08
ThinkVision L200p Wide 20.1" Monitor	4438HB6	ann	04/15/08
ThinkVision L2240p Wide 22" Monitor	4422HB6	ann	09/17/08
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08
ThinkVision L2440x Wide 24" Monitor	4421HB2	ann	09/17/08

Monitor Accessories⁴⁶

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 Cable Lock from Lenovo	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
ThinkPad Convertible Monitor Stand	40Y7620	ann	01/05/06
Radial Arm	19K4464	ann	05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad® T61 14W 7658 (GMA) - TopSeller

Personal Systems Reference (PSREF)

	Proc- Type-model		GHz	Memory	Wide- screen display	Graphics controller	Disk SATA GB ⁸ rpm		EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Finger print reader	Bat- tery cells	Whorse (W) Gbl (G) Educ		Avail date
✕	7658-15U	T7100	1.80	1GB	14.1"	WXGA	GMA	80G	5400	DVD±RW	* Intel 11a/b/g ³²	/54		Finger	4	Bus32		May07
	7658-01U	T7100	1.80	1GB	14.1"	WXGA	GMA	80G	5400	DVD±RW	* Intel 11a/b/g	/54		Finger	4	XP Pro		July 07
	7658-02U	T7300	2.00	1GB	14.1"	WXGA	GMA	120G	5400	DVD±RW	* Intel 11a/b/g	/54	Blue	Finger	4	Bus32		July 07
	7658-03U	T7300	2.00	1GB	14.1"	WXGA	GMA	120G	5400	DVD±RW	* Intel 11a/b/g	/54	Blue	Finger	4	XP Pro		July 07
✕	7658-04U	T7250	2.00	1GB	14.1"	WXGA	GMA	100G	7200	Combo	* Intel 11a/b/g	/54	Blue	Finger	4	XP Pro		Dec07
	7658-17U	T7500	2.20	1GB	14.1"	WXGA	GMA	160G	5400	DVD±RW	* Intel 11n ²⁸	1G Turbo /54	Blue	Finger	4	Bus32		Oct 07
☞	7658-18U	T7500	2.20	1GB	14.1"	WXGA	GMA	160G	5400	DVD±RW	* Intel 11n	/54	Blue	Finger	4	XP Pro		Oct 07
	7658-RUU	T8100	2.10	1GB	14.1"	WXGA	GMA	120G	5400	DVD±RW	* Intel 11a/b/g	/54		Finger	4	XP Pro		Jan 08
	7658-RVU	T8100	2.10	1GB	14.1"	WXGA	GMA	100G	7200	DVD±RW	* Intel 11n	/54	Blue	Finger	4	XP Pro		Jan 08
	7658-19U	T5270	1.40	1GB	14.1"	WXGA	GMA	100G	7200	Combo	* Intel 11a/b/g	/54			4	Bus32		Apr 08
	7658-NKU	T8100	2.10	2GB	14.1"	WXGA	GMA	160G	5400	DVD±RW	* Intel 11a/b/g	/54		Finger	4	Bus32		Apr 08
	7658-NLU	T8100	2.10	2GB	14.1"	WXGA	GMA	100G	7200	DVD±RW	* Intel 11n	/54	Blue	Finger	4	Bus32		Apr 08
	7658-05U	T8300	2.40	2GB	14.1"	WXGA	GMA	100G	7200	DVD±RW	* Intel 11n	4-in-1 Blue	Finger	6	Bus32	Educ	May08	

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 1-year limited warranty¹²

Processor	Intel® Core™ 2 Duo processor T5270 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, 800MHz system bus, and 2MB shared L2 cache or Intel® Core™ 2 Duo processor T7100, T7250, T7300, T7500, T8100, or T8300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, and 800MHz system bus; T7100/T7250: 2MB L2 cache; T7300/T7500: 4MB L2; T8100/T8300: 3MB L2 cache										Preloaded operating system²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) ✧ 02U/17U/19U: Vista Basic logo ✧ 05U/15U/NKU/NLU: Vista Premium logo Preloaded applications¹⁴ (all OSes; only some listed) • Microsoft Office OneNote® 2007 and CD (05U model) • Some: Education software - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection - Photoshop Elements (and CD) - Premier Elements (and DVD) - Acrobat 8 Professional - Contribute 4 • Rescue and Recovery™ • ThinkPad Utilities • Some: Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW) • Corel WinDVD Creator (XP Pro DVD±RW models)				
Memory	1GB or 2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Supports ThinkVantage® technologies 65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-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				
Diskette drive	None (use optional USB-based diskette drive)														
EIDE Combo	Some: DVD-ROM/CD-RW, 24X/24X/24X/8X ²¹ speed, removable from Ultrabay Slim														
Ultrabay Slim	Some: DVD burner, Super Multi-Burner (40Y8623) dual-layer, removable from Ultrabay														
Serial ATA disk	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 80GB⁸ (5400 rpm), 100GB (7200 rpm), 120GB (5400 rpm), or 160GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™														
Widescreen display	14.1" (358.1mm) WXGA (1280x800) color , anti-glare, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio														
Camera	None														
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	4-cell 14.1W" (WxDxH): 13.2" x 9.3" x 1.09–1.26"; 335mm x 237mm x 27.6–31.9mm														
Weight ²	4-cell: starting at 5.0 lb (2.3kg)														
Case material	Top: Super-Elastic Polycarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic														
Battery - type	Lithium Ion 4-cell or 6-cell , supports unique 2nd battery in Ultrabay Slim														
Battery - life ¹⁰	4-cell: up to 3.6 hr; 6-cell: up to 5.7 hr; 6-cell plus Ultrabay battery: up to 7.2 hr														
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)														
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit														
ExpressCard slot	Some: [/54] One ExpressCard/34 or ExpressCard/54														
Smart Card Read	None														
Multicard Reader	Some: 4-in-1 reader (MultiMediaCard, Mem Stick PRO, Sec Digital, xD-Picture Card™)														
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG														
Intel 11n ²⁸	Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)														
WWAN	None														
1G Turbo	Some: Intel Turbo Memory, Mini PCIe adapter, 1GB flash, disk-cache accelerator														
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket														
Bluetooth™	Some: Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator														
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE														
Intel AMT	Intel Active Management Technology (iAMT)														
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant														
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip														
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available														

See footnotes for important warranty information

* Intel Centrino® processor technology

© Lenovo

☞ US model announced May 15, 2008;

* Intel Centrino with vPro™ technology

(ML1-1) May 2008

previous models on May 9, July 6, October 30, December 6, 2007, January 8, or April 8, 2008

✕ US models withdrawn effective December 2007 or June 2008

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Graphics controller	Disk SATA GB ²	rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue-tooth	Battery cells	Whorse (W) Gbl (G) Educ	Avail date
7664-16U	T7300	2.00	1GB	14.1" WXGA+		128MB	120G	5400	DVD±RW	* Intel 11n ²⁸	1G Turbo	/54	Blue	6	Bus 32	May 07
7664-17U	T7300	2.00	2GB	14.1" WXGA+		128MB	160G	5400	DVD±RW	* Intel 11n	1G Turbo	/54	Blue	6	Ult 32	May 07
7664-04U	T7300	2.00	1GB	14.1" WXGA+		128MB	120G	5400	DVD±RW	* Intel 11n		/54	Blue	6	XP Pro	July 07
7664-05U	T7300	2.00	1GB	14.1" WXGA+		128MB	160G	5400	DVD±RW	* Intel 11n	Verizon	/54	Blue	6	XP Pro	July 07
7664-06U	T7500	2.20	1GB	14.1" WXGA+		128MB	100G	7200	Combo	* Intel 11n		/54	Blue	4	XP Pro	Dec 07
7664-1JU	T7500	2.20	1GB	14.1" WXGA+		128MB	160G	5400	DVD±RW	* Intel 11n	1G Turbo	/54	Blue	6	Bus 32	Oct 07
7664-1KU	T7500	2.20	1GB	14.1" WXGA+		128MB	160G	5400	DVD±RW	* Intel 11n		/54	Blue	6	XP Pro	Oct 07
7664-1LU	T7700	2.40	2GB	14.1" WXGA+		128MB	160G	7200	DVD±RW	* Intel 11n	1G Turbo	/54	Blue	6	Bus 32	Oct 07
7664-RYU	T8100	2.10	1GB	14.1" WXGA+		128MB	100G	7200	DVD±RW	* Intel 11n		/54	Blue	6	XP Pro	Jan 08
7664-RWU	T8300	2.40	1GB	14.1" WXGA+		128MB	160G	5400	DVD±RW	* Intel 11n	Verizon	/54	Blue	6	XP Pro	Jan 08
7664-R8U	T8100	2.10	2GB	14.1" WXGA+		128MB	100G	7200	DVD±RW	* Intel 11n		/54	Blue	6	Bus 32	Apr 08
7664-R7U	T8300	2.40	2GB	14.1" WXGA+		128MB	160G	5400	DVD±RW	* Intel 11n	Verizon	/54	Blue	6	Bus 32	Apr 08
7664-01U	T5670	1.80	2GB	14.1" WXGA+	Cam	128MB	100G	7200	DVD±RW	* Intel 4965AG ³²		4-in-1	Blue	6	Bus 32 Educ	Aug 08

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-year limited warranty¹²

Processor	Intel® Core™ 2 Duo processor T5670, T7300, T7500, T7700, T8100, or T8300 with dual-core, 800MHz system bus, T5670: 2MB shared L2 cache; T7300/T7500/T7700: 4MB shared L2 cache; T8100/T8300: 3MB shared L2 cache										Preloaded operating system ²⁰					
Memory	1GB or 2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										- Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista® Business Edition (32-bit) - Some: Microsoft Windows Vista Ultimate Edition (32-bit) ♦ Vista models: Vista Premium logo					
Diskette drive	None (use optional USB-based diskette drive)										Preloaded applications ¹⁴ (all OSes; only some listed)					
EIDE Combo	Some: DVD-ROM/CD-RW, 24X/24X/8X ²¹ speed, removable from Ultrabay Slim										• Some: Education software					
EIDE DVD±RW	Some: DVD burner, Super Multi-Burner (40Y8623) dual-layer, removable from Ultrabay										- Microsoft Office OneNote® 2007 (and CD)					
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel										- VitalSource Library College Edition					
Serial ATA disk	100GB ⁸ (7200 rpm), 120GB ⁸ (5400 rpm), or 160GB ⁸ (5400 or 7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™										- Adobe® Instructor Resource Cntr					
Widescreen display	14.1" (358.1mm) WXGA+ (1440x900) color, anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio										- Adobe Digital School Collection					
Camera	Some: camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0										- Photoshop Elements (and CD)					
Graphics	NVIDIA® Quadro® NVS 140M, PCI Express® x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock										- Premier Elements (and DVD)					
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Apple keys										- Acrobat 8 Professional					
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										- Contribute 4					
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones										• Rescue and Recovery™					
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										• Access Connections™					
Dimensions ³	6-cell 14.1W" (WxDxH): 13.2" x 10.2" x 1.09–1.26"; 335 x 261mm x 27.6–31.9mm										• Client Security Solution™					
Weight ²	6-cell: starting at 5.3 lb (2.4kg)										• ThinkVantage System Update					
Case material	Top: Super-Elastic Polycarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic										• Norton Internet Security™ (90 days of virus definitions)					
Battery - type	Lithium Ion 4-cell or 6-cell, supports unique 2nd battery in Ultrabay Slim										• PC-Doctor™ (diagnostics)					
Battery - life ¹⁰	6-cell: up to 3.8 hr; 6-cell plus Ultrabay battery: up to 5.3 hr										• ThinkPad Utilities					
Chipset	Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)										• Microsoft Office 2007 Trial (60-day)					
PC Card	One slot (Type I, Type II), CardBus 32-bit										• EarthLink Trial (Vista Ultimate mod)					
ExpressCard/54	Some: [54] One slot (ExpressCard/34, ExpressCard/54)										• Sonic RecordNow and Drive Letter Access (DVD±RW)					
Smart Card Read	None										• Corel® WinDVD® (DVD±RW)					
Multicard Reader	Some: 4-in-1 reader (MultiMediaCard, Mem Stick® PRO, Sec Digital, xD-Picture Card™)										• Corel WinDVD Creator (XP Pro DVD±RW models)					
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										Supports ThinkVantage® technologies					
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios										90-watt (NVIDIA) AC adapter					
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable										ThinkPad Roll Cage and Top Cover					
Intel 4965AG ³²	Some: 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG										Roll Cage (one-piece magnesium)					
Intel 11n ²⁸	Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)										ENERGY STAR® 4.0-compliant					
Verizon ¹⁶	Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe adapter, EV-DO Rev. A, service contract reqd with Verizon® Wireless										RoHS-compliant					
1G Turbo	Some: Intel Turbo Memory, Mini PCIe adapter, 1GB flash, disk-cache accelerator										International Warranty Service ¹⁷					
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket										24 hour x 7 day ¹⁸ toll-free support					
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator										during the warranty period ¹²					
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE										via 800-426-7378					
Intel AMT	Intel Active Management Technology (iAMT)										ThinkPlus™.22 2-year LOR ²⁴ 9x5 NBD					
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack										41C9175					
Security	Power-on password, hard disk password, supervisor password, security keyhole										ThinkPlus 3-year LOR 9x5 NBD					
Security chip	Trusted Platform Module, Atmel chip, TCG 1.2-compliant										45K6021					
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip										ThinkPlus 4-year LOR 9x5 NBD					
Limited warranty ¹²	3-years/1-yr battery - EasyServ depot repair service / service upgrades ²² available										45K6022					
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000										ThinkPlus 5-year LOR 9x5 NBD					
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406										45K6024					
Other accessories on O-T61 sheet	T/R 14W High Capacity Batt 9-cell 43R2499 90W Slim AC/DC Combo Adapter 41N8460 Other accessories at lenovo.com/accessories										ThinkPlus 4-year P&L P/U Depot					
											45K6023					
											ThinkPlus 5-year P&L P/U Depot					
											45K6025					
											Post-warranty annual maintenance agreements at					
											lenovo.com/thinkplus/warranty					

See footnotes for important warranty information

* Intel Centrino® with vPro™ technology

© Lenovo

US models announced August 1, 2008; previous models on May 9, Jul 6, Oct 30, Dec 6, 2007, Jan 8, or Apr 8, 2008

(ML1-2) August 2008

US models withdrawn effective Dec 2007, May 2008, or June 2008

ThinkPad® T61u 14W 7659 (GMA) - Education (EasyServ)

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Graphics controller	Cam- era	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Finger print reader	Vista preload	Workhorse (W) Limited warranty ¹²	Gbl (G) Avail date
7659-N2U	T8300	2.40 1GB	14.1" WXGA	GMA	Cam	80G 5400	Combo	11a/b/g	None	4-in-1	Blue		Business32	EasyServ	No Feb 08
7659-N3U	T9300	2.50 1GB	14.1" WXGA	GMA	Cam	100G 7200	DVD±RW	11a/b/g	None	4-in-1	Blue	Fing	Business32	EasyServ	No Feb 08
7659-05U	T9300	2.50 2GB	14.1" WXGA	GMA	Cam	160G 7200	DVD±RW	11a/b/g	None	4-in-1	Blue	Fing	Business32	EasyServ	No Apr 08

MTM: not a base model for building a custom model

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

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

Positioning Processor	Premiere performance; two spindles Intel® Core™ 2 Duo processor T8300 or T9300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus; T8300: 3MB L2 cache; T9300: 6MB shared L2 cache										Preloaded operating system ²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ✦ Vista Basic logo				
Memory	1GB or 2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; Italics: standard memory in both sockets; no sockets available; Non-italics: standard memory in one socket; one socket available										Preloaded applications ¹⁴ • Microsoft Office OneNote® 2007 (and CD) • Education software - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection - Photoshop Elements (and CD) - Premier Elements (and DVD) - Acrobat 8 Professional - Contribute 4 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Some: Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (combo, DVD±RW) • Corel® WinDVD® (combo, DVD±RW)				
Diskette drive	None (use optional USB-based diskette drive)										Supports ThinkVantage® technologies 65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-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				
EIDE Combo	Some: DVD-ROM/CD-RW, 24X/24X/24X/8X ²¹ speed, removable from Ultrabay Slim														
EIDE DVD±RW	Some: DVD burner, Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim														
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel														
Serial ATA disk	80GB ⁸ (5400 rpm), 100GB (7200 rpm), or 160GB (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™														
Widescreen display	14.1" (358.1mm) WXGA (1280x800) color, anti-glare, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio										ThinkPlus™.22 2-year LOR ²⁴ 9x5 NBD 41C9175 ThinkPlus 3-year LOR 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				
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0														
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100), integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	6-cell 14.1W" (WxDxH): 13.2" x 10.2" x 1.09–1.26"; 335 x 261mm x 27.6–31.9mm														
Weight ²	6-cell: starting at 5.3 lb (2.4kg)														
Case material	Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic														
Battery - type	Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Slim														
Battery - life ¹⁰	6-cell: up to 5.7 hr; 6-cell plus Ultrabay battery: up to 7.2 hr														
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)														
PC Card	One slot (Type I, Type II), CardBus 32-bit, integrated door														
ExpressCard slot	None														
Smart Card Read	None														
Multicard Reader	4-in-1 reader (MultiMediaCard, Mem Stick PRO, Sec Digital, xD-Picture Card™)														
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX														
WWAN	None														
Turbo Memory	None														
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket														
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator														
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE														
Intel AMT	Intel Active Management Technology (IAMT)														
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module, Atmel chip, TCG 1.2-compliant														
Fingerprint reader	Some: Fingerprint reader on palm rest, swipe sensor, supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available														
1GB PC2-5300 DDR2 SODIMM	40Y7734					T/R 14W Standard Battery 4-cell					41U3196				
2GB PC2-5300 DDR2 SODIMM	40Y7735					T/R 14W Enhanced Battery 6-cell					41U3198				
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643					T/R 14W High Capacity Batt 9-cell					43R2499				
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406					Advanced Ultrabay Battery II 3-cell					43R9250				
250GB Disk FDE SATA 1.5Gb/s (7200 rpm)	43N3410					ThinkPad External Battery Charger					40Y7625				
USB 2.0 Security Memory Key 4GB	41U5120					ThinkPad 90W AC Adapter					40Y7659				
USB 2.0 Super Multi-Burner Drive	41N5565					90W Slim AC/DC Combo Adapter					41N8460				
ThinkPad Convertible Monitor Stand	40Y7620					ThinkPad Business Backpack					43R2482				
ThinkPad Essential Port Replicator	250510W					ThinkVision® L1940p Wide 19" Monitor					4424HB6				
ThinkPad Advanced Mini Dock	250410U					ThinkVision L2240p Wide 22" Monitor					4422HB6				
ThinkPad Advanced Dock	250310U					ThinkVision L2440x Wide 24" Monitor					4421HB2				
Other accessories on O-T61 sheet	Other accessories at lenovo.com/accessories														

See footnotes for important warranty information

US models announced April 10, 2008; previous models on February 19, 2008

© Lenovo
(ML2-1) April 2008

ThinkPad® T61u 14W 7659 (GMA) - Education (Linux)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Graphics controller	Disk SATA GB ⁵ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Finger Bat- print tery reader cells	Linux preload	Workhorse (W) Global (G) Entry (E)	Avail date	
7659-3AU	T8300	2.40	1GB	14.1"	WXGA GMA	80G 5400	Combo	*Intel 11a/b/g ³²	None	/54	None	None	6	SLED10	No	Feb 08
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T8300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 3MB shared L2 cache											Preloaded operating system²⁰ - SUSE® Linux™ Enterprise Desktop10 Service Pack 1				
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 1 socket; 1 socket available											Preloaded applications¹⁴ • None				
Diskette drive	None (use optional USB-based diskette drive)											Supported devices (only some listed) • HD Audio • Intel 3945ABG wireless • Intel Graphics Media Accelerator X3100 (GMA X3100) • NVIDIA Quadro NVS 140M • Fingerprint reader • Bluetooth • Function keys • ThinkPad Advanced Dock Non-supported devices (only some listed) • Intel 4965AG, Intel 4965AGN, ThinkPad 11a/b/g, ThinkPad 11n wireless • WWAN • Active Protection System™ • ThinkVantage® button • Security chip • Intel Turbo Memory • Intel AMT technology • Integrated camera Non-supported applications (only some listed) • ThinkPad Utilities • ThinkVantage technologies • Presentation Director • Encrypted DVD playback • Keyboard Customizer				
EIDE Combo	DVD-ROM/CD-RW, 24X/24X/24X/8X ²¹ speed, removable from Ultrabay Slim															
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel															
Serial ATA disk	80GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive															
Widescreen display	14.1" (358.1mm) WXGA (1280x800) color , anti-glare, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio															
Camera	None															
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965															
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys															
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass															
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones															
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³	6-cell 14.1W" (WxDxH): 13.2" x 10.2" x 1.09–1.26"; 335 x 261mm x 27.6–31.9mm															
Weight ²	6-cell: starting at 5.3 lb (2.4kg)															
Case material	<i>Top:</i> Super-Elastic Polycarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic															
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim															
Battery - life ¹⁰	Not published															
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)															
PC Card	One slot (Type I, Type II), CardBus 32-bit															
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)															
Smart Card Read	None															
Multicard Reader	None															
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)															
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios															
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable															
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG															
WWAN	None															
Turbo Memory	None															
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket															
Bluetooth™	None															
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE															
Intel AMT	Not supported															
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack															
Security	Power-on password, hard disk password, supervisor password, security keyhole															
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant															
Fingerprint reader	None															
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available															
1GB PC2-5300 DDR2 SODIMM						40Y7734	T/R 14W Standard Battery 4-cell					41U3196				
2GB PC2-5300 DDR2 SODIMM						40Y7735	T/R 14W Enhanced Battery 6-cell					41U3198				
ThinkPad DVD Ultrabay Slim Burner (flat)						41N5643	T/R 14W High Capacity Batt 9-cell					43R2499				
Serial Hard Drive Ultrabay Slim Adapter (flat)						40Y8725	Advanced Ultrabay Battery II 3-cell					43R9250				
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)						43N3406	ThinkPad External Battery Charger					40Y7625				
320GB Disk SATA 1.5Gb/s (7200 rpm)						43N3411	90W Slim AC/DC Combo Adapter					41N8460				
USB 2.0 Ultra Secure Memory Key 8GB						45J5918	ThinkPad Business Topload Case					43R2476				
USB 2.0 Lenovo Enhanced Port Replicator						43R8770	ThinkPad Business Backpack					43R2482				
ThinkPad Essential Port Replicator						250510W	ThinkVision® L1940p Wide 19" Monitor					4424HB6				
ThinkPad Advanced Mini Dock						250410U	ThinkVision L2240p Wide 22" Monitor					4422HB6				
ThinkPad Advanced Dock						250310U	ThinkVision L2440x Wide 24" Monitor					4421HB2				
Check Linux compatibility for other accessories							Other accessories at lenovo.com/accessories									
												65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) 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 2-year LOR ²⁴ 9x5 NBD 41C9175				
												ThinkPlus 3-year LOR 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 February 19, 2008

* Intel Centrino® processor technology

© Lenovo
(ML2-3) February 2008

ThinkPad® T61u 14W 7663 (NVIDIA®) - Education (EasyServ)

Personal Systems Reference (PSREF)

Proc- Type-model	essor	GHz	Memory	Wide- screen display	Graphics controller memory	Cam- era	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Vista preload	Workhorse (W) Limited Gbl (G) Avail warranty ¹² date
7663-N1U	T9300	2.50	1GB	14.1" WXGA+	128MB	Cam	100G 7200 DVD±RW	11a/b/g	None	4-in-1 Blue	Business32	EasyServ	No	Feb 08
7663-05U	T9300	2.50	2GB	14.1" WXGA+	128MB	Cam	160G 7200 DVD±RW	11a/b/g	None	4-in-1 Blue	Business32	EasyServ	No	Apr 08

Italic MTM: not a base model for building a custom model

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

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

Processor	Intel® Core™ 2 Duo processor T9300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 6MB shared L2 cache			Preloaded operating system ²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ◇ Vista Premium logo		
Memory	1GB or 2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; Non-italics: standard memory in one socket; one socket available			Preloaded applications ¹⁴ • Microsoft Office OneNote® 2007 (and CD) • Education software - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection – Photoshop Elements (and CD) – Premier Elements (and DVD) – Acrobat 8 Professional – Contribute 4 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Some: Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW)		
Diskette drive	None (use optional USB-based diskette drive)			Supports ThinkVantage® technologies		
EIDE DVD±RW	DVD burner, Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim					
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel					
Serial ATA disk	100GB® (7200 rpm) or 160GB (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™					
Widescreen display	14.1" (358.1mm) WXGA+ (1440x900) color, anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio					
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0					
Graphics	NVIDIA® Quadro® NVS 140M, PCI Express® x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock					
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys					
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass					
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones					
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions					
Dimensions ³	6-cell 14.1W" (WxDxH): 13.2" x 10.2" x 1.09–1.26"; 335 x 261mm x 27.6–31.9mm					
Weight ²	6-cell: starting at 5.3 lb (2.4kg)					
Case material	Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic					
Battery - type	Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Slim					
Battery - life ¹⁰	6-cell: up to 3.8 hr; 6-cell plus Ultrabay battery: up to 5.3 hr					
Chipset	Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)					
PC Card	One slot (Type I, Type II), CardBus 32-bit					
ExpressCard slot	None					
Smart Card Read	None					
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick PRO, Secure Digital, xD-Picture Card™)					
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)					
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios					
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable					
11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX					
WWAN	None					
Turbo Memory	None					
Modem	56K V.92® modem in Communications Daughter Card socket					
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator					
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE					
Intel AMT	Intel Active Management Technology (iAMT)					
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack					
Security	Power-on password, hard disk password, supervisor password, security keyhole					
Security chip	Trusted Platform Module, Atmel chip, TCG 1.2-compliant					
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip					
Limited warranty ¹²	3-years/1-yr battery - EasyServ™,19 depot repair service / service upgrades ²² available					
1GB PC2-5300 DDR2 SODIMM	40Y7734	T/R 14W Standard Battery 4-cell	41U3196			
2GB PC2-5300 DDR2 SODIMM	40Y7735	T/R 14W Enhanced Battery 6-cell	41U3198			
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	T/R 14W High Capacity Batt 9-cell	43R2499			
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	Advanced Ultrabay Battery II 3-cell	43R9250			
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ThinkPad External Battery Charger	40Y7625			
250GB Disk FDE SATA 1.5Gb/s (7200 rpm)	43N3410	ThinkPad 90W AC Adapter	40Y7659			
USB 2.0 Security Memory Key 4GB	41U5120	90W Slim AC/DC Combo Adapter	41N8460			
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ThinkPad Business Topload Case	43R2476			
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Business Backpack	43R2482			
USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ThinkPad Deluxe Expander Case	43R2478			
ThinkPad Adjustable Notebook Stand	40Y7676	ThinkVision® L1700p 17" Monitor	9417HE2			
ThinkPad Convertible Monitor Stand	40Y7620	ThinkVision L1940p Wide 19" Monitor	4424HB6			
ThinkPad Essential Port Replicator	250510W	ThinkVision L2240p Wide 22" Monitor	4422HB6			
ThinkPad Advanced Mini Dock	250410U	ThinkVision L2440p Wide 24" Monitor	4420HB2			
ThinkPad Advanced Dock	250310U	ThinkVision L2440x Wide 24" Monitor	4421HB2			
Other accessories on O-T61 sheet	Other accessories at lenovo.com/accessories					

See footnotes for important warranty information

US model announced April 10, 2008; previous model on February 19, 2008

© Lenovo
(ML2-2) April 2008

ThinkPad® T61u 14W 7663 (NVIDIA®) - Education (Linux)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Graphics controller memory	Disk SATA GB ⁵ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Bat- tery cells	Linux preload	Workhorse (W) Global (G) Entry (E)	Avail date	
7663-3MU	T8300	2.40	1GB	14.1"	WXGA+	128MB	120G 5400	DVD±RW	* Intel 11a/b/g ³²	None	/54	Blue	6-cell	SLED10	No	Feb 08
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T8300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 3MB shared L2 cache											Preloaded operating system²⁰ - SUSE® Linux™ Enterprise Desktop10 Service Pack 1 Preloaded applications¹⁴ • None				
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 1 socket; 1 socket available											Supported devices (only some listed) • HD Audio • Intel 3945ABG wireless • Intel Graphics Media Accelerator X3100 (GMA X3100) • NVIDIA Quadro NVS 140M • Fingerprint reader • Bluetooth • Function keys • ThinkPad Advanced Dock				
Diskette drive EIDE DVD±RW Ultrabay Slim Serial ATA disk	None (use optional USB-based diskette drive) DVD burner, Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 120GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive															
Widescreen display Camera	14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, 200 nits, 16:10, 300:1, 300:1 contrast ratio None											Non-supported devices (only some listed) • Intel 4965AG, Intel 4965AGN, ThinkPad 11a/b/g, ThinkPad 11n wireless • WWAN • Active Protection System™ • ThinkVantage® button • Security chip • Intel Turbo Memory • Intel AMT technology • Integrated camera				
Graphics	NVIDIA® Quadro® NVS 140M , PCI Express® x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock											Non-supported applications (only some listed) • ThinkPad Utilities • ThinkVantage technologies • Presentation Director • Encrypted DVD playback • Keyboard Customizer				
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³ Weight ²	6-cell 14.1W" (WxDxH): 13.2" x 10.2" x 1.09–1.26"; 335 x 261mm x 27.6–31.9mm 6-cell: starting at 5.3 lb (2.4kg)															
Case material Battery - type Battery - life ¹⁰	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim Not published															
Chipset	Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM) One slot (Type I, Type II), CardBus 32-bit One slot (ExpressCard/34, ExpressCard/54)															
PC Card ExpressCard/54 Smart Card Read Multicard Reader	None None															
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)															
Wireless antenna Mini PCI Express Intel 11a/b/g ³² WWAN Turbo Memory	UltraConnect™ II antenna / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG None None															
Modem Bluetooth™ Ethernet Intel AMT Audio support	56K V.92 ⁶ modem in Communications Daughter Card socket Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE Not supported High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole											90-watt (NVIDIA) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Security Security chip Fingerprint reader	Trusted Platform Module , Atmel chip, TCG 1.2-compliant Fingerprint reader on palm rest , swipe sensor, supports the security chip															
Limited warranty ¹² 3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available																
1GB PC2-5300 DDR2 SODIMM					40Y7734			T/R 14W Standard Battery 4-cell				41U3196				
2GB PC2-5300 DDR2 SODIMM					40Y7735			T/R 14W Enhanced Battery 6-cell				41U3198				
ThinkPad DVD Ultrabay Slim Burner (flat)					41N5643			T/R 14W High Capacity Batt 9-cell				43R2499				
Serial Hard Drive Ultrabay Slim Adapter (flat)					40Y8725			Advanced Ultrabay Battery II 3-cell				43R9250				
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)					43N3406			ThinkPad External Battery Charger				40Y7625				
320GB Disk SATA 1.5Gb/s (7200 rpm)					43N3411			90W Slim AC/DC Combo Adapter				41N8460				
USB 2.0 Security Memory Key 4GB					41U5120			ThinkPad Business Topload Case				43R2476				
ThinkPad Essential Port Replicator					250510W			ThinkPad Business Backpack				43R2482				
ThinkPad Advanced Mini Dock					250410U			ThinkVision® L2240p Wide 22" Monitor				4422HB6				
ThinkPad Advanced Dock					250310U			ThinkVision L2440p Wide 24" Monitor				4420HB2				
Check Linux compatibility for other accessories								Other accessories at lenovo.com/accessories								
ThinkPlus™.22 2-year LOR ²⁴ 9x5 NBD 41C9175																
ThinkPlus 3-year LOR 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																

See footnotes for important warranty information
 US model announced February 19, 2008

* Intel Centrino® processor technology

© Lenovo
 (ML2-4) February 2008

ThinkPad® T61 15W (GMA Graphics)

Personal Systems Reference (PSREF)

	Proc- Type-model	essor	GHz	Memory	Wide- screen display	Graphics controller	Disk SATA GB ⁵ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Bat- tery cells	Vista preload	Workhorse (W) Global (G) Entry (E)	Avail date												
	6463-4YU	T7300	2.00	1GB	15.4" WXGA	GMA	80GB 5400	Combo	* Intel 4965AG ³²	None	Smart	Blue	6	Business32	W G	Jun 07												
	6463-4XU	T7300	2.00	1GB	15.4" WXGA	GMA	120G 5400	Combo	* Intel 4965AG	None	Smart	Blue	6	Business32	W G	Jun 07												
✕	6463-5BU	T7300	2.00	1GB	15.4" WXGA	GMA	80GB 5400	Combo	* Intel 4965AG	None	Smart	Blue	6	XP Pro	W G	Jun 07												
Positioning Processor													Premiere performance; two spindles Intel® Core™ 2 Duo processor T7300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache				Preloaded operating system²⁰ - Some: Microsoft® Windows® XP Professional - Some: Microsoft Windows Vista™ Business Edition (32-bit) ✧ 6463-4YU/4XU: Vista Basic logo											
Memory													1GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; Non-italics: standard memory in 1 socket; 1 socket available				Preloaded applications¹⁴ (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskkeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software • Microsoft Office 2007 Trial (60-day)											
Diskette drive EIDE Combo Ultrabay Slim Serial ATA disk													None (use optional USB-based diskette drive) DVD-ROM/CD-RW, 24X/24X/24X/8X ²¹ speed, removable from Ultrabay Slim One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 80GB⁸ (5400 rpm) or 120GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™															
Widescreen display Camera													15.4" (391mm) WXGA (1280x800) color , anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio None															
Graphics													Intel Graphics Media Accelerator X3100 (GMA X3100), integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock															
Keyboard TrackPoint® Touch pad ThinkLight™													89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰													15.4" models (WxDxH): 14.1" x 10.0" x 1.2–1.4"; 358.4mm x 255mm x 29.8–34.5mm with optical drive and battery: starting at 5.9 lb (2.7kg) Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell / supports unique 2nd battery in Ultrabay Slim 6-cell: up to 5.5 hr; 9-cell: up to 8.3 hr; 9-cell plus Ultrabay battery: up to 9.8 hr															
Chipset													Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)															
PC Card ExpressCard slot Smart Card Read Multicard Reader Ports													One slot (Type I, Type II), CardBus 32-bit None Smart Card Reader 4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™) Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)															
Wireless antenna Mini PCI Express Intel 4965AG ³² WWAN Turbo Memory UWB Modem Bluetooth™ Ethernet Intel AMT Audio support													UltraConnect™ II antenna / on-off switch for all wireless radios Three Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG None None None (uses Half-Mini PCI Express slot) 56K V.92 ⁶ modem in Communications Daughter Card socket Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE Intel Active Management Technology (IAMT) High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole															
Security Security chip Fingerprint reader													Trusted Platform Module, Atmel chip, TCG 1.2-compliant Fingerprint reader on palm rest , swipe sensor, supports the security chip				Supports ThinkVantage® technologies											
Limited warranty ¹²													3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available				65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-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											
1GB PC2-5300 DDR2 SODIMM													40Y7734				T/R/W/SL Series Li-Ion Battery 6-cell				40Y6799				ThinkPlus™. ²² 2-year LOR ²⁴ 9x5 NBD			
2GB PC2-5300 DDR2 SODIMM													40Y7735				T/R/W/SL Series Li-Ion Battery 9-cell				40Y6797				41C9175			
ThinkPad DVD Ultrabay Slim Burner (flat)													41N5643				Advanced Ultrabay Battery II 3-cell				43R9250				ThinkPlus 3-year LOR 9x5 NBD			
Serial Hard Drive Ultrabay Slim Adapter (flat)													40Y8725				ThinkPad External Battery Charger				40Y7625				45K6021			
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)													43N3406				ThinkPad 90W AC Adapter				40Y7659				ThinkPlus 4-year LOR 9x5 NBD			
250GB Disk FDE SATA 1.5Gb/s (7200 rpm)													43N3410				90W Slim AC/DC Combo Adapter				41N8460				45K6022			
320GB Disk SATA 1.5Gb/s (7200 rpm)													43N3411				ThinkPad Business Topload Case				43R2476				ThinkPlus 5-year LOR 9x5 NBD			
USB 2.0 Ultra Secure Memory Key 8GB													45J5918				ThinkPad Business Backpack				43R2482				45K6024			
USB 2.0 Super Multi-Burner Drive													41N5565				ThinkPad Deluxe Expander Case				43R2478				ThinkPlus 4-year P&L P/U Depot			
USB 2.0 Lenovo Enhanced Port Replicator													43R8770				ThinkPad Executive Leather Case				43R2480				45K6023			
ThinkPad Convertible Monitor Stand													40Y7620				ThinkVision® L1700p 17" Monitor				9417HE2				ThinkPlus 5-year P&L P/U Depot			
ThinkPad Essential Port Replicator													250510W				ThinkVision L1940p Wide 19" Monitor				4424HB6				45K6025			
ThinkPad Advanced Mini Dock													250410U				ThinkVision L2240p Wide 22" Monitor				4422HB6				Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
ThinkPad Advanced Dock													250310U				ThinkVision L2440x Wide 24" Monitor				4421HB2							
Other accessories on O-T61 sheet													Other accessories at lenovo.com/accessories															

See footnotes for important warranty information
 US models announced May 31, 2007

✕ US model withdrawn effective May 28

* Intel Centrino® with vPro™ technology

© Lenovo
 (CR3-2) May 2007

ThinkPad® T61 15W 6464 (GMA) - Onsite

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory GB	Wide- screen display	Graphics controller	Disk SATA GB ⁵ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Bat- tery cells	Workhorse (W) Vista Global (G) preload GMP (P)	Avail date
6464-4YU T7300	2.00	1GB	15.4"	WXGA	GMA	80GB 5400	Combo	* Intel 4965AG ³²	None	Smart	Blue	6	Business32 W G P Jun 07
• This model is part of the Global Models Plus program with limited onsite service ²⁴ 3-year limited warranty													
Positioning Processor	Premiere performance; two spindles Intel® Core™ 2 Duo processor T7300 with dual-core , Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache										Preloaded operating system ²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ♦ Vista Basic logo		
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 1 socket; 1 socket available										Preloaded applications ¹⁴ <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• System Migration Assistant• Norton Internet Security™ (90 days of virus definitions)• Diskeeper® Home• PC-Doctor™ (diagnostics)• ThinkPad Utilities (Power Manager and Presentation Director)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Picasa from Google• Fingerprint Software• Microsoft Office 2007 Trial (60-day)• Sonic RecordNow and Drive Letter Access (combo)• Corel® WinDVD® (combo)		
Diskette drive	None (use optional USB-based diskette drive)												
EIDE Combo	DVD-ROM/CD-RW, 24X/24X/24X/8X ²¹ speed, removable from Ultrabay Slim												
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel												
Serial ATA disk	80GB ⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™												
Widescreen display	15.4" (391mm) WXGA (1280x800) color , anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio												
Camera	None												
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock												
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	15.4" models (WxDxH): 14.1" x 10.0" x 1.2–1.4"; 358.4mm x 255mm x 29.8–34.5mm												
Weight ²	with optical drive and battery: starting at 5.9 lb (2.7kg)												
Case material	Top: Super-Elastic Polycarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic												
Battery - type	Lithium Ion 6-cell / supports unique 2nd battery in Ultrabay Slim												
Battery - life ¹⁰	6-cell: up to 5.5 hr; 9-cell: up to 8.3 hr; 9-cell plus Ultrabay battery: up to 9.8 hr												
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)												
PC Card	One slot (Type I, Type II), CardBus 32-bit												
ExpressCard slot	None												
Smart Card Read	Smart Card Reader												
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)												
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)												
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios												
Mini PCI Express	Three Mini PCI Express slots / only 802.11 wireless is customer upgradable												
Intel 4965AG ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG												
WWAN	None												
Turbo Memory	None												
UWB	None (uses Half-Mini PCI Express slot)												
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket												
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator												
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE												
Intel AMT	Intel Active Management Technology (IAMT)												
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant												
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip												
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available										Supports ThinkVantage® technologies		
1GB PC2-5300 DDR2 SODIMM	40Y7734			T/R/W/SL Series Li-Ion Battery 6-cell			40Y6799			65-watt (GMA graphics) AC adapter			
2GB PC2-5300 DDR2 SODIMM	40Y7735			T/R/W/SL Series Li-Ion Battery 9-cell			40Y6797			ThinkPad Roll Cage and Top Cover			
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643			Advanced Ultrabay Battery II 3-cell			43R9250			Roll Cage (one-piece magnesium)			
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725			ThinkPad External Battery Charger			40Y7625			ENERGY STAR® 4.0-compliant			
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406			ThinkPad 90W AC Adapter			40Y7659			RoHS-compliant			
160GB Disk 9.5mm SATA 1.5Gb/s (7200 rpm)	41N5737			90W Slim AC/DC Combo Adapter			41N8460			International Warranty Service ¹⁷			
250GB Disk FDE SATA 1.5Gb/s (7200 rpm)	43N3410			ThinkPad Business Topload Case			43R2476			24 hour x 7 day ¹⁸ toll-free support			
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411			ThinkPad Business Backpack			43R2482			during the warranty period ¹²			
USB 2.0 Ultra Secure Memory Key 8GB	45J5918			ThinkPad Deluxe Expander Case			43R2478			via 800-426-7378			
USB 2.0 Super Multi-Burner Drive	41N5565			ThinkPad Executive Leather Case			43R2480			ThinkPlus™, 22 4-year LOR ²⁴ 9x5 NBD			
ThinkPad Convertible Monitor Stand	40Y7620			ThinkVision® L1700p 17" Monitor			9417HE2			45K6038			
ThinkPad Essential Port Replicator	250510W			ThinkVision L1940p Wide 19" Monitor			4424HB6			43R2162			
ThinkPad Advanced Mini Dock	250410U			ThinkVision L2240p Wide 22" Monitor			4422HB6			Post-warranty annual maintenance			
ThinkPad Advanced Dock	250310U			ThinkVision L2440p Wide 24" Monitor			4420HB2			agreements at			
Other accessories on O-T61 sheet				Other accessories at lenovo.com/accessories						lenovo.com/thinkplus/warranty			

See footnotes for important warranty information
US model announced May 31, 2007

* Intel Centrino® with vPro™ technology

© Lenovo
(CR3-14) February 2008

ThinkPad® T61 15W 6460 (NVIDIA®) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Graphics controller	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue-tooth	Battery cells	Workhorse (W) Global (G) Avail date
6460-66U	T7300	2.00	1GB	15.4" WSXGA+	128MB	160G 5400	DVD±RW	* Intel 11n ²⁸	1G Turbo	/54	Blue	6	Bus 32 July 07
6460-7EU	T7300	2.00	1GB	15.4" WSXGA+	128MB	160G 5400	DVD±RW	* Intel 11n		/54	Blue	6	XP Pro July 07
6460-01U	T7500	2.20	1GB	15.4" WSXGA+	128MB	100G 7200	Combo	* Intel 11n		/54	Blue	6	XP Pro Dec 07
6460-DWU	T8100	2.10	1GB	15.4" WSXGA+	128MB	160G 5400	DVD±RW	* Intel 11n		/54	Blue	6	XP Pro Jan 08
6460-DTU	T8300	2.40	1GB	15.4" WSXGA+	128MB	100G 7200	DVD±RW	* Intel 11n		/54	Blue	6	XP Pro Jan 08
6460-DUU	T8300	2.40	1GB	15.4" WSXGA+	128MB	160G 5400	DVD±RW	* Intel 11n	Verizon	/54	Blue	9	XP Pro Jan 08
6460-EFU	T8100	2.10	2GB	15.4" WSXGA+	128MB	160G 5400	DVD±RW	* Intel 11n		/54	Blue	6	Bus 32 Apr 08
6460-EGU	T8300	2.40	2GB	15.4" WSXGA+	128MB	160G 5400	DVD±RW	* Intel 11n	Verizon	/54	Blue	9	Bus 32 Apr 08
6460-05U	T8100	2.10	2GB	15.4" WSXGA+	128MB	160G 5400	DVD±RW	* Intel 11n		/54	Blue	6	Bus 32 Educ May 08
6460-06U	T5870	2.00	2GB	15.4" WXGA	128MB	160G 7200	DVD±RW	* Intel 4965AG ³²		4-in-1	Blue	9	Bus 32 Educ Aug 08
6460-07U	T8100	2.10	2GB	15.4" WSXGA+	128MB	160G 5400	DVD±RW	* Intel 11n		/54	Blue	6	XP Pro Sep 08
6460-08U	T9300	2.50	3GB	15.4" WSXGA+	128MB	160G 7200	DVD±RW	* Intel 11n		/54	Blue	6	XP Pro Sep 08

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

Processor	Intel® Core™ 2 Duo processor T5870, T7300, T7500, T8100, T8300, or T9300 with dual-core, 800MHz system bus, T5870: 2MB L2 cache; T7300/T7500: 4MB L2 cache; T8100/T8300: 3MB L2 cache; T9300: 6MB L2 cache			Preloaded operating system ²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) ✧ Vista models: Vista Premium logo Preloaded applications ¹⁴ (all OSes; only some listed) • Microsoft Office OneNote® 2007 and CD (66U, 05U, 06U models) • Some: Education software - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection - Photoshop Elements (and CD) - Premier Elements (and DVD) - Acrobat 8 Professional - Contribute 4 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Norton Internet Security • PC-Doctor™ (diagnostics) • ThinkPad Utilities • Windows Live™ Toolbar • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Multimedia Center for Think Offerings (XP Pro DVD±RW models) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW) • Corel WinDVD Creator (XP Pro DVD±RW models)
Memory	1GB, 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 1 socket; 1 socket available			
Diskette drive EIDE Combo EIDE DVD±RW Ultrabay Slim Serial ATA disk	None (use optional USB-based diskette drive) <i>Some:</i> DVD-ROM/CD-RW, 24X/24X/24X/8X ²¹ speed, removable from Ultrabay Slim <i>Some:</i> DVD burner, Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 100GB ⁸ (7200 rpm), 160GB (5400 or 7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™			
Widescreen display	<i>Some:</i> 15.4" (391mm) WXGA (1280x800) color , anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 15.4" (391mm) WSXGA+ (1680x1050) color , anti-glare, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio			
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0			
Graphics	NVIDIA® Quadro® NVS 140M , PCI Express® x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock			
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones Illuminates the keyboard to improve visibility in low-light conditions			
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.4" models (WxDxH): 14.1" x 10.0" x 1.2–1.4"; 358.4mm x 255mm x 29.8–34.5mm with optical drive and battery: starting at 5.9 lb (2.7kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell / supports unique 2nd battery in Ultrabay Slim 6-cell: up to 3.9 hr; 9-cell: up to 5.9 hr; 9-cell plus Ultrabay battery: up to 7.9 hr			
Chipset	Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)			
PC Card Std slot ExpressCard slot Smart Card Read Multicard Reader Ports	One Type I or Type II slot, CardBus 32-bit <i>Some:</i> [/54] One ExpressCard/34 or ExpressCard/54 None <i>Some:</i> 4-in-1 reader (MultiMediaCard, Mem Stick PRO, Sec Digital, xD-Picture Card™) Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)			
Wireless antenna Mini PCI Express Intel 4965AG ³² Intel 11n ²⁸ Verizon ¹⁶ 1G Turbo Ultra-Wideband	UltraConnect™ II antenna / on-off switch for all wireless radios Three Mini PCI Express slots / only 802.11 wireless is customer upgradable <i>Some:</i> 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron) <i>Some:</i> Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe adapter, EV-DO Rev. A, service contract reqd with Verizon® Wireless <i>Some:</i> Intel Turbo Memory, Mini PCIe adapter, 1GB flash, disk-cache accelerator None (uses Half-Mini PCI Express slot)			
Modem Bluetooth™ Ethernet Intel AMT Audio support	56K V.92 ⁶ modem in Communications Daughter Card socket <i>Some:</i> Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE Intel Active Management Technology (IAMT) High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole			
Security Security chip Fingerprint reader	Trusted Platform Module , Atmel chip, TCG 1.2-compliant Fingerprint reader on palm rest , swipe sensor, supports the security chip			
Limited warranty ¹² 3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available				
2GB PC2-5300 DDR2 SODIMM (TopSeller)		43R2000	90W Slim AC/DC Combo Adapter	41N8460
250GB Disk FDE SATA 1.5Gb/s (7200 rpm)		43N3410	Other accessories at lenovo.com/accessories	
Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				

See footnotes for important warranty information

* Intel Centrino® with vPro™ technology

© Lenovo

Ⓢ US models announced August 28, 2008; previous models on Jul 10, Dec 6, 2007, Jan 8, Apr 15, May 13, or Aug 1, 2008

(CR3-9) September 2008

ⓧ US models withdrawn effective December 2007 or May 2008

ThinkPad® T61 15W (NVIDIA Graphics)

Personal Systems Reference (PSREF)

	Proc- essor	GHz	Memory	Wide- screen display	Graphics controller memory	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Bat- tery cells	Preload	Workhorse (W) Global (G) Entry (E)	Avail date				
6457-4UU	T7300	2.00	1GB	15.4" WSXGA+	128MB	80GB 5400	Combo	* Intel 4965AG ³²	None	Smart	6	Business32	W G	July 07				
6457-6NU	T7300	2.00	1GB	15.4" WSXGA+	128MB	80GB 5400	Combo	* Intel 4965AG	None	Smart	6	XP Pro	G	July 07				
6457-6PU	T7500	2.20	1GB	15.4" WSXGA+	128MB	120G 5400	DVD±RW	* Intel 4965AG	None	Smart	9	XP Pro	G	July 07				
6457-4XU	T7500	2.20	1GB	15.4" WSXGA+	128MB	120G 5400	DVD±RW	* Intel 4965AG	None	Smart	9	Business32	G	July 07				
6457-6DU	T7500	2.20	2GB	15.4" WSXGA+	128MB	100G 7200	DVD±RW	* Intel 11a/b/g ³²	None	Smart	9	Ultimate 32		July 07				
6457-98U	T7500	2.20	1GB	15.4" WSXGA+	128MB	160G 5400	DVD±RW	* Intel 11n	None	/54	9	Business64		Mar 08				
Processor											Intel® Core™ 2 Duo processor T7300 or T7500 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache				Preloaded operating system ²⁰ - Some: Microsoft® Windows® XP Professional - Some: Microsoft Windows Vista® Business Edition (32-bit) - Some: Microsoft Windows Vista Business Edition (64-bit) - Some: Microsoft Windows Vista Ultimate Edition (32-bit) ♦ Vista models: Vista Premium logo			
Memory											1GB or 2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; Non-italics: standard memory in 1 socket; 1 socket available				Preloaded applications ¹⁴ (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper™ Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • EarthLink Trial (Vista Ultimate models) • Sonic RecordNow and Drive Letter Access (combo, DVD±RW) • Corel® WinDVD® (combo, DVD±RW) • Corel WinDVD Creator (XP Pro DVD±RW models)			
Diskette drive											None (use optional USB-based diskette drive)							
EIDE Combo											Some: DVD-ROM/CD-RW, 24X/24X/24X/8X ²¹ speed, removable from Ultrabay Slim							
EIDE DVD±RW											Some: DVD burner, Ultrabay Slim Burner (41N5643), dual-layer, removable Ultrabay							
Ultrabay Slim											One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel							
Serial ATA disk											80GB ⁸ (5400 rpm), 100GB (7200 rpm), 120GB (5400 rpm), or 160GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™							
Widescreen display											15.4" (391mm) WSXGA+ (1680x1050) color, anti-glare, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio							
Camera											None							
Graphics											NVIDIA® Quadro® NVS 140M, PCI Express® x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock							
Keyboard											89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys							
TrackPoint®											TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass							
Touch pad											UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones							
ThinkLight™											Illuminates the keyboard to improve visibility in low-light conditions							
Dimensions ³											15.4" models (WxDxH): 14.1" x 10.0" x 1.2–1.4"; 358.4mm x 255mm x 29.8–34.5mm with optical drive and battery: starting at 5.9 lb (2.7kg)							
Weight ²											Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic							
Case material											Lithium Ion 6-cell or 9-cell / supports unique 2nd battery in Ultrabay Slim							
Battery - type											6-cell: up to 3.9 hr; 9-cell: up to 5.9 hr; 9-cell plus Ultrabay battery: up to 7.9 hr							
Battery - life ¹⁰																		
Chipset											Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)							
PC Card											One slot (Type I, Type II), CardBus 32-bit							
ExpressCard/54											Some: [/54] One slot (ExpressCard/34, ExpressCard/54)							
Smart Card Read											Some: Smart Card Reader							
Multicard Reader											4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)							
Ports											Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)							
Wireless antenna											UltraConnect™ II antenna / on-off switch for all wireless radios							
Mini PCI Express											Three Mini PCI Express slots							
Intel 11a/b/g ³²											Some: 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG							
Intel 4965AG ³²											Some: 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG							
Intel 11n ²⁸											Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)							
WWAN upg											None				Supports ThinkVantage® technologies			
Turbo Memory											None							
UWB											None (uses Half-Mini PCI Express slot)				90-watt (NVIDIA) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-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			
Modem											56K V.92 ⁶ modem in Communications Daughter Card socket							
Bluetooth™											Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator							
Ethernet											Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE							
Intel AMT											Intel Active Management Technology (IAMT)							
Audio support											High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack							
Security											Power-on password, hard disk password, supervisor password, security keyhole							
Security chip											Trusted Platform Module, Atmel chip, TCG 1.2-compliant							
Fingerprint reader											Fingerprint reader on palm rest, swipe sensor, supports the security chip				ThinkPlus™.22 2-year LOR ²⁴ 9x5 NBD 41C9175			
Limited warranty ¹²											3-years/1-yr battery - EasyServ™.19 onsite pickup and delivery / service upgrades ²² avail				ThinkPlus 3-year LOR 9x5 NBD 45K6021			
1GB PC2-5300 DDR2 SODIMM											40Y7734				ThinkPlus 4-year LOR 9x5 NBD 45K6022			
2GB PC2-5300 DDR2 SODIMM											40Y7735							
ThinkPad DVD Ultrabay Slim Burner (flat)											41N5643				ThinkPlus 5-year LOR 9x5 NBD 45K6024			
Serial Hard Drive Ultrabay Slim Adapter (flat)											40Y8725							
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)											43N3406				ThinkPlus 4-year P&L P/U Depot 45K6023			
250GB Disk FDE SATA 1.5Gb/s (7200 rpm)											43N3410							
USB 2.0 Super Multi-Burner Drive											41N5565				ThinkPlus 5-year P&L P/U Depot 45K6025			
USB 2.0 Lenovo Enhanced Port Replicator											43R8770							
ThinkPad Advanced Mini Dock											250410U				Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
ThinkPad Advanced Dock											250310U							
Other accessories on O-T61 sheet																		
T/R/W/SL Series Li-Ion Battery 6-cell											40Y6799							
T/R/W/SL Series Li-Ion Battery 9-cell											40Y6797							
Advanced Ultrabay Battery II 3-cell											43R9250							
ThinkPad 90W AC Adapter											40Y7659							
90W Slim AC/DC Combo Adapter											41N8460							
ThinkPad Deluxe Expander Case											43R2478							
ThinkPad Executive Leather Case											43R2480							
ThinkVision® L1940p Wide 19" Monitor											4424HB6							
ThinkVision L2240p Wide 22" Monitor											4422HB6							
ThinkVision L2440p Wide 24" Monitor											4420HB2							
Other accessories at lenovo.com/accessories																		

See footnotes for important warranty information

US model announced March 25, 2008;
previous models on July 10, 2007

US models withdrawn effective May 2008

* Intel Centrino® processor technology

* Intel Centrino with vPro™ technology

© Lenovo
(CR3-5) March 2008

ThinkPad® T61 15W 6458 (NVIDIA) - Onsite

Personal Systems Reference (PSREF)

Proc- Type-model	essor	GHz	Memory	Wide- screen display	Graphics controller memory	Disk SATA GB ⁵ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Bat- tery cells	Preload	Workhorse (W) Global (G) GMP (P)	Avail date	
6458-4UU	T7300	2.00	1GB	15.4"	WSXGA+	128MB	80GB	5400	Combo	*Intel 4965AG ³²	None	Smart	Blue	6	Business32	W G P July 07
6458-6QU	T7500	2.20	1GB	15.4"	WSXGA+	128MB	120GB	5400	DVD±RW	*Intel 4965AG	None	Smart	Blue	9	Business32	W G P July 07
• These models are part of the Global Models Plus program with limited onsite service ²⁴ 3-year limited warranty																
Positioning Processor	Premiere performance; two spindles Intel® Core™ 2 Duo processor T7300 or T7500 with dual-core , Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache											Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ♦ Vista Premium logo				
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 1 socket; 1 socket available											Preloaded applications¹⁴ • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper™ Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • EarthLink Trial (Vista Ultimate models) • Sonic RecordNow and Drive Letter Access (combo) • Corel® WinDVD® (combo)				
Diskette drive	None (use optional USB-based diskette drive)															
EIDE Combo	Some: DVD-ROM/CD-RW, 24X/24X/24X/8X ²¹ speed, removable from Ultrabay Slim															
EIDE DVD±RW	Some: DVD burner, Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim															
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel															
Serial ATA disk	80GB⁸ (5400 rpm) or 120GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™															
Widescreen display	15.4" (391mm) WSXGA+ (1680x1050) color, anti-glare, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio															
Camera	None															
Graphics	NVIDIA® Quadro® NVS 140M , PCI Express® x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock															
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys															
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass															
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones															
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³	15.4" models (WxDxH): 14.1" x 10.0" x 1.2–1.4"; 358.4mm x 255mm x 29.8–34.5mm															
Weight ²	with optical drive and battery: starting at 5.9 lb (2.7kg)															
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic															
Battery - type	Lithium Ion 6-cell or 9-cell / supports unique 2nd battery in Ultrabay Slim															
Battery - life ¹⁰	6-cell: up to 3.9 hr; 9-cell: up to 5.9 hr; 9-cell plus Ultrabay battery: up to 7.9 hr															
Chipset	Mobile Intel® PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)															
PC Card	One slot (Type I, Type II), CardBus 32-bit															
ExpressCard slot	None															
Smart Card Read	Smart Card Reader															
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)															
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)															
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios															
Mini PCI Express	Three Mini PCI Express slots / only 802.11 wireless is customer upgradable															
Intel 4965AG ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG															
WWAN	None															
Turbo Memory	None															
UWB	None (uses Half-Mini PCI Express slot)															
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket															
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator															
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE															
Intel AMT	Intel Active Management Technology (IAMT)															
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack															
Security	Power-on password, hard disk password, supervisor password, security keyhole															
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant															
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip															
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available											Supports ThinkVantage® technologies				
1GB PC2-5300 DDR2 SODIMM 40Y7734 T/R/W/SL Series Li-Ion Battery 6-cell 40Y6799 2GB PC2-5300 DDR2 SODIMM 40Y7735 T/R/W/SL Series Li-Ion Battery 9-cell 40Y6797 ThinkPad DVD Ultrabay Slim Burner (flat) 41N5643 Advanced Ultrabay Battery II 3-cell 43R9250 128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover) 43N3406 ThinkPad 90W AC Adapter 40Y7659 320GB Disk SATA 1.5Gb/s (7200 rpm) 43N3411 90W Slim AC/DC Combo Adapter 41N8460 USB 2.0 Security Memory Key 4GB 41U5120 ThinkPad Business Topload Case 43R2476 USB 2.0 Super Multi-Burner Drive 41N5565 ThinkPad Business Backpack 43R2482 USB 2.0 Lenovo Enhanced Port Replicator 43R8770 ThinkPad Deluxe Expander Case 43R2478 ThinkPad Convertible Monitor Stand 40Y7620 ThinkPad Executive Leather Case 43R2480 ThinkPad Essential Port Replicator 250510W ThinkVision® L1940p Wide 19" Monitor 4424HB6 ThinkPad Advanced Mini Dock 250410U ThinkVision L2240p Wide 22" Monitor 4422HB6 ThinkPad Advanced Dock 250310U ThinkVision L2440x Wide 24" Monitor 4421HB2 Other accessories on O-T61 sheet Other accessories at lenovo.com/accessories												90-watt (NVIDIA) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-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				
												ThinkPlus 5-year LOR 9x5 NBD 43R2162				
												Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				

See footnotes for important warranty information
 US models announced July 10, 2007

* Intel Centrino® with vPro™ technology

© Lenovo
 (CR3-12) February 2008

ThinkPad® T61 15W 6457 (NVIDIA) - Education (EasyServ)

Personal Systems Reference (PSREF)

Proc- Type-model	GHz	Memory	Wide- screen display	Graphics controller memory	Disk SATA GB ⁵ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Bat- tery cells	Educ pre- load	Limited warranty ¹²	Vista preload	Avail date				
6457-4JU	T7300	2.00	1GB	15.4" WSXGA+	128MB	100G 7200	DVD±RW	11a/b/g ³²	None	/54	9	HE	EasyServ Business32	July 07				
• This model has an EasyServ™¹⁹ depot repair service 3-year limited warranty																		
Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.																		
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T7300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus; and 4MB shared L2 cache										Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ◇ Vista Premium logo							
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 1 socket; 1 socket available										Preloaded applications¹⁴ • Microsoft Office OneNote® 2007 (and CD) • (HE): Higher education software - VitalSource Library College Edition - Adobe® Instructor Resource Center - Adobe Photoshop Elements 5 (and CD) - Adobe Premier Elements 3 (and DVD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW)							
Diskette drive	None (use optional USB-based diskette drive)																	
EIDE DVD±RW	DVD burner, Ultrabay Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim																	
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel																	
Serial ATA disk	100GB⁸ (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™																	
Widescreen display	15.4" (391mm) WSXGA+ (1680x1050) color , anti-glare, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio																	
Camera	None																	
Graphics	NVIDIA® Quadro® NVS 140M , PCI Express® x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock																	
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys																	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass																	
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones																	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions																	
Dimensions ³	15.4" models (WxDxH): 14.1" x 10.0" x 1.2–1.4"; 358.4mm x 255mm x 29.8–34.5mm with optical drive and battery: starting at 5.9 lb (2.7kg)																	
Weight ²	<i>Top:</i> Super-Elastic Polycarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic																	
Case material	Lithium Ion 9-cell / supports unique 2nd battery in Ultrabay Slim																	
Battery - type	9-cell: up to 5.9 hr; 9-cell plus Ultrabay battery: up to 7.9 hr																	
Battery - life ¹⁰																		
Chipset	Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)																	
PC Card	One slot (Type I, Type II), CardBus 32-bit																	
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)																	
Smart Card Read	None																	
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)																	
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)																	
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios																	
Mini PCI Express	Three Mini PCI Express slots / only 802.11 wireless is customer upgradable																	
11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX																	
WWAN	None																	
Turbo Memory	None																	
UWB	None (uses Half-Mini PCI Express slot)																	
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket																	
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator																	
Ethernet	Gigabit ethernet, Intel 82566MM Niveveh (PHY), PCIe x1 (GLCI), PXE																	
Intel AMT	Intel Active Management Technology (IAMT)																	
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack																	
Security	Power-on password, hard disk password, supervisor password, security keyhole																	
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant																	
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip																	
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available																	
1GB PC2-5300 DDR2 SODIMM				40Y7734	T/R/W/SL Series Li-Ion Battery 6-cell			40Y6799										
2GB PC2-5300 DDR2 SODIMM				40Y7735	T/R/W/SL Series Li-Ion Battery 9-cell			40Y6797										
ThinkPad DVD Ultrabay Slim Burner (flat)				41N5643	Advanced Ultrabay Battery II 3-cell			43R9250										
Serial Hard Drive Ultrabay Slim Adapter (flat)				40Y8725	ThinkPad External Battery Charger			40Y7625										
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)				43N3406	ThinkPad 90W AC Adapter			40Y7659										
250GB Disk FDE SATA 1.5Gb/s (7200 rpm)				43N3410	90W Slim AC/DC Combo Adapter			41N8460										
250GB Disk 9.5mm SATA 1.5Gb/s (5400 rpm)				43R8152	ThinkPad Business Topload Case			43R2476										
320GB Disk SATA 1.5Gb/s (7200 rpm)				43N3411	ThinkPad Business Backpack			43R2482										
USB 2.0 Ultra Secure Memory Key 8GB				45J5918	ThinkPad Deluxe Expander Case			43R2478										
USB 2.0 Super Multi-Burner Drive				41N5565	ThinkVision® L1700p 17" Monitor			9417HE2										
ThinkPad Essential Port Replicator				250510W	ThinkVision L1940p Wide 19" Monitor			4424HB6										
ThinkPad Advanced Mini Dock				250410U	ThinkVision L2240p Wide 22" Monitor			4422HB6										
ThinkPad Advanced Dock				250310U	ThinkVision L2440x Wide 24" Monitor			4421HB2										
Other accessories on O-T61 sheet																		
								40Y6797	ThinkPlus™ ²² 2-year LOR ²⁴ 9x5 NBD									
								43R9250	41C9175									
								40Y7625	ThinkPlus 3-year LOR 9x5 NBD									
								40Y7659	45K6021									
								41N8460	ThinkPlus 4-year LOR 9x5 NBD									
								43R2476	45K6022									
								43R2482	ThinkPlus 5-year LOR 9x5 NBD									
								43R2478	45K6023									
								9417HE2	ThinkPlus 4-year P&L P/U Depot									
								4424HB6	45K6025									
								4422HB6	ThinkPlus 5-year P&L P/U Depot									
								4421HB2	Post-warranty annual maintenance agreements at									
								lenovo.com/thinkplus/warranty										

See footnotes for important warranty information
 US model announced on July 10, 2007

© Lenovo
 (CR3-7) February 2008

ThinkPad® T61 15W (NVIDIA Graphics) - Education (Onsite)

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Graphics controller memory	Disk SATA GB ⁵ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Bat- tery cells	Educ pre- load	Limited warranty ¹²	Vista preload	Avail date				
6458-4JU	T7300	2.00	1GB	15.4" WSXGA+	128MB	100G	7200	DVD±RW	11a/b/g ³²	None	/54	9	HE	Onsite	Business32	July 07		
• This model has a limited onsite service²⁴ 3-year limited warranty Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.																		
Positioning Processor	Premiere performance; two spindles Intel® Core™ 2 Duo processor T7300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache											Preloaded operating system²⁰ - Microsoft® Windows® Vista™ Business Edition (32-bit) ◇ Vista Premium logo Preloaded applications¹⁴ • Microsoft Office OneNote® 2007 (and CD) • (HE): Higher education software - VitalSource Library College Edition - Adobe® Instructor Resource Center - Adobe Photoshop Elements 5 (and CD) - Adobe Premier Elements 3 (and DVD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskkeeper™ Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW)						
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 1 socket; 1 socket available																	
Diskette drive	None (use optional USB-based diskette drive)																	
EIDE DVD±RW	DVD burner, Ultrabay Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim																	
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel																	
Serial ATA disk	100GB ⁸ (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™																	
Widescreen display	15.4" (391mm) WSXGA+ (1680x1050) color, anti-glare, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio																	
Camera	None																	
Graphics	NVIDIA® Quadro® NVS 140M, PCI Express® x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock																	
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys																	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass																	
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones																	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions																	
Dimensions ³	15.4" models (WxDxH): 14.1" x 10.0" x 1.2–1.4"; 358.4mm x 255mm x 29.8–34.5mm																	
Weight ²	with optical drive and battery: starting at 5.9 lb (2.7kg)																	
Case material	Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic																	
Battery - type	Lithium Ion 9-cell / supports unique 2nd battery in Ultrabay Slim																	
Battery - life ¹⁰	9-cell: up to 5.9 hr; 9-cell plus Ultrabay battery: up to 7.9 hr																	
Chipset	Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)																	
PC Card	One slot (Type I, Type II), CardBus 32-bit																	
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)																	
Smart Card Read	None																	
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)																	
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)																	
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios																	
Mini PCI Express	Three Mini PCI Express slots / only 802.11 wireless is customer upgradable																	
11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX																	
WWAN	None																	
Turbo Memory	None																	
UWB	None (uses Half-Mini PCI Express slot)																	
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket																	
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator																	
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE																	
Intel AMT	Intel Active Management Technology (IAMT)																	
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack																	
Security	Power-on password, hard disk password, supervisor password, security keyhole																	
Security chip	Trusted Platform Module, Atmel chip, TCG 1.2-compliant																	
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip																	
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time																	
1GB PC2-5300 DDR2 SODIMM	40Y7734											T/R/W/SL Series Li-Ion Battery 6-cell					40Y6799	
2GB PC2-5300 DDR2 SODIMM	40Y7735											T/R/W/SL Series Li-Ion Battery 9-cell					40Y6797	
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725											Advanced Ultrabay Battery II 3-cell					43R9250	
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406											ThinkPad External Battery Charger					40Y7625	
250GB Disk FDE SATA 1.5Gb/s (7200 rpm)	43N3410											ThinkPad 90W AC Adapter					40Y7659	
250GB Disk 9.5mm SATA 1.5Gb/s (5400 rpm)	43R8152											90W Slim AC/DC Combo Adapter					41N8460	
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411											ThinkPad Business Topload Case					43R2476	
USB 2.0 Ultra Secure Memory Key 8GB	45J5918											ThinkPad Business Backpack					43R2482	
USB 2.0 Super Multi-Burner Drive	41N5565											ThinkPad Deluxe Expander Case					43R2478	
USB 2.0 Lenovo Enhanced Port Replicator	43R8770											ThinkVision® L1700p 17" Monitor					9417HE2	
ThinkPad Essential Port Replicator	250510W											ThinkVision L1940p Wide 19" Monitor					4424HB6	
ThinkPad Advanced Mini Dock	250410U											ThinkVision L2240p Wide 22" Monitor					4422HB6	
ThinkPad Advanced Dock	250310U											ThinkVision L2440x Wide 24" Monitor					4421HB2	
Other accessories on O-T61 sheet												Other accessories at lenovo.com/accessories						
											Supports ThinkVantage® technologies							
											90-watt (NVIDIA) AC adapter							
											ThinkPad Roll Cage and Top Cover							
											Roll Cage (one-piece magnesium)							
											ENERGY STAR® 4.0-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							
											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty							

See footnotes for important warranty information
US model announced July 10, 2007

© Lenovo
(CR3-8) July 2007

ThinkPad® T61u 15W 6463 (GMA) - Education (EasyServ)

Personal Systems Reference (PSREF)

Proc- Type-model	essor	GHz	Memory	Wide- screen display	Graphics controller	Disk SATA GB ⁵ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Finger print reader	Bat- tery cells	Limited warranty ¹²	Vista preload	Avail date
6463-9RU	T8300	2.40	1GB	15.4" WXGA	GMA	80G 5400	Combo	11a/b/g ³²	None	/54			9	EasyServ	Business32	Feb 08
6463-9SU	T9300	2.50	1GB	15.4" WXGA	GMA	100G 7200	DVD±RW	11a/b/g	None	/54	Blue	Finger	9	EasyServ	Business32	Feb 08
6463-05U	T9300	2.50	2GB	15.4" WXGA	GMA	160G 7200	DVD±RW	11a/b/g	None	/54	Blue	Finger	9	EasyServ	Business32	Apr 08

Italic MTM: not a base model for building a custom model

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

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

Positioning Processor	Premiere performance; two spindles Intel® Core™ 2 Duo processor T8300 or T9300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus; T8300: 3MB L2 cache; T9300: 6MB L2 cache										Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ♦ Vista Basic logo Preloaded applications¹⁴ • Microsoft Office OneNote® 2007 (and CD) • Education software - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection - Photoshop Elements (and CD) - Premier Elements (and DVD) - Acrobat 8 Professional - Contribute 4 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Some: Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (Combo, DVD±RW) • Corel® WinDVD® (Combo, DVD±RW)					
Memory	1GB or 2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available															
Diskette drive	None (use optional USB-based diskette drive)															
EIDE Combo	Some: DVD-ROM/CD-RW, 24X/24X/24X/8X ²¹ speed, removable from Ultrabay Slim															
EIDE DVD±RW	Some: DVD burner, Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim															
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel															
Serial ATA disk	80GB⁸ (5400 rpm), 100GB (7200 rpm), or 160GB (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradeable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™															
Widescreen display	15.4" (391mm) WXGA (1280x800) color , anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio															
Camera	None															
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock															
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys															
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass															
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones															
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³	15.4" models (WxDxH): 14.1" x 10.0" x 1.2–1.4"; 358.4mm x 255mm x 29.8–34.5mm															
Weight ²	with optical drive and battery: starting at 5.9 lb (2.7kg)															
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic															
Battery - type	Lithium Ion 9-cell / supports unique 2nd battery in Ultrabay Slim															
Battery - life ¹⁰	<i>9-cell:</i> up to 8.3 hr; <i>9-cell plus Ultrabay battery:</i> up to 9.8 hr															
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)															
PC Card	One slot (Type I, Type II), CardBus 32-bit															
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)															
Smart Card Read	None															
Multicard Reader	4-in-1 reader (MultiMediaCard, Mem Stick PRO, Secure Digital, xD-Picture Card™)															
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)															
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios															
Mini PCI Express	Three Mini PCI Express slots / only 802.11 wireless is customer upgradeable															
11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX															
WWAN	None															
Turbo Memory	None															
UWB	None (uses Half-Mini PCI Express slot)															
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket															
Bluetooth™	Some: Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator															
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE															
Intel AMT	Intel Active Management Technology (IAMT)															
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack															
Security	Power-on password, hard disk password, supervisor password, security keyhole															
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant															
Fingerprint reader	Some: Fingerprint reader on palm rest , swipe sensor, supports the security chip															
Limited warranty ¹²	3-years/1-yr battery - EasyServ™¹⁹ depot repair service / service upgrades²² available															
1GB PC2-5300 DDR2 SODIMM	40Y7734					T/R/W/SL Series Li-Ion Battery 6-cell					40Y6799					
2GB PC2-5300 DDR2 SODIMM	40Y7735					T/R/W/SL Series Li-Ion Battery 9-cell					40Y6797					
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643					Advanced Ultrabay Battery II 3-cell					43R9250					
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406					ThinkPad External Battery Charger					40Y7625					
250GB Disk FDE SATA 1.5Gb/s (7200 rpm)	43N3410					ThinkPad 90W AC Adapter					40Y7659					
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411					90W Slim AC/DC Combo Adapter					41N8460					
USB 2.0 Security Memory Key 4GB	41U5120					ThinkPad Business Topload Case					43R2476					
USB 2.0 Lenovo Enhanced Port Replicator	43R8770					ThinkPad Business Backpack					43R2482					
ThinkPad Convertible Monitor Stand	40Y7620					ThinkVision® L2240p Wide 22" Monitor					4422HB6					
ThinkPad Advanced Dock	250310U					ThinkVision L2440p Wide 24" Monitor					4420HB2					
Other accessories on O-T61 sheet											Other accessories at lenovo.com/accessories					

ThinkPlus™ ²² 2-year LOR ²⁴ 9x5 NBD	41C9175
ThinkPlus 3-year LOR 9x5 NBD	45K6021
ThinkPlus 4-year LOR 9x5 NBD	45K6022
ThinkPlus 5-year LOR 9x5 NBD	45K6024
ThinkPlus 4-year P&L P/U Depot	45K6023
ThinkPlus 5-year P&L P/U Depot	45K6025
Post-warranty annual maintenance agreements at	lenovo.com/thinkplus/warranty

See footnotes for important warranty information

US model announced April 10, 2008; previous models on February 19, 2008

© Lenovo
(CR4-2) April 2008

ThinkPad® T61u 15W 6457 (NVIDIA) - Education (EasyServ)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Graphics controller memory	Disk SATA GB ⁵ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Finger print reader	Bat- tery cells	Limited warranty ¹²	Vista preload	Avail date	
6457-DSU	T9300	2.50	1GB	15.4"	WSXGA+	128MB	100G	7200	DVD±RW	11a/b/g ³²	None	/54	Blue	Fing	9	EasyServ Business32	Feb 08
6457-05U	T9300	2.50	2GB	15.4"	WSXGA+	128MB	160G	7200	DVD±RW	11a/b/g	None	/54	Blue	Fing	9	EasyServ Business32	Apr 08
<i>Italic MTM: not a base model for building a custom model</i>																	
• These models have an EasyServ^{TM,19} depot repair service 3-year limited warranty																	
Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.																	
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T9300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 6MB shared L2 cache												Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ♦ Vista Premium logo				
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 1 socket; 1 socket available												Preloaded applications¹⁴ • Microsoft Office OneNote® 2007 (and CD) • Education software - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection - Photoshop Elements (and CD) - Premier Elements (and DVD) - Acrobat 8 Professional - Contribute 4 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW)				
Diskette drive EIDE DVD±RW Ultrabay Slim Serial ATA disk	None (use optional USB-based diskette drive) DVD burner, Ultrabay Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 100GB⁸ (7200 rpm) or 160GB (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™																
Widescreen display Camera	15.4" (391mm) WSXGA+ (1680x1050) color , anti-glare, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio None																
Graphics	NVIDIA® Quadro® NVS 140M , PCI Express® x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock																
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones Illuminates the keyboard to improve visibility in low-light conditions																
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.4" models (WxDxH): 14.1" x 10.0" x 1.2–1.4"; 358.4mm x 255mm x 29.8–34.5mm with optical drive and battery: starting at 5.9 lb (2.7kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 9-cell / supports unique 2nd battery in Ultrabay Slim 9-cell: up to 5.9 hr; 9-cell plus Ultrabay battery: up to 7.9 hr																
Chipset	Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM) One slot (Type I, Type II), CardBus 32-bit One slot (ExpressCard/34, ExpressCard/54)																
PC Card ExpressCard/54 Smart Card Read Multicard Reader Ports	None 4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™) Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)																
Wireless antenna Mini PCI Express 11a/b/g ³² WWAN Turbo Memory UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	UltraConnect™ II antenna / on-off switch for all wireless radios Three Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX None None None (uses Half-Mini PCI Express slot) 56K V.92 ⁶ modem in Communications Daughter Card socket Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE Intel Active Management Technology (IAMT) High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole																
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module , Atmel chip, TCG 1.2-compliant Fingerprint reader on palm rest , swipe sensor, supports the security chip																
Limited warranty ¹²	3-years/1-yr battery - EasyServ^{TM,19} depot repair service / service upgrades²² available																
1GB PC2-5300 DDR2 SODIMM	40Y7734					T/R/W/SL Series Li-Ion Battery 6-cell					40Y6799						
2GB PC2-5300 DDR2 SODIMM	40Y7735					T/R/W/SL Series Li-Ion Battery 9-cell					40Y6797						
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643					Advanced Ultrabay Battery II 3-cell					43R9250						
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725					ThinkPad External Battery Charger					40Y7625						
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406					ThinkPad 90W AC Adapter					40Y7659						
250GB Disk FDE SATA 1.5Gb/s (7200 rpm)	43N3410					90W Slim AC/DC Combo Adapter					41N8460						
250GB Disk 9.5mm SATA 1.5Gb/s (5400 rpm)	43R8152					ThinkPad Business Topload Case					43R2476						
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411					ThinkPad Business Backpack					43R2482						
USB 2.0 Ultra Secure Memory Key 8GB	45J5918					ThinkPad Deluxe Expander Case					43R2478						
USB 2.0 Super Multi-Burner Drive	41N5565					ThinkVision® L1700p 17" Monitor					9417HE2						
ThinkPad Convertible Monitor Stand	40Y7620					ThinkVision L1940p Wide 19" Monitor					4424HB6						
ThinkPad Advanced Mini Dock	250410U					ThinkVision L2240p Wide 22" Monitor					4422HB6						
ThinkPad Advanced Dock	250310U					ThinkVision L2440p Wide 24" Monitor					4420HB2						
Other accessories on O-T61 sheet	Other accessories at lenovo.com/accessories																
Supports ThinkVantage® technologies																	
90-watt (NVIDIA) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-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 2-year LOR ²⁴ 9x5 NBD 41C9175																	
ThinkPlus 3-year LOR 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 on April 10, 2008; previous model on February 19, 2008

© Lenovo
(CR4-1) April 2008

ThinkPad® T61p 15W 6460 (NVIDIA) - TopSeller

Personal Systems Reference (PSREF)

Proc- Type-model		GHz	Memory	Wide- screen display	Graphics controller memory	Disk SATA GB ³ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Bat- tery cells	Preload	Workhorse (W) Global (G) Avail Entry (E) date
6460-67U T7500		2.20	2GB	15.4" WUXGA	256MB	100G 7200	DVD±RW	* Intel 11n ²⁸		/54	Blue	9	Ultimate	32 No July 07
6460-8VU T7700		2.40	2GB	15.4" WUXGA	256MB	160G 7200	DVD±RW	* Intel 11n		/54	Blue	9	XP Pro	No Oct 07
6460-8WU T7700		2.40	2GB	15.4" WUXGA	256MB	160G 7200	DVD±RW	* Intel 11n	1G Turbo	/54	Blue	9	Business32	No Oct 07
6460-8XU T7700		2.40	4GB	15.4" WUXGA	256MB	200G FDE	DVD±RW	* Intel 11n		/54	Blue	9	Business64	No Oct 07
6460-DVU T9300		2.50	2GB	15.4" WSXGA+	256MB	160G 7200	DVD±RW	* Intel 11n		/54	Blue	9	XP Pro	No Jan 08
<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 warranty¹²														
Positioning Processor											Preloaded operating system ²⁰ <ul style="list-style-type: none">- Some: Microsoft® Windows® XP Professional with Vista® COA- Some: Microsoft Windows Vista Ultimate Edition (32-bit)- Some: Microsoft Windows Vista Business Edition (64-bit) ♦ Vista models: Vista Premium logo			
Memory														
Diskette drive EIDE DVD±RW Ultrabay Slim Serial ATA disk											Preloaded applications ¹⁴ (all OSes) <ul style="list-style-type: none">• Microsoft Office OneNote® 2007 and CD (Vista models)• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• System Migration Assistant• Norton Internet Security (90 days of virus definitions)• Diskeeper™ Home• PC-Doctor™ (diagnostics)• ThinkPad Utilities (Power Manager and Presentation Director)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Picasa from Google• Fingerprint Software (fingerprint models)• Microsoft Office 2007 Trial (60-day)• Multimedia Center for Think Offerings (XP Pro DVD±RW models)• Sonic RecordNow and Drive Letter Access (DVD±RW)• Corel® WinDVD® (DVD±RW)• Corel WinDVD Creator (XP Pro DVD±RW models)			
Widescreen display Camera														
Graphics														
Keyboard TrackPoint® Touch pad ThinkLight™														
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰											Supports ThinkVantage® technologies			
Chipset														
PC Card ExpressCard/54 Smart Card Read Multicard Reader Ports														
Wireless antenna Mini PCI Express Intel 11n ²⁸														
WWAN 1G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support											90-watt (NVIDIA) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-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														
Limited warranty ¹² 3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available														
1GB PC2-5300 DDR2 SODIMM (TopSeller) 43R1999 2GB PC2-5300 DDR2 SODIMM (TopSeller) 43R2000 Serial Hard Drive Ultrabay Slim Adapter (flat) 40Y8725 128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover) 43N3406 250GB Disk FDE SATA 1.5Gb/s (7200 rpm) 43N3410 USB 2.0 Ultra Secure Memory Key 8GB 45J5918 USB 2.0 Lenovo Enhanced Port Replicator 43R8770 ThinkPad Essential Port Replicator 250510W ThinkPad Advanced Mini Dock 250410U ThinkPad Advanced Dock 250310U														
T/R/W/SL Series Li-Ion Battery 6-cell 40Y6799 T/R/W/SL Series Li-Ion Battery 9-cell 40Y6797 Advanced Ultrabay Battery II 3-cell 43R9250 ThinkPad 90W AC Adapter 40Y7659 90W Slim AC/DC Combo Adapter 41N8460 ThinkPad Deluxe Expander Case 43R2478 ThinkPad Executive Leather Case 43R2480 ThinkVision® L1940p Wide 19" Monitor 4424HB6 ThinkVision L2240p Wide 22" Monitor 4422HB6 ThinkVision L2440x Wide 24" Monitor 4421HB2 Other accessories at lenovo.com/accessories											ThinkPlus™.22 2-year LOR ²⁴ 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			

See footnotes for important warranty information

* Intel Centrino® with vPro™ technology

† US model announced January 8, 2008; previous models on July 10 or October 30, 2007

© Lenovo
(CR3-10) January 2008

ThinkPad® T61p 15W 6457 (NVIDIA) - Education (EasyServ)

Personal Systems Reference (PSREF)

Proc- Type-model	GHz	Memory	Wide- screen display	Graphics controller memory	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Mini PCIe UWB wireless	Card slot	Blue- tooth	Finger- print reader	Bat- tery cells	Vista preload	Avail date
6457-06U	T9300	2.50	2GB	15.4" WSXGA+	256MB 250G 5400	DVD±RW	11a/b/g ³²	None	UWB	/54	Blue	Fing	9	Business32	Apr 08
<i>Italic MTM:</i> not a base model for building a custom model															
• This model has an EasyServ™¹⁹ depot repair service 3-year limited warranty Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.															
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T9300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 6MB shared L2 cache											Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ♦ Vista Premium logo			
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 1 socket; 1 socket available											Preloaded applications¹⁴ • Microsoft Office OneNote® 2007 (and CD) • Education software - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection - Photoshop Elements (and CD) - Premier Elements (and DVD) - Acrobat 8 Professional - Contribute 4 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW)			
Diskette drive EIDE DVD±RW Ultrabay Slim Serial ATA disk	None (use optional USB-based diskette drive) DVD burner, Ultrabay Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 250GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™														
Widescreen display Camera	15.4" (391mm) WSXGA+ (1680x1050) color , anti-glare, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio None														
Graphics	NVIDIA® Quadro® FX 570M , PCI Express® x16, 256MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock														
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.4" models (WxDxH): 14.1" x 10.0" x 1.2–1.4"; 358.4mm x 255mm x 29.8–34.5mm with optical drive and battery: starting at 5.9 lb (2.7kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 9-cell / supports unique 2nd battery in Ultrabay Slim 9-cell: up to 5.9 hr; 9-cell plus Ultrabay battery: up to 7.9 hr														
Chipset	Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM) One slot (Type I, Type II), CardBus 32-bit One slot (ExpressCard/34, ExpressCard/54)														
PC Card ExpressCard/54 Smart Card Read Multicard Reader Ports	None 4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™) Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
Wireless antenna Mini PCI Express 11a/b/g ³² WWAN Turbo Memory UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	UltraConnect™ II antenna / on-off switch for all wireless radios Three Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX None None Wireless USB based on Ultra-Wideband (UWB), Half-Mini PCIe adapter 56K V.92 ⁶ modem in Communications Daughter Card socket Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE Intel Active Management Technology (IAMT) High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole														
Security Security chip Fingerprint reader	Trusted Platform Module , Atmel chip, TCG 1.2-compliant Fingerprint reader on palm rest , swipe sensor, supports the security chip											Supports ThinkVantage® technologies 90-watt (NVIDIA) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Limited warranty ¹²	3-years/1-yr battery - EasyServ™¹⁹ depot repair service / service upgrades²² available														
1GB PC2-5300 DDR2 SODIMM				40Y7734	T/R/W/SL Series Li-Ion Battery 6-cell			40Y6799			ThinkPlus™ ²² 2-year LOR ²⁴ 9x5 NBD 41C9175				
2GB PC2-5300 DDR2 SODIMM				40Y7735	T/R/W/SL Series Li-Ion Battery 9-cell			40Y6797			ThinkPlus 3-year LOR 9x5 NBD 45K6021				
ThinkPad DVD Ultrabay Slim Burner (flat)				41N5643	Advanced Ultrabay Battery II 3-cell			43R9250			ThinkPlus 4-year LOR 9x5 NBD 45K6022				
Serial Hard Drive Ultrabay Slim Adapter (flat)				40Y8725	ThinkPad External Battery Charger			40Y7625			ThinkPlus 5-year LOR 9x5 NBD 45K6024				
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)				43N3406	ThinkPad 90W AC Adapter			40Y7659			ThinkPlus 4-year P&L P/U Depot 45K6023				
250GB Disk FDE SATA 1.5Gb/s (7200 rpm)				43N3410	90W Slim AC/DC Combo Adapter			41N8460			ThinkPlus 5-year P&L P/U Depot 45K6025				
250GB Disk 9.5mm SATA 1.5Gb/s (5400 rpm)				43R8152	ThinkPad Business Topload Case			43R2476			Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
320GB Disk SATA 1.5Gb/s (7200 rpm)				43N3411	ThinkPad Business Backpack			43R2482							
USB 2.0 Security Memory Key 4GB				41U5120	ThinkPad Deluxe Expander Case			43R2478							
USB 2.0 Super Multi-Burner Drive				41N5565	ThinkVision® L1700p 17" Monitor			9417HE2							
ThinkPad Convertible Monitor Stand				40Y7620	ThinkVision L1940p Wide 19" Monitor			4424HB6							
ThinkPad Advanced Mini Dock				250410U	ThinkVision L2240p Wide 22" Monitor			4422HB6							
ThinkPad Advanced Dock				250310U	ThinkVision L2440x Wide 24" Monitor			4421HB2							
Other accessories on O-T61 sheet	Other accessories at lenovo.com/accessories														

See footnotes for important warranty information
 US model announced on April 10, 2008

© Lenovo
 (CR4-4) April 2008

Partial list of accessories supported on:

- ThinkPad T61 originally announced on May 31, 2007
- ThinkPad T61 14W originally announced on May 9, 2007
- ThinkPad T61 15W originally announced on May 31, 2007

Memory

512MB PC2-5300 DDR2 SODIMM	40Y7733	ann	01/05/06
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	ann	03/25/08
1GB PC2-5300 DDR2 SODIMM	40Y7734	ann	01/05/06
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	ann	03/25/08
2GB PC2-5300 DDR2 SODIMM	40Y7735	ann	11/28/06

Ultrabay Slim 9.5mm (best to use flat bezel options)

Serial/Parallel Port Bay Adapter (flat bezel)	40Y8121	ann	01/31/06
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ann	09/20/05
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ann	05/31/07

Storage and removable storage

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

⁴¹ Can be used as the main HDD or with ThinkPad

Serial ATA Hard Drive Ultrabay Slim Adapter 40Y8725

in the Ultrabay or in the ThinkPad Advanced Dock 250310U.

Only 14W (14.1" widescreen) and 15W (15.4" widescreen) models:

128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ann	08/26/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann	07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann	10/28/08
USB 2.0 Security Memory Key 4GB	41U5120	ann	07/17/07
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann	08/26/08
USB Portable Diskette Drive	05K9276	ann	06/05/00
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann	01/05/06
USB 2.0 Portable 160GB Hard Disk	43R1784	ann	09/23/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
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
USB 2.0 Super Multi-Burner Drive	41N5565	ann	01/23/07

ThinkPad Expansion

USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ann	02/26/08
ThinkPad Adjustable Notebook Stand	40Y7676	ann	09/20/05
ThinkPad Essential Port Replicator	250510W	ann	09/20/05
ThinkPad Advanced Mini Dock	250410U	ann	09/20/05
ThinkPad Advanced Dock	250310U	ann	09/20/05

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann	12/07/04
USB Keyboard with UltraNav	31P8950	ann	01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann	04/27/04
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Optical Wheel Mouse (USB)	06P4069	ann	05/21/03
Optical ScrollPoint® Mouse (USB, PS/2)	31P7405	ann	08/27/02
Optical Wheel Travel Mouse (USB, PS/2)	31P7410	ann	06/04/02
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	ann	01/23/07
Lenovo Wireless Laser Mouse (blk, via USB)	45K1696	ann	11/25/08
Lenovo Wireless Laser Mouse (red, via USB)	51J0198	ann	11/25/08
Laser Tilt Wheel Travel Mouse (Bluetooth)	41U5008	ann	01/22/08

Security

Kensington® Cable Lock from Lenovo	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06
PC Card Gemplus Smart Card Reader	41N3004	ann	12/13/05
ExpressCard Gemplus Smart Card Reader	41N3043	ann	06/27/06

Multimedia

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann	06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann	08/29/06

Batteries

Only 14W models (14.1" widescreen):

T/R 14W Standard Battery 4-cell	41U3196	ann	05/09/07
T/R 14W Enhanced Battery 6-cell	41U3198	ann	05/09/07
T/R 14W High Capacity Battery 9-cell	43R2499	ann	03/04/08

Only 14 standard (14.1") and 15W models (15.4" widescreen):

T/R/W/SL Series Li-Ion Battery 6-cell	40Y6799	ann	01/05/06
T/R/W/SL Series Li-Ion Battery 9-cell	40Y6797	ann	09/20/05

All models:

Advanced Ultrabay Battery II 3-cell ⁴³	43R9250	ann	04/22/08
---	---------	-----	----------

⁴³ Used in Ultrabay Slim bay.

ThinkPad External Battery Charger ⁴⁴	40Y7625	ann	09/20/05
---	---------	-----	----------

⁴⁴ Requires the ThinkPad 90W AC Adapter

40Y7659 (adapter provided with some systems).

ThinkPad 65W AC Adapter⁴⁵ 40Y7696⁴⁵ Only compatible with the 945GM and GM965 chipset models.

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

ThinkPad 90W Slim AC/DC Combo Adapter	41N8460	ann	11/27/07
---------------------------------------	---------	-----	----------

Carrying Cases

Up to 14.1" widescreen models:

ThinkPad Expander Case	43R9118	ann	06/24/08
ThinkPad Women's Microfiber Tote	22P8855		
ThinkPad Women's Leather Trim Tote	22P8856		
ThinkPad Convertible Carrying Case	22P8860		
ThinkPad Women's Executive Leather Tote	22P8857		
Women's Executive Red Leather Tote	22P8858		

Up to 15.4" widescreen models:

Lenovo Carrying Case - Messenger Max	41U5253	ann	05/01/07
Lenovo Carr Case - Performance Backpack	41U5254	ann	05/01/07
Lenovo Standard Case	45K1697	ann	11/25/08
Lenovo Standard Backpack	45K1698	ann	11/25/08
Checkpoint Friendly Business Topload Case	51J0418	ann	02/24/09
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08

Up to 17.0" widescreen models:

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

Monitors

ThinkVision® L174 17" Monitor	9227AE1	ann	04/15/08
ThinkVision L1700p 17" Monitor	9417HE2	ann	09/17/08
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1940p Wide 19" Monitor	4424HB6	ann	09/17/08
ThinkVision L200p Wide 20.1" Monitor	4438HB6	ann	04/15/08
ThinkVision L2240p Wide 22" Monitor	4422HB6	ann	09/17/08
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08
ThinkVision L2440x Wide 24" Monitor	4421HB2	ann	09/17/08

Monitor Accessories⁴⁶

ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington Cable Lock from Lenovo	73P2582	ann	12/29/03
ThinkPad Convertible Monitor Stand	40Y7620	ann	01/05/06
Radial Arm	19K4464	ann	05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.More information at www.lenovo.com/support/monitoraccessoriesOther accessories at www.lenovo.com/accessoriesAccessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad®



Lenovo ThinkPad T400



Lenovo ThinkPad T400



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



Lenovo ThinkPad T400



Lenovo ThinkPad T400



Lenovo ThinkPad T400

ThinkPad® T400 6473 (GMA) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue- tooth	Card slot	Preload	Avail date
6473-P1U	P8400	2.26	2GB	14.1" WXGA		GMA	160G 5400	DVD±RW	Intel 5100	WWAN upg	None	Finger		PC	XP Pro	Sep 08
6473-E1U	P8700	2.53	2GB	14.1" WXGA	Cam	GMA	250G 5400	DVD±RW	Intel 5100	WWAN upg	None	Finger	Blue	7-in-1	Ult 32	Mar 09

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

Positioning Processor	Premiere performance; two spindles Intel® Core™ 2 Duo processor P8400 or P8700 with dual-core, Intel HD Boost, 1066MHz system bus; and 3MB L2 cache			Preloaded operating system ²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Ultimate Edition (32-bit) ♦ Vista Premium logo Preloaded applications ¹⁴ • E1U model: Education software - Microsoft Office Ultimate 2007 Academic Edition (and CD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW)		
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; Non-italics: 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 bay, flat bezel 160GB ⁸ (5400 rpm) or 250GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™					
Widescreen display Camera	14.1" (358.1mm) WXGA (1280x800) color, anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: camera on top of screen, 1.3-megapixel, fixed focus					
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; Maximum external resolution: 2048x1536 @75Hz					
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions					
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	6-cell 14.1W" (WxDxH): 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm 6-cell: starting at 5.0 lb (2.3kg) Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Slim 6-cell: up to 6.5 hr; 6-cell plus Ultrabay battery: up to 8.0 hr; 9-cell: up to 9.8 hr					
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)					
ExpressCard/54 PC Card Smart Card Reader Multicard Reader Ports	One slot (ExpressCard/34, ExpressCard/54) Some: One slot (Type I, Type II), CardBus 32-bit None Some: 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)					
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) None None 56K V.92 ⁶ modem Some: Bluetooth 2.0 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack			Supports ThinkVantage® technologies		
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip			65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available			ThinkPlus™.22 2-year LOR ²⁴ 9x5 NBD 41C9175		
1GB PC3-8500 DDR3 SODIMM (TopSeller)	43R2045	T/R 14W Standard Battery 4-cell	41U3196	ThinkPlus 3-year LOR 9x5 NBD 45K6021		
2GB PC3-8500 DDR3 SODIMM (TopSeller)	43R2046	T/R 14W Enhanced Battery 6-cell	41U3198	ThinkPlus 4-year LOR 9x5 NBD 45K6022		
4GB PC3-8500 DDR3 SODIMM	51J0493	T/R 14W High Capacity Battery 9-cell	43R2499	ThinkPlus 5-year LOR 9x5 NBD 45K6024		
Serial ATA Hard Drive Bay Adapter II SATA	43R1980	Advanced Ultrabay Battery II 3-cell	43R9250	ThinkPlus 4-year P&L P/U Depot 45K6023		
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	90W Slim AC/DC Combo Adapter	41N8460	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411	ThinkPad Business Topload Case	43R2476			
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Business Backpack	43R2482			
ThinkPad Adjustable Notebook Stand	40Y7676	T400/R400 Series 14W Privacy Filter	43R2472			
ThinkPad Advanced Dock	250310U	ThinkVision® L1940p Wide 19" Monitor	4424HB6			
Verizon WWAN UNDP Broadband	43R9151	ThinkVision L2240p Wide 22" Monitor	4422HB6			
AT&T WWAN HSPA Broadband Mini PCIe	43R9152	ThinkVision L2440p Wide 24" Monitor	4420HB2			
Other accessories on O-T400 sheet		Other accessories at lenovo.com/accessories				

See footnotes for important warranty information
 ⚡ US model announced March 24, 2009; previous model on September 2, 2008

© Lenovo
 (ML3-9) April 2009

ThinkPad® T400 7417 (GMA) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue- tooth	Card slot	Pre- load	Whorse (W) Gbl (G) Avail Educ date
7417-T1U P8400	P8400	2.26	2GB	14.1" WXGA		GMA 160G 5400 DVD±RW	Intel 5100 ²⁸ AT&T ²³					Fing	PC	B32		Aug 08
7417-T2U P8400	P8400	2.26	2GB	14.1" WXGA		GMA 160G 7200 DVD±RW	Intel 5100 AT&T					Fing	Blue PC	B32		Aug 08
7417-TNU T9400	T9400	2.53	2GB	14.1" WXGA	Cam	GMA 160G 7200 DVD±RW	Intel 5100 AT&T				2G Turbo	Fing	Blue PC	XP		Aug 08
7417-TPU P8400	P8400	2.26	2GB	14.1" WXGA		GMA 160G 5400 DVD±RW	Intel 5100 WWAN upg					Fing	PC	XP		Aug 08
7417-TRU P8400	P8400	2.26	2GB	14.1" WXGA		GMA 160G 7200 DVD±RW	Intel 5100 WWAN upg					Fing	Blue PC	XP		Aug 08
7417-TSU T9400	T9400	2.53	2GB	14.1" WXGA	Cam	GMA 160G 7200 DVD±RW	Intel 5100 WWAN upg				2G Turbo	Fing	Blue PC	B32		Aug 08
7417-TTU P8400	P8400	2.26	1GB	14.1" WXGA		GMA 160G 5400 Combo	Intel 5100 AT&T						PC	B32		Aug 08
7417-TUU P8400	P8400	2.26	1GB	14.1" WXGA		GMA 160G 5400 Combo	Intel 5100 WWAN upg						PC	XP		Aug 08
7417-P5U T9400	T9400	2.53	2GB	14.1" WXGA	Cam	GMA 160G 7200 DVD±RW	Intel 5100 WWAN upg					Fing	Blue PC	XP		Sep 08
7417-11U P8400	P8400	2.26	1GB	14.1" WXGA		GMA 160G 5400 DVD±RW	Intel 5100 WWAN upg						PC	XP		Oct 08
7417-P9U P8600	P8600	2.40	2GB	14.1" WXGA		GMA 160G 7200 DVD±RW	Intel 5100 WWAN upg					Fing	Blue PC	B32		Jan 09
7417-PAU P8600	P8600	2.40	2GB	14.1" WXGA	Cam	GMA 128G SSD DVD±RW	Intel 5100 WWAN upg					Fing	Blue PC	XP		Jan 09
7417-E1U P8700	P8700	2.53	2GB	14.1" WXGA	Cam	GMA 250G 5400 DVD±RW	Intel 5100 WWAN upg					Fing	Blue 7-in-1	U32 Edu		Mar 09
• These small and medium business (SMB) models are part of the US TopSeller™ Program																
Processor	Intel® Core™ 2 Duo processor P8400, P8600, P8700, or T9400 with dual-core, 1066MHz system bus; P8400/P8600/P8700: 3MB L2 cache; T9400: 6MB L2 cache											Preloaded operating system ²⁰				
Memory	1GB or 2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available											- Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) - Some: Microsoft Windows Vista Ultimate Edition (32-bit) ◇ Vista Premium logo				
SATA Combo SATA DVD±RW Ultrabay Slim SATA disk	Some: CD-RW/DVD-ROM, SATA 1.5Gb/s, 9.5mm Ultrabay Slim, removable (43N3213) Some: DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel Some: 128GB ⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high Some: 160GB ⁸ (5400 or 7200 rpm) or 250GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ All: removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive											Preloaded applications ¹⁴ (all OSes, only some listed) • Some: Education software - Microsoft Office Ultimate 2007 Academic Edition (and CD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • ThinkPad Utilities (Power Manager and Presentation Director) • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW)				
Widescreen display	14.1" (358.1mm) WXGA (1280x800) color, anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio											Supports ThinkVantage® technologies				
Camera	Some: camera on top of screen, 1.3-megapixel, fixed focus															
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; Maximum external resolution: 2048x1536@75Hz (VGA DB-15)															
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³	6-cell 14.1W" (WxDxH): 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm															
Weight ²	6-cell: starting at 5.0 lb (2.3kg)															
Case color	Black															
Case material	Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic															
Battery - type	Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Slim															
Battery - life ¹⁰	6-cell: up to 6.5 hr; 6-cell plus Ultrabay battery: up to 8.0 hr; 9-cell: up to 9.8 hr															
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54) Some: One slot (Type I, Type II), CardBus 32-bit											65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 4.0-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/54 PC Card Smart Card read Multicard reader Ports	Some: 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											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 Intel 5100 ²⁸ WiMAX	Three Mini PCI Express slots Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Some: 11a/b/g/n and WiMAX wireless ⁴ , Mini PCIe adap, Intel WiMAX/WiFi Link 5350, 3x3 (450Mbps) WiFi + 1x2 WiMAX (Echo Peak)															
WWAN upg AT&T ²³	Some: Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) Some: Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T															
2G Turbo UWB	Some: Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator															
Modem	None															
Bluetooth™	Some: Bluetooth 2.0 wireless, LED indicator															
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1															
Intel AMT	None															
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack															
Security	Power-on password, hard disk password, supervisor password, security keyhole															
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant															
Fingerprint reader	Some: Fingerprint reader on palm rest, swipe sensor, supports the security chip															
Limited warranty ¹²	1-year - EasyServ™.19 depot repair service / service upgrades ²² available															
2GB PC3-8500 DDR3 SODIMM (TopSeller)	43R2046						T/R 14W High Capacity Battery 9-cell	43R2499								
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406						90W Slim AC/DC Combo Adapter	41N8460								
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411						ThinkPad Business Topload Case	43R2476								
Other accessories on O-T400 sheet							Other accessories at lenovo.com/accessories									
Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty																

See footnotes for important warranty information

✦ Intel Centrino® 2 processor technology

© Lenovo
(ML3-1) March 2009

US model announced March 17, 2009;

previous models on August 5, September 2, or October 7, 2008 or January 6, 2009

ThinkPad® T400 2764 (Switchable) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Proc- essor	Mem- ory	Wide- screen display	Cam- era	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery cells	Whorse (W) Global (G)Avail
2764-EAU T9400	2.53	3GB	14.1" WXGA+Cam	GMA, HD 3470	160G 7200 DVD±RW	± Intel 5100 ²⁸	WWAN upg	None	9	Ult 32	Educ	Mar 09

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have an EasyServ™,19 depot repair service 1-year limited warranty

Positioning Processor	Premiere performance; two spindles Intel® Core™ 2 Duo processor T9400 with dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache			Preloaded operating system ²⁰ - Microsoft® Windows® Vista® Ultimate Edition (32-bit) ♦ Vista Premium logo Preloaded applications ¹⁴ <ul style="list-style-type: none">• Education software<ul style="list-style-type: none">- Microsoft Office Ultimate 2007 Academic Edition (and CD)• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions)• PC-Doctor™ (diagnostics)• ThinkPad Utilities (Power Manager and Presentation Director)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Fingerprint Software (fingerprint models)• Roxio® Creator® Business Edition• Roxio MyDVD® (DVD±RW)
Memory	3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available;			
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 160GB⁸ (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™			
Widescreen display	14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio			
Camera	Camera on top of screen, 1.3-megapixel, fixed focus			
Switchable graphics	Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, and ATI™ Mobility Radeon™ HD 3470 , PCI Express x16, 256MB memory, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; <i>Maximum external resolution: 2048x1536@75Hz</i>			
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass			
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions			
Dimensions ³	6-cell 14.1W" (WxDxH): 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm			
Weight ²	9-cell: starting at 5.4 lb (2.4kg)			
Case material	Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic			
Battery - type	Lithium Ion 9-cell , supports unique 2nd battery in Ultrabay Slim			
Battery - life ¹⁰	6-cell: up to 6.5 hr; 6-cell plus Ultrabay battery: up to 8.0 hr; 9-cell: up to 9.8 hr; 9-cell plus Ultrabay battery: up to 11.3 hr			
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)			
ExpressCard slot	One ExpressCard/34 or ExpressCard/54			
PC Card Std slot	None			
Smart Card Read	None			
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)			
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)			
Mini PCI Express	Three Mini PCI Express slots			
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)			
WWAN upg	Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)			
2G Turbo	None			
UWB	None			
Modem	56K V.92 ⁶ modem			
Bluetooth™	Bluetooth 2.0 wireless, LED indicator			
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1			
Intel AMT	None			
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack			
Security	Power-on password, hard disk password, supervisor password, security keyhole			
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant			
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip			
Limited warranty ¹²	1-years - EasyServ™,19 depot repair service / service upgrades ²² available			
1GB PC3-8500 DDR3 SODIMM	43R1987	T/R 14W Enhanced Battery 6-cell	41U3198	
2GB PC3-8500 DDR3 SODIMM	43R1988	T/R 14W High Capacity Battery 9-cell	43R2499	
4GB PC3-8500 DDR3 SODIMM	51J0493	Advanced Ultrabay Battery II 3-cell	43R9250	
Serial ATA Hard Drive Bay Adapter II SATA	43R1980	90W Slim AC/DC Combo Adapter	41N8460	
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ThinkPad Business Topload Case	43R2476	
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411	ThinkPad Business Backpack	43R2482	
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	T400/R400 Series 14W Privacy Filter	43R2472	
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkVision® L1940p Wide 19" Monitor	4424HB6	
ThinkPad Advanced Dock	250310U	ThinkVision L2240p Wide 22" Monitor	4422HB6	
AT&T WWAN HSPA Broadband Mini PCIe	43R9152	ThinkVision L2440p Wide 24" Monitor	4420HB2	
Other accessories on O-T400 sheet	Other accessories at lenovo.com/accessories			
Supports ThinkVantage® technologies				
90-watt (ATI graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 4.0-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 2-year LOR 9x5 NBD 41C9175				
ThinkPlus 3-year LOR 9x5 NBD 45K6021				
ThinkPlus 4-year LOR 9x5 NBD 45K6022				
ThinkPlus 5-year LOR 9x5 NBD 45K6024				
ThinkPlus 4-year P&L P/U Depot 45K6023				
ThinkPlus 5-year P&L P/U Depot 45K6025				
Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				

See footnotes for important warranty information
 US model announced March 17, 2009

✦ Intel Centrino® 2 processor technology

© Lenovo
 (ML3-12) March 2009

ThinkPad® T400 2765 (Switchable) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	CCFL or LED	Cam- era	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Card slot	Pre- load	Avail date
✗ 2765-T1U P8400	2.26	2GB	14.1" WXGA+				GMA, HD 3470	160G 7200 DVD±RW	✗ Intel 5100 ²⁸	AT&T ²³	2G Turbo	PC	B32	Aug 08	
2765-T2U T9400	2.53	2GB	14.1" WXGA+			Cam	GMA, HD 3470	160G 7200 DVD±RW	✗ Intel 5100	AT&T	2G Turbo	PC	XP	Aug 08	
2765-T6U P8400	2.26	2GB	14.1" WXGA+				GMA, HD 3470	160G 7200 DVD±RW	✗ Intel 5100	WWAN upg	2G Turbo	PC	XP	Aug 08	
2765-T7U T9400	2.53	2GB	14.1" WXGA+			Cam	GMA, HD 3470	160G 7200 DVD±RW	✗ Intel 5100	WWAN upg	2G Turbo	PC	B32	Aug 08	
2765-P3U T9400	2.53	2GB	14.1" WXGA+			Cam	GMA, HD 3470	160G 7200 DVD±RW	✗ Intel 5100	WWAN upg		PC	XP	Sep 08	
2765-33U P8400	2.26	2GB	14.1" WXGA+	LED			GMA, HD 3470	160G 7200 DVD±RW	✗ Intel 5100			PC	XP	Oct 08	
2765-PAU P8600	2.40	3GB	14.1" WXGA+				GMA, HD 3470	160G 7200 DVD±RW	✗ Intel 5100	WWAN upg		PC	XP	Mar 09	
2765-PBU P8600	2.40	3GB	14.1" WXGA+				GMA, HD 3470	160G 7200 DVD±RW	✗ Intel 5100	WWAN upg	2G Turbo	PC	B32	Mar 09	
2765-PCU T9400	2.53	3GB	14.1" WXGA+			Cam	GMA, HD 3470	320G 7200 DVD±RW	✗ Intel 5100	WWAN upg		PC	XP	Mar 09	
2765-PDU T9400	2.53	3GB	14.1" WXGA+			Cam	GMA, HD 3470	320G 7200 DVD±RW	✗ Intel 5100	WWAN upg	2G Turbo	PC	B32	Mar 09	
2765-PEU T9400	2.53	3GB	14.1" WXGA+			Cam	GMA, HD 3470	320G 7200 DVD±RW	✗ Intel 5100	AT&T		PC	XP	Mar 09	
2765-EAU T9400	2.53	3GB	14.1" WXGA+			Cam	GMA, HD 3470	160G 7200 DVD±RW	✗ Intel 5100	WWAN upg		7-in-1 U32		Mar 09	
• These small and medium business (SMB) models are part of the US TopSeller™ Program															
Positioning Processor	Premiere performance; two spindles Intel® Core™ 2 Duo processor P8400, P8600, or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; P8400/P8600: 3MB L2 cache; T9400: 6MB L2 cache										Preloaded operating system²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) - Some: Microsoft Windows Vista Ultimate Edition (32-bit) ✦ Vista Premium logo				
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available														
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 160GB⁸ (7200 rpm) or 320GB (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™										Preloaded applications¹⁴ (all OSes) • EAU model: Education software - Microsoft Office Ultimate 2007 Academic Edition (and CD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW)				
Widescreen display	Some: 14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: 14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 250 nits, 16:10 aspect ratio, 300:1 contrast ratio														
Camera	Some: camera on top of screen, 1.3-megapixel, fixed focus														
Switchable graphics	Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, and ATI™ Mobility Radeon™ HD 3470 , PCI Express x16, 256MB memory, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; <i>Maximum external resolution: 2048x1536@75Hz (VGA)</i>														
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	6-cell 14.1W" (WxDxH): 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm 9-cell: starting at 5.4 lb (2.4kg) Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic Lithium Ion 9-cell, supports unique 2nd battery in Ultrabay Slim 9-cell: up to 9.8 hr; 9-cell plus Ultrabay battery: up to 11.3 hr														
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54) Some: One slot (Type I, Type II), CardBus 32-bit														
ExpressCard/54 PC Card Smart Card Read Multicard Reader Ports	None Some: 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										Supports ThinkVantage® technologies				
Mini PCI Express Intel 5100 ²⁸ WWAN upg AT&T ²³	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Some: Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) Some: Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T® Some: Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator										90-watt (ATI graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 4.0-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				
2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	None 56K V.92 ⁶ modem Bluetooth 2.0 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader Fingerprint reader on palm rest, swipe sensor, supports the security chip										ThinkPlus™, 22 2-year LOR ²⁴ 9x5 NBD 41C9175 ThinkPlus 3-year LOR 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 Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
2GB PC3-8500 DDR3 SODIMM (TopSeller) 43R2046 4GB PC3-8500 DDR3 SODIMM 51J0493 320GB Disk SATA 1.5Gb/s (7200 rpm) 43N3411 Other accessories on O-T400 sheet	90W Slim AC/DC Combo Adapter 41N8460 ThinkPad Business Topload Case 43R2476 ThinkVision® L2440x Wide 24" Monitor 4421HB2 Other accessories at lenovo.com/accessories														

See footnotes for important warranty information

✦ Intel Centrino® 2 processor technology

✦ US models announced March 24, 2009; previous models on Aug 5, Sep 2, or October 7, 2008

✗ US model withdrawn effective September 2008

© Lenovo
(ML3-2) April 2009

Type-model	Proc- essor GHz	Memory	Wide- screen display	CCFL or LED	Cam- era	Inte- grated graphics	Disk SATA GB ⁵ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe Bat- tery UWB or Turbo	Blue/Car- d slot Fing slot	Whorse (W) Pre- Gbl (G) Avail load date	
6474-11U	P8400	2.26	1GB	14.1"	WXGA	GMA 80G	5400 Combo	✦ Intel 5100 ²⁸	WWAN upg			6 Yes PC	B32 G Aug 08	
6474-R1U	P8400	2.26	2GB	14.1"	WXGA	Cam GMA	160G 5400 Combo	✦ Intel 5100	WWAN upg			6 Yes 7-in-1	B32 WG Aug 08	
6474-R2U	T9400	2.53	2GB	14.1"	WXGA	Cam GMA	160G 7200 DVD±RW	✦ Intel 5100	WWAN upg	2G Turbo		9 Yes PC	B32 WG Aug 08	
6474-R3U	T9400	2.53	2GB	14.1"	WXGA	Cam GMA	160G 5400 DVD±RW	✦ Intel 5100	Verizon ¹⁶			6 Yes 7-in-1	B32 W Aug 08	
6474-P1U	T9400	2.53	2GB	14.1"	WXGA	GMA	160G 5400 DVD±RW	✦ Intel 5100	WWAN upg			6 Yes PC	XP G Sep 08	
6474-P2U	P8400	2.26	1GB	14.1"	WXGA	GMA	80G 5400 Combo	✦ Intel 5100	WWAN upg			6 Yes PC	XP G Sep 08	
6474-T1U	P8600	2.40	1GB	14.1"	WXGA	GMA	160G 5400 DVD±RW	✦ Intel 5100	WWAN upg			6 Smart	B32 TAA Oct 08	
6474-44U	P8400	2.26	3GB	14.1"	WXGA	Cam GMA	160G 5400 Combo	✦ Intel 5100	WWAN upg			6 Yes 7-in-1	B32 WG Nov 08	
6474-45U	T9400	2.53	3GB	14.1"	WXGA	Cam GMA	160G 5400 DVD±RW	✦ Intel 5100	WWAN upg			6 Yes PC	B32 WG Nov 08	
6474-P8U	P8600	2.40	2GB	14.1"	WXGA	GMA	160G 5400 DVD±RW	✦ Intel 5100	WWAN upg			6 Yes PC	B32 WG Dec 08	
6474-P9U	P8600	2.40	2GB	14.1"	WXGA+ LED	GMA	160G 7200 DVD±RW	✦ Intel 5100	WWAN upg			9 Yes PC	B32 WG Dec 08	
6474-R8U	P8600	2.40	3GB	14.1"	WXGA LED	GMA	160G 7200 DVD±RW	✦ Intel 5100	WWAN upg			6 Yes PC	B32 Feb 09	
6474-R9U	P8600	2.40	2GB	14.1"	WXGA LED	GMA	160G 5400 DVD±RW	✦ Intel 5100	WWAN upg			6 Yes PC	B32 Feb 09	
US Govt (TAA) ⁵ Processor	T1U: US Government model (Trade Act Agreement-compliant) Intel® Core™ 2 Duo processor P8400, P8600, or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; P8400/P8600: 3MB L2 cache; T9400: 6MB L2												Preloaded operating system²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) ✦ Vista Premium logo	
Memory	1GB, 2GB, or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available													
SATA Combo SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> CD-RW/DVD-ROM, SATA 1.5Gb/s, 9.5mm Ultrabay Slim, removable (43N3213) <i>Some:</i> DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 80GB⁸ (5400 rpm) or 160GB⁸ (5400 or 7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™												Preloaded applications¹⁴ (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW)	
Widescreen display	<i>Some:</i> 14.1" (358.1mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358.1mm) WXGA (1280x800) color , anti-glare, LED backlight , high brightness 680 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 250 nits, 16:10 aspect ratio, 300:1 contrast ratio													
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus													
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; <i>Maximum external resolution:</i> 2048x1536@75Hz													
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	6-cell 14.1W" (WxDxH): 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm 6-cell: starting at 5.0 lb (2.3kg); 9-cell: starting at 5.4 lb (2.4kg) Black <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell , supports unique 2nd battery in Ultrabay Slim 6-cell: up to 6.5 hr; 6-cell plus Ultrabay battery: up to 8.0 hr; 9-cell: up to 9.8 hr													
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54) <i>Some:</i> One slot (Type I, Type II), CardBus 32-bit <i>Some:</i> Smart Card reader <i>Some:</i> 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)												Supports ThinkVantage® technologies	
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378													
Mini PCI Express Intel 5100 ²⁸ WWAN upg Verizon ¹⁶	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) <i>Some:</i> Wireless WAN, Qualcomm chipset, Mini PCIe adapter and SIM, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, service contract reqd with Verizon												ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 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	
2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem <i>Some:</i> Bluetooth 2.0 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (IAMT 4.0) High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant <i>Some:</i> Fingerprint reader on palm rest, swipe sensor, supports the security chip													
Security Security chip Fingerprint reader	Limited warranty ¹² 3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available													
2GB PC3-8500 DDR3 SODIMM Other accessories on O-T400 sheet	43R1988 T/R 14W High Capacity Battery 9-cell 43R2499 Other accessories at lenovo.com/accessories													

See footnotes for important warranty information

✦ Intel Centrino® 2 with vPro™ technology

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

© Lenovo
(ML3-3) February 2009

Type-model	Proc- essor	GHz	Mem- ory	14.1" wide screen display	CCFL or Cam- LED era	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery	Blue/ Fing cells	Card slot	Whorse (W) Gbl (G) Avail	date
2767-11U	P8600	2.40	1GB	WXGA+		GMA, 3470	80G 5400 Combo	Intel 5100	28	WWAN upg		Yes	6 PC	B32	G Aug 08	
2767-12U	T9400	2.53	2GB	WXGA+		GMA, 3470	160G 5400 DVD±RW	Intel 5100		WWAN upg	2G Turbo	Yes	9 7-in-1	B32 W	G Aug 08	
2767-13U	T9400	2.53	2GB	WXGA+		GMA, 3470	160G 7200 DVD±RW	Intel 5100		Verizon ¹⁶	2G Turbo	Yes	9 7-in-1	B32 W	Aug 08	
2767-14U	T9600	2.80	2GB	WXGA+	Cam	GMA, 3470	160G 7200 DVD±RW	Intel 5100		WWAN upg	2G Turbo	Yes	9 7-in-1	B32 W	Aug 08	
2767-R2U	T9600	2.80	2GB	WXGA+	Cam	GMA, 3470	160G 7200 DVD±RW	Intel 5100		WWAN upg	2G Turbo	Yes	9 7-in-1	B64	Aug 08	
2767-R9U	T9600	2.80	2GB	WXGA+	LED Cam	GMA, 3470	160G 7200 DVD±RW	Intel 5100		Verizon	2G Turbo	Yes	9 7-in-1	B32 W	Aug 08	
2767-2GU	P8600	2.40	1GB	WXGA		GMA, 3470	160G 7200 Combo	Intel 5100		WWAN upg				6 Smart	B32 TAA	Aug 08
2767-2HU	P8600	2.40	2GB	WXGA+		GMA, 3470	160G 7200 DVD±RW	Intel 5100		WWAN upg				6 Smart	B32 TAA	Aug 08
2767-2JU	T9400	2.53	2GB	WXGA	Cam	GMA, 3470	250G 5400 DVD±RW	Intel 5100		WWAN upg		Yes	9 7-in-1	B32 W	G Aug 08	
2767-2NU	T9600	2.80	2GB	WXGA+	LED Cam	GMA, 3470	64G SSD DVD±RW	Intel 5300	28	WWAN upg		Yes	9 PC	B32	Sep 08	
2767-P1U	T9400	2.53	2GB	WXGA+		GMA, 3470	160G 7200 DVD±RW	Intel 5100		WWAN upg	2G Turbo	Yes	9 PC	XP	G Sep 08	
2767-P6U	P8600	2.40	1GB	WXGA+		GMA, 3470	80G 5400 Combo	Intel 5100		WWAN upg		Yes	6 PC	XP	G Sep 08	
2767-P7U	T9400	2.53	2GB	WXGA+		GMA, 3470	160G 5400 DVD±RW	Intel 5100		WWAN upg	2G Turbo	Yes	9 7-in-1	XP	G Sep 08	
US Govt (TAA) ⁵ Processor												Preloaded operating system ²⁰				
Intel® Core™ 2 Duo processor P8600, T9400, or T9600 with dual-core, Intel HD Boost, 1066MHz system bus; P8600: 3MB L2 cache; T9400/T9600: 6MB L2 cache												- Some: Microsoft® Windows® XP Professional with Vista® COA				
Memory												- Some: Microsoft Windows Vista Business Edition (32-bit)				
1GB or 2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; Italics: standard memory in both sockets; no sockets available; Non-italics: standard memory in one socket; one socket available												- Some: Microsoft Windows Vista Business Edition (64-bit)				
SATA Combo												♦ Vista Premium logo				
SATA DVD±RW												Preloaded applications ¹⁴ (all OSes)				
Ultrabay Slim												• Rescue and Recovery™				
SATA disk												• Access Connections™				
Some: CD-RW/DVD-ROM, SATA 1.5Gb/s, 9.5mm Ultrabay Slim, removable (43N3213)												• Client Security Solution™				
Some: DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214)												• ThinkVantage Productivity Center				
One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel												• ThinkVantage System Update				
Some: 64GB ⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high;												• McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions)				
Some: 80GB ⁸ (5400 rpm), 160GB (5400 or 7200 rpm), or 250GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™												• PC-Doctor™ (diagnostics)				
All: removable, upgradable, supports 2nd disk, shock mounted storage												• ThinkPad Utilities (Power Manager and Presentation Director)				
Widescreen display												• Adobe® Reader				
Some: 14.1" (358.1mm) WXGA (1280x800) color, anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio												• Windows Live™ Toolbar				
Some: 14.1" (358.1mm) WXGA+ (1440x900) color, anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio												• Windows Live Search				
Some: 14.1" (358.1mm) WXGA+ (1440x900) color, anti-glare, LED backlight, 250 nits, 16:10 aspect ratio, 300:1 contrast ratio												• Fingerprint Software (fingerprint models)				
Camera												• Microsoft Office 2007 Trial (60-day)				
Some: camera on top of screen, 1.3-megapixel, fixed focus												• Roxio® Creator® Business Edition				
Switchable graphics												• Roxio MyDVD® (DVD±RW)				
Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, and ATI™ Mobility Radeon™ HD 3470, PCI Express x16, 256MB memory, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; Maximum external resolution: 2048x1536@75Hz (VGA)												Supports ThinkVantage® technologies				
Keyboard												90-watt (ATI graphics) AC adapter				
TrackPoint®												ThinkPad Roll Cage and Top Cover				
Touch pad												Roll Cage (one-piece magnesium)				
ThinkLight™												Climate Savers® certified				
Dimensions ³												EPEAT™ Gold rating (LED model)				
Weight ²												EPEAT Silver rating (other models)				
6-cell: starting at 5.0 lb (2.3kg); 9-cell: starting at 5.4 lb (2.4kg)												ENERGY STAR® 4.0-compliant				
Case material												RoHS-compliant				
Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic												International Warranty Service ¹⁷				
Battery - type												24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				
Battery - life ¹⁰												via 800-426-7378				
6-cell: up to 6.5 hr; 6-cell plus Ultrabay battery: up to 8.0 hr; 9-cell: up to 9.8 hr												ThinkPlus™.22 2-year LOR ²⁴ 9x5 NBD				
Chipset												41C9175				
Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)												ThinkPlus 3-year LOR 9x5 NBD				
ExpressCard slot												45K6021				
One ExpressCard/34 or ExpressCard/54												ThinkPlus 4-year LOR 9x5 NBD				
PC Card Std slot												45K6022				
Some: One Type I or Type II slot, CardBus 32-bit												ThinkPlus 5-year LOR 9x5 NBD				
Smart Card Read												45K6024				
Some: Smart Card Reader												ThinkPlus 4-year P&L P/U Depot				
Multicard Reader												45K6023				
Some: 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)												ThinkPlus 5-year P&L P/U Depot				
Ports												45K6025				
Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)												Post-warranty annual maintenance agreements at				
Mini PCI Express												lenovo.com/thinkplus/warranty				
Three Mini PCI Express slots																
Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)																
Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5300, 3x3 (Shirley Peak)																
WWAN upg																
Some: Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)																
Some: Wireless WAN, Qualcomm chipset, Mini PCIe adapter and SIM, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, service contract reqd with Verizon																
2G Turbo																
Some: Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator																
UWB																
None																
Modem																
56K V.92 ⁶ modem																
Bluetooth™																
Some: Bluetooth 2.0 wireless, LED indicator																
Ethernet																
Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1																
Intel AMT																
Intel Active Management Technology (IAMT 4.0)																
Audio support																
High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack																
Security																
Power-on password, hard disk password, supervisor password, security keyhole																
Security chip																
Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant																
Fingerprint reader																
Some: Fingerprint reader on palm rest, swipe sensor, supports the security chip																
Limited warranty ¹²																
3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available																

See footnotes for important warranty information

♦ Intel Centrino® 2 with vPro™ technology

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

© Lenovo
(ML3-4) January 2009

ThinkPad® T400 2767 (Switchable) - October 2008

Personal Systems Reference (PSREF)

Type-model	Proc- essor	Mem- GHz	screen ory display	14.1" wide CCFL or LED	Cam- era	Switchable graphics	Disk SATA GB ³ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or TurboFing	Bat- tery Cery Card slot	Whorse (W) Pre- load	(G) Avail date
2767-31U	P8600	2.40	2GB	WXGA	Cam	GMA, 3470	160G 7200	DVD±RW	Intel 5300 ²⁸	WWAN upg		Yes 6	7-in-1	Bus32 WG Oct 08
2767-R1U	T9400	2.53	2GB	WXGA	Cam	GMA, 3470	160G 7200	DVD±RW	Intel 5100 ²⁸	WWAN upg	UWB Yes	9	7-in-1	Bus32 W Oct 08
2767-R3U	T9400	2.53	2GB	WXGA+	Cam	GMA, 3470	160G 7200	DVD±RW	Intel 5300	WWAN upg	UWB Yes	9	7-in-1	Bus32 W Oct 08
2767-T1U	P8600	2.40	1GB	WXGA		GMA, 3470	160G 7200	Combo	Intel 5100	WWAN upg		6	Smart	Bus32 TAA Oct 08
2767-T2U	P8600	2.40	2GB	WXGA+		GMA, 3470	160G 7200	DVD±RW	Intel 5100	WWAN upg		6	Smart	Bus32 TAA Oct 08
2767-4AU	T9400	2.53	3GB	WXGA+		GMA, 3470	160G 7200	DVD±RW	Intel 5100	WWAN upg		Yes 6	PC	Bus32 WG Nov 08
2767-P8U	P8600	2.40	2GB	WXGA+		GMA, 3470	160G 7200	DVD±RW	Intel 5100	WWAN upg		Yes 9	PC	Bus32 WG Dec 08
2767-P9U	P8600	2.40	2GB	WXGA+ LED		GMA, 3470	160G 7200	DVD±RW	Intel 5100	WWAN upg		Yes 9	PC	Bus32 WG Dec 08
US Govt (TAA) ⁵ Processor	T1U/T2U: US Government model (Trade Act Agreement-compliant) Intel® Core™ 2 Duo processor P8600 or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; P8600: 3MB L2 cache; T9400: 6MB L2 cache											Preloaded operating system ²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) Vista Premium logo		
Memory	1GB, 2GB, or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; Italics: standard memory in both sockets; no sockets available; Non-italics: standard memory in one socket; one socket available											Preloaded applications ¹⁴ • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW)		
SATA Combo SATA DVD±RW Ultrabay Slim SATA disk	Some: CD-RW/DVD-ROM, SATA 1.5Gb/s, 9.5mm Ultrabay Slim, removable (43N3213) Some: DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 160GB (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™													
Widescreen display	Some: 14.1" (358.1mm) WXGA (1280x800) color, anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: 14.1" (358.1mm) WXGA+ (1440x900) color, anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: 14.1" (358.1mm) WXGA+ (1440x900) color, anti-glare, LED backlight, 250 nits, 16:10 aspect ratio, 300:1 contrast ratio													
Camera	Some: camera on top of screen, 1.3-megapixel, fixed focus													
Switchable graphics	Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, and ATI™ Mobility Radeon™ HD 3470, PCI Express x16, 256MB memory, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; Maximum external resolution: 2048x1536@75Hz													
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	6-cell 14.1W" (WxDxH): 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm 6-cell: starting at 5.0 lb (2.3kg); 9-cell: starting at 5.4 lb (2.4kg) Black Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell, supports unique 2nd battery in Ultrabay Slim 6-cell: up to 6.5 hr; 6-cell plus Ultrabay battery: up to 8.0 hr; 9-cell: up to 9.8 hr													
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54) Some: One slot (Type I, Type II), CardBus 32-bit Some: Smart Card reader Some: 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											Supports ThinkVantage® technologies		
ExpressCard/54 PC Card Smart Card read Multicard reader Ports												90-watt (ATI graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating (LED model) EPEAT Silver rating (other models) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
Mini PCI Express Intel 5100 ²⁸ Intel 5300 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5300, 3x3 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) None Some: Wireless USB based on Ultra-Wideband (UWB), Half-Mini PCIe adapter 56K V.92 ⁶ modem Some: Bluetooth 2.0 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (IAMT 4.0) High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Some: Fingerprint reader on palm rest, swipe sensor, supports the security chip											ThinkPlus™. 22 2-year LOR ²⁴ 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		
Security Security chip Fingerprint reader														
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available													
2GB PC3-8500 DDR3 SODIMM 4GB PC3-8500 DDR3 SODIMM 320GB Disk SATA 1.5Gb/s (7200 rpm) USB 2.0 Portable Secure 320GB Hard Disk ThinkPad Advanced Dock Other accessories on O-T400 sheet	43R1988 51J0493 43N3411 43R2019 250310U		T/R 14W High Capacity Battery 9-cell 90W Slim AC/DC Combo Adapter ThinkPad Business Backpack T400/R400 Series 14W Privacy Filter ThinkVision® L2440x Wide 24" Monitor Other accessories at lenovo.com/accessories		43R2499 41N8460 43R2482 43R2472 4421HB2									

See footnotes for important warranty information

✦ Intel Centrino® 2 with vPro™ technology

⚠ US models announced December 2, 2008; previous models on October 7 or November 4, 2008

© Lenovo
(ML3-10) January 2009

Proc- Type-model	essor GHz Memory	Wide- screen display	CCFL or Cam- LED era	Integrated graphics	Disk SATA GB ³ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery Blue/ Card slot	Whorse (W) Pre- Gbl (G) Avail load GMP (P) date
6475-11U	P8400 2.26	1GB 14.1" WXGA		GMA 80G	5400 Combo	✦ Intel 5100 ²⁸	WWAN upg			6 Yes PC	B32 GP Aug 08
6475-R1U	P8400 2.26	2GB 14.1" WXGA		Cam GMA 160G	5400 Combo	✦ Intel 5100	WWAN upg			6 Yes 7-in-1	B32 WGP Aug 08
6475-R2U	T9400 2.53	2GB 14.1" WXGA		Cam GMA 160G	7200 DVD±RW	✦ Intel 5100	WWAN upg	2G Turbo		9 Yes PC	B32 WGP Aug 08
6475-P1U	T9400 2.53	2GB 14.1" WXGA		GMA 160G	5400 DVD±RW	✦ Intel 5100	WWAN upg			6 Yes PC	XP GP Sep 08
6475-44U	P8400 2.26	3GB 14.1" WXGA		Cam GMA 160G	5400 Combo	✦ Intel 5100	WWAN upg			6 Yes 7-in-1	B32 WGP Nov 08
6475-45U	T9400 2.53	3GB 14.1" WXGA		Cam GMA 160G	5400 DVD±RW	✦ Intel 5100	WWAN upg			6 Yes PC	B32 WGP Nov 08
6475-P8U	P8600 2.40	2GB 14.1" WXGA		GMA 160G	5400 DVD±RW	✦ Intel 5100	WWAN upg			6 Yes PC	B32 WGP Dec 08
6475-P9U	P8600 2.40	2GB 14.1" WXGA+ LED		GMA 160G	7200 DVD±RW	✦ Intel 5100	WWAN upg			9 Yes PC	B32 WGP Dec 08
• These models are part of the Global Models Plus program with limited onsite service ²⁴ 3-year limited warranty											
Positioning Processor	Premiere performance; two spindles Intel® Core™ 2 Duo processor P8400 or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; P8400: 3MB L2 cache; T9400: 6MB L2 cache									Preloaded operating system²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) ✦ Vista Premium logo	
Memory	1GB, 2GB, or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										
SATA Combo SATA DVD±RW Ultrabay Slim SATA disk	Some: CD-RW/DVD-ROM, SATA 1.5Gb/s, 9.5mm Ultrabay Slim, removable (43N3213) Some: DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 80GB⁸ (5400 rpm), 160GB (5400 rpm or 7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™									Preloaded applications¹⁴ (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW)	
Widescreen display	Some: 14.1" (358.1mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: 14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 250 nits, 16:10 aspect ratio, 300:1 contrast ratio										
Camera	Some: camera on top of screen, 1.3-megapixel, fixed focus										
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock										
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	6-cell 14.1W" (WxDxH): 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm 6-cell: starting at 5.0 lb (2.3kg); 9-cell: starting at 5.4 lb (2.4kg) Black Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell, supports unique 2nd battery in Ultrabay Slim 6-cell: up to 6.5 hr; 6-cell plus Ultrabay battery: up to 8.0 hr; 9-cell: up to 9.8 hr										
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)										
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	One slot (ExpressCard/34, ExpressCard/54) Some: One slot (Type I, Type II), CardBus 32-bit None Some: 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ¹ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Some: Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) Some: Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem Bluetooth 2.0 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (IAMT 4.0) High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole										
Security Security chip Fingerprint reader	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip										
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available										
1GB PC3-8500 DDR3 SODIMM 2GB PC3-8500 DDR3 SODIMM 4GB PC3-8500 DDR3 SODIMM 128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover) 320GB Disk SATA 1.5Gb/s (7200 rpm) USB 2.0 Portable Secure 320GB Hard Disk ThinkPad Advanced Dock Verizon WWAN UNDP Broadband AT&T WWAN HSPA Broadband Mini PCIe Other accessories on O-T400 sheet	43R1987 43R1988 51J0493 43N3406 43N3411 43R2019 250310U 43R9151 43R9152	T/R 14W Enhanced Battery 6-cell T/R 14W High Capacity Battery 9-cell Advanced Ultrabay Battery II 3-cell 90W Slim AC/DC Combo Adapter ThinkPad Business Topload Case ThinkPad Business Backpack T400/R400 Series 14W Privacy Filter ThinkVision® L2240p Wide 22" Monitor ThinkVision L2440x Wide 24" Monitor Other accessories at lenovo.com/accessories	41U3198 43R2499 43R9250 41N8460 43R2476 43R2482 43R2472 4422HB6 4421HB2	65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™.22 4-year LOR 9x5 NBD 45K6038 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty							

See footnotes for important warranty information

✦ Intel Centrino® 2 with vPro™ technology

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

© Lenovo
(ML3-5) January 2009

ThinkPad® T400 2768 (Switchable) - Onsite

Personal Systems Reference (PSREF)

Type-model	Proc- essor	Mem- GHz	14.1" wide- screen display	CCFL or LED	Cam- era	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe Bat- tery or Turbo	Card slot	Pre- load	Whorse (W) GMP (P) Avail (G) date
2768-11U	P8600	2.40	1GB	WXGA+		GMA, 3470	80G 5400	Combo	❖ Intel 5100 ²⁸	WWAN upg		6 PC	Bus32	G P Aug 08
2768-12U	T9400	2.53	2GB	WXGA+		GMA, 3470	160G 5400	DVD±RW	❖ Intel 5100	WWAN upg	Turbo	9 7-in-1	Bus32	WGP Aug 08
2768-2JU	T9400	2.53	2GB	WXGA	Cam	GMA, 3470	250G 5400	DVD±RW	❖ Intel 5100	WWAN upg		9 7-in-1	Bus32	WGP Aug 08
2768-P1U	T9400	2.53	2GB	WXGA+		GMA, 3470	160G 7200	DVD±RW	❖ Intel 5100	WWAN upg	Turbo	9 PC	XP Pro	GP Aug 08
2768-31U	P8600	2.40	2GB	WXGA	Cam	GMA, 3470	160G 7200	DVD±RW	❖ Intel 5300 ²⁸	WWAN upg		6 7-in-1	Bus32	WGP Oct 08
2768-4AU	T9400	2.53	3GB	WXGA+		GMA, 3470	160G 7200	DVD±RW	❖ Intel 5100	WWAN upg		6 PC	Bus32	WGP Nov 08
2768-P8U	P8600	2.40	2GB	WXGA+		GMA, 3470	160G 7200	DVD±RW	❖ Intel 5100	WWAN upg		9 PC	Bus32	WGP Dec 08
2768-P9U	P8600	2.40	2GB	WXGA+ LED		GMA, 3470	160G 7200	DVD±RW	❖ Intel 5100	WWAN upg		9 PC	Bus32	WGP Dec 08
• These models are part of the Global Models Plus program with limited onsite service ²⁴ 3-year limited warranty														
Positioning Processor	Premiere performance; two spindles Intel® Core™ 2 Duo processor P8600 or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; P8600: 3MB L2 cache; T9400: 6MB L2 cache											Preloaded operating system²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) ❖ Vista Premium logo		
Memory	1GB, 2GB, or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available											Preloaded applications¹⁴ (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW)		
SATA Combo SATA DVD±RW Ultrabay Slim SATA disk	Some: CD-RW/DVD-ROM, SATA 1.5Gb/s, 9.5mm Ultrabay Slim, removable (43N3213) Some: DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 80GB⁸ (5400 rpm), 160GB (5400 or 7200 rpm), or 250GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™													
Widescreen display	Some: 14.1" (358.1mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: 14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: 14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 250 nits, 16:10 aspect ratio, 300:1 contrast ratio													
Camera	Some: camera on top of screen, 1.3-megapixel, fixed focus													
Switchable graphics	Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, and ATI™ Mobility Radeon™ HD 3470 , PCI Express x16, 256MB memory, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; <i>Maximum external resolution: 2048x1536@75Hz (VGA)</i>													
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	6-cell 14.1W" (WxDxH): 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm 6-cell: starting at 5.0 lb (2.3kg); 9-cell: starting at 5.4 lb (2.4kg) Black Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell, supports unique 2nd battery in Ultrabay Slim 6-cell: up to 6.5 hr; 6-cell plus Ultrabay battery: up to 8.0 hr; 9-cell: up to 9.8 hr													
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)													
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	One slot (ExpressCard/34, ExpressCard/54) Some: One slot (Type I, Type II), CardBus 32-bit None Some: 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
Mini PCI Express Intel 5100 ²⁸ Intel 5300 ²⁸ WWAN upg 2G Turbo UWB	Three Mini PCI Express slots Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5300, 3x3 (Shirley Peak) Some: Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) Some: Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None													
Modem Bluetooth™ Ethernet Intel AMT Audio support	56K V.92 ⁶ modem Bluetooth 2.0 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (IAMT 4.0) High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack													
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip													
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available													
2GB PC3-8500 DDR3 SODIMM 4GB PC3-8500 DDR3 SODIMM 320GB Disk SATA 1.5Gb/s (7200 rpm) ThinkPad Advanced Dock Other accessories on O-T400 sheet	43R1988 51J0493 43N3411 250310U	T/R 14W High Capacity Battery 9-cell 90W Slim AC/DC Combo Adapter ThinkPad Business Topload Case ThinkVision® L2440p Wide 24" Monitor Other accessories at lenovo.com/accessories									43R2499 41N8460 43R2476 4420HB2	ThinkPlus™. 22 4-year LOR 9x5 NBD 45K6038 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		

See footnotes for important warranty information

❖ Intel Centrino® 2 with vPro™ technology

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

© Lenovo
(ML3-6) January 2009

ThinkPad® T400 2768 (Switchable) - Education (Onsite)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	Mem- ory	14.1" wide- screen display	CCFL or Cam- LED era	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe Bat- tery or Turbo cells	Whorse (W) GMP (P) Avail Gbl (G) date													
2768-E7U	T9400	2.53	2GB	WXGA+	Cam	GMA, 3470	160G 7200	DVD±RW	❖ Intel 5100 ²⁸	WWAN upg	None	6	7-in-1	Ult32	W	Feb 09								
<ul style="list-style-type: none">• This model has a limited onsite service²⁴ 3-year limited warranty• Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.• Microsoft® Office Ultimate 2007 Academic Edition: Only valid for sale to students, faculty and staff of accredited educational institutions in the United States.																								
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T9400 with dual-core , Intel HD Boost, 1066MHz system bus, and 6MB L2 cache										Preloaded operating system²⁰ - Microsoft® Windows® Vista® Ultimate Edition (32-bit) ❖ Vista Premium logo													
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ <ul style="list-style-type: none">• Education software - Microsoft Office Ultimate 2007 Academic Edition (and CD)• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions)• PC-Doctor™ (diagnostics)• ThinkPad Utilities (Power Manager and Presentation Director)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Fingerprint Software (fingerprint models)• Roxio® Creator® Business Edition• Roxio MyDVD® (DVD±RW)													
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 160GB (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™																							
Widescreen display	14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio																							
Camera	Camera on top of screen, 1.3-megapixel, fixed focus																							
Switchable graphics	Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, and ATI™ Mobility Radeon™ HD 3470 , PCI Express x16, 256MB memory, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; <i>Maximum external resolution:</i> 2048x1536@75Hz (VGA)																							
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys																							
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass																							
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label																							
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions																							
Dimensions ³	6-cell 14.1W" (WxDxH): 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm																							
Weight ²	6-cell: starting at 5.0 lb (2.3kg); 9-cell: starting at 5.4 lb (2.4kg)																							
Case color	Black																							
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic																							
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim																							
Battery - life ¹⁰	6-cell: up to 6.5 hr; 6-cell plus Ultrabay battery: up to 8.0 hr; 9-cell: up to 9.8 hr; 9-cell plus Ultrabay battery: up to 11.3 hr																							
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)																							
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)																							
PC Card	None																							
Smart Card read	None																							
Multicard reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)																							
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)																							
Mini PCI Express	Three Mini PCI Express slots																							
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)																							
Intel 5300 ²⁸	None																							
WWAN upg	Wireless WAN upgradable, requires <u>Verizon®</u> (43R9151) or <u>AT&T®</u> (43R9152)																							
2G Turbo	None																							
UWB	None																							
Modem	56K V.92 ⁶ modem																							
Bluetooth™	Bluetooth 2.0 wireless, LED indicator																							
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1																							
Intel AMT	Intel Active Management Technology (IAMT 4.0)																							
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack																							
Security	Power-on password, hard disk password, supervisor password, security keyhole																							
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant																							
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip																							
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available																							
2GB PC3-8500 DDR3 SODIMM						43R1988	T/R 14W High Capacity Battery 9-cell						43R2499											
320GB Disk SATA 1.5Gb/s (7200 rpm)						43N3411	90W Slim AC/DC Combo Adapter						41N8460											
ThinkPad Advanced Dock						250310U	ThinkPad Business Topload Case						43R2476											
AT&T WWAN HSPA Broadband Mini PCIe						43R9152	ThinkVision® L2440p Wide 24" Monitor						4420HB2											
Other accessories on O-T400 sheet	Other accessories at lenovo.com/accessories																							
ThinkPlus™. ²² 4-year LOR 9x5 NBD 45K6038 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty																								

See footnotes for important warranty information
 US model announced February 17, 2009

❖ Intel Centrino® 2 with vPro™ technology

© Lenovo
 (ML3-11) February 2009

ThinkPad® T400 6474 (GMA) - Education

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe Bat- tery UWB or Turbo	Blue/ cells	Fing	Card slot	Workhorse (W) Global (G) Avail date	
6474-E1U	P8400	2.26	1GB	14.1" WXGA	Cam	GMA	80G 5400	Combo	❖Intel 5100	WWAN upg	2G Turbo	6	Yes	PC Card	W Aug 08	
6474-E2U	T9400	2.53	2GB	14.1" WXGA	Cam	GMA	160G 7200	DVD±RW	❖Intel 5100	WWAN upg	2G Turbo	9	Yes	7-in-1	W Aug 08	
6474-E3U	T9400	2.53	2GB	14.1" WXGA	Cam	GMA	250G 5400	DVD±RW	❖Intel 5100	WWAN upg	2G Turbo	9	Yes	7-in-1	W Aug 08	
6474-E8U	P8700	2.53	2GB	14.1" WXGA	Cam	GMA	250G 5400	DVD±RW	❖Intel 5100	WWAN upg		6	Yes	7-in-1	Mar 09	
6474-E9U	T9600	2.80	3GB	14.1" WXGA+	Cam	GMA	160G 7200	DVD±RW	❖Intel 5100	WWAN upg		9	Yes	7-in-1	Mar 09	
• These models have an EasyServ™,19 depot repair service 3-year limited warranty Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.																
Positioning Processor	Premiere performance; two spindles Intel® Core™ 2 Duo processor P8400, P8700, T9400, or T9600 with dual-core , 1066MHz system bus; <i>P8400/P8700:</i> 3MB L2 cache; <i>T9400/T9600:</i> 6MB L2 cache										Preloaded operating system ²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ❖ Vista Premium logo Preloaded applications ¹⁴ (only some listed) • <i>E1U/E2U/E3U models:</i> Education software - Microsoft Office OneNote® 2007 (and CD) - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection - Photoshop Elements (and CD) - Premier Elements (and DVD) - Acrobat 8 Professional - Contribute 4 • <i>E8U/E9U models:</i> 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) - Premier Elements 7 (and DVD) - Acrobat 9 Professional (DVD) - Contribute CS4 (and DVD) - Soundbooth CS4 (and DVD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • Fingerprint Software (fingerprint models)					
Memory	1GB, 2GB, or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available <i>Non-italics:</i> standard memory in one socket; one socket available															
SATA Combo SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> CD-RW/DVD-ROM, SATA 1.5Gb/s, 9.5mm Ultrabay Slim, removable (43N3213) <i>Some:</i> DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 80GB⁸ (5400 rpm), 160GB (7200 rpm), or 250GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™															
Widescreen display	<i>Some:</i> 14.1" (358.1mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio															
Camera	Camera on top of screen, 1.3-megapixel, fixed focus															
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; <i>Maximum external resolution:</i> 2048x1536@75Hz															
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>6-cell 14.1W" (WxDxH):</i> 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm <i>6-cell:</i> starting at 5.0 lb (2.3kg); <i>9-cell:</i> starting at 5.4 lb (2.4kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 6.5 hr; <i>6-cell plus Ultrabay battery:</i> up to 8.0 hr; <i>9-cell:</i> up to 9.8 hr															
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)															
ExpressCard slot PC Card Std slot Smart Card Read Multicard Reader Ports	One ExpressCard/34 or ExpressCard/54 <i>Some:</i> One Type I or Type II slot, CardBus 32-bit <i>Some:</i> 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										Supports ThinkVantage® technologies					
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) <i>Some:</i> Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem Bluetooth 2.0 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (IAMT 4.0) High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole										65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378					
Security Security chip Fingerprint reader	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip										ThinkPlus™,22 2-year LOR ²⁴ 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025					
Limited warranty ¹²	3-years/1-yr battery - EasyServ™,19 depot repair service / service upgrades ²² available															
1GB PC3-8500 DDR3 SODIMM						43R1987	USB 2.0 Super Multi-Burner Drive					41N5565				
2GB PC3-8500 DDR3 SODIMM						43R1988	ThinkPad Advanced Dock					250310U				
4GB PC3-8500 DDR3 SODIMM						51J0493	T/R 14W High Capacity Battery 9-cell					43R2499				
Serial ATA Hard Drive Bay Adapter II SATA						43R1980	Advanced Ultrabay Battery II 3-cell					43R9250				
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)						43N3406	90W Slim AC/DC Combo Adapter					41N8460				
320GB Disk SATA 1.5Gb/s (7200 rpm)						43N3411	T400/R400 Series 14W Privacy Filter					43R2472				
Other accessories on O-T400 sheet	Other accessories at lenovo.com/accessories															

See footnotes for important warranty information

❖ Intel Centrino® 2 with vPro™ technology

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

© Lenovo
(ML3-7) April 2009

ThinkPad® T400 2767 (Switchable) - Education

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Mem- ory	Wide- screen display	Cam- era	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe Bat- tery Card or Turbo cells slot	Whorse (W) Global (G) Avail date
2767-E1U T9400	2.53	2.53	2GB	14.1"	WXGA+Cam	GMA, HD 3470	160G 5400	DVD±RW	Intel 5100 ²⁸	WWAN upg	2G Turbo	9 7-in-1 B32 W Aug 08
2767-E2U T9400	2.53	2.53	2GB	14.1"	WXGA+Cam	GMA, HD 3470	160G 7200	DVD±RW	Intel 5100	WWAN upg	2G Turbo	9 7-in-1 B32 W Aug 08
2767-E7U T9400	2.53	2.53	2GB	14.1"	WXGA+Cam	GMA, HD 3470	160G 7200	DVD±RW	Intel 5100	WWAN upg	2G Turbo	6 7-in-1 U32 W Feb 09
2767-E8U T9600	2.80	3GB	14.1"	WXGA+Cam	GMA, HD 3470	160G 7200	DVD±RW	Intel 5100	WWAN upg			9 7-in-1 B32 Mar 09
<ul style="list-style-type: none">• These models have an EasyServ™,19 depot repair service 3-year limited warranty• Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.• Microsoft® Office Ultimate 2007 Academic Edition: Only valid for sale to students, faculty and staff of accredited educational institutions in the United States.												
Positioning Processor	Premiere performance; two spindles Intel® Core™ 2 Duo processor T9400 or T9600 with dual-core, Intel HD Boost, and 6MB L2 cache										Preloaded operating system²⁰ - Some: Microsoft® Windows® Vista® Business Edition (32-bit) - Some: Microsoft Windows Vista Ultimate Edition (32-bit) ♦ Vista Premium logo Preloaded applications¹⁴ (all OSes, only some listed) • E7U model: Education software - Microsoft Office Ultimate 2007 Academic Edition (and CD) • E1U/E2U models: Education software - Microsoft Office OneNote® 2007 (and CD) - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection - Photoshop Elements (and CD) - Premier Elements (and DVD) - Acrobat 8 Professional - Contribute 4 • E8U model: 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) - Premier Elements 7 (and DVD) - Acrobat 9 Professional (DVD) - Contribute CS4 (and DVD) - Soundbooth CS4 (and DVD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • Fingerprint Software (fingerprint models)	
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available											
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 160GB⁸ (5400 or 7200rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™											
Widescreen display	14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio											
Camera	Camera on top of screen, 1.3-megapixel, fixed focus											
Switchable graphics	Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, and ATI™ Mobility Radeon™ HD 3470 , PCI Express x16, 256MB memory, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; <i>Maximum external resolution:</i> 2048x1536@75Hz											
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass											
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions ³	6-cell 14.1W" (WxDxH): 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm											
Weight ²	9-cell: starting at 5.4 lb (2.4kg)											
Case material	Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic											
Battery - type	Lithium Ion 6-cell or 9-cell , supports unique 2nd battery in Ultrabay Slim											
Battery - life ¹⁰	6-cell: up to 6.5 hr; 6-cell plus Ultrabay battery: up to 8.0 hr; 9-cell: up to 9.8 hr; 9-cell plus Ultrabay battery: up to 11.3 hr											
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)											
ExpressCard slot	One ExpressCard/34 or ExpressCard/54											
PC Card Std slot	None											
Smart Card Read	None											
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)											
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										Supports ThinkVantage® technologies	
Mini PCI Express	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) WWAN upg Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) Some: Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator UWB None Modem 56K V.92 ⁶ modem Bluetooth™ Bluetooth 2.0 wireless, LED indicator Ethernet Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel AMT Intel Active Management Technology (IAMT 4.0) Audio support High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack										90-watt (ATI graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 4.0-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	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant										ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175	
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip										ThinkPlus 3-year LOR 9x5 NBD 45K6021	
Limited warranty ¹²	3-years/1-yr battery - EasyServ™,19 depot repair service / service upgrades ²² available										ThinkPlus 4-year LOR 9x5 NBD 45K6022	
1GB PC3-8500 DDR3 SODIMM						43R1987	T/R 14W Enhanced Battery 6-cell	41U3198	ThinkPlus 5-year LOR 9x5 NBD 45K6024			
2GB PC3-8500 DDR3 SODIMM						43R1988	T/R 14W High Capacity Battery 9-cell	43R2499	ThinkPlus 4-year P&L P/U Depot 45K6023			
4GB PC3-8500 DDR3 SODIMM						51J0493	Advanced Ultrabay Battery II 3-cell	43R9250	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Serial ATA Hard Drive Bay Adapter II SATA						43R1980	90W Slim AC/DC Combo Adapter	41N8460				
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)						43N3406	ThinkPad Business Topload Case	43R2476				
320GB Disk SATA 1.5Gb/s (7200 rpm)						43N3411	ThinkPad Business Backpack	43R2482				
USB 2.0 Portable Secure 320GB Hard Disk						43R2019	T400/R400 Series 14W Privacy Filter	43R2472				
USB 2.0 Super Multi-Burner Drive						41N5565	ThinkVision® L1940p Wide 19" Monitor	4424HB6				
ThinkPad Advanced Dock						250310U	ThinkVision L2240p Wide 22" Monitor	4422HB6				
AT&T WWAN HSPA Broadband Mini PCIe						43R9152	ThinkVision L2440p Wide 24" Monitor	4420HB2				
Other accessories on O-T400 sheet												
Other accessories at lenovo.com/accessories												

See footnotes for important warranty information

✦ Intel Centrino® 2 with vPro™ technology

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

© Lenovo
(ML3-8) April 2009

Partial list of accessories supported on:**• ThinkPad T400 originally announced on August 5, 2008****Memory**

1GB PC3-8500 DDR3 SODIMM (TopSeller)	43R2045	ann	11/04/08
1GB PC3-8500 DDR3 SODIMM	43R1987	ann	08/05/08
2GB PC3-8500 DDR3 SODIMM (TopSeller)	43R2046	ann	11/04/08
2GB PC3-8500 DDR3 SODIMM	43R1988	ann	08/05/08
4GB PC3-8500 DDR3 SODIMM	51J0493	ann	03/03/09

Ultrabay Slim 9.5mm

Serial ATA Hard Drive Bay Adapter II SATA	43R1980	ann	08/05/08
DVD-ROM Ultrabay Slim SATA 1.5Gb/s	43N3212	ann	08/05/08
CD-RW/DVD-ROM Ultrabay Slim SATA	43N3213	ann	08/05/08
DVD Burner Ultrabay Slim SATA 1.5Gb/s	43N3214	ann	08/05/08
Blu-ray™ Burner Ultrabay Slim SATA 1.5Gb/s	43N3215	ann	08/05/08

Storage and removable storage

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

⁴¹ Can be used as the main HDD or with Serial ATA Hard Drive Bay Adapter 43R1980 in the Ultrabay or (in the ThinkPad Advanced Dock 250310U with Serial Hard Drive Ultrabay Slim Adapter 40Y8725)

128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ann	08/26/08
USB 2.0 Essential Memory Key 4GB	45J7904	ann	06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann	07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann	10/28/08
USB 2.0 Security Memory Key 2GB	41U5119	ann	07/17/07
USB 2.0 Security Memory Key 4GB	41U5120	ann	07/17/07
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann	08/26/08
USB Portable Diskette Drive	05K9276	ann	06/05/00
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann	01/05/06
USB 2.0 Portable 160GB Hard Disk	43R1784	ann	09/23/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
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
USB 2.0 Super Multi-Burner Drive	41N5565	ann	01/23/07

Wireless WAN (Mini PCI Express)

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

ThinkPad Expansion

USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ann	02/26/08
ThinkPad Adjustable Notebook Stand	40Y7676	ann	09/20/05
ThinkPad Essential Port Replicator	250510W	ann	09/20/05
ThinkPad Advanced Mini Dock	250410U	ann	09/20/05
ThinkPad Advanced Dock	250310U	ann	09/20/05

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann	12/07/04
USB Keyboard with UltraNav	31P8950	ann	01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann	04/27/04
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Optical Wheel Mouse (USB)	06P4069	ann	05/21/03
Optical ScrollPoint® Mouse (USB, PS/2)	31P7405	ann	08/27/02
Optical Wheel Travel Mouse (USB, PS/2)	31P7410	ann	06/04/02
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	ann	01/23/07
Lenovo Wireless Laser Mouse (blk, via USB)	45K1696	ann	11/25/08
Lenovo Wireless Laser Mouse (red, via USB)	51J0198	ann	11/25/08
Laser Tilt Wheel Travel Mouse (Bluetooth)	41U5008	ann	01/22/08

Security

Kensington® Cable Lock from Lenovo	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
T400/R400 Series 14W Privacy Filter	43R2472	ann	08/05/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06
PC Card Gemplus Smart Card Reader	41N3004	ann	12/13/05
ExpressCard Gemplus Smart Card Reader	41N3043	ann	06/27/06

Multimedia

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann	06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann	08/29/06

Batteries

T/R 14W Standard Battery 4-cell	41U3196	ann	05/09/07
T/R 14W Enhanced Battery 6-cell	41U3198	ann	05/09/07
T/R 14W High Capacity Battery 9-cell	43R2499	ann	03/04/08
Advanced Ultrabay Battery II 3-cell ⁴³	43R9250	ann	04/22/08
⁴³ Used in Ultrabay Slim bay.			
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann	09/20/05
⁴⁴ Requires the ThinkPad 90W AC Adapter 40Y7659 (adapter provided with some systems).			

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter ⁴⁵	40Y7696	ann	01/05/06
⁴⁵ Only compatible with the GM45 chipset models.			
ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
ThinkPad 90W Slim AC/DC Combo Adapter	41N8460	ann	11/27/07

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

Charging tips for 90W Slim AC/DC Combo Adapter 41N8460

•Dual (ThinkPad+Phone) Charging Y-Cable	41R4345	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 14.1" widescreen models:

ThinkPad Expander Case	43R9118	ann	06/24/08
ThinkPad Women's Microfiber Tote	22P8855		
ThinkPad Women's Leather Trim Tote	22P8856		
ThinkPad Convertible Carrying Case	22P8860		
ThinkPad Women's Executive Leather Tote	22P8857		
Women's Executive Red Leather Tote	22P8858		

Up to 15.4" widescreen models:

Lenovo Carrying Case - Messenger Max	41U5253	ann	05/01/07
Lenovo Carr Case - Performance Backpack	41U5254	ann	05/01/07
Lenovo Standard Case	45K1697	ann	11/25/08
Lenovo Standard Backpack	45K1698	ann	11/25/08
Checkpoint Friendly Business Topload Case	51J0418	ann	02/24/09
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08

Up to 17.0" widescreen models:

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

Lenovo luxury cases at www.lenovoluxurycases.com

Monitors

ThinkVision® L174 17" Monitor	9227AE1	ann	04/15/08
ThinkVision L1700p 17" Monitor	9417HE2	ann	09/17/08
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1940p Wide 19" Monitor	4424HB6	ann	09/17/08
ThinkVision L200p Wide 20.1" Monitor	4438HB6	ann	04/15/08
ThinkVision L2240p Wide 22" Monitor	4422HB6	ann	09/17/08
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08
ThinkVision L2440x Wide 24" Monitor	4421HB2	ann	09/17/08

Monitor Accessories⁴⁶

ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington Cable Lock from Lenovo	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
ThinkPad Convertible Monitor Stand	40Y7620	ann	01/05/06
Radial Arm	19K4464	ann	05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad®



Lenovo ThinkPad T500



Lenovo ThinkPad T500



Lenovo ThinkPad T500



ThinkPad Business Topload Case
part number 43R2476



Lenovo ThinkPad T500



Lenovo ThinkPad T500

ThinkPad® T500 2242 (GMA) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	CCFL or LED	Cam-era	Integrated graphics	Disk SATA GB ³ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue-tooth	Pre-load	Avail date
2242-22U	P8400	2.26	2GB	15.4" WXGA			GMA	160G 5400	DVD±RW	Intel 5100 ²⁸	AT&T ²³		Fing	Blue	Bus 32	Aug 08
2242-23U	T9400	2.53	2GB	15.4" WXGA			GMA	160G 7200	DVD±RW	Intel 5100	AT&T		Fing	Blue	XP Pro	Aug 08
2242-32U	P8400	2.26	2GB	15.4" WXGA			GMA	160G 7200	DVD±RW	Intel 5100	AT&T		Fing	Blue	Bus 32	Aug 08
2242-33U	P8400	2.26	2GB	15.4" WXGA			GMA	160G 5400	DVD±RW	Intel 5100	WWAN upg		Fing	Blue	XP Pro	Aug 08
2242-34U	T9400	2.53	2GB	15.4" WXGA			GMA	160G 7200	DVD±RW	Intel 5100	WWAN upg	2G Turbo	Fing	Blue	Bus 32	Aug 08
2242-35U	P8400	2.26	2GB	15.4" WXGA			GMA	160G 7200	DVD±RW	Intel 5100	WWAN upg		Fing	Blue	XP Pro	Aug 08
2242-4EU	P8400	2.26	1GB	15.4" WXGA			GMA	160G 5400	Combo	Intel 5100	AT&T				Bus 32	Aug 08
2242-4FU	P8400	2.26	1GB	15.4" WXGA			GMA	160G 5400	Combo	Intel 5100	WWAN upg				XP Pro	Aug 08
2242-55U	T9400	2.53	2GB	15.4" WXGA			GMA	160G 7200	DVD±RW	Intel 5100	WWAN upg		Fing	Blue	XP Pro	Sep 08
2242-5FU	P8400	2.26	1GB	15.4" WXGA			GMA	160G 5400	DVD±RW	Intel 5100	WWAN upg				XP Pro	Sep 08
2242-5GUP	P8400	2.26	2GB	15.4" WXGA	LED		GMA	160G 5400	DVD±RW	Intel 5100			Fing	Blue	XP Pro	Sep 08
2242-5HU	P8400	2.26	2GB	15.4" WXGA	LED		GMA	160G 7200	DVD±RW	Intel 5100			Fing	Blue	XP Pro	Sep 08
2242-6BU	P8600	2.40	2GB	15.4" WXGA	LED		GMA	160G 5400	DVD±RW	WiMAX			Fing	Blue	Bus 32	Jan 09
2242-6CU	P8600	2.40	2GB	15.4" WXGA	LED	Cam	GMA	128G SSD	DVD±RW	Intel 5100			Fing	Blue	XP Pro	Jan 09

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

Processor	Intel® Core™ 2 Duo processor P8400, P8600, or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; P8400/P8600: 3MB L2 cache; T9400: 6MB L2 cache											Preloaded operating system ²⁰				
Memory	1GB or 2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available											- Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) ◇ Vista Premium logo				
SATA Combo SATA DVD±RW Ultrabay Slim SATA disk	Some: CD-RW/DVD-ROM, SATA 1.5Gb/s, 9.5mm Ultrabay Slim, removable (43N3213) Some: DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel Some: 128GB ⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high Some: 160GB ⁸ (5400 or 7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ All: removable, upgradable, supports second disk, Shock Mounted Hard Drive											Preloaded applications ¹⁴ (all OSes)				
Widescreen display	Some: 15.4" (391mm) WXGA (1280x800) color, anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: 15.4" (391mm) WXGA (1280x800) color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 400:1 contrast ratio											• Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW)				
Camera	Some: camera on top of screen, 1.3-megapixel, fixed focus											Supports ThinkVantage® technologies				
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); Maximum external resolution: 2048x1536@75Hz											65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 4.0-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™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	6-cell 15.4W" (WxDxH): 14.1" x 10" x 1.2-1.3"; 357.5mm x 255mm x 30-34mm 6-cell: starting at 5.9 lb (2.7kg) Black Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Slim 6-cell: up to 6.3 hr; 6-cell plus Ultrabay battery: up to 7.8 hr; 9-cell: up to 9.4 hr															
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit															
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	None 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)															
Mini PCI Express Intel 5100 ²⁸ WiMAX	Three Mini PCI Express slots Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Some: 11a/b/g/n and WiMAX wireless ⁴ , Mini PCIe adap, Intel WiMAX/WiFi Link 5350, 3x3 (450Mbps) WiFi + 1x2 WiMAX (Echo Peak)											ThinkPlus™. 22 1-year LOR ²⁴ 9x5 NBD 45K5968				
WWAN upg AT&T ²³	Some: Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) Some: Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T											ThinkPlus 2-year LOR 9x5 NBD 45K5969				
2G Turbo UWB	Some: Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None											ThinkPlus 3-year LOR 9x5 NBD 45K5970				
Modem	56K V.92 ⁶ modem											ThinkPlus 4-year LOR 9x5 NBD 45K5973				
Bluetooth™	Some: Bluetooth 2.0 wireless, LED indicator											ThinkPlus 5-year LOR 9x5 NBD 45K5975				
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1											ThinkPlus 2-year P&L P/U Depot 45K5971				
Intel AMT	None											ThinkPlus 3-year P&L P/U Depot 45K5972				
Audio support	High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack											ThinkPlus 4-year P&L P/U Depot 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, integrated in ICH9M, TCG 1.2-compliant															
Fingerprint reader	Some: Fingerprint reader on palm rest, swipe sensor, supports the security chip															
Limited warranty ¹²	1-year - EasyServ™.19 depot repair service / service upgrades ²² available											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
Other accessories on O-T500 sheet	Other accessories at lenovo.com/accessories															

See footnotes for important warranty information

✦ Intel Centrino® 2 processor technology

☞ US models announced January 6, 2009; previous models on August 5 or September 23, 2008

⚡ US models withdrawn effective September 2008

© Lenovo
(CR5-1) January 2009

ThinkPad® T500 2242 (GMA) - TopSeller (March 2009)

Personal Systems Reference (PSREF)

Type-model	Proc-essor	GHz	Memory	Wide-screen display	CCFL or LED	Cam-era	Integrated graphics	Disk SATA GB ³ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue-tooth	Pre-load	Avail date
2242-6YU	P8600	2.40	1GB	15.4" WXGA	LED		GMA	160G 5400	DVD±RW	Intel 5100 ²⁸	WWAN upg	None			XP Pro	Mar 09
2242-6ZU	P8600	2.40	2GB	15.4" WXGA	LED		GMA	160G 7200	DVD±RW	Intel 5100	WWAN upg	None	Fing		XP Pro	Mar 09
2242-72U	P8600	2.40	2GB	15.4" WXGA	LED		GMA	160G 7200	DVD±RW	WiMAX	WWAN upg	None	Fing		Bus 32	Mar 09
2242-73U	P8600	2.40	3GB	15.4" WXGA	LED	Cam	GMA	160G 7200	DVD±RW	Intel 5100	WWAN upg	None	Fing	Blue	XP Pro	Mar 09
2242-74U	T9400	2.53	3GB	15.4" WXGA	LED	Cam	GMA	160G 7200	DVD±RW	Intel 5100	WWAN upg	None	Fing	Blue	XP Pro	Mar 09
2242-75U	T9400	2.53	3GB	15.4" WXGA	LED	Cam	GMA	128G SSD	DVD±RW	Intel 5100	WWAN upg	None	Fing	Blue	XP Pro	Mar 09

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have an EasyServ™¹⁹ depot repair service 1-year limited warranty

Processor	Intel® Core™ 2 Duo processor P8600 or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; <i>P8600</i> : 3MB L2 cache; <i>T9400</i> : 6MB L2 cache			Preloaded operating system ²⁰ - <i>Some</i> : Microsoft® Windows® XP Professional with Vista® COA - <i>Some</i> : Microsoft Windows Vista Business Edition (32-bit) ✦ Vista Premium logo Preloaded applications ¹⁴ (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW) Supports ThinkVantage® technologies 65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating (LED model) EPEAT Silver rating (other models) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Memory	1GB, 2GB, or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics</i> : standard memory in both sockets; no sockets available; <i>Non-italics</i> : standard memory in one socket; one socket available			
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel <i>Some</i> : 128GB ⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some</i> : 160GB (5400 or 7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All</i> : removable, upgradable, supports second disk, Shock Mounted Hard Drive			
Widescreen display Camera	15.4" (391mm) WXGA (1280x800) color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 400:1 contrast ratio <i>Some</i> : camera on top of screen, 1.3-megapixel, fixed focus			
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution</i> : 2048x1536@75Hz			
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions			
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>6-cell 15.4W"</i> (WxDxH): 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm <i>6-cell</i> : starting at 5.9 lb (2.7kg) Black <i>Top</i> : Super-Elastic PolyCarbonate (SEPC); <i>Bottom</i> : Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell</i> : up to 6.3 hr; <i>6-cell plus Ultrabay battery</i> : up to 7.8 hr; <i>9-cell</i> : up to 9.4 hr			
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit			
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	None 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)			
Mini PCI Express Intel 5100 ²⁸ WiMAX	Three Mini PCI Express slots <i>Some</i> : 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some</i> : 11a/b/g/n and WiMAX wireless ⁴ , Mini PCIe adap, Intel WiMAX/WiFi Link 5350, 3x3 (450Mbps) WiFi + 1x2 WiMAX (Echo Peak)			
WWAN upg 2G Turbo UWB	Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) None None			
Modem	56K V.92 ⁶ modem			
Bluetooth™	<i>Some</i> : Bluetooth 2.0 wireless, LED indicator			
Ethernet Intel AMT	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 None			
Audio support	High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack			
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant <i>Some</i> : Fingerprint reader on palm rest, swipe sensor, supports the security chip			
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available			
2GB PC3-8500 DDR3 SODIMM (TopSeller) 43R2046 128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover) 43N3406 320GB Disk SATA 1.5Gb/s (7200 rpm) 43N3411 ThinkPad Advanced Dock 250310U Other accessories on O-T500 sheet	T/R/W/SL Series Li-Ion Battery 9-cell ThinkPad 90W AC Adapter 90W Slim AC/DC Combo Adapter T500/R500/W500 15W Privacy Filter Other accessories at lenovo.com/accessories		40Y6797 40Y7659 41N8460 43R2474	

See footnotes for important warranty information
US models announced March 24, 2009

✦ Intel Centrino® 2 processor technology

© Lenovo
(CR5-12) April 2009

ThinkPad® T500 2243 (GMA) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ⁸	rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue- tooth	Preload	Avail date
2243-56U	P8400	2.26	2GB	15.4" WXGA	None	GMA	160G	5400	DVD+RW	Intel 5100 ²⁸	None	None	Finger	None	XP Pro	Sep 08

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

Processor	Intel® Core™ 2 Duo processor P8400 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache		Preloaded operating system²⁰ - Microsoft® Windows® XP Professional with Vista® COA ↳ Vista Premium logo Preloaded applications¹⁴ <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions)• PC-Doctor™ (diagnostics)• ThinkPad Utilities (Power Manager and Presentation Director)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Fingerprint Software (fingerprint models)• Microsoft Office 2007 Trial (60-day)• Roxio® Creator® Business Edition• Roxio MyDVD® (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available		
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 160GB⁸ (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™		
Widescreen display Camera	15.4" (391mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio None		
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536 @75Hz		
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass IllumNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>6-cell 15.4W" (WxDxH):</i> 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm <i>6-cell:</i> starting at 5.9 lb (2.7kg) Black <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 6.3 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.8 hr; <i>9-cell:</i> up to 9.4 hr		
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)		
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit None 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) None None None 56K V.92 ⁹ modem None Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant None		
Security Security chip Fingerprint reader	None		
Limited warranty ¹² 3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available			
1GB PC3-8500 DDR3 SODIMM (TopSeller) 43R2045		T/R/W/SL Series Li-Ion Battery 6-cell 40Y6799	
2GB PC3-8500 DDR3 SODIMM (TopSeller) 43R2046		T/R/W/SL Series Li-Ion Battery 9-cell 40Y6797	
4GB PC3-8500 DDR3 SODIMM 51J0493		Advanced Ultrabay Battery II 3-cell 43R9250	
Serial ATA Hard Drive Bay Adapter II SATA 43R1980		ThinkPad 90W AC Adapter 40Y7659	
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover) 43N3406		90W Slim AC/DC Combo Adapter 41N8460	
320GB Disk SATA 1.5Gb/s (7200 rpm) 43N3411		ThinkPad Business Topload Case 43R2476	
USB 2.0 Portable Secure 320GB Hard Disk 43R2019		ThinkPad Business Backpack 43R2482	
USB 2.0 Super Multi-Burner Drive 41N5565		T500/R500/W500 15W Privacy Filter 43R2474	
ThinkPad Advanced Dock 250310U		ThinkVision® L1940p Wide 19" Monitor 4424HB6	
Verizon WWAN UNDP Broadband 43R9151		ThinkVision L2240p Wide 22" Monitor 4422HB6	
AT&T WWAN HSPA Broadband Mini PCIe 43R9152		ThinkVision L2440x Wide 24" Monitor 4421HB2	
Other accessories on O-T500 sheet		Other accessories at lenovo.com/accessories	
ThinkPlus™ ²² 2-year LOR ²⁴ 9x5 NBD 41C9175			
ThinkPlus 3-year LOR 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 23, 2008

❖ Intel Centrino® 2 processor technology

© Lenovo
(CR5-11) December 2008

ThinkPad® T500 2082 (Switchable) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe Bat- tery UWB or Turbo cells	Preload	Avail date
2082-26U	P8400	2.26	2GB	15.4" WSXGA+		GMA, HD 3650	160G 7200	DVD±RW	Intel 5100 ²⁸	AT&T ²³	9 Bus 32	Aug 08	
2082-27U	T9400	2.53	2GB	15.4" WSXGA+	Cam	GMA, HD 3650	160G 7200	DVD±RW	Intel 5100	AT&T	9 XP Pro	Aug 08	
2082-3GU	T9400	2.53	2GB	15.4" WSXGA+	Cam	GMA, HD 3650	160G 7200	DVD±RW	Intel 5100		2G Turbo 9 Bus 32	Aug 08	
2082-3HU	P8400	2.26	2GB	15.4" WSXGA+		GMA, HD 3650	160G 7200	DVD±RW	Intel 5100		9 XP Pro	Aug 08	
2082-5XU	T9400	2.53	2GB	15.4" WSXGA+	Cam	GMA, HD 3650	160G 7200	DVD±RW	Intel 5100		9 XP Pro	Sep 08	
2082-7YU	P8600	2.40	2GB	15.4" WSXGA+		GMA, HD 3650	160G 7200	DVD±RW	Intel 5100		2G Turbo 9 Bus 32	Jan 09	
2082-8ZU	P8600	2.40	3GB	15.4" WSXGA+		GMA, HD 3650	160G 7200	DVD±RW	Intel 5100	WWAN upg	9 XP Pro	Mar 09	
2082-92U	P8600	2.40	3GB	15.4" WSXGA+		GMA, HD 3650	160G 7200	DVD±RW	Intel 5100	WWAN upg	2G Turbo 9 Bus 32	Mar 09	
2082-93U	T9400	2.53	3GB	15.4" WSXGA+	Cam	GMA, HD 3650	320G 7200	DVD±RW	Intel 5100	WWAN upg	9 XP Pro	Mar 09	
2082-94U	T9400	2.53	3GB	15.4" WSXGA+	Cam	GMA, HD 3650	320G 7200	DVD±RW	Intel 5100	WWAN upg	2G Turbo 9 Bus 32	Mar 09	
2082-95U	T9400	2.53	3GB	15.4" WSXGA+	Cam	GMA, HD 3650	320G 7200	DVD±RW	Intel 5100	AT&T	9 XP Pro	Mar 09	
<ul style="list-style-type: none">These small and medium business (SMB) models are part of the US TopSeller™ ProgramThese models have an EasyServ™, 19 depot repair service 3-year limited warranty													
Positioning Processor	Premiere performance; two spindles Intel® Core™ 2 Duo processor P8400, P8600, or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; P8400/P8600: 3MB L2 cache; T9400: 6MB L2 cache										Preloaded operating system ²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) ♦ Vista Premium logo Preloaded applications ¹⁴ (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW)		
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available												
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 160GB ⁸ (7200 rpm) or 320GB (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™												
Widescreen display	15.4" (391mm) WSXGA+ (1680x1050) color, anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio <i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus												
Switchable graphics	Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, and ATI™ Mobility Radeon™ HD 3650, PCI Express x16, 256MB memory, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); Maximum external resolution: 2048x1536@75Hz												
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys										Supports ThinkVantage® technologies 90-watt (ATI graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 4.0-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 2-year LOR ²⁴ 9x5 NBD 41C9175 ThinkPlus 3-year LOR 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		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	6-cell 15.4W" (WxDxH): 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm												
Weight ²	9-cell: starting at 6.2 lb (2.8kg)												
Case color	Black												
Case material	Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic												
Battery - type	Lithium Ion 9-cell, supports unique 2nd battery in Ultrabay Slim												
Battery - life ¹⁰	9-cell: up to 9.4 hr; 9-cell plus Ultrabay battery: up to 10.9 hr												
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)												
ExpressCard/54	One slot (ExpressCard/34 or ExpressCard/54)												
PC Card	One slot (Type I, Type II), CardBus 32-bit												
Smart Card read	None												
Multicard reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)												
Ports	Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)												
Mini PCI Express	Three Mini PCI Express slots												
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)												
WWAN upg	Some: Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)												
AT&T ²³	Some: Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T												
2G Turbo	Some: Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator												
UWB	None												
Modem	56K V.92 ⁶ modem												
Bluetooth™	Bluetooth 2.0 wireless, LED indicator												
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1												
Intel AMT	None												
Audio support	High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant												
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip												
Limited warranty ¹²	3-years/1-yr battery - EasyServ™, 19 depot repair service / service upgrades ²² available												
2GB PC3-8500 DDR3 SODIMM			43R1988			90W Slim AC/DC Combo Adapter			41N8460				
320GB Disk SATA 1.5Gb/s (7200 rpm)			43N3411			ThinkVision® L2440x Wide 24" Monitor			4421HB2				
Other accessories on O-T500 sheet	Other accessories at lenovo.com/accessories												
										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			

See footnotes for important warranty information

Intel Centrino® 2 processor technology

© Lenovo
(CR5-2) April 2009

US models announced March 24, 2009; previous models on August 5, September 23, 2008 or January 6, 2009

US model withdrawn effective September 2008

Type-model	Proc- essor	GHz	Memory	Wide- screen display	CCFL or LED	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery cells	Blue/Card Fing slot	Whorse (W) Gbl (G) Avail Preload date
2089-2JU	P8400	2.26	1GB	15.4" WXGA			GMA 80G	5400 Combo	✦ Intel 5100 ²⁸	WWAN upg			6	Yes	PC B32 G Aug 08
2089-2KU	T9400	2.53	2GB	15.4" WXGA			Cam GMA 160G	5400 DVD±RW	✦ Intel 5100	WWAN upg	2G Turbo		6	Yes	PC B32 WG Aug 08
2089-2LU	T9400	2.53	2GB	15.4" WXGA			GMA 160G	5400 DVD±RW	✦ Intel 5100	Verizon ¹⁶	2G Turbo		9	Yes	PC B32 W Aug 08
2089-2MU	T9400	2.53	2GB	15.4" WXGA			Cam GMA 160G	7200 DVD±RW	✦ Intel 5100	WWAN upg			6	Yes	PC B32 W Aug 08
2089-3HU	T9400	2.53	2GB	15.4" WXGA			Cam GMA 160G	5400 DVD±RW	✦ Intel 5100	WWAN upg			6	Yes	PC B32 W Aug 08
2089-3JU	T9400	2.53	2GB	15.4" WXGA			GMA 160G	5400 DVD±RW	✦ Intel 5100	AT&T ²³	2G Turbo		9	Yes	PC B32 W Aug 08
2089-4XU	T9400	2.53	2GB	15.4" WXGA	LED	Cam	GMA 160G	5400 DVD±RW	✦ Intel 5100	WWAN upg			6	Yes	PC B32 WG Sep 08
2089-58U	T9400	2.53	2GB	15.4" WXGA			GMA 160G	5400 DVD±RW	✦ Intel 5100	WWAN upg			6	Yes	PC XP G Sep 08
2089-59U	P8400	2.26	1GB	15.4" WXGA			GMA 80G	5400 Combo	✦ Intel 5100	WWAN upg			6	Yes	PC XP Sep 08
2089-5WUP	P8600	2.40	2GB	15.4" WSXGA+			GMA 160G	5400 DVD±RW	✦ Intel 5100	WWAN upg			6	Smart	B32 TAA Oct 08
2089-5ZU	P8600	2.40	2GB	15.4" WSXGA	LED		GMA 160G	5400 DVD±RW	✦ Intel 5100	WWAN upg			6	Yes	PC B32 WG Dec 08
US Govt (TAA) ⁵ Processor	5WU: US Government model (Trade Act Agreement-compliant) Intel® Core™ 2 Duo processor P8400, P8600, or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; P8400/P8600: 3MB L2 cache; T9400: 6MB L2 cache														
Memory	1GB or 2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available														
SATA Combo SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> CD-RW/DVD-ROM, SATA 1.5Gb/s, 9.5mm Ultrabay Slim, removable (43N3213) <i>Some:</i> DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 80GB⁸ (5400 rpm) or 160GB (5400 or 7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™														
Widescreen display	<i>Some:</i> 15.4" (391mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 15.4" (391mm) WXGA (1280x800) color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 400:1 contrast ratio <i>Some:</i> 15.4" (391mm) WSXGA+ (1680x1050) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio														
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus														
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536@75Hz (VGA, DisplayPort)														
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>6-cell 15.4W"</i> (WxDxH): 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm <i>6-cell:</i> starting at 5.9 lb (2.7kg); <i>9-cell:</i> starting at 6.2 lbs (2.8kg) Black <i>Top:</i> Super-Elastic Polycarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 6.3 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.8 hr; <i>9-cell:</i> up to 9.4 hr														
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)														
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	One slot (ExpressCard/34, ExpressCard/54) <i>Some:</i> One slot (Type I, Type II), CardBus 32-bit <i>Some:</i> Smart Card reader 7-in-1 reader (MMC, Memory Stick, Mem Stick PRO™, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
Mini PCI Express Intel 5100 ²⁸ WWAN upg Verizon ¹⁶ AT&T ²³ 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) <i>Some:</i> Wireless WAN, Qualcomm chipset, Mini PCIe adapter and SIM, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, service contract reqd with Verizon <i>Some:</i> Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T <i>Some:</i> Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem <i>Some:</i> Bluetooth 2.0 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (IAMT 4.0) High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant <i>Some:</i> Fingerprint reader on palm rest, swipe sensor, supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available														
1GB PC3-8500 DDR3 SODIMM 2GB PC3-8500 DDR3 SODIMM 320GB Disk SATA 1.5Gb/s (7200 rpm) Other accessories on O-T500 sheet	43R1987 43R1988 43N3411 T/R/W/SL Series Li-Ion Battery 9-cell 40Y6797 90W Slim AC/DC Combo Adapter 41N8460 ThinkVision® L2440x Wide 24" Monitor 4421HB2 Other accessories at lenovo.com/accessories														
												Preloaded operating system²⁰ - <i>Some:</i> Microsoft® Windows® XP Professional with Vista® COA - <i>Some:</i> Microsoft Windows Vista Business Edition (32-bit) ✦ Vista Premium logo Preloaded applications¹⁴ (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW)			
												Supports ThinkVantage® technologies			
												65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating (LED models) EPEAT Silver rating ENERGY STAR® 4.0-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 2-year LOR ²⁴ 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025			
												Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			

See footnotes for important warranty information

✦ Intel Centrino® 2 with vPro™ technology

® US Model announced December 2, 2008; previous models on Aug 5, Sep 23, or October 7, 2008

© Lenovo
(CR5-3) December 2008

Type-model	Proc- essor	Mem- ory	Wide- screen display	CCFL or LED	Cam- era	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo slot	Bat- tery Card	Blue/ Global (G)Avail	Workhorse (W) FingPreload	date
2055-2BU T9400	2.53	2GB	15.4"	WSXGA+		GMA, 3650	80G 5400 Combo	Intel 5100 ²⁸	WWAN upg	PC	6	Yes	B32	G Aug 08	
2055-2CU T9400	2.53	2GB	15.4"	WSXGA+		GMA, 3650	160G 5400 DVD±RW	Intel 5100	WWAN upg	PC	6	Yes	B32	W G Aug 08	
2055-2EU T9400	2.53	2GB	15.4"	WSXGA+		GMA, 3650	160G 7200 DVD±RW	Intel 5100	Verizon ¹⁶	2G	PC	9	Yes	B32	W Aug 08
2055-3AU T9600	2.80	4GB	15.4"	WSXGA+	Cam	GMA, 3650	160G 7200 DVD±RW	Intel 5100	WWAN upg	2G	PC	9	Yes	B32	W G Aug 08
2055-45U T9400	2.53	2GB	15.4"	WSXGA+		GMA, 3650	160G 7200 DVD±RW	Intel 5100	WWAN upg	PC	9	Yes	B32	G Aug 08	
2055-2DU T9400	2.53	2GB	15.4"	WSXGA+	Cam	GMA, 3650	160G 7200 DVD±RW	Intel 5100	WWAN upg	UWBPC	6	Yes	B32	W Sep 08	
2055-2VU T9400	2.53	2GB	15.4"	WSXGA+	Cam	GMA, 3650	160G 7200 DVD±RW	Intel 5300 ²⁸	WWAN upg	UWB Smart	9		B32	Sep 08	
2055-5TU T9400	2.53	2GB	15.4"	WXGA	LED Cam	GMA, 3650	160G 7200 DVD±RW	Intel 5300	WWAN upg	PC	9	Yes	B32	W G Sep 08	
2055-5UU T9400	2.53	2GB	15.4"	WXGA	LED Cam	GMA, 3650	64G SSD DVD±RW	Intel 5300	WWAN upg	PC	9	Yes	B32	Sep 08	
2055-63U T9400	2.53	2GB	15.4"	WSXGA+		GMA, 3650	160G 7200 DVD±RW	Intel 5100	WWAN upg	PC	9	Yes	XP	G Sep 08	
2055-7GU T9400	2.53	2GB	15.4"	WSXGA+		GMA, 3650	160G 7200 DVD±RW	Intel 5300	WWAN upg	Smart	9		B32	TAA Oct 08	
2055-7LU P8600	2.40	2GB	15.4"	WSXGA+		GMA, 3650	160G 7200 DVD±RW	Intel 5100	WWAN upg	PC	9	Yes	B32	W G Dec 08	
US Govt (TAA) ⁵ Processor	7GU: US Government model (Trade Act Agreement-compliant) Intel® Core™ 2 Duo processor P8600, T9400, or T9600 with dual-core , Intel HD Boost, 1066MHz system bus; P8600: 3MB L2 cache; T9400/T9600: 6MB L2 cache										Preloaded operating system²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) ◇ Vista Premium logo				
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available														
SATA Combo SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> CD-RW/DVD-ROM, SATA 1.5Gb/s, 9.5mm Ultrabay Slim, removable (43N3213) <i>Some:</i> DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel <i>Some:</i> 64GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high; <i>Some:</i> 80GB⁸ (5400 rpm), 160GB⁸ (5400 or 7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, shock mounted storage										Preloaded applications¹⁴ (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW)				
Widescreen display	<i>Some:</i> 15.4" (391mm) WXGA (1280x800) color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 400:1 contrast ratio <i>Some:</i> 15.4" (391mm) WSXGA+ (1680x1050) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio														
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus														
Switchable graphics	Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, and ATI™ Mobility Radeon™ HD 3650 , PCI Express x16, 256MB memory, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536@75Hz (VGA, DisplayPort)														
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>6-cell 15.4W"</i> (WxDxH): 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm <i>6-cell:</i> starting at 5.9 lb (2.7kg); <i>9-cell:</i> starting at 6.2 lbs (2.8kg) Black <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 6.3 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.8 hr; <i>9-cell:</i> up to 9.4 hr														
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) <i>One slot (ExpressCard/34, ExpressCard/54) Some:</i> One slot (Type I, Type II), CardBus 32-bit Some: Smart Card reader 7-in-1 reader (MMC, Memory Stick, Mem Stick PRO™, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
ExpressCard/54 PC Card Smart Card read Multicard reader Ports											Supports ThinkVantage® technologies				
Mini PCI Express	Three Mini PCI Express slots <i>Intel 5100²⁸</i> <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Intel 5300²⁸</i> <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5300, 3x3 (Shirley Peak) <i>WWAN upg</i> <i>Some:</i> Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) <i>Verizon¹⁶</i> <i>Some:</i> Wireless WAN, Qualcomm chipset, Mini PCIe adapter and SIM, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, service contract reqd with Verizon														
2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator <i>Some:</i> Wireless USB based on Ultra-Wideband (UWB), Half-Mini PCIe adapter 56K V.92 ⁶ modem <i>Some:</i> Bluetooth 2.0 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (IAMT 4.0) High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant <i>Some:</i> Fingerprint reader on palm rest, swipe sensor, supports security chip														
Security Security chip Fingerprint reader															
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available														
2GB PC3-8500 DDR3 SODIMM 320GB Disk SATA 1.5Gb/s (7200 rpm) Other accessories on O-T500 sheet	43R1988 43N3411 90W Slim AC/DC Combo Adapter 41N8460 ThinkVision® L2440x Wide 24" Monitor 4421HB2 Other accessories at lenovo.com/accessories										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				

See footnotes for important warranty information

✦ Intel Centrino® 2 with vPro™ technology

© Lenovo

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

(CR5-4) December 2008

Type-model	Proc- essor GHz	Memory	Wide- screen display	CCFL or LED	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery Blue- tooth	Whorse (W) GMP (P) Avail date
2241-3WUP	P8400	2.26 1GB	15.4" WXGA				GMA 80G 5400	Combo	❖Intel 5100 ²⁸	WWAN upg		6 Blue Bus 32 GP Aug 08	
2241-3XU	T9400	2.53 2GB	15.4" WXGA		Cam		GMA 160G 5400	DVD±RW	❖Intel 5100	WWAN upg	2G Turbo	6 Blue Bus 32 WGP Aug 08	
2241-3YU	T9400	2.53 2GB	15.4" WXGA		Cam		GMA 160G 5400	DVD±RW	❖Intel 5100	WWAN upg		6 Blue Bus 32 GP Aug 08	
2241-4XU	T9400	2.53 2GB	15.4" WXGA	LED	Cam		GMA 160G 5400	DVD±RW	❖Intel 5100	WWAN upg		6 Blue Bus 32 WGP Sep 08	
2241-58U	T9400	2.53 2GB	15.4" WXGA				GMA 160G 5400	DVD±RW	❖Intel 5100	WWAN upg		6 Blue XP Pro GP Sep 08	
2241-5ZU	P8600	2.40 2GB	15.4" WXGA	LED			GMA 160G 5400	DVD±RW	❖Intel 5100	WWAN upg		6 Blue Bus 32 WGP Dec 08	
• These models are part of the Global Models Plus program with limited onsite service ²⁴ 3-year limited warranty													
Positioning Processor	Premiere performance; two spindles Intel® Core™ 2 Duo processor P8400, P8600, or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; P8400/P8600: 3MB L2 cache; T9400: 6MB L2 cache											Preloaded operating system ²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) ❖ Vista Premium logo	
Memory	1GB or 2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; Italics: standard memory in both sockets; no sockets available; Non-italics: standard memory in one socket; one socket available												
SATA Combo SATA DVD±RW Ultrabay Slim SATA disk	Some: CD-RW/DVD-ROM, SATA 1.5Gb/s, 9.5mm Ultrabay Slim, removable (43N3213) Some: DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 80GB ⁸ (5400 rpm), 160GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™											Preloaded applications ¹⁴ (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW)	
Widescreen display	Some: 15.4" (391mm) WXGA (1280x800) color, anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: 15.4" (391mm) WXGA (1280x800) color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 400:1 contrast ratio												
Camera	Some: camera on top of screen, 1.3-megapixel, fixed focus												
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); Maximum external resolution: 2048x1536@75Hz												
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	6-cell 15.4W" (WxDxH): 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm 6-cell: starting at 5.9 lb (2.7kg) Black Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Slim 6-cell: up to 6.3 hr; 6-cell plus Ultrabay battery: up to 7.8 hr; 9-cell: up to 9.4 hr												
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)												
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit None 7-in-1 reader (MMC, Memory Stick, Mem Stick PRO™, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)												
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) Some: Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem Bluetooth 2.0 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (IAMT 4.0) High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack												
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip												
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available												
1GB PC3-8500 DDR3 SODIMM			43R1987			T/R/W/SL Series Li-Ion Battery 6-cell	40Y6799						
2GB PC3-8500 DDR3 SODIMM			43R1988			T/R/W/SL Series Li-Ion Battery 9-cell	40Y6797						
4GB PC3-8500 DDR3 SODIMM			51J0493			Advanced Ultrabay Battery II 3-cell	43R9250						
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)			43N3406			90W Slim AC/DC Combo Adapter	41N8460						
320GB Disk SATA 1.5Gb/s (7200 rpm)			43N3411			ThinkPad Business Topload Case	43R2476						
USB 2.0 Portable Secure 320GB Hard Disk			43R2019			ThinkPad Business Backpack	43R2482						
USB 2.0 Super Multi-Burner Drive			41N5565			DisplayPort to Single-link DVI-D Cable	45J7915						
ThinkPad Advanced Dock			250310U			T500/R500/W500 15W Privacy Filter	43R2474						
Verizon WWAN UNDP Broadband			43R9151			ThinkVision® L2240p Wide 22" Monitor	4422HB6						
AT&T WWAN HSPA Broadband Mini PCIe			43R9152			ThinkVision L2440x Wide 24" Monitor	4421HB2						
Other accessories on O-T500 sheet	Other accessories at lenovo.com/accessories												
ThinkPlus™. 22 4-year LOR 9x5 NBD 45K6038													
Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty													

See footnotes for important warranty information

♦ Intel Centrino® 2 with vPro™ technology

© Lenovo

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

(CR5-5) December 2008

ThinkPad® T500 2056 (Switchable) - Onsite

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Mem- ory	Wide- screen display	CCFL or LED	Cam- era	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe Bat- tery or Turbo cells	Whorse (W) GMP (P) Avail Preload Gbl (G) date
2056-4PU T9400	2.53	2GB	15.4"	WSXGA+			GMA, 3650	80G 5400	Combo	Intel 5100 ²⁸	WWAN upg	6	B32 GP Aug 08
2056-4QU T9400	2.53	2GB	15.4"	WSXGA+			GMA, 3650	160G 5400	DVD±RW	Intel 5100	WWAN upg	6	B32 WGP Aug 08
2056-4RU T9400	2.53	2GB	15.4"	WSXGA+			GMA, 3650	160G 7200	DVD±RW	Intel 5100	WWAN upg	9	B32 GP Aug 08
2056-4SU T9600	2.80	4GB	15.4"	WSXGA+		Cam	GMA, 3650	160G 7200	DVD±RW	Intel 5100	WWAN upg	2G Turbo	9 B32 WGP Aug 08
2056-5TU T9400	2.53	2GB	15.4"	WXGA	LED Cam		GMA, 3650	160G 7200	DVD±RW	Intel 5300 ²⁸	WWAN upg	9	B32 WGP Sep 08
2056-63U T9400	2.53	2GB	15.4"	WSXGA+			GMA, 3650	160G 7200	DVD±RW	Intel 5100	WWAN upg	9	XP GP Sep 08
2056-7LU P8600	2.40	2GB	15.4"	WSXGA+			GMA, 3650	160G 7200	DVD±RW	Intel 5100	WWAN upg	9	B32 WGP Dec 08
• These models are part of the Global Models Plus program with limited onsite service ²⁴ 3-year limited warranty													
Processor	Intel® Core™ 2 Duo processor P8600, T9400, or T9600 with dual-core, Intel HD Boost, 1066MHz system bus; P8600: 3MB L2 cache; T9400/T9600: 6MB L2 cache											Preloaded operating system ²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) ◇ Vista Premium logo	
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available												
SATA Combo SATA DVD±RW Ultrabay Slim SATA disk	Some: CD-RW/DVD-ROM, SATA 1.5Gb/s, 9.5mm Ultrabay Slim, removable (43N3213) Some: DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 80GB ⁸ (5400 rpm), 160GB (5400 or 7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™											Preloaded applications ¹⁴ (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW)	
Widescreen display	Some: 15.4" (391mm) WXGA (1280x800) color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 400:1 contrast ratio Some: 15.4" (391mm) WSXGA+ (1680x1050) color, anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio												
Camera	Some: camera on top of screen, 1.3-megapixel, fixed focus												
Switchable graphics	Dynamic switching between discrete and integrated graphics (user selectable), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, and ATI™ Mobility Radeon™ HD 3650, PCI Express x16, 256MB memory, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); Maximum external resolution: 2048x1536@75Hz												
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	6-cell 15.4W" (WxDxH): 14.1" x 10" x 1.2-1.3"; 357.5mm x 255mm x 30-34mm 6-cell: starting at 5.9 lb (2.7kg); 9-cell: starting at 6.2 lbs (2.8kg) Black Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell, supports unique 2nd battery in Ultrabay Slim 6-cell: up to 6.3 hr; 6-cell plus Ultrabay battery: up to 7.8 hr; 9-cell: up to 9.4 hr												
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)												
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit None 7-in-1 reader (MMC, Memory Stick, Mem Stick PRO™, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)												
Mini PCI Express	Three Mini PCI Express slots Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5300, 3x3 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) Some: Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator												
Modem	56K V.92 ⁶ modem												
Bluetooth™	Bluetooth 2.0 wireless, LED indicator												
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1												
Intel AMT	Intel Active Management Technology (IAMT 4.0)												
Audio support	High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant												
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip												
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available												
1GB PC3-8500 DDR3 SODIMM				43R1987	T/R/W/SL Series Li-Ion Battery 9-cell			40Y6797					
2GB PC3-8500 DDR3 SODIMM				43R1988	Advanced Ultrabay Battery II 3-cell			43R9250					
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)				43N3406	90W Slim AC/DC Combo Adapter			41N8460					
320GB Disk SATA 1.5Gb/s (7200 rpm)				43N3411	ThinkPad Business Topload Case			43R2476					
USB 2.0 Portable Secure 320GB Hard Disk				43R2019	T500/R500/W500 15W Privacy Filter			43R2474					
ThinkPad Advanced Dock				250310U	ThinkVision® L1940p Wide 19" Monitor			4424HB6					
Verizon WWAN UNDP Broadband				43R9151	ThinkVision L2240p Wide 22" Monitor			4422HB6					
AT&T WWAN HSPA Broadband Mini PCIe				43R9152	ThinkVision L2440x Wide 24" Monitor			4421HB2					
Other accessories on O-T500 sheet											Other accessories at lenovo.com/accessories		
											Preloaded operating system ²⁰		
											- Some: Microsoft® Windows® XP Professional with Vista® COA		
											- Some: Microsoft Windows Vista Business Edition (32-bit)		
											◇ Vista Premium logo		
											Preloaded applications ¹⁴ (all OSes)		
											• Rescue and Recovery™		
											• Access Connections™		
											• Client Security Solution™		
											• ThinkVantage Productivity Center		
											• ThinkVantage System Update		
											• McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions)		
											• PC-Doctor™ (diagnostics)		
											• ThinkPad Utilities (Power Manager and Presentation Director)		
											• Adobe® Reader		
											• Windows Live™ Toolbar		
											• Windows Live Search		
											• Fingerprint Software (fingerprint models)		
											• Microsoft Office 2007 Trial (60-day)		
											• Roxio® Creator® Business Edition		
											• Roxio MyDVD® (DVD±RW)		
											Supports ThinkVantage® technologies		
											90-watt (ATI graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating (LED models) EPEAT Silver rating ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
											ThinkPlus™. 22 4-year LOR 9x5 NBD 45K6038		
											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		

See footnotes for important warranty information

◆ Intel Centrino® 2 with vPro™ technology

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

© Lenovo
(CR5-6) December 2008

ThinkPad® T500 2089 (GMA) - Education (EasyServ)

Personal Systems Reference (PSREF)

Type-model	Proc- essor GHz	Memory	Wide- screen display	CCFL or LED	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery Blue- tooth	Workhorse (W) Global (G) Avail date
2089-E1U	P8400	2.26 2GB	15.4" WXGA		Cam	GMA 160G	5400	DVD±RW	Intel 5100 ²⁸	WWAN upg	None	6 Blue	Bus 32 No Aug 08
2089-E2U	T9400	2.53 2GB	15.4" WXGA		Cam	GMA 250G	5400	DVD±RW	Intel 5100	WWAN upg	None	6 Blue	Bus 32 No Aug 08
2089-E3U	T9400	2.53 2GB	15.4" WXGA		Cam	GMA 160G	7200	DVD±RW	Intel 5100	WWAN upg	None	9 Blue	Bus 32 No Aug 08
2089-E4U	P8600	2.40 2GB	15.4" WXGA	LED	Cam	GMA 160G	7200	DVD±RW	Intel 5100	WWAN upg	None	6 Blue	Bus 32 No Dec 08
2089-E5U	P8700	2.53 2GB	15.4" WXGA	LED	Cam	GMA 160G	5400	DVD±RW	Intel 5100	WWAN upg	None	6 Blue	Bus 32 No Mar 09
<p>• These models have an EasyServ™¹⁹ depot repair service 3-year limited warranty</p> <p>These educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>													
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor P8400, P8600, P8700, or T9400 with dual-core , Intel HD Boost, 1066MHz system bus; <i>P8400/P8600/8700:</i> 3MB L2 cache; <i>T9400:</i> 6MB L2 cache										Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ♦ Vista Premium logo		
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • E1U/E2U/E3U/E4U models: Education software - Microsoft Office OneNote® 2007 (and CD) - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection - Photoshop Elements (and CD) - Premier Elements (and DVD) - Acrobat 8 Professional - Contribute 4 • E5U model: 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) - Premier Elements 7 (and DVD) - Acrobat 9 Professional (DVD) - Contribute CS4 (and DVD) - Soundbooth CS4 (and DVD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Fingerprint Software (fingerprint models) • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW)		
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 160GB⁸ (5400 or 7200 rpm), or 250GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™												
Widescreen display	<i>Some:</i> 15.4" (391mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 15.4" (391mm) WXGA (1280x800) color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 400:1 contrast ratio												
Camera	Camera on top of screen, 1.3-megapixel, fixed focus												
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536 @75Hz												
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>6-cell 15.4W" (WxDxH):</i> 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm <i>6-cell:</i> starting at 5.9 lb (2.7kg); <i>9-cell:</i> starting at 6.2 lbs (2.8kg) Black Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 6.3 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.8 hr; <i>9-cell:</i> up to 9.4 hr												
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)												
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit None 7-in-1 reader (MMC, Memory Stick, Mem Stick PRO™, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)												
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support Security Security chip Fingerprint reader	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) None None 56K V.92 ⁶ modem Bluetooth 2.0 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (IAMT 4.0) High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip												
Limited warranty ¹²	3-years/1-yr battery - EasyServ™¹⁹ depot repair service / service upgrades²² available										Supports ThinkVantage® technologies		
1GB PC3-8500 DDR3 SODIMM 2GB PC3-8500 DDR3 SODIMM 4GB PC3-8500 DDR3 SODIMM Serial ATA Hard Drive Bay Adapter II SATA 128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover) 320GB Disk SATA 1.5Gb/s (7200 rpm) USB 2.0 Portable Secure 320GB Hard Disk USB 2.0 Super Multi-Burner Drive ThinkPad Advanced Dock Other accessories on O-T500 sheet	43R1987 43R1988 51J0493 43R1980 43N3406 43N3411 43R2019 41N5565 250310U										65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating (LED models) EPEAT Silver rating (other models) ENERGY STAR® 4.0-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		
	T/R/W/SL Series Li-Ion Battery 6-cell 40Y6799 T/R/W/SL Series Li-Ion Battery 9-cell 40Y6797 Advanced Ultrabay Battery II 3-cell 43R9250 ThinkPad 90W AC Adapter 40Y7659 90W Slim AC/DC Combo Adapter 41N8460 ThinkPad Business Topload Case 43R2476 ThinkPad Business Backpack 43R2482 T500/R500/W500 15W Privacy Filter 43R2474 ThinkVision® L2440x Wide 24" Monitor 4421HB2 Other accessories at lenovo.com/accessories										ThinkPlus™.22 2-year LOR ²⁴ 9x5 NBD 41C9175 ThinkPlus 3-year LOR 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		

ThinkPad® T500 2055 (Switchable) - Education (EasyServ)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Mem- ory	Wide- screen display	Cam- era	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe Bat- tery or Turbo cells	Mini PCIe Bat- tery or Turbo cells	Workhorse (W) Global (G) Avail date
2055-E1U	T9400	2.53	2GB	15.4" WSXGA+	Cam GMA, HD 3650	160G 7200	DVD±RW	Intel 5100 ²⁸	WWAN upg	None	9	Bus32	No Aug08
2055-E2U	T9400	2.53	2GB	15.4" WSXGA+	Cam GMA, HD 3650	250G 5400	DVD±RW	Intel 5100	WWAN upg	None	9	Bus32	No Aug08
2055-E3U	T9600	2.80	3GB	15.4" WSXGA+	Cam GMA, HD 3650	160G 7200	DVD±RW	Intel 5100	WWAN upg	None	9	Bus32	No Mar09
• These models have an EasyServ™¹⁹ depot repair service 3-year limited warranty Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.													
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T9400 or T9600 with dual-core , Intel HD Boost, 1066MHz system bus, and 6MB L2 cache										Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ♦ Vista Premium logo		
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ • E1U/E2U models: Education software - Microsoft Office OneNote® 2007 (and CD) - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection - Photoshop Elements (and CD) - Premier Elements (and DVD) - Acrobat 8 Professional - Contribute 4 • E3U model: 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) - Premier Elements 7 (and DVD) - Acrobat 9 Professional (DVD) - Contribute CS4 (and DVD) - Soundbooth CS4 (and DVD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe Reader • Windows Live™ Toolbar and Search • Fingerprint Software (fingerprint models) • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW)		
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 160GB⁸ (7200 rpm) or 250GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™												
Widescreen display	15.4" (391mm) WSXGA+ (1680x1050) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio												
Camera	Camera on top of screen, 1.3-megapixel, fixed focus												
Switchable graphics	Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, and ATI™ Mobility Radeon™ HD 3650 , PCI Express x16, 256MB memory, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536@75Hz												
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	6-cell 15.4W" (WxDxH): 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm												
Weight ²	9-cell: starting at 6.2 lb (2.8kg)												
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic												
Battery - type	Lithium Ion 9-cell , supports unique 2nd battery in Ultrabay Slim												
Battery - life ¹⁰	9-cell: up to 9.4 hr; 9-cell plus Ultrabay battery: up to 10.9 hr												
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One ExpressCard/34 or ExpressCard/54 One Type I or Type II slot, CardBus 32-bit												
ExpressCard slot	One ExpressCard/34 or ExpressCard/54												
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit												
Smart Card Read	None												
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)												
Ports	Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)												
Mini PCI Express	Three Mini PCI Express slots										Supports ThinkVantage® technologies		
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)												
WWAN upg	Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)												
2G Turbo	None												
UWB	None												
Modem	56K V.92 ⁶ modem												
Bluetooth™	Bluetooth 2.0 wireless, LED indicator												
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1												
Intel AMT	Intel Active Management Technology (IAMT 4.0)												
Audio support	High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant												
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip												
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available										ThinkPlus™. ²² 2-year LOR ²⁴ 9x5 NBD 41C9175		
1GB PC3-8500 DDR3 SODIMM	43R1987					T/R/W/SL Series Li-Ion Battery 6-cell				40Y6799			
2GB PC3-8500 DDR3 SODIMM	43R1988					T/R/W/SL Series Li-Ion Battery 9-cell				40Y6797			
4GB PC3-8500 DDR3 SODIMM	51J0493					Advanced Ultrabay Battery II 3-cell				43R9250			
Serial ATA Hard Drive Bay Adapter II SATA	43R1980					ThinkPad External Battery Charger				40Y7625			
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406					ThinkPad 90W AC Adapter				40Y7659			
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411					90W Slim AC/DC Combo Adapter				41N8460			
USB 2.0 Portable Secure 320GB Hard Disk	43R2019					ThinkPad Business Topload Case				43R2476			
USB 2.0 Super Multi-Burner Drive	41N5565					ThinkPad Business Backpack				43R2482			
ThinkPad Adjustable Notebook Stand	40Y7676					T500/R500/W500 15W Privacy Filter				43R2474			
ThinkPad Advanced Dock	250310U					ThinkVision® L1940p Wide 19" Monitor				4424HB6			
Verizon WWAN UNDP Broadband	43R9151					ThinkVision L2240p Wide 22" Monitor				4422HB6			
AT&T WWAN HSPA Broadband Mini PCIe	43R9152					ThinkVision L2440p Wide 24" Monitor				4420HB2			
Other accessories on O-T500 sheet	Other accessories at lenovo.com/accessories												

See footnotes for important warranty information

◆ Intel Centrino® 2 with vPro™ technology

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

© Lenovo
(CR5-8) April 2009

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

Personal Systems Reference (PSREF)

Type-model	Proc- essor GHz	Memory	Wide- screen display	CCFL or LED	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery Blue- tooth	Workhorse (W) Global (G) Avail date			
2241-E1U P8400	2.26	2GB	15.4" WXGA		Cam	GMA	160G 5400	DVD±RW	Intel 5100 ²⁸	WWAN upg	None	6 Blue Bus 32	No Aug 08			
2241-E2U T9400	2.53	2GB	15.4" WXGA		Cam	GMA	250G 5400	DVD±RW	Intel 5100	WWAN upg	None	6 Blue Bus 32	No Aug 08			
2241-E3U T9400	2.53	2GB	15.4" WXGA		Cam	GMA	160G 7200	DVD±RW	Intel 5100	WWAN upg	None	9 Blue Bus 32	No Aug 08			
2241-E4U P8600	2.40	2GB	15.4" WXGA	LED	Cam	GMA	160G 7200	DVD±RW	Intel 5100	WWAN upg	None	6 Blue Bus 32	No Dec 08			
2241-E5U P8700	2.53	2GB	15.4" WXGA	LED	Cam	GMA	160G 5400	DVD±RW	Intel 5100	WWAN upg	None	6 Blue Bus 32	No Mar 09			
• These models have a limited onsite service ²⁴ 3-year limited warranty																
These educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.																
Positioning Processor	Premiere performance; two spindles Intel® Core™ 2 Duo processor P8400, P8600, P8700, or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; P8400/P8600/P8700: 3MB L2 cache; T9400: 6MB L2 cache										Preloaded operating system ²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ♦ Vista Premium logo					
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; Italics: standard memory in both sockets; no sockets available; Non-italics: standard memory in one socket; one socket available										Preloaded applications ¹⁴ • E1U/E2U/E3U/E4U models: Education software - Microsoft Office OneNote® 2007 (and CD) - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection - Photoshop Elements (and CD) - Premier Elements (and DVD) - Acrobat 8 Professional - Contribute 4 • E5U models: 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) - Premier Elements 7 (and DVD) - Acrobat 9 Professional (DVD) - Contribute CS4 (and DVD) - Soundbooth CS4 (and DVD)					
SATA DVD±RW Ultrabay Slim SATA disk	Some: DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 160GB ⁸ (5400 or 7200 rpm) or 250GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™										• Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW)					
Widescreen display	Some: 15.4" (391mm) WXGA (1280x800) color, anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: 15.4" (391mm) WXGA (1280x800) color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 400:1 contrast ratio										Supports ThinkVantage® technologies 65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 4.0-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					
Camera	Camera on top of screen, 1.3-megapixel, fixed focus															
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); Maximum external resolution: 2048x1536 @ 75Hz															
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys															
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass															
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label															
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³	6-cell 15.4W" (WxDxH): 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm															
Weight ²	6-cell: starting at 5.9 lb (2.7kg); 9-cell: starting at 6.2 lbs (2.8kg)															
Case color	Black															
Case material	Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic															
Battery - type	Lithium Ion 6-cell or 9-cell, supports unique 2nd battery in Ultrabay Slim															
Battery - life ¹⁰	6-cell: up to 6.3 hr; 6-cell plus Ultrabay battery: up to 7.8 hr; 9-cell: up to 9.4 hr															
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)															
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)															
PC Card	One slot (Type I, Type II), CardBus 32-bit															
Smart Card read	None															
Multicard reader	7-in-1 reader (MMC, Memory Stick, Mem Stick PRO™, SD, SDHC, XD, XD Type H)															
Ports	Three USB 2.0, external monitor ¹¹ (VGA DB-15, Displayport), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)															
Mini PCI Express	Three Mini PCI Express slots															
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)															
WWAN upg	Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)															
2G Turbo	None															
UWB	None															
Modem	56K V.92 ⁶ modem															
Bluetooth™	Bluetooth 2.0 wireless, LED indicator															
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1															
Intel AMT	Intel Active Management Technology (IAMT 4.0)															
Audio support	High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack															
Security	Power-on password, hard disk password, supervisor password, security keyhole															
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant															
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip															
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available															
1GB PC3-8500 DDR3 SODIMM			43R1987		T/R/W/SL Series Li-Ion Battery 6-cell				40Y6799							
2GB PC3-8500 DDR3 SODIMM			43R1988		T/R/W/SL Series Li-Ion Battery 9-cell				40Y6797							
4GB PC3-8500 DDR3 SODIMM			51J0493		Advanced Ultrabay Battery II 3-cell				43R9250							
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)			43N3406		90W Slim AC/DC Combo Adapter				41N8460							
320GB Disk SATA 1.5Gb/s (7200 rpm)			43N3411		ThinkPad Business Topload Case				43R2476							
USB 2.0 Portable Secure 320GB Hard Disk			43R2019		ThinkPad Deluxe Expander Case				43R2478							
USB 2.0 Super Multi-Burner Drive			41N5565		T500/R500/W500 15W Privacy Filter				43R2474							
ThinkPad Advanced Dock			250310U		ThinkVision® L1940p Wide 19" Monitor				4424HB6							
Verizon WWAN UNDP Broadband			43R9151		ThinkVision L2240p Wide 22" Monitor				4422HB6							
AT&T WWAN HSPA Broadband Mini PCIe			43R9152		ThinkVision L2440x Wide 24" Monitor				4421HB2							
Other accessories on O-T500 sheet	Other accessories at lenovo.com/accessories															

See footnotes for important warranty information

♦ Intel Centrino® 2 with vPro™ technology

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

© Lenovo
(CR5-9) April 2009

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

Personal Systems Reference (PSREF)

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

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

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T9400 or T9600 with dual-core , Intel HD Boost, 1066MHz system bus, and 6MB L2 cache			Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ✧ Vista Premium logo Preloaded applications¹⁴ <ul style="list-style-type: none">• E1U/E2U models: Education software<ul style="list-style-type: none">- Microsoft Office OneNote® 2007 (and CD)- VitalSource Library College Edition- Adobe® Instructor Resource Cntr- Adobe Digital School Collection<ul style="list-style-type: none">– Photoshop Elements (and CD)– Premier Elements (and DVD)– Acrobat 8 Professional– Contribute 4• E3U models: Education software<ul style="list-style-type: none">- Microsoft Office OneNote® 2007 (and CD)- Adobe Digital School Collection<ul style="list-style-type: none">– Instructor Resources (and DVD)– Learning Creative Suite 4 (DVD)– Photoshop Elements 7 (DVD)– Premier Elements 7 (and DVD)– Acrobat 9 Professional (DVD)– Contribute CS4 (and DVD)– Soundbooth CS4 (and DVD)• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage Productivity Center• McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions)• PC-Doctor™ (diagnostics)• ThinkPad Utilities (Power Manager and Presentation Director)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Fingerprint Software (fingerprint models)• Microsoft Office 2007 Trial (60-day)• Roxio® Creator® Business Edition• Roxio MyDVD® (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 Combo SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> CD-RW/DVD-ROM, SATA 1.5Gb/s, 9.5mm Ultrabay Slim, removable (43N3213) <i>Some:</i> DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 160GB⁸ (7200 rpm) or 250GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™					
Widescreen display	15.4" (391mm) WSXGA+ (1680x1050) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio <i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus					
Camera	Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, and ATI™ Mobility Radeon™ HD 3650 , PCI Express x16, 256MB memory, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536@75Hz					
Switchable graphics	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions					
Keyboard	6-cell 15.4W" (WxDxH): 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm 9-cell: starting at 6.2 lb (2.8kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic					
TrackPoint®	Lithium Ion 6-cell or 9-cell , supports unique 2nd battery in Ultrabay Slim 9-cell: up to 9.4 hr; 9-cell plus Ultrabay battery: up to 10.9 hr					
Touch pad	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One ExpressCard/34 or ExpressCard/54 One Type I or Type II slot, CardBus 32-bit					
ThinkLight™	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)					
Dimensions ³	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)					
Weight ²	None None 56K V.92 ⁶ modem Bluetooth 2.0 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (IAMT 4.0) High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack					
Case material	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip					
Battery - type	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip					
Battery - life ¹⁰	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip					
Chipset	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip					
ExpressCard slot	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip					
PC Card Std slot	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip					
Smart Card Read	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip					
Multicard Reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip					
Ports	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip					
Mini PCI Express	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip					
Intel 5100 ²⁸	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip					
WWAN upg	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip					
2G Turbo	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip					
UWB	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip					
Modem	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip					
Bluetooth™	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip					
Ethernet	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip					
Intel AMT	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip					
Audio support	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip					
Security	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip					
Security chip	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip					
Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip					
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time/ service upgrades ²² available					
1GB PC3-8500 DDR3 SODIMM	43R1987	T/R/W/SL Series Li-Ion Battery 6-cell	40Y6799			
2GB PC3-8500 DDR3 SODIMM	43R1988	T/R/W/SL Series Li-Ion Battery 9-cell	40Y6797			
4GB PC3-8500 DDR3 SODIMM	51J0493	Advanced Ultrabay Battery II 3-cell	43R9250			
Serial ATA Hard Drive Bay Adapter II SATA	43R1980	ThinkPad External Battery Charger	40Y7625			
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	90W Slim AC/DC Combo Adapter	41N8460			
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411	ThinkPad Business Topload Case	43R2476			
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ThinkPad Business Backpack	43R2482			
USB 2.0 Super Multi-Burner Drive	41N5565	T500/R500/W500 15W Privacy Filter	43R2474			
ThinkPad Adjustable Notebook Stand	40Y7676	ThinkVision® L1940p Wide 19" Monitor	4424HB6			
ThinkPad Advanced Dock	250310U	ThinkVision L2240p Wide 22" Monitor	4422HB6			
Verizon WWAN UNDP Broadband	43R9151	ThinkVision L2440p Wide 24" Monitor	4420HB2			
AT&T WWAN HSPA Broadband Mini PCIe	43R9152	Other accessories at lenovo.com/accessories				
				Supports ThinkVantage® technologies		
				90-watt (ATI graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
				ThinkPlus™.22 4-year LOR 9x5 NBD 45K6038 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		

ThinkPad®



Lenovo ThinkPad W500



Lenovo ThinkPad W500



Lenovo ThinkPad W500



Lenovo ThinkPad W500



Lenovo ThinkPad W500



Lenovo ThinkPad W500

ThinkPad® W500 4062 (Switchable) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe Bat- tery or Turbo cells	Preload	Avail date
4062-24U	T9600	2.80	2GB	15.4" WUXGA	GMA, V5700	160G 7200	DVD±RW	Intel 5100 ²⁸	AT&T ²³	2G Turbo	9 Bus 32	Aug 08
4062-25U	T9600	2.80	4GB	15.4" WUXGA	GMA, V5700	200G 7200 FDE	DVD±RW	Intel 5100	AT&T	9 Bus 64	Aug 08	Aug 08
4062-26U	T9600	2.80	4GB	15.4" WUXGA	GMA, V5700	200G 7200 FDE	DVD±RW	Intel 5100		9 Bus 32	Aug 08	Aug 08
4062-27U	T9600	2.80	2GB	15.4" WUXGA	GMA, V5700	160G 7200	DVD±RW	Intel 5100		2G Turbo	9 XP Pro	Aug 08
4062-35U	T9600	2.80	2GB	15.4" WUXGA	GMA, V5700	160G 7200	DVD±RW	Intel 5100		9 XP Pro	Sep 08	Sep 08
4062-36U	T9400	2.53	2GB	15.4" WSXGA+	GMA, V5700	160G 7200	DVD±RW	Intel 5100		9 XP Pro	Sep 08	Sep 08
4062-4FU	T9400	2.53	3GB	15.4" WSXGA+	GMA, V5700	320G 7200	DVD±RW	Intel 5100	WWAN upg	9 XP Pro	Mar 09	Mar 09
4062-4GU	T9600	2.80	3GB	15.4" WUXGA	GMA, V5700	320G 7200	DVD±RW	Intel 5100	WWAN upg	9 XP Pro	Mar 09	Mar 09
4062-4HU	T9600	2.80	4GB	15.4" WUXGA	GMA, V5700	320G 7200	DVD±RW	Intel 5100	AT&T	2G Turbo	9 Bus 64	Mar 09
4062-4JU	T9600	2.80	4GB	15.4" WUXGA	GMA, V5700	250G 7200 FDE	DVD±RW	Intel 5100	WWAN upg	9 Bus 32	Mar 09	Mar 09
• These small and medium business (SMB) models are part of the US TopSeller™ Program • Power-packed engineering with Open GL graphics and ISV certifications												
Positioning Processor	Mobile workstation; two spindles Intel® Core™ 2 Duo processor T9400 or T9600 with dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache									Preloaded operating system ²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA		
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									- Some: Microsoft Windows Vista Business Edition (32-bit) - Some: Microsoft Windows Vista Business Edition (64-bit) ♦ Vista Premium logo		
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 160GB ⁸ (7200 rpm), 200GB (7200 rpm) Full Disk Encryption [FDE], 250GB (7200 rpm) Full Disk Encryption [FDE], or 320GB (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™									Preloaded applications ¹⁴ (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW)		
Widescreen display	Some: 15.4" (391mm) WSXGA+ (1680x1050) color, anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio Some: 15.4" (391mm) WUXGA (1920x1200) color, anti-glare, CCFL backlight, 175 nits, 16:10 aspect ratio, 500:1 contrast ratio											
Camera	Camera on top of screen, 1.3-megapixel, fixed focus											
Switchable graphics	Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, and ATI™ Mobility FireGL™ V5700, PCI Express x16, 512MB memory, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); Maximum external resolution: 2048x1536 @75Hz											
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass											
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions ³	6-cell 15.4W" (WxDxH): 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm											
Weight ²	9-cell: starting at 6.2 lb (2.8kg)											
Case material	Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic											
Battery - type	Lithium Ion 9-cell, supports unique 2nd battery in Ultrabay Slim											
Battery - life ¹⁰	9-cell: up to 9.4 hr; 9-cell plus Ultrabay battery: up to 10.9 hr											
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)									Supports ThinkVantage® technologies		
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)									90-watt (ATI graphics) AC adapter		
PC Card	One (Type I, Type II), CardBus 32-bit									ThinkPad Roll Cage and Top Cover		
Smart Card Read	None									Roll Cage (one-piece magnesium)		
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)									Climate Savers® certified		
Ports	Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)									EPEAT™ Silver rating		
Mini PCI Express	Three Mini PCI Express slots									ENERGY STAR® 4.0-compliant		
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)									RoHS-compliant		
WWAN upg	Some: Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)									International Warranty Service ¹⁷		
AT&T ²³	Some: Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T									24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
2G Turbo	Some: Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator									ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175		
UWB	None									ThinkPlus 3-year LOR 9x5 NBD 41C9176		
Modem	56K V.92 ⁶ modem									ThinkPlus 4-year LOR 9x5 NBD 41C9177		
Bluetooth™	Bluetooth 2.0 wireless, LED indicator									ThinkPlus 5-year LOR 9x5 NBD 41C9179		
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1									ThinkPlus 4-year P&L P/U Depot 41C9178		
Intel AMT	None									ThinkPlus 5-year P&L P/U Depot 41C9180		
Audio support	High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack									Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant											
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip											
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available											
2GB PC3-8500 DDR3 SODIMM (TopSeller)	43R2046											
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411											
Other accessories on O-T500 sheet												
T/R/W/SL Series Li-Ion Battery 9-cell	40Y6797											
T500/R500/W500 15W Privacy Filter	43R2474											
Other accessories at lenovo.com/accessories												

See footnotes for important warranty information

✦ Intel Centrino® 2 processor technology

☞ US models announced March 24, 2009; previous models on August 5 or September 23, 2008

☞ US model withdrawn effective September 2008

© Lenovo
(CR5W-1) April 2009

ThinkPad® W500 4061 (Switchable)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery cells	Whorse (W) Gbl (G)	Avail date
4061-2HU	T9400	2.53	4GB	15.4" WSXGA+		GMA, V5700	160G 7200	DVD±RW	❖Intel 5300 ²⁸	WWAN upg		9	Bus 32	Aug 08
4061-2KU	T9600	2.80	4GB	15.4" WUXGA	Cam	GMA, V5700	200G FDE	DVD±RW	❖Intel 5300	WWAN upg		9	Bus 32	Aug 08
❖4061-2ZU	T9400	2.53	4GB	15.4" WSXGA+		GMA, V5700	160G 7200	DVD±RW	❖Intel 5100 ²⁸	WWAN upg		9	Bus 32 W G	Sep 08
❖4061-32U	T9600	2.80	4GB	15.4" WUXGA	Cam	GMA, V5700	160G 7200	DVD±RW	❖Intel 5300	WWAN upg 2GB Turbo		9	Bus 64 W	Sep 08
❖4061-38U	T9600	2.80	4GB	15.4" WUXGA	Cam	GMA, V5700	160G 7200	DVD±RW	❖Intel 5300	WWAN upg		9	XP Pro	Sep 08
❖4061-3FU	T9400	2.53	2GB	15.4" WUXGA		GMA, V5700	160G 7200	DVD±RW	❖Intel 5300	WWAN upg 2GB Turbo		6	Bus 32 G	Sep 08
• Power-packed engineering with Open GL graphics and ISV certifications														
Positioning Processor	Mobile workstation; two spindles Intel® Core™ 2 Duo processor T9400 or T9600 with dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache										Preloaded operating system²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) - Some: Microsoft Windows Vista Business Edition (64-bit) ❖ Vista Premium logo			
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW)			
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 160GB⁸ (7200 rpm) or 200GB (7200 rpm) Full Disk Encryption [FDE] / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™													
Widescreen display	<i>Some:</i> 15.4" (391mm) WSXGA+ (1680x1050) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio; <i>Some:</i> 15.4" (391mm) WUXGA (1920x1200) color , anti-glare, CCFL backlight, 175 nits, 16:10 aspect ratio, 500:1 contrast ratio													
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus													
Switchable graphics	Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, and ATI™ Mobility FireGL™ V5700 , PCI Express x16, 512MB memory, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536@75Hz													
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ²	6-cell 15.4W" (WxDxH): 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm <i>9-cell:</i> starting at 6.2 lb (2.8kg)													
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic													
Battery - type	Lithium Ion 6-cell or 9-cell , supports unique 2nd battery in Ultrabay Slim													
Battery - life ¹⁰	<i>9-cell:</i> up to 9.4 hr; <i>9-cell plus Ultrabay battery:</i> up to 10.9 hr													
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)													
ExpressCard slot	One ExpressCard/34 or ExpressCard/54													
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit													
Smart Card Read	None													
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)													
Ports	Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
Mini PCI Express	Three Mini PCI Express slots <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5300, 3x3 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) <i>Some:</i> Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator										Supports ThinkVantage® technologies			
2G Turbo UWB	None													
Modem	56K V92 ⁶ modem													
Bluetooth™	Bluetooth 2.0 wireless, LED indicator													
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1													
Intel AMT	Intel Active Management Technology (IAMT 4.0)													
Audio support	High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack										90-watt (ATI graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 4.0-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	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant													
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip										ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175			
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available										ThinkPlus 3-year LOR 9x5 NBD 41C9176			
1GB PC3-8500 DDR3 SODIMM					43R1987	T/R/W/SL Series Li-Ion Battery 6-cell				40Y6799				
2GB PC3-8500 DDR3 SODIMM					43R1988	T/R/W/SL Series Li-Ion Battery 9-cell				40Y6797				
4GB PC3-8500 DDR3 SODIMM					51J0493	Advanced Ultrabay Battery II 3-cell				43R9250				
Serial ATA Hard Drive Bay Adapter II SATA					43R1980	90W Slim AC/DC Combo Adapter				41N8460				
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)					43N3406	ThinkPad Business Topload Case				43R2476				
320GB Disk SATA 1.5Gb/s (7200 rpm)					43N3411	ThinkPad Business Backpack				43R2482				
USB 2.0 Portable Secure 320GB Hard Disk					43R2019	DisplayPort to Single-link DVI-D Cable				45J7915				
ThinkPad Advanced Dock					250310U	T500/R500/W500 15W Privacy Filter				43R2474				
Verizon WWAN UNDP Broadband					43R9151	ThinkVision® L1940p Wide 19" Monitor				4424HB6				
AT&T WWAN HSPA Broadband Mini PCIe					43R9152	ThinkVision L2240p Wide 22" Monitor				4422HB6				
Laser Tilt Wheel Travel Mouse (Bluetooth)					41U5008	ThinkVision L2440x Wide 24" Monitor				4421HB2				
Other accessories on O-T500 sheet					Other accessories at lenovo.com/accessories									

See footnotes for important warranty information

✦ Intel Centrino® 2 with vPro™ technology

⚡ US models announced September 23, 2008; previous models on August 5, 2008

© Lenovo

(CR5W-2) September 2008

ThinkPad® W500 4063 (Switchable) - Onsite

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery cells	Whorse (W) GMP(P) Avail Gbl (G) date
4063-33U	T9400	2.53	4GB	15.4" WSXGA+		GMA, V5700	160G 7200 DVD±RW	Intel 5100 ²⁸	WWAN upg			9	Bus 32 WGP Sep 08
4063-34U	T9600	2.80	4GB	15.4" WUXGA	Cam	GMA, V5700	160G 7200 DVD±RW	Intel 5300 ²⁸	WWAN upg	2GB Turbo		9	Bus 64 W Sep 08
4063-3FU	T9400	2.53	2GB	15.4" WUXGA		GMA, V5700	160G 7200 DVD±RW	Intel 5300	WWAN upg	2GB Turbo	6	Bus 32 GP Sep 08	
• Some models are part of the Global Models Plus program with limited onsite service ²⁴ 3-year limited warranty • Power-packed engineering with Open GL graphics and ISV certifications													
Positioning Processor	Mobile workstation; two spindles Intel® Core™ 2 Duo processor T9400 or T9600 with dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache										Preloaded operating system²⁰ - Some: Microsoft® Windows® Vista® Business Edition (32-bit) - Some: Microsoft Windows Vista Business Edition (64-bit) ◇ Vista Premium logo		
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW)		
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 160GB⁸ (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™												
Widescreen display	Some: 15.4" (391mm) WSXGA+ (1680x1050) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio; Some: 15.4" (391mm) WUXGA (1920x1200) color , anti-glare, CCFL backlight, 175 nits, 16:10 aspect ratio, 500:1 contrast ratio												
Camera	Some: camera on top of screen, 1.3-megapixel, fixed focus												
Switchable graphics	Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, and ATI™ Mobility FireGL™ V5700 , PCI Express x16, 512MB memory, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536@75Hz												
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	6-cell 15.4W" (WxDxH): 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm 9-cell: starting at 6.2 lb (2.8kg) Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell, supports unique 2nd battery in Ultrabay Slim 9-cell: up to 9.4 hr; 9-cell plus Ultrabay battery: up to 10.9 hr												
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)												
ExpressCard slot PC Card Std slot Smart Card Read Multicard Reader Ports	One ExpressCard/34 or ExpressCard/54 One Type I or Type II slot, CardBus 32-bit None 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)												
Mini PCI Express Intel 5100 ²⁸ Intel 5300 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5300, 3x3 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) Some: Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem Bluetooth 2.0 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (IAMT 4.0) High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack												
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip										Supports ThinkVantage® technologies		
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										90-watt (ATI graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 4.0-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		
1GB PC3-8500 DDR3 SODIMM 2GB PC3-8500 DDR3 SODIMM 4GB PC3-8500 DDR3 SODIMM 128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover) 320GB Disk SATA 1.5Gb/s (7200 rpm) USB 2.0 Portable Secure 320GB Hard Disk ThinkPad Advanced Dock Verizon WWAN UNDP Broadband AT&T WWAN HSPA Broadband Mini PCIe Laser Tilt Wheel Travel Mouse (Bluetooth) Other accessories on O-T500 sheet	43R1987 43R1988 51J0493 43N3406 43N3411 43R2019 250310U 43R9151 43R9152 41U5008	T/R/W/SL Series Li-Ion Battery 6-cell 40Y6799 T/R/W/SL Series Li-Ion Battery 9-cell 40Y6797 Advanced Ultrabay Battery II 3-cell 43R9250 90W Slim AC/DC Combo Adapter 41N8460 ThinkPad Business Topload Case 43R2476 ThinkPad Business Backpack 43R2482 DisplayPort to Single-link DVI-D Cable 45J7915 T500/R500/W500 15W Privacy Filter 43R2474 ThinkVision® L2240p Wide 22" Monitor 4422HB6 ThinkVision L2440x Wide 24" Monitor 4421HB2 Other accessories at lenovo.com/accessories											
ThinkPlus™. 22 4-year LOR 9x5 NBD 12X5630 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty													

See footnotes for important warranty information
US models announced September 23, 2008

✦ Intel Centrino® 2 with vPro™ technology

© Lenovo
(CR5W-3) November 2008

Partial list of accessories supported on:

- ThinkPad T500 originally announced on August 5, 2008
- ThinkPad W500 originally announced on August 5, 2008

Memory

1GB PC3-8500 DDR3 SODIMM (TopSeller)	43R2045	ann	11/04/08
1GB PC3-8500 DDR3 SODIMM	43R1987	ann	08/05/08
2GB PC3-8500 DDR3 SODIMM (TopSeller)	43R2046	ann	11/04/08
2GB PC3-8500 DDR3 SODIMM	43R1988	ann	08/05/08
4GB PC3-8500 DDR3 SODIMM	51J0493	ann	03/03/09

Ultrabay Slim 9.5mm

Serial ATA Hard Drive Bay Adapter II SATA	43R1980	ann	08/05/08
DVD-ROM Ultrabay Slim SATA 1.5Gb/s	43N3212	ann	08/05/08
CD-RW/DVD-ROM Ultrabay Slim SATA	43N3213	ann	08/05/08
DVD Burner Ultrabay Slim SATA 1.5Gb/s	43N3214	ann	08/05/08
Blu-ray™ Burner Ultrabay Slim SATA 1.5Gb/s	43N3215	ann	08/05/08

Storage and removable storage

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

⁴¹ Can be used as the main HDD or with Serial ATA Hard Drive Bay Adapter 43R1980 in the Ultrabay or (in the ThinkPad Advanced Dock 250310U with Serial Hard Drive Ultrabay Slim Adapter 40Y8725)

128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ann	08/26/08
USB 2.0 Essential Memory Key 4GB	45J7904	ann	06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann	07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann	10/28/08
USB 2.0 Security Memory Key 2GB	41U5119	ann	07/17/07
USB 2.0 Security Memory Key 4GB	41U5120	ann	07/17/07
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann	08/26/08
USB Portable Diskette Drive	05K9276	ann	06/05/00
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann	01/05/06
USB 2.0 Portable 160GB Hard Disk	43R1784	ann	09/23/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
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
USB 2.0 Super Multi-Burner Drive	41N5565	ann	01/23/07

Wireless WAN (Mini PCI Express)

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

ThinkPad Expansion

USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ann	02/26/08
ThinkPad Adjustable Notebook Stand	40Y7676	ann	09/20/05
ThinkPad Essential Port Replicator	250510W	ann	09/20/05
ThinkPad Advanced Mini Dock	250410U	ann	09/20/05
ThinkPad Advanced Dock	250310U	ann	09/20/05

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann	12/07/04
USB Keyboard with UltraNav	31P8950	ann	01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann	04/27/04
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Optical Wheel Mouse (USB)	06P4069	ann	05/21/03
Optical ScrollPoint® Mouse (USB, PS/2)	31P7405	ann	08/27/02
Optical Wheel Travel Mouse (USB, PS/2)	31P7410	ann	06/04/02
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	ann	01/23/07
Lenovo Wireless Laser Mouse (blk, via USB)	45K1696	ann	11/25/08
Lenovo Wireless Laser Mouse (red, via USB)	51J0198	ann	11/25/08
Laser Tilt Wheel Travel Mouse (Bluetooth)	41U5008	ann	01/22/08

Security

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

Multimedia

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann	06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann	08/29/06

Batteries

T/R/W/SL Series Li-Ion Battery 6-cell	40Y6799	ann	01/05/06
T/R/W/SL Series Li-Ion Battery 9-cell	40Y6797	ann	09/20/05
Advanced Ultrabay Battery II 3-cell ⁴³	43R9250	ann	04/22/08

⁴³ Used in Ultrabay Slim bay.

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

⁴⁴ Requires the ThinkPad 90W AC Adapter

40Y7659 (adapter provided with some systems).

More information at www.lenovo.com/alldaycomputing

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

⁴⁵ Only compatible with the GM45 chipset models.

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

ThinkPad 90W Slim AC/DC Combo Adapter 41N8460 ann 11/27/07

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

Charging tips for 90W Slim AC/DC Combo Adapter 41N8460

• Dual (ThinkPad+Phone) Charging Y-Cable	41R4345	ann	12/18/07
• Palm device charge tip (L7)	41R4315	ann	12/18/07
• BlackBerry charge tip (L8a)	41R4478	ann	12/18/07
• iPod and iPhone charge tip (L10a)	41R4481	ann	12/18/07

More information at www.lenovopowertips.com

Carrying Cases

Up to 15.4" widescreen models:

Lenovo Carrying Case - Messenger Max	41U5253	ann	05/01/07
Lenovo Carr Case - Performance Backpack	41U5254	ann	05/01/07
Lenovo Standard Case	45K1697	ann	11/25/08
Lenovo Standard Backpack	45K1698	ann	11/25/08
Checkpoint Friendly Business Topload Case	51J0418	ann	02/24/09
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08

Up to 17.0" widescreen models:

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

Lenovo luxury cases at www.lenovoluxurycases.com

Monitors

ThinkVision® L174 17" Monitor	9227AE1	ann	04/15/08
ThinkVision L1700p 17" Monitor	9417HE2	ann	09/17/08
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1940p Wide 19" Monitor	4424HB6	ann	09/17/08
ThinkVision L200p Wide 20.1" Monitor	4438HB6	ann	04/15/08
ThinkVision L2240p Wide 22" Monitor	4422HB6	ann	09/17/08
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08
ThinkVision L2440x Wide 24" Monitor	4421HB2	ann	09/17/08

Monitor Accessories⁴⁶

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 Cable Lock from Lenovo	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
ThinkPad Convertible Monitor Stand	40Y7620	ann	01/05/06
Radial Arm	19K4464	ann	05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide



Lenovo ThinkPad W700



Lenovo ThinkPad W700 Mini Dock



Lenovo ThinkPad W700



Lenovo ThinkPad W700 with
W700 Mini Dock



Lenovo ThinkPad W700



Lenovo ThinkPad W700

ThinkPad® W700 2758 (TopSeller)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Discrete graphics memory	Disk(s) SATA GB ⁸ rpm	RAID	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe UWB or Turbo	Card slot	Blue/ Fing	Workhorse (W) Global (G) Avail date
2758-28U T9400	2.53	1GB	17" WXGA+	Cam	1GB	2x160G 7200	0	DVD±RW	Intel 5300 ²⁸	Smart	Yes	Wacom	No	Sep 08
2758-4SU T9600	2.80	4GB	17" WUXGA	Cam	512MB	2x160G 7200		DVD±RW	Intel 5300	2G Turbo	Smart	Yes	No	Sep 08
2758-29U X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x250G 5400	1	DVD±RW	Intel 5300		Smart	Yes	No	Sep 08
<ul style="list-style-type: none"> These small and medium business (SMB) models are part of the US TopSeller™ Program First 17" widescreen ThinkPad workstation with integrated color calibration and two RAID-capable disks Select models include digitizer on palm rest and dual-link DVI-D and DisplayPort ports 														
Positioning Processor	Mobile workstation; three spindles Intel® Core™ 2 Duo processor T9400 or T9600 with dual-core, Intel HD boost, 1066MHz system bus, and 6MB L2 cache or Intel Core 2 Extreme processor X9100 with dual-core, Intel HD boost, 1066MHz system bus, and 6MB L2 cache											Preloaded operating system ²⁰ - Microsoft® Windows® Vista® Business Edition (64-bit) - Vista Premium logo		
Memory	1GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available											Preloaded applications ¹⁴ • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW) • huey™PRO Monitor Color Correction by Pantone®/X-Rite®		
SATA DVD±RW Ultrabay Enhanced SATA disks	Some: DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high Two disks, 160GB ⁸ (7200 rpm) or 250GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 3rd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™											ISV software certifications		
Widescreen display	Some: 17.0" (431.8mm) WXGA+ (1440x900) color, anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 400:1 contrast ratio, 45% color gamut Some: 17.0" (431.8mm) WUXGA (1920x1200) color, anti-glare, CCFL backlight, 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 72% color gamut											Supports ThinkVantage® technologies		
Color calibration Camera	huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest Camera on top of screen, 1.3-megapixel, fixed focus											ThinkPad W700 Mini Dock Provides desktop expansion and cable management for W700 Series Features: • Security key lock • Security cable lock slot • External monitor ports – Analog VGA DB-15 – Dual-link DVI-D – DisplayPort • Four USB 2.0 ports • eSATA port • Gigabit ethernet port • Microphone in and headphone out • S/PDIF (RCA coaxial digital out) • Requires 170 watt AC adapter		
Discrete graphics	Some: NVIDIA® Quadro® FX2700M, PCI Express® x16, 512MB memory Some: NVIDIA Quadro FX3700M, PCI Express x16, 1GB memory Max external resolution: 2048x1536@85Hz (VGA DB-15 port); 2048x1536 (DisplayPort)											170-watt 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		
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 2-year LOR 9x5 NBD 41C9175 ThinkPlus 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 Battery - type Battery - life ¹⁰ Chipset	9-cell 17W" (WxDxH): 16.1" x 12.2" x 1.6"; 410mm x 310mm x 41mm 9-cell: starting at 8.4 lb (3.8kg) Top: magnesium alloy; Bottom: Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Lithium Ion 9-cell 9-cell: up to 2.3 hr Mobile Intel PM45 Express Chipset (Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, RAID 0 or 1 support, USB 2.0, PCI Express 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus One ExpressCard/34 None None Smart Card Reader 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Five USB 2.0, external monitor ¹¹ (VGA DB-15, dual-link DVI-D, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											Limited warranty ¹² 3-year - EasyServ™.19 depot repair service / service upgrades ²² available		
ExpressCard/34 ExpressCard/54 Compact Flash Smart Card Reader Multicard Reader Ports	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5300, 3x3 (Shirley Peak) Some: Intel Turbo Memory, Mini PCIe adapter, 2GB flash, disk-cache accelerator None (uses Half-Mini PCIe slot) 56K V.92 ⁶ modem in Communications Daughter Card socket Bluetooth™ 2.0 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (IAMT 4.0) High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader Fingerprint reader on palm rest, swipe sensor, supports the security chip											1GB PC3-8500 DDR3 SODIMM (TopSeller) 43R2045 2GB PC3-8500 DDR3 SODIMM (TopSeller) 43R2046 4GB PC3-8500 DDR3 SODIMM 51J0493 128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover) 43N3406 320GB Disk SATA 1.5Gb/s (7200 rpm) 43N3411 USB 2.0 Ultra Secure Memory Key 8GB 45J5918 ThinkPad W700 Mini Dock 43R8782 Laser Tilt Wheel Travel Mouse (Bluetooth) 41U5008 Other accessories on O-W700 sheet		
Mini PCI Express Intel 5300 ²⁸ 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support Security Security chip Fingerprint reader	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5300, 3x3 (Shirley Peak) Some: Intel Turbo Memory, Mini PCIe adapter, 2GB flash, disk-cache accelerator None (uses Half-Mini PCIe slot) 56K V.92 ⁶ modem in Communications Daughter Card socket Bluetooth™ 2.0 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (IAMT 4.0) High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader Fingerprint reader on palm rest, swipe sensor, supports the security chip											W700 Series Li-Ion Battery 9-cell 45J7914 ThinkPad 170W AC Adapter 41R4421 ThinkPad 17W Business Topload Case 43R9117 ThinkVision® USB Soundbar (up to 22") 40Y7616 ThinkVision L1700p 17" Monitor 9417HE2 ThinkVision L1940p Wide 19" Monitor 4424HB6 ThinkVision L2240p Wide 22" Monitor 4422HB6 ThinkVision L2440p Wide 24" Monitor 4420HB2 Other accessories at lenovo.com/accessories		

See footnotes for important warranty information
US models announced August 12, 2008

US model withdrawn effective September 2008

Intel Centrino® 2 processor technology
Intel Centrino 2 with vPro™ technology

© Lenovo
(NIC1-1) August 2008

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Discrete graphics memory	Disk(s) SATA GB ⁵ rpm	RAID	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe UWB or Turbo	Card Blue/ slot	Digit- izer Fing	Workhorse (W) Global (G) Avail date
2752-36U	T9600	2.80	4GB	17" WUXGA	Cam	1GB	2x250G 5400	1	DVD±RW	Intel 5300 ²⁸	None	/54	Yes	Bus64 W Sep 08
2752-37U	T9600	2.80	4GB	17" WUXGA	Cam	1GB	2x250G 5400	1	DVD±RW	Intel 5300	None	/54	Yes	Bus64 W Sep 08
2752-38U	T9600	2.80	4GB	17" WUXGA	Cam	1GB	2x320G 5400	0	DVD±RW	Intel 5300	None	CF	Yes	Wacom Bus64 Sep 08
2752-3NU	T9600	2.80	4GB	17" WUXGA	Cam	1GB	2x320G 5400	0	DVD±RW	Intel 5300	None	CF	Yes	Wacom Bus64 Sep 08
2752-3YU	T9600	2.80	2GB	17" WXGA+	Cam	1GB	2x200G FDE	0	DVD±RW	Intel 5300	None	/54	Yes	Wacom Bus32 W Sep 08

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

Positioning Processor	Mobile workstation; three spindles Intel® Core™ 2 Duo processor T9600 with dual-core, Intel HD boost, 1066MHz system bus, and 6MB L2 cache		Preloaded operating system²⁰ - Some: Microsoft® Windows® Vista® Business Edition (32-bit) - Some: Microsoft Windows Vista Business Edition (64-bit) ♦ Vista Premium logo Preloaded applications¹⁴ (all OSes; only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions)• PC-Doctor™ (diagnostics)• ThinkPad Utilities (Power Manager and Presentation Director)• Windows Live™ Toolbar and Search• Fingerprint Software• Microsoft Office 2007 Trial (60-day)• Roxio® Creator® Business Edition• Roxio MyDVD® (DVD±RW)• huey™PRO Monitor Color Correction by Pantone®/X-Rite® ISV software certifications Supports ThinkVantage® technologies ThinkPad W700 Mini Dock Provides desktop expansion and cable management for W700 Series Features: <ul style="list-style-type: none">• Security key lock• Security cable lock slot• External monitor ports<ul style="list-style-type: none">– Analog VGA DB-15– Dual-link DVI-D– DisplayPort• Four USB 2.0 ports• eSATA port• Gigabit ethernet port• Microphone in and headphone out• S/PDIF (RCA coaxial digital out)• Requires 170 watt AC adapter 170-watt AC adapter 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 2-year LOR 9x5 NBD 41C9175 ThinkPlus 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
Memory	1GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available		
SATA DVD±RW Ultrabay Enhanced SATA disk	Some: DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high Two disks, 250GB⁸ (5400 rpm), 320GB⁸ (5400 rpm), or 200GB Full Disk Encryption [FDE] (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 3rd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™		
Widescreen display	Some: 17.0" (431.8mm) WXGA+ (1440x900) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 400:1 contrast ratio, 45% color gamut Some: 17.0" (431.8mm) WUXGA (1920x1200) color , anti-glare, CCFL backlight, 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 72% color gamut		
Color calibration Camera	huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest Camera on top of screen, 1.3-megapixel, fixed focus		
Discrete graphics	NVIDIA® Quadro® FX3700M , PCI Express® x16, 1GB memory; Max external resolution: 2048x1536@85Hz (VGA DB-15 port); 2048x1536 (DisplayPort)		
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass		
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label		
Numeric keypad	10-key numeric keypad on right side of keyboard		
Digitizer	Some: Wacom® digitizer (128x80mm) on palm rest, digitizer pen, pen holder in right side		
ThinkLight™	Two LEDs illuminate the keyboard to improve visibility in low-light conditions		
Dimensions ³	9-cell 17W" (WxDxH): 16.1" x 12.2" x 1.6"; 410mm x 310mm x 41mm		
Weight ²	9-cell: starting at 8.4 lb (3.8kg)		
Case material	<i>Top:</i> magnesium alloy; <i>Bottom:</i> Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic		
Battery - type	Lithium Ion 9-cell		
Battery - life ¹⁰	9-cell: up to 2.3 hr		
Chipset	Mobile Intel PM45 Express Chipset (Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, RAID 0 or 1 support, USB 2.0, PCI Express 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus		
ExpressCard/34	One ExpressCard/34		
ExpressCard/54	Some: [54] One ExpressCard/34 or ExpressCard/54		
Compact Flash	Some: [CF] One Type I slot		
Smart Card Read	None		
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)		
Ports	Five USB 2.0, external monitor ¹¹ (VGA DB-15, dual-link DVI-D, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		
Mini PCI Express	Three Mini PCI Express slots		
Intel 5300 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5300, 3x3 (Shirley Peak)		
2G Turbo	None		
UWB	None (uses Half-Mini PCIe slot)		
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket		
Bluetooth™	Bluetooth 2.0 wireless, LED indicator		
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1		
Intel AMT	Intel Active Management Technology (IAMT 4.0)		
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant		
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip		
Limited warranty ¹²	3-year - EasyServ™.19 depot repair service / service upgrades ²² available		
1GB PC3-8500 DDR3 SODIMM	43R1987	W700 Series Li-Ion Battery 9-cell	45J7914
2GB PC3-8500 DDR3 SODIMM	43R1988	ThinkPad 170W AC Adapter	41R4421
4GB PC3-8500 DDR3 SODIMM	51J0493	ThinkPad 17W Business Topload Case	43R9117
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ThinkVision® USB Soundbar (up to 22")	40Y7616
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411	ThinkVision L1700p 17" Monitor	9417HE2
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ThinkVision L1940p Wide 19" Monitor	4424HB6
ThinkPad W700 Mini Dock	43R8782	ThinkVision L2240p Wide 22" Monitor	4422HB6
Laser Tilt Wheel Travel Mouse (Bluetooth)	41U5008	ThinkVision L2440x Wide 24" Monitor	4421HB2
Other accessories on O-W700 sheet	Other accessories at lenovo.com/accessories		

See footnotes for important warranty information
US models announced August 12, 2008

♦ Intel Centrino 2 with vPro™ technology

© Lenovo
(NIC1-2) August 2008

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Discrete graphics memory	Disk(s) SATA GB ⁸ rpm	RAID	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe UWB or Turbo	Card Blue/ slot	Finger Fing	Digit- izer	Workhorse (W) Global (G) Avail date
2752-6SU	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x160G 7200	0	DVD±RW	Intel 5300 ²⁸		/54	Yes		Bus64 W G Sep 08
2752-6TU	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x160G 7200	1	DVD±RW	Intel 5300		CF	Yes	Wacom	Bus64 W G Sep 08
2752-3AU	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x200G FDE	0	BD burner	Intel 5300		/54	Yes	Wacom	Ult64 Sep 08
2752-6UU	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x160G 7200	0	DVD±RW	Intel 5300		CF	Yes	Wacom	Bus64 W G Sep 08
2752-3DU	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x200G FDE	0	BD burner	Intel 5300		CF	Yes	Wacom	Bus64 Sep 08
2752-5ZU	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x200G FDE	0	DVD±RW	Intel 5300		CF	Yes	Wacom	Bus64 Sep 08
2752-62U	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x160G 7200		DVD±RW	Intel 5300	2G Turbo	/54	Yes	Wacom	Bus64 W Sep 08
2752-43U	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x200G FDE	0	BD burner	Intel 5300		/54	Yes	Wacom	Ult64 W Sep 08
2752-6ZU	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x160G 7200		DVD±RW	Intel 5300		CF	Yes		XP Pro G Sep 08
2752-72U	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x160G 7200	0	DVD±RW	Intel 5300		CF	Yes	Wacom	XP Pro G Sep 08
• First 17" widescreen ThinkPad workstation with integrated color calibration and two RAID-capable disks • Select models include digitizer on palm rest and dual-link DVI-D and DisplayPort ports															
Positioning Processor	Mobile workstation; three spindles Intel® Core™ 2 Extreme processor X9100 with dual-core, Intel HD boost, 1066MHz system bus, and 6MB L2 cache											Preloaded operating system ²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (64-bit) - Some: Microsoft Windows Vista Ultimate Edition (64-bit) ◆ Vista Premium logo			
Memory	4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; Italics: standard memory in both sockets; no sockets available														
SATA DVD±RW	Some: DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149)											Preloaded applications ¹⁴ (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar and Search • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW) • huey™PRO Monitor Color Correction by Pantone®/X-Rite®			
SATA BD burner	Some: Blu-ray™ burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enh, removable (43R9150)														
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high														
SATA disk	Two disks, 160GB ⁸ (7200 rpm) or 200GB Full Disk Encryption [FDE] (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 3rd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™														
Widescreen display	17.0" (431.8mm) WUXGA (1920x1200) color, anti-glare, CCFL backlight, 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 72% color gamut														
Color calibration	huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest														
Camera	Camera on top of screen, 1.3-megapixel, fixed focus														
Discrete graphics	NVIDIA® Quadro® FX3700M, PCI Express x16, 1GB memory Max external resolution: 2048x1536@85Hz (VGA DB-15 port); 2048x1536 (DisplayPort)														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label														
Numeric keypad	10-key numeric keypad on right side of keyboard														
Digitizer	Some: Wacom® digitizer (128x80mm) on palm rest, digitizer pen, pen holder in right side														
ThinkLight™	Two LEDs illuminate the keyboard to improve visibility in low-light conditions														
Dimensions ³	9-cell 17W" (WxDxH): 16.1" x 12.2" x 1.6"; 410mm x 310mm x 41mm														
Weight ²	9-cell: starting at 8.4 lb (3.8kg)														
Case material	Top: magnesium alloy; Bottom: Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic														
Battery - type	Lithium Ion 9-cell														
Battery - life ¹⁰	9-cell: up to 2.3 hr														
Chipset	Mobile Intel PM45 Express Chipset (Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, RAID 0 or 1 support, USB 2.0, PCI Express 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus														
ExpressCard/34	One ExpressCard/34														
ExpressCard/54	Some: [54] One ExpressCard/34 or ExpressCard/54														
Compact Flash	Some: [CF] One Type I slot														
Smart Card Read	None														
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)														
Ports	Five USB 2.0, external monitor ¹¹ (VGA DB-15, dual-link DVI-D, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
Mini PCI Express	Three Mini PCI Express slots														
Intel 5300 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5300, 3x3 (Shirley Peak)														
2G Turbo	Some: Intel Turbo Memory, Mini PCIe adapter, 2GB flash, disk-cache accelerator														
UWB	None (uses Half-Mini PCIe slot)														
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket														
Bluetooth™	Bluetooth 2.0 wireless, LED indicator														
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1														
Intel AMT	Intel Active Management Technology (IAMT 4.0)														
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant														
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip														
Limited warranty ¹²	3-year - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available														
1GB PC3-8500 DDR3 SODIMM	43R1987														
2GB PC3-8500 DDR3 SODIMM	43R1988														
4GB PC3-8500 DDR3 SODIMM	51J0493														
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406														
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411														
ThinkPad W700 Mini Dock	43R8782														
Laser Tilt Wheel Travel Mouse (Bluetooth)	41U5008														
Other accessories on O-W700 sheet															
W700 Series Li-Ion Battery 9-cell	45J7914														
ThinkPad 170W AC Adapter	41R4421														
ThinkPad 17W Business Topload Case	43R9117														
ThinkVision® L1700p 17" Monitor	9417HE2														
ThinkVision L1940p Wide 19" Monitor	4424HB6														
ThinkVision L2240p Wide 22" Monitor	4422HB6														
ThinkVision L2440p Wide 24" Monitor	4420HB2														
Other accessories at lenovo.com/accessories															

See footnotes for important warranty information
US models announced August 12, 2008

◆ Intel Centrino® 2 processor technology

© Lenovo
(NIC1-3) August 2008

ThinkPad® W700 2752 (Quad-Core Extreme)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Discrete graphics memory	Disk(s) SATA GB ⁵ rpm	RAID	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe UWB or Turbo	Card Blue/ slot	Fing	Digit- izer	Workhorse (W) Global (G) Avail date	
2752-3KU	QX9300	2.53	4GB	17" WUXGA	Cam	1GB	2x320G 5400	0	BD burner	Intel 5300 ²⁸	None	/54	Yes	Wacom	Bus64 No Sep 08	
<ul style="list-style-type: none">• First 17" widescreen ThinkPad workstation with integrated color calibration and two RAID-capable disks• Select models include digitizer on palm rest and dual-link DVI-D and DisplayPort ports																
Positioning Processor	Mobile workstation; three spindles Intel® Core™ 2 Extreme processor QX9300 with quad-core, Intel HD boost, 1066MHz system bus, and 12MB L2 cache												Preloaded operating system ²⁰ - Microsoft® Windows® Vista® Business Edition (64-bit) ◇ Vista Premium logo			
Memory	4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; Italics: standard memory in both sockets; no sockets available; Non-italics: standard memory in one socket; one socket available												Preloaded applications ¹⁴ <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions)• PC-Doctor™ (diagnostics)• ThinkPad Utilities (Power Manager and Presentation Director)• Adobe® Reader• Windows Live™ Toolbar and Search• Fingerprint Software• Microsoft Office 2007 Trial (60-day)• Roxio® Creator® Business Edition• Roxio MyDVD® (DVD±RW)• huey™PRO Monitor Color Correction by Pantone®/X-Rite®			
SATA BD burner	Blu-ray™ burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9150)												ISV software certifications Supports ThinkVantage® technologies ThinkPad W700 Mini Dock Provides desktop expansion and cable management for W700 Series Features: <ul style="list-style-type: none">• Security key lock• Security cable lock slot• External monitor ports<ul style="list-style-type: none">– Analog VGA DB-15– Dual-link DVI-D– DisplayPort• Four USB 2.0 ports• eSATA port• Gigabit ethernet port• Microphone in and headphone out• S/PDIF (RCA coaxial digital out)• Requires 170 watt AC adapter 170-watt AC adapter 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 2-year LOR 9x5 NBD 41C9175 ThinkPlus 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			
Ultrabay Enhanced SATA disk	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high Two disks, 320GB ⁸ (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 3rd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™															
Widescreen display	17.0" (431.8mm) WUXGA (1920x1200) color, anti-glare, CCFL backlight, 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 72% color gamut															
Color calibration	huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest															
Camera	Camera on top of screen, 1.3-megapixel, fixed focus															
Discrete graphics	NVIDIA® Quadro® FX3700M, PCI Express x16, 1GB memory; Max external resolution: 2048x1536@85Hz (VGA DB-15 port); 2048x1536 (DisplayPort)															
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Apple keys															
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass															
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label															
Numeric keypad	10-key numeric keypad on right side of keyboard															
Digitizer	Wacom® digitizer (128x80mm) on palm rest, digitizer pen, pen holder in right side															
ThinkLight™	Two LEDs illuminate the keyboard to improve visibility in low-light conditions															
Dimensions ³	9-cell 17W" (WxDxH): 16.1" x 12.2" x 1.6"; 410mm x 310mm x 41mm															
Weight ²	9-cell: starting at 8.4 lb (3.8kg)															
Case material	Top: magnesium alloy; Bottom: Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic															
Battery - type	Lithium Ion 9-cell															
Battery - life ¹⁰	9-cell: up to 2.3 hr															
Chipset	Mobile Intel PM45 Express Chipset (Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, RAID 0 or 1 support, USB 2.0, PCI Express 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus															
ExpressCard/34	One ExpressCard/34															
ExpressCard/54	[/54] One ExpressCard/34 or ExpressCard/54															
Compact Flash	None															
Smart Card Read	None															
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)															
Ports	Five USB 2.0, external monitor ¹¹ (VGA DB-15, dual-link DVI-D, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)															
Mini PCI Express	Three Mini PCI Express slots															
Intel 5300 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5300, 3x3 (Shirley Peak)															
2G Turbo	Some: Intel Turbo Memory, Mini PCIe adapter, 2GB flash, disk-cache accelerator															
UWB	None (uses Half-Mini PCIe slot)															
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket															
Bluetooth™	Bluetooth 2.0 wireless, LED indicator															
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1															
Intel AMT	Intel Active Management Technology (IAMT 4.0)															
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack															
Security	Power-on password, hard disk password, supervisor password, security keyhole															
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant															
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip															
Limited warranty ¹²	3-year - EasyServ™.19 depot repair service / service upgrades ²² available															
1GB PC3-8500 DDR3 SODIMM						43R1987	W700 Series Li-Ion Battery 9-cell					45J7914				
2GB PC3-8500 DDR3 SODIMM						43R1988	ThinkPad 170W AC Adapter					41R4421				
4GB PC3-8500 DDR3 SODIMM						51J0493	ThinkPad 17W Business Topload Case					43R9117				
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)						43N3406	ThinkVision® USB Soundbar (up to 22")					40Y7616				
320GB Disk SATA 1.5Gb/s (7200 rpm)						43N3411	ThinkVision L1700p 17" Monitor					9417HE2				
USB 2.0 Ultra Secure Memory Key 8GB						45J5918	ThinkVision L1940p Wide 19" Monitor					4424HB6				
ThinkPad W700 Mini Dock						43R8782	ThinkVision L2240p Wide 22" Monitor					4422HB6				
Laser Tilt Wheel Travel Mouse (Bluetooth)						41U5008	ThinkVision L2440p Wide 24" Monitor					4420HB2				
Other accessories on O-W700 sheet	Other accessories at lenovo.com/accessories															

See footnotes for important warranty information
US models announced August 12, 2008

✦ Intel Centrino® 2 processor technology

© Lenovo
(NIC1-4) August 2008

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Discrete graphics memory	Disk(s) SATA GB ³ rpm	RAID	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe UWB or Turbo	Card slot	Blue/ Fing	Digit- izer	Workhorse (W) Global (G), Ed Avail	date
2753-48U	T9400	2.53	1GB	17" WUXGA		512MB	2x160G 7200	0	Combo	❖Intel 5300 ²⁸	None	/54	Yes		Bus32	Sep 08
2753-6SU	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x160G 7200	0	DVD±RW	❖Intel 5300	None	/54	Yes		Bus64	W G P Sep 08
2753-6TU	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x160G 7200	1	DVD±RW	❖Intel 5300	None	CF	Yes	Wacom	Bus64	W G P Sep 08
2753-6UU	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x160G 7200	0	DVD±RW	❖Intel 5300	None	CF	Yes	Wacom	Bus64	W G P Sep 08
2753-6ZU	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x160G 7200	0	DVD±RW	❖Intel 5300	None	CF	Yes		XP Pro	G P Sep 08
2753-72U	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x160G 7200	0	DVD±RW	❖Intel 5300	None	CF	Yes	Wacom	XP Pro	G P Sep 08
2753-MNUT9600		2.80	4GB	17" WUXGA	Cam	512MB	2x160G 7200		DVD±RW	❖Intel 5300	None	/54	Yes		Bus32	W Ed Mar 09
<ul style="list-style-type: none">Some models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warrantyFirst 17" widescreen ThinkPad workstation with integrated color calibration and two RAID-capable disks																
Processor	Intel® Core™ 2 Duo processor T9400 or T9600 with dual-core, Intel HD boost, 1066MHz system bus, and 6MB L2 cache or Intel Core 2 Extreme processor X9100 with dual-core, Intel HD boost, 1066MHz system bus, and 6MB L2 cache													Preloaded operating system ²⁰ <ul style="list-style-type: none">Some: Microsoft® Windows® XP Professional with Vista® COA		
Memory	1GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available													<ul style="list-style-type: none">Some: Microsoft Windows Vista Business Edition (32-bit)Some: Microsoft Windows Vista Business Edition (64-bit)Some: Microsoft Windows Vista Ultimate Edition (64-bit) ❖ Vista Premium logo		
SATA Combo	Some: DVD-ROM/CD-RW, SATA 1.5Gb/s, 12.7mm Ultrabay Enh, removable (43R9148)													Preloaded applications ¹⁴ (all OSES, only some listed) <ul style="list-style-type: none">MNU model: Education software<ul style="list-style-type: none">Microsoft Office Ultimate 2007 Academic Edition (and CD)Adobe Digital School Collection – Instructor Resources (and DVD)Learning Creative Suite 4 (DVD)Photoshop Elements 7 (DVD)Premier Elements 7 (and DVD)Acrobat 9 Professional (DVD)Contribute CS4 (and DVD)Soundbooth CS4 (and DVD)Rescue and Recovery™Access Connections™McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions)Windows Live™ Toolbar and searchRoxio® Creator® Business EditionRoxio MyDVD® (DVD±RW)huey™PRO Monitor Color Correction by Pantone®/X-Rite®		
SATA DVD±RW	Some: DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149)															
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high															
SATA disk	Two disks, 160GB ⁸ (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 3rd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™															
Widescreen display	17.0" (431.8mm) WUXGA (1920x1200) color, anti-glare, CCFL backlight, 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 72% color gamut															
Color calibration	huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest															
Camera	Some: camera on top of screen, 1.3-megapixel, fixed focus															
Discrete graphics	Some: NVIDIA® Quadro® FX2700M, PCI Express® x16, 512MB memory Some: NVIDIA Quadro FX3700M, PCI Express x16, 1GB memory Max external resolution: 2048x1536@85Hz (VGA DB-15 port); 2048x1536 (DisplayPort)															
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys															
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass															
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label															
Numeric keypad	10-key numeric keypad on right side of keyboard															
Digitizer	Some: Wacom® digitizer (128x80mm) on palm rest, digitizer pen, pen holder in right side															
ThinkLight™	Two LEDs illuminate the keyboard to improve visibility in low-light conditions															
Dimensions ³	9-cell 17W" (WxDxH): 16.1" x 12.2" x 1.6"; 410mm x 310mm x 41mm															
Weight ²	9-cell: starting at 8.4 lb (3.8kg)															
Case material	Top: magnesium alloy; Bottom: Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic															
Battery - type	Lithium Ion 9-cell															
Battery - life ¹⁰	9-cell: up to 2.3 hr															
Chipset	Mobile Intel PM45 Express Chipset (Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, RAID 0 or 1 support, USB 2.0, PCI Express 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus													ISV software certifications		
ExpressCard/34	One ExpressCard/34													Supports ThinkVantage® technologies		
ExpressCard/54	Some: [54] One ExpressCard/34 or ExpressCard/54													ThinkPad W700 Mini Dock		
Compact Flash	Some: [CF] One Type I slot															
Smart Card Read	None													Provides desktop expansion and cable management for W700 Series		
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)													Features: <ul style="list-style-type: none">Security key lockSecurity cable lock slotExternal monitor ports<ul style="list-style-type: none">Analog VGA DB-15Dual-link DVI-DDisplayPortFour USB 2.0 portseSATA portGigabit ethernet portMicrophone in and headphone outS/PDIF (RCA coaxial digital out)Requires 170 watt AC adapter		
Ports	Five USB 2.0, external monitor ¹¹ (VGA DB-15, dual-link DVI-D, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)															
Mini PCI Express	Three Mini PCI Express slots													170-watt AC adapter RoHS-compliant		
Intel 5300 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5300, 3x3 (Shirley Peak)															
2G Turbo	None													International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
UWB	None (uses Half-Mini PCIe slot)															
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket													ThinkPlus™.22 4-year LOR ²⁴ 9x5 NBD 12X5630		
Bluetooth™	Bluetooth 2.0 wireless, LED indicator															
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1													Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		
Intel AMT	Intel Active Management Technology (IAMT 4.0)															
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack															
Security	Power-on password, hard disk password, supervisor password, security keyhole															
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant															
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip															
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available															
1GB PC3-8500 DDR3 SODIMM						43R1987	W700 Series Li-Ion Battery 9-cell					45J7914				
2GB PC3-8500 DDR3 SODIMM						43R1988	ThinkPad 170W AC Adapter					41R4421				
4GB PC3-8500 DDR3 SODIMM						51J0493	ThinkPad 17W Business Topload Case					43R9117				
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)						43N3406	ThinkVision® L1700p 17" Monitor					9417HE2				
320GB Disk SATA 1.5Gb/s (7200 rpm)						43N3411	ThinkVision L1940p Wide 19" Monitor					4424HB6				
ThinkPad W700 Mini Dock						43R8782	ThinkVision L2240p Wide 22" Monitor					4422HB6				
Laser Tilt Wheel Travel Mouse (Bluetooth)						41U5008	ThinkVision L2440x Wide 24" Monitor					4421HB2				
Other accessories on O-W700 sheet							Other accessories at lenovo.com/accessories									

ThinkPad® W700 2752 - Education

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Discrete graphics memory	Disk(s) SATA GB ⁸ rpm	RAID	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe UWB or Turbo	Card Blue/ Fing	Digit- izer	Workhorse (W) Global (G) Avail date
2752-MNUT9600	2.80	4GB	17" WUXGA	Cam	512MB	2x160G	7200	None	DVD±RW	❖Intel 5300 ²⁸	None	/54	Yes	Bus32 W Mar 09
<ul style="list-style-type: none">• First 17" widescreen ThinkPad workstation with integrated color calibration and two RAID-capable disks• This model has an EasyServ™,19 depot repair service 3-year limited warranty• Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.• Microsoft® Office Ultimate 2007 Academic Edition: Only valid for sale to students, faculty and staff of accredited educational institutions in the United States.														
Positioning Processor	Mobile workstation; three spindles Intel® Core™ 2 Duo processor T9600 with dual-core, Intel HD boost, 1066MHz system bus, and 6MB L2 cache											Preloaded operating system ²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ❖ Vista Premium logo		
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)		
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high Two disks, 160GB⁸ (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 3rd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™											<ul style="list-style-type: none">• Education software- Microsoft Office Ultimate 2007 Academic Edition (and CD)- Adobe Digital School Collection<ul style="list-style-type: none">– Instructor Resources (and DVD)– Learning Creative Suite 4 (DVD)– Photoshop Elements 7 (DVD)– Premier Elements 7 (and DVD)– Acrobat 9 Professional (DVD)– Contribute CS4 (and DVD)– Soundbooth CS4 (and DVD)• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage Productivity Center• Fingerprint Software• huey™PRO Monitor Color Correction by Pantone®/X-Rite®		
Widescreen display	17.0" (431.8mm) WUXGA (1920x1200) color , anti-glare, CCFL backlight, 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 72% color gamut											ISV software certifications Supports ThinkVantage® technologies ThinkPad W700 Mini Dock Provides desktop expansion and cable management for W700 Series Features: <ul style="list-style-type: none">• Security key lock• Security cable lock slot• External monitor ports<ul style="list-style-type: none">– Analog VGA DB-15– Dual-link DVI-D– DisplayPort• Four USB 2.0 ports• eSATA port• Gigabit ethernet port• Microphone in and headphone out• S/PDIF (RCA coaxial digital out)• Requires 170 watt AC adapter 170-watt AC adapter RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
Color calibration	huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest													
Camera	Camera on top of screen, 1.3-megapixel, fixed focus													
Discrete graphics	NVIDIA® Quadro® FX2700M , PCI Express® x16, 512MB memory <i>Max external resolution:</i> 2048x1536@85Hz (VGA DB-15 port); 2048x1536 (DisplayPort)													
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys											ThinkPlus™, 22 2-year LOR 9x5 NBD 41C9175 ThinkPlus 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		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label													
Numeric keypad	10-key numeric keypad on right side of keyboard													
Digitizer	None													
ThinkLight™	Two LEDs illuminate the keyboard to improve visibility in low-light conditions													
Dimensions ³	9-cell 17W" (WxDxH): 16.1" x 12.2" x 1.6"; 410mm x 310mm x 41mm													
Weight ²	9-cell: starting at 8.4 lb (3.8kg)													
Case material	<i>Top:</i> magnesium alloy; <i>Bottom:</i> Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic													
Battery - type	Lithium Ion 9-cell													
Battery - life ¹⁰	9-cell: up to 2.3 hr													
Chipset	Mobile Intel PM45 Express Chipset (Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, RAID 0 or 1 support, USB 2.0, PCI Express 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus													
ExpressCard/34	One ExpressCard/34													
ExpressCard/54	[/54] One ExpressCard/34 or ExpressCard/54													
Compact Flash	None													
Smart Card Read	None													
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)													
Ports	Five USB 2.0, external monitor ¹¹ (VGA DB-15, dual-link DVI-D, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
Mini PCI Express	Three Mini PCI Express slots													
Intel 5300 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5300, 3x3 (Shirley Peak)													
2G Turbo	None													
UWB	None (uses Half-Mini PCIe slot)													
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket													
Bluetooth™	Bluetooth 2.0 wireless, LED indicator													
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1													
Intel AMT	Intel Active Management Technology (IAMT 4.0)													
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant													
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip													
Limited warranty ¹² 3-year - EasyServ™,19 depot repair service / service upgrades ²² available														
1GB PC3-8500 DDR3 SODIMM					43R1987	W700 Series Li-Ion Battery 9-cell				45J7914				
2GB PC3-8500 DDR3 SODIMM					43R1988	ThinkPad 170W AC Adapter				41R4421				
4GB PC3-8500 DDR3 SODIMM					51J0493	ThinkPad 17W Business Topload Case				43R9117				
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)					43N3406	ThinkVision® USB Soundbar (up to 22")				40Y7616				
320GB Disk SATA 1.5Gb/s (7200 rpm)					43N3411	ThinkVision L1700p 17" Monitor				9417HE2				
USB 2.0 Ultra Secure Memory Key 8GB					45J5918	ThinkVision L1940p Wide 19" Monitor				4424HB6				
ThinkPad W700 Mini Dock					43R8782	ThinkVision L2240p Wide 22" Monitor				4422HB6				
Laser Tilt Wheel Travel Mouse (Bluetooth)					41U5008	ThinkVision L2440x Wide 24" Monitor				4421HB2				
Other accessories on O-W700 sheet					Other accessories at lenovo.com/accessories									

See footnotes for important warranty information
US model announced March 24, 2009

❖ Intel Centrino 2 with vPro™ technology

© Lenovo
(NIC1-6) April 2009



Lenovo ThinkPad W700ds



Lenovo ThinkPad W700ds



Lenovo ThinkPad W700ds



Lenovo ThinkPad W700ds



Lenovo ThinkPad W700ds

ThinkPad® W700ds 2758 (TopSeller)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	Mem- ory	Primary display	Secondary display	Camera	Disk(s) SATA GB ⁸	RAID	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe UWB or Turbo slot	CardBlue/ Fing izer	Digit- izer	Workhorse (W) Global (G) Avail Preload date
2758-MMU Q9000	2.00	4GB	17" WUXGA	10.6" WXGA	Cam	2x320GB	1	DVD±RW	❖Intel 5300 ²⁸	None	/54	Yes Wacom	Bus64 Mar 09
<ul style="list-style-type: none"> • ds = dual screen • 17" widescreen ThinkPad workstation with integrated color calibration and two RAID-capable disks • Select models include digitizer on palm rest 													
Positioning Processor	Mobile workstation; three spindles Intel® Core™ 2 processor Q9000 with quad-core , Intel HD boost, 1066MHz system bus, and 6MB L2 cache										Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (64-bit) ❖ Vista Premium logo		
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 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Windows Live™ Toolbar • Windows Live Search • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW) • huey™PRO Monitor Color Correction by Pantone®/X-Rite®		
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high Two disks, 320GB⁸ (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports third disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™												
Displays	<i>Primary:</i> 17.0" (431.8mm) WUXGA (1920x1200) color , widescreen, anti-glare, CCFL backlight, 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 72% color gamut; <i>Secondary:</i> 10.6" (269.2mm) WXGA (768x1280) color , portrait, anti-glare, LED backlight, 230 nits, 9:15 aspect ratio, 190:1 contrast ratio, 45% color gamut, slides out of right side of top cover, 30° tilt, 40% of primary screen size												
Color calibration Camera	huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest Camera on top of screen, 1.3-megapixel, fixed focus												
Discrete graphics	NVIDIA® Quadro® FX3700M , PCI Express® x16, 1GB memory; <i>Max external resolution:</i> 2048x1536@85Hz (VGA DB-15 port); 2048x1536 (DisplayPort)												
Keyboard TrackPoint® Touch pad Numeric keypad Digitizer ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl 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										ISV software certifications		
Dimensions ³ Weight ² Case color Case material	<i>9-cell 17W" (WxDxH):</i> 16.1" x 12.2" x 1.6"; 410mm x 310mm x 41mm <i>9-cell:</i> starting at 8.4 lb (3.8kg) Black <i>Top:</i> magnesium alloy; <i>Bottom:</i> Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic										Supports ThinkVantage® technologies		
Battery - type Battery - life ¹⁰	Lithium Ion 9-cell <i>9-cell:</i> up to 2.1 hr										ThinkPad W700 Mini Dock Provides desktop expansion and cable management for W700 Series Features: • Security key lock • Security cable lock slot • External monitor ports – Analog VGA DB-15 – Dual-link DVI-D – DisplayPort • Four USB 2.0 ports • eSATA port • Gigabit ethernet port • Microphone in and headphone out • S/PDIF (RCA coaxial digital out) • Requires 170 watt AC adapter		
Chipset	Mobile Intel PM45 Express Chipset (Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, RAID 0 or 1 support, USB 2.0, PCI Express 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus												
ExpressCard/34 ExpressCard/54 Compact Flash Smart Card read Multicard reader Ports	One slot (ExpressCard/34) One slot (ExpressCard/34, ExpressCard/54) None None 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Five USB 2.0, external monitor ¹¹ (VGA DB-15, dual-link DVI-D, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin conn; 1394a-2000 standard)												
Mini PCI Express Intel 5300 ²⁸ 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5300, 3x3 (Shirley Peak) None None (uses Half-Mini PCIe slot) 56K V.92 ⁶ modem in Communications Daughter Card socket Bluetooth 2.0 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (IAMT 4.0) High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack										170-watt 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		
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip										ThinkPlus™, 22 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179		
Limited warranty ¹²	3-year - EasyServ™-19 depot repair service / service upgrades ²² available										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		
1GB PC3-8500 DDR3 SODIMM 2GB PC3-8500 DDR3 SODIMM 4GB PC3-8500 DDR3 SODIMM 128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover) 320GB Disk SATA 1.5Gb/s (7200 rpm) ThinkPad W700 Mini Dock Other accessories on O-W700 sheet	43R1987 43R1988 51J0493 43N3406 43N3411 43R8782 W700 Series Li-Ion Battery 9-cell 45J7914 ThinkPad 170W AC Adapter 41R4421 ThinkPad 17W Business Topload Case 43R9117 ThinkVision® USB Soundbar (up to 22") 40Y7616 ThinkVision L2240p Wide 22" Monitor 4422HB6 ThinkVision L2440x Wide 24" Monitor 4421HB2 Other accessories at lenovo.com/accessories												

See footnotes for important warranty information
US model announced March 24, 2009

❖ Intel Centrino 2 with vPro™ technology

© Lenovo
(NIC15-3) April 2009

Type-model	Proc- essor	GHz	Mem- ory	Primary display	Secondary display	Camera	Disk(s) SATA GB ⁸	RAID	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe UWB or Turbo	CardBlue/ slot	Fing	Digit- izer	Workhorse (W) Global (G) Avail Preload date
2752-EPU Q9100	2.26	4GB	17"	WUXGA	10.6"	WXGA Cam	2x160GB	None	DVD±RW	Intel 5300 ²⁸	None	/54	Yes		Bus64 Jan 09
2752-E7U QX9300	2.53	4GB	17"	WUXGA	10.6"	WXGA Cam	2x160GB	None	DVD±RW	Intel 5300	None	/54	Yes	Wacom	Bus64 WG Jan 09
<ul style="list-style-type: none">• ds = dual screen• 17" widescreen ThinkPad workstation with integrated color calibration and two RAID-capable disks• Select models include digitizer on palm rest															
Positioning Processor	Mobile workstation; three spindles Intel® Core™ 2 processor Q9100 with quad-core , Intel HD boost, 1066MHz system bus, and 12MB L2 cache or Intel Core 2 Extreme processor QX9300 with quad-core , Intel HD boost, 1066MHz system bus, and 12MB L2 cache											Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (64-bit) ◇ Vista Premium logo			
Memory	4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available											Preloaded applications¹⁴ <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions)• PC-Doctor™ (diagnostics)• ThinkPad Utilities (Power Manager and Presentation Director)• Windows Live™ Toolbar• Windows Live Search• Fingerprint Software• Microsoft Office 2007 Trial (60-day)• Roxio® Creator® Business Edition• Roxio MyDVD® (DVD±RW)• huey™PRO Monitor Color Correction by Pantone®/X-Rite®			
SATA DVD±RW Ultrabay Enhanced SATA disk	<i>Some:</i> DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) <i>One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high</i> Two disks, 160GB⁸ (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports third disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™														
Displays	<i>Primary:</i> 17.0" (431.8mm) WUXGA (1920x1200) color , widescreen, anti-glare, CCFL backlight, 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 72% color gamut; <i>Secondary:</i> 10.6" (269.2mm) WXGA (768x1280) color , portrait, anti-glare, LED backlight, 230 nits, 9:15 aspect ratio, 190:1 contrast ratio, 45% color gamut, slides out of right side of top cover, 30° tilt, 40% of primary screen size														
Color calibration	huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest														
Camera	Camera on top of screen, 1.3-megapixel, fixed focus														
Discrete graphics	NVIDIA® Quadro® FX3700M , PCI Express® x16, 1GB memory; <i>Max external resolution:</i> 2048x1536@85Hz (VGA DB-15 port); 2048x1536 (DisplayPort)														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label														
Numeric keypad	10-key numeric keypad on right side of keyboard														
Digitizer	<i>Some:</i> Wacom® digitizer (128x80mm) on palm rest, digitizer pen, pen holder in right side														
ThinkLight™	Two LEDs illuminate the keyboard to improve visibility in low-light conditions											ISV software certifications			
Dimensions ³	<i>9-cell 17W" (WxDxH):</i> 16.1" x 12.2" x 1.6"; 410mm x 310mm x 41mm											Supports ThinkVantage® technologies			
Weight ²	<i>9-cell:</i> starting at 8.4 lb (3.8kg)														
Case color	Black														
Case material	<i>Top:</i> magnesium alloy; <i>Bottom:</i> Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic											ThinkPad W700 Mini Dock Provides desktop expansion and cable management for W700 Series Features: <ul style="list-style-type: none">• Security key lock• Security cable lock slot• External monitor ports<ul style="list-style-type: none">– Analog VGA DB-15– Dual-link DVI-D– DisplayPort• Four USB 2.0 ports• eSATA port• Gigabit ethernet port• Microphone in and headphone out• S/PDIF (RCA coaxial digital out)• Requires 170 watt AC adapter			
Battery - type	Lithium Ion 9-cell														
Battery - life ¹⁰	<i>9-cell:</i> up to 2.1 hr														
Chipset	Mobile Intel PM45 Express Chipset (Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, RAID 0 or 1 support, USB 2.0, PCI Express 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus One slot (ExpressCard/34) <i>Some:</i> One slot (ExpressCard/34, ExpressCard/54)														
ExpressCard/34	<i>Some:</i> One slot (ExpressCard/34, ExpressCard/54)														
ExpressCard/54	<i>Some:</i> One slot (ExpressCard/34, ExpressCard/54)														
Compact Flash	None														
Smart Card read	None														
Multicard reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)														
Ports	Five USB 2.0, external monitor ¹¹ (VGA DB-15, dual-link DVI-D, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin conn; 1394a-2000 standard)														
Mini PCI Express	Three Mini PCI Express slots														
Intel 5300 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5300, 3x3 (Shirley Peak)														
2G Turbo	None														
UWB	None (uses Half-Mini PCIe slot)														
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket											170-watt 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			
Bluetooth™	Bluetooth 2.0 wireless, LED indicator														
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1														
Intel AMT	Intel Active Management Technology (IAMT 4.0)														
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack											ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175			
Security	Power-on password, hard disk password, supervisor password, security keyhole											ThinkPlus 3-year LOR 9x5 NBD 41C9176			
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant											ThinkPlus 4-year LOR 9x5 NBD 41C9177			
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip											ThinkPlus 5-year LOR 9x5 NBD 41C9179			
Limited warranty ¹²	3-year - EasyServ™.19 depot repair service / service upgrades ²² available											ThinkPlus 4-year P&L P/U Depot 41C9178			
1GB PC3-8500 DDR3 SODIMM						43R1987				W700 Series Li-Ion Battery 9-cell	45J7914				
2GB PC3-8500 DDR3 SODIMM						43R1988				ThinkPad 170W AC Adapter	41R4421				
4GB PC3-8500 DDR3 SODIMM						51J0493				ThinkPad 17W Business Topload Case	43R9117				
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)						43N3406				ThinkVision® USB Soundbar (up to 22")	40Y7616				
320GB Disk SATA 1.5Gb/s (7200 rpm)						43N3411				ThinkVision L2240p Wide 22" Monitor	4422HB6				
ThinkPad W700 Mini Dock						43R8782				ThinkVision L2440x Wide 24" Monitor	4421HB2				
Other accessories on O-W700 sheet												Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Other accessories at lenovo.com/accessories															

ThinkPad® W700ds 2753 (Onsite)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	Mem- ory	Primary display	Secondary display	Camera	Disk(s) SATA GB ⁸	RAID	SATA optical	Mini PCIe Mini PCle 802.11 wireless	UWB or Turbo slot	Card Blue/ Digit- izer	Preload	(W) Global (G) Avail date
2753-E7U QX9300	2.53 GHz	4GB	17" WUXGA	10.6" WXGA	Cam	2x160GB	None	DVD±RW	Intel 5300 ²⁸	None	/54 Yes Wacom	Bus64 WGP Jan 09	
<ul style="list-style-type: none">• ds = dual screen• 17" widescreen ThinkPad workstation with integrated color calibration and two RAID-capable disks• Select models include digitizer on palm rest• These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty													
Positioning Processor	Mobile workstation; three spindles Intel Core 2 Extreme processor QX9300 with quad-core, Intel HD boost, 1066MHz system bus, and 12MB L2 cache											Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (64-bit) ♦ Vista Premium logo Preloaded applications¹⁴ <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions)• PC-Doctor™ (diagnostics)• ThinkPad Utilities (Power Manager and Presentation Director)• Windows Live™ Toolbar• Windows Live Search• Fingerprint Software• Microsoft Office 2007 Trial (60-day)• Roxio® Creator® Business Edition• Roxio MyDVD® (DVD±RW)• huey™PRO Monitor Color Correction by Pantone®/X-Rite®	
Memory	4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available												
SATA DVD±RW Ultrabay Enhanced SATA disk	<i>Some:</i> DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high Two disks, 160GB ⁸ (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports third disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™												
Displays	<i>Primary:</i> 17.0" (431.8mm) WUXGA (1920x1200) color , widescreen, anti-glare, CCFL backlight, 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 72% color gamut; <i>Secondary:</i> 10.6" (269.2mm) WXGA (768x1280) color , portrait, anti-glare, LED backlight, 230 nits, 9:15 aspect ratio, 190:1 contrast ratio, 45% color gamut, slides out of right side of top cover, 30° tilt, 40% of primary screen size												
Color calibration Camera	huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest Camera on top of screen, 1.3-megapixel, fixed focus												
Discrete graphics	NVIDIA® Quadro® FX3700M , PCI Express® x16, 1GB memory; <i>Max external resolution:</i> 2048x1536@85Hz (VGA DB-15 port); 2048x1536 (DisplayPort)												
Keyboard TrackPoint® Touch pad Numeric keypad Digitizer ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl 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 color Case material	<i>9-cell 17W"</i> (WxDxH): 16.1" x 12.2" x 1.6"; 410mm x 310mm x 41mm <i>9-cell:</i> starting at 8.4 lb (3.8kg) Black <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 2.1 hr												
Chipset	Mobile Intel PM45 Express Chipset (Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, RAID 0 or 1 support, USB 2.0, PCI Express 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus												
ExpressCard/34 ExpressCard/54 Compact Flash Smart Card reader Multicard reader Ports	One slot (ExpressCard/34) One slot (ExpressCard/34, ExpressCard/54) None None 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Five USB 2.0, external monitor ¹¹ (VGA DB-15, dual-link DVI-D, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin conn; 1394a-2000 standard)												
Mini PCI Express Intel 5300 ²⁸ 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support Security Security chip Fingerprint reader Limited warranty ¹²	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5300, 3x3 (Shirley Peak) None None (uses Half-Mini PCIe slot) 56K V.92 ⁵ modem in Communications Daughter Card socket Bluetooth 2.0 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (IAMT 4.0) High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip 3-years /1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available												
1GB PC3-8500 DDR3 SODIMM 2GB PC3-8500 DDR3 SODIMM 4GB PC3-8500 DDR3 SODIMM 128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover) 320GB Disk SATA 1.5Gb/s (7200 rpm) ThinkPad W700 Mini Dock Other accessories on O-W700 sheet	43R1987 43R1988 51J0493 43N3406 43N3411 43R8782 W700 Series Li-Ion Battery 9-cell 45J7914 ThinkPad 170W AC Adapter 41R4421 ThinkPad 17W Business Topload Case 43R9117 ThinkVision® USB Soundbar (up to 22") 40Y7616 ThinkVision L2240p Wide 22" Monitor 4422HB6 ThinkVision L2440x Wide 24" Monitor 4421HB2 Other accessories at lenovo.com/accessories												
ISV software certifications Supports ThinkVantage® technologies ThinkPad W700 Mini Dock Provides desktop expansion and cable management for W700 Series Features: <ul style="list-style-type: none">• Security key lock• Security cable lock slot• External monitor ports<ul style="list-style-type: none">– Analog VGA DB-15– Dual-link DVI-D– DisplayPort• Four USB 2.0 ports• eSATA port• Gigabit ethernet port• Microphone in and headphone out• S/PDIF (RCA coaxial digital out)• Requires 170 watt AC adapter 170-watt AC adapter RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™.22 4-year LOR 9x5 NBD 12X5630 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty													

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

❖ Intel Centrino 2 with vPro™ technology

© Lenovo
(NIC15-2) January 2009

Partial list of accessories supported on:

- ThinkPad W700 originally announced on August 12, 2008
- ThinkPad W700ds originally announced on January 6, 2009

Memory

1GB PC3-8500 DDR3 SODIMM (TopSeller)	43R2045	ann	11/04/08
1GB PC3-8500 DDR3 SODIMM	43R1987	ann	08/05/08
2GB PC3-8500 DDR3 SODIMM (TopSeller)	43R2046	ann	11/04/08
2GB PC3-8500 DDR3 SODIMM	43R1988	ann	08/05/08
4GB PC3-8500 DDR3 SODIMM	51J0493	ann	03/03/09

Ultrabay Slim 9.5mm

Serial ATA Hard Drive Bay Adapter II SATA ⁴⁸	43R1980	ann	08/05/08
CD-RW/DVD-ROM Ultrabay Slim SATA ⁴⁸	43N3213	ann	08/05/08
DVD Burner Ultrabay Slim SATA 1.5Gb/s ⁴⁸	43N3214	ann	08/05/08
Blu-ray™ Burner Ultrabay Slim SATA 1.5Gb/s ⁴⁸	43N3215	ann	08/05/08

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

Ultrabay Enhanced 12.7mm

DVD-ROM Ultrabay Enhanced SATA 1.5Gb/s	43R9147	ann	08/05/08
CD-RW/DVD-ROM Ultrabay Enh SATA	43R9148	ann	08/05/08
DVD Burner Ultrabay Enh SATA 1.5Gb/s	43R9149	ann	08/05/08
Blu-ray™ Burner Ultrabay Enh SATA 1.5Gb/s	43R9150	ann	08/05/08

Storage and removable storage

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

⁴¹ Can be used as the main HDD or with Serial ATA Hard Drive Bay Adapter 43R1980 in the Ultrabay

128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ann	08/26/08
USB 2.0 Essential Memory Key 4GB	45J7904	ann	06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann	07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann	10/28/08
USB 2.0 Security Memory Key 2GB	41U5119	ann	07/17/07
USB 2.0 Security Memory Key 4GB	41U5120	ann	07/17/07
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann	08/26/08
USB Portable Diskette Drive	05K9276	ann	06/05/00
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann	01/05/06
USB 2.0 Portable 160GB Hard Disk	43R1784	ann	09/23/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
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
USB 2.0 Super Multi-Burner Drive	41N5565	ann	01/23/07

ThinkPad Expansion

ThinkPad W700 Mini Dock	43R8782	ann	08/12/08
-------------------------	---------	-----	----------

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
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann	12/07/04
USB Keyboard with UltraNav	31P8950	ann	01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann	04/27/04
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Optical Wheel Mouse (USB)	06P4069	ann	05/21/03
Optical ScrollPoint® Mouse (USB, PS/2)	31P7405	ann	08/27/02
Optical Wheel Travel Mouse (USB, PS/2)	31P7410	ann	06/04/02
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	ann	01/23/07
Lenovo Wireless Laser Mouse (blk, via USB)	45K1696	ann	11/25/08
Lenovo Wireless Laser Mouse (red, via USB)	51J0198	ann	11/25/08
Laser Tilt Wheel Travel Mouse (Bluetooth)	41U5008	ann	01/22/08

Security

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

Multimedia

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann	06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann	08/29/06

Batteries

W700 Series Li-Ion Battery 9-cell	45J7914	ann	08/12/08
ThinkPad 170W AC Adapter	41R4421	ann	08/12/08

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
------------------------------------	---------	-----	----------

Monitors

ThinkVision® L174 17" Monitor	9227AE1	ann	04/15/08
ThinkVision L1700p 17" Monitor	9417HE2	ann	09/17/08
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1940p Wide 19" Monitor	4424HB6	ann	09/17/08
ThinkVision L200p Wide 20.1" Monitor	4438HB6	ann	04/15/08
ThinkVision L2240p Wide 22" Monitor	4422HB6	ann	09/17/08
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08
ThinkVision L2440x Wide 24" Monitor	4421HB2	ann	09/17/08

Monitor Accessories⁴⁶

ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington Cable Lock from Lenovo	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Radial Arm	19K4464	ann	05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad® X61 (7675) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Display	Disk SATA GB ⁸ rpm	Optical in UltraBase	ThinkPad X6 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Blue- tooth	Finger print reader	Bat- tery cells	Preload	Avail date	
7675-7FU	T7300	2.00	1GB	12.1" XGA	160GB 5400			* Intel 11n ²⁸		Blue	Finger	8-cell	Home Basic	Jun 07	
7675-55U	T7300	2.00	2GB	12.1" XGA	160GB 5400	Combo	UltraBase	* Intel 11a/b/g ³²	Verizon	Blue	Finger	8-cell	Business 32	Jun 07	
7675-4KU	T7300	2.00	1GB	12.1" XGA	120GB 5400			* Intel 11a/b/g		Blue	Finger	4-cell	Business 32	Jun 07	
7675-7KU	T7300	2.00	1GB	12.1" XGA	120GB 5400	DVD±RW	UltraBase	* Intel 11n	1G Turbo	Blue	Finger	8-cell	Business 32	Jun 07	
7675-59U	T7300	2.00	2GB	12.1" XGA	160GB 5400	DVD±RW	UltraBase	* Intel 11a/b/g	Verizon	Blue	Finger	8-cell	Business 32	Jun 07	
7675-8PU	T7250	2.00	1GB	12.1" XGA	120GB 5400			* Intel 11n		Blue	Finger	4-cell	Business 32	Sep 07	
7675-92U	T7500	2.20	1GB	12.1" XGA	160GB 5400	DVD±RW	UltraBase	* Intel 11n		Blue	Finger	8-cell	Business 32	Sep 07	
7675-93U	T7500	2.20	2GB	12.1" XGA	160GB 7200	DVD±RW	UltraBase	* Intel 11n	1G Turbo	Blue	Finger	8-cell	Business 32	Sep 07	
7675-H7U	T8100	2.10	1GB	12.1" XGA	100GB 7200	DVD±RW	UltraBase	* Intel 11n		Blue	Finger	8-cell	XP Pro	Feb 08	
7675-HMUT8100		2.10	2GB	12.1" XGA	100GB 7200	DVD±RW	UltraBase	* Intel 11n	1G Turbo	Blue	Finger	8-cell	Business 32	Mar 08	
7675-K2U	T8300	2.40	1GB	12.1" XGA	160GB 5400	DVD±RW	UltraBase	* Intel 11n	Verizon	Blue	Finger	8-cell	XP Pro	Feb 08	
7675-K3U	T8300	2.40	2GB	12.1" XGA	160GB 5400	DVD±RW	UltraBase	* Intel 11n	Verizon	Blue	Finger	8-cell	Business 32	Mar 08	
<ul style="list-style-type: none">• These small and medium business (SMB) models are part of the US TopSeller™ Program• These models have a 1-year limited warranty															
Positioning Processor	Thinnest and lightest; one spindle Intel® Core™ 2 Duo processor T7250, T7300, T7500, T8100, or T8300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz bus; T7250: 2MB L2 cache; T7300/T7500: 4MB L2 cache; T8100/T8300: 3MB L2 cache										Preloaded operating system ²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Home Basic Edition (32-bit) - Some: Microsoft Windows Vista Business Edition (32-bit) ◇ 7FU/7KU/8PU/92U: Vista Basic logo ◇ Other Vista models: Vista Premium logo				
Memory	1GB 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 1 socket; 1 socket available										Preloaded applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (combo, DVD±RW) • Corel® WinDVD® (combo, DVD±RW)				
Diskette drive	None (use optional USB-based diskette drive)										Supports ThinkVantage® technologies				
EIDE Combo	Some: DVD-ROM/CD-RW, 24X/24X/24X/8X ²¹ speed, removable from X6 UltraBase										ThinkPad X6 UltraBase™				
EIDE DVD±RW	Some: DVD burner, Super Multi-Burner (40Y8623), dual-layer, removable from X6										• Provides desktop expansion and cable management for X60 Series				
Ultrabay™ Slim	Supports Ultrabay Slim devices in optional or standard X6 UltraBase										• Easily connects to the bottom of the X60 Series for traveling				
Serial ATA disk	100GB ⁸ (7200 rpm), 120GB (5400 rpm), or 160GB (5400 or 7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, supports 2nd disk in std or optional X6 UltraBase, ThinkPad Shock Mounted Hard Drive, Active Protection System™										• Converts ThinkPad to a two-spindle system with optional flat bezel Ultrabay Slim options in left side: – ThinkPad Advanced Ultrabay Battery II 3-cell (flat) 43R9250 – ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643 – Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725 Disks supported: • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411				
Display	12.1" (308mm) XGA (1024x768) TFT color, anti-glare, 150 nits, 4:3 aspect ratio, 300:1 contrast ratio										Other features: • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optional security screw • Serial and parallel ports • Analog VGA monitor port (no DVI) • Four USB 2.0 ports • Gigabit ethernet port • Modem port • Microphone in and headphone out • Requires 65 or 90 watt AC adapter • Retractable feet; 1.48 lb; 670g				
Graphics controller	Intel Graphics Media Accelerator X3100 (GMA X3100), integrated in GM965										65-watt (GMA graphics) AC Adapter				
Graphics - external	External VGA monitor support via analog DB-15 connector / no DVI-out support										ENERGY STAR® 4.0-compliant				
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys, standard-size ²⁶ keys 97% size of T Series, 18.5mm pitch, 2.5mm stroke										RoHS-compliant				
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										International Warranty Service ¹⁷				
Touch pad	None										24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										via 800-426-7378				
Dimensions ³	without X6 UltraBase; 4-cell: 10.5" x 8.3" x .80-1.39"; 268mm x 211mm x 20-35mm without X6 UltraBase; 8-cell: 10.5" x 9.4" x .80-1.39"; 268mm x 238mm x 20-35mm with Enhanced 4-cell battery: from 3.11 lb (1.41kg); 8-cell: from 3.59 lb (1.63kg)														
Weight ²	Color: black; All: magnesium alloy														
Case material	Lithium Ion Enhanced Cap Battery 4-cell or Lithium Ion 8-cell;														
Battery - type	supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional X6 UltraBase (for two batteries)														
Battery - life ¹⁰	Enh 4-cell: up to 3.9 hr; 8-cell: up to 7.8 hr; 8-cell and Extended Life Battery: up to 10.7														
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (PC87385 Super I/O, Atmel® 97SC3203 TPM)														
Media slice	Some: X6 UltraBase media slice (see right side)														
Secure Digital slot	One Secure Digital Card slot, supports SD memory cards used in consumer devices														
PC Card slot	One Type I or one Type II, CardBus Plus (34mm ExpressCard via adapter), door														
Ports	Three USB 2.0, DB-15 (external VGA monitor), -RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
Wireless antenna	UltraConnect™ II Antenna / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG														
Intel 11n ²⁸	Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)														
Verizon ¹⁶	Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe adapter, EV-DO Rev. A, rod antenna, service contract reqd with Verizon® Wireless														
1G Turbo	Some: Intel Turbo Memory, Mini PCIe adapter, 1GB flash, disk-cache accelerator														
Modem	56K V.92 ⁹ modem in Communications Daughter Card														
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator														
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1, PXE														
Intel AMT	Intel Active Management Technology (iAMT)														
Audio support	High Definition (HD) Audio, AD1984 codec / mono speaker 0.5 watt, volume up, down, mute buttons / internal microphone, mic input jack (pink), headphone jack (green)														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module, Atmel chip, TCG 1.2-compliant														
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip														
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available														

See footnotes for important warranty information

* Intel Centrino® processor technology

© Lenovo

US models announced March 25, 2008;

* Intel Centrino with vPro™ technology

(SM3-1) March 2008

previous models on May 31, September 4, 2007, or January 8, 2008

US models withdrawn effective August or December 2007

Type-model	Proc- essor	GHz	Memory	Display	Disk SATA GB ^s rpm	Optical in UltraBase	ThinkPad X6 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Finger Blue- tooth print reader	Bat- tery cells	Workhorse (W) Preload EW 9-month Avail Global (G) date
7673-74U	T7300	2.00	1GB	12.1" XGA	80GB 5400			* Intel 4965AG ³²		Blue	8-cell	XP Pro W G Jun 07
7673-66U	T7300	2.00	1GB	12.1" XGA	80GB 5400			* Intel 4965AG			8-cell	XP Pro W G Jun 07
7673-65U	T7300	2.00	1GB	12.1" XGA	80GB 5400			* Intel 4965AG			8-cell	Business 32 W G Jun 07
7673-3HU	T7100	1.80	1GB	12.1" XGA	80GB 5400			* Intel 11a/b/g ³²		Blue	8-cell	Business 64 EW Jun 07
7673-7EU	T7300	2.00	2GB	12.1" XGA	160 5400	DVD±RW	UltraBase	* Intel 11a/b/g		Blue	8-cell	Business 64 Jun 07
7673-4NU	T7300	2.00	2GB	12.1" XGA	120G 5400			* Intel 4965AG		Blue	8-cell	Business 32 W G Jun 07
7673-A5U	T7500	2.20	2GB	12.1" XGA	100G 7200			* Intel 11a/b/g		Blue	8-cell	Business 32 W Oct 07
7673-8TU	T7250	2.00	2GB	12.1" XGA	160G 7200			* Intel 4965AG	1G Turbo	Blue	8-cell	Business 32 W Oct 07
7673-H6U	T8100	2.10	1GB	12.1" XGA	120G 5400			* Intel 11n ²⁸	1G Turbo	Blue	4-cell	Business 32 W G Feb 08
7673-J5U	T8300	2.40	2GB	12.1" XGA	160G 5400			* Intel 11n ²⁸	1G Turbo	Blue	4-cell	Business 32 W G Feb 08
7673-5GU	T7300	2.00	2GB	12.1" XGA	120G 5400			* Intel 4965AG		Blue	8-cell	Business 32 W Feb 08
Processor	Intel® Core™ 2 Duo processor T7100, T7250, T7300, T7500, T8100, or T8300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, and 800MHz bus; T7100/T7250: 2MB L2 cache; T7300/T7500: 4MB L2; T8100/T8300: 3MB L2 cache											Preloaded operating system ²⁰
Memory	1GB or 2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											- Some: Microsoft® Windows® XP Professional - Some: Microsoft Windows Vista® Home Basic Edition (32-bit) - Some: Microsoft Windows Vista Business Edition (32-bit) ◇ Vista 1GB models: Vista Basic logo ◇ 2GB models: Vista Premium logo
Diskette drive	None (use optional USB-based diskette drive)											Preloaded applications ¹⁴ (all OSes; only some listed)
EIDE DVD±RW	Some: DVD burner, Super Multi-Burner (40Y8623), dual-layer, removable from X6											• Rescue and Recovery™
Ultrabay™ Slim	Supports Ultrabay Slim devices in optional or standard X6 UltraBase											• Access Connections™
Serial ATA disk	80GB ⁸ (5400 rpm), 100GB (7200 rpm), 120GB (5400), or 160GB (5400 or 7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, supports 2nd disk in std or optional X6 UltraBase, ThinkPad Shock Mounted Hard Drive, Active Protection System™											• Client Security Solution™
Display	12.1" (308mm) XGA (1024x768) TFT color, anti-glare, 150 nits, 4:3 aspect ratio, 300:1 contrast ratio											• ThinkVantage Productivity Center
Graphics controller	Intel Graphics Media Accelerator X3100 (GMA X3100), integrated in GM965											• ThinkVantage System Update
Graphics - external	External VGA monitor support via analog DB-15 connector / no DVI-out support											• Norton Internet Security™
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys, standard-size ²⁶ keys 97% size of T Series, 18.5mm pitch, 2.5mm stroke											• Diskeeper® Home
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass											• PC-Doctor™ (diagnostics)
Touch pad	None											• Fingerprint Software
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											• Microsoft Office 2007 Trial (60-day)
Dimensions ³	without X6 UltraBase; 4-cell: 10.5" x 8.3" x .80-1.39"; 268mm x 211mm x 20-35mm without X6 UltraBase; 8-cell: 10.5" x 9.4" x .80-1.39"; 268mm x 238mm x 20-35mm with Enhanced 4-cell battery: from 3.11 lb (1.41kg); 8-cell: from 3.59 lb (1.63kg)											• Sonic RecordNow and Drive Letter Access (DVD±RW)
Weight ²	Color: black; All: magnesium alloy											• Corel® WinDVD® (DVD±RW)
Case material	Lithium Ion 4-cell or 8-cell;											Supports ThinkVantage® technologies
Battery - type	supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional X6 UltraBase (for two batteries)											ThinkPad X6 UltraBase™
Battery - life ¹⁰	Enh 4-cell: up to 3.9 hr; 8-cell: up to 7.8 hr; 8-cell and Extended Life Battery: up to 10.7											• Provides desktop expansion and cable management for X60 Series
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (PC87385 Super I/O, Atmel® 97SC3203 TPM)											• Easily connects to the bottom of the X60 Series for traveling
Media slice	Some: X6 UltraBase media slice (see right side)											• Converts ThinkPad to a two-spindle system with optional flat bezel Ultrabay Slim options in left side:
Secure Digital slot	One Secure Digital Card slot, supports SD memory cards used in consumer devices											- ThinkPad Advanced Ultrabay Battery II 3-cell (flat) 43R9250
PC Card	One slot (Type I, Type II), CardBus Plus (34mm ExpressCard via adapter), door											- ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											- Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725
Wireless antenna	UltraConnect™ II Antenna / on-off switch for all wireless radios											Disks supported:
Mini PCI Express	Two Mini PCI Express slots / 802.11 and WWAN are customer upgradable											• 250GB FDE 7200 rpm 43N3410
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG											• 320GB FDE 7200 rpm 43N3411
Intel 4965AG ³²	Some: 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG											Other features:
Intel 11n ²⁸	Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)											• Stereo speakers (1 watt)
WWAN upg ¹⁶	None											• Security key lock, security keyhole, and optional security screw
1G Turbo	Some: Intel Turbo Memory, Mini PCIe adapter, 1GB flash, disk-cache accelerator											• Serial and parallel ports
Modem	56K V.92 ² modem in Communications Daughter Card											• Analog VGA monitor port (no DVI)
Bluetooth™	Some: Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator											• Four USB 2.0 ports
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1, PXE											• Gigabit ethernet port
Intel AMT	Intel Active Management Technology (AMT)											• Modem port
Audio support	High Definition (HD) Audio, AD1984 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal microphone, mic input jack (pink), headphone jack (green)											• Microphone in and headphone out
Security	Power-on password, hard disk password, supervisor password, security keyhole											• Requires 65 or 90 watt AC adapter
Security chip	Trusted Platform Module, Atmel chip, TCG 1.2-compliant											• Retractable feet; 1.48 lb; 670g
Fingerprint reader	Some: Fingerprint reader on palm rest, swipe sensor, supports the security chip											65-watt (GMA graphics) AC Adapter ENERGY STAR® 4.0-compliant
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available											RoHS-compliant
2GB PC2-5300 DDR2 SODIMM	40Y7735											International Warranty Service ¹⁷
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover) 43N3406	40Y7705											24 hour x 7 day ¹⁸ toll-free support
ThinkPad X6 UltraBase	40Y8116											during the warranty period ¹²
Other accessories on O-X60 sheet	Other accessories at lenovo.com/accessories											via 800-426-7378

See footnotes for important warranty information

* Intel Centrino® processor technology

© Lenovo

US model announced February 19, 2008;

* Intel Centrino with vPro™ technology

(SM3-2) February 2008

previous models on May 31, October 30, 2007, or January 8, 2008

US models withdrawn effective January or May 2008

ThinkPad® X61s (7669) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Low Voltage proc- essor	GHz	Memory	Display	Disk SATA GB ⁸ rpm	Optical in UltraBase	ThinkPad X6 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Finger print reader	Bat- tery cells	Vista preload	Avail date
7669-45U	L7500 LV	1.60	2GB	12.1" XGA	100G 7200	DVD±RW	UltraBase	* Intel 11a/b/g ³²	Verizon	Finger 8-cell	Ultimate 32	Jun 07	
7669-7DU	L7300 LV	1.40	1GB	12.1" UL XGA	80GB 5400	DVD±RW	UltraBase	* Intel 11a/b/g		Finger Slim-4	Business 32	Jun 07	
7669-88U	L7500 LV	1.60	2GB	12.1" UL XGA	160G 5400	DVD±RW	UltraBase	* Intel 11a/b/g		Finger 8-cell	Business 64	Jun 07	
7669-85U	L7500 LV	1.60	1GB	12.1" UL XGA	120G 5400	DVD±RW	UltraBase	* Intel 11a/b/g		Finger 8-cell	Home Basic 32	Jun 07	
7669-3GU	L7500 LV	1.60	2GB	12.1" XGA	160G 7200	DVD±RW	UltraBase	* Intel 11n ²⁸	1G Turbo	Finger 8-cell	Business 32	Sep 07	
7669-3HU	L7500 LV	1.60	1GB	12.1" XGA	100G 7200			* Intel 11n		Finger 8-cell	Business 32	Sep 07	
<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 warranty¹²													
Positioning Processor	Thinest and lightest; one spindle Intel® Core™ 2 Duo processor L7300 or L7500 with low voltage, dual-core , Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache									Preloaded operating system²⁰ - Some: Microsoft® Windows® Vista™ Home Basic Edition (32-bit) - Some: Microsoft Windows Vista™ Business Edition (32-bit) - Some: Microsoft Windows Vista Business Edition (64-bit) - Some: Microsoft Windows Vista Ultimate Edition (32-bit) ♦ 7DU/85U/3HU: Vista Basic logo ♦ 45U/88U/3GU: Vista Premium logo			
Memory	1GB or 2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available												
Diskette drive	None (use optional USB-based diskette drive)												
EIDE DVD±RW	Some: DVD burner, Super Multi-Burner (40Y8623), dual-layer, removable from X6												
Ultrabay™ Slim	Supports Ultrabay Slim devices in optional or standard X6 UltraBase												
Serial ATA disk	80GB⁸ (5400 rpm), 100GB (7200 rpm), 120GB (5400), or 160GB (5400 or 7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, supports 2nd disk in std or optional X6 UltraBase, ThinkPad Shock Mounted Hard Drive, Active Protection System™									Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ • Diskkeeper® Home • PC-Doctor™ (diagnostics) • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW)			
Display	Some: 12.1" (308mm) XGA (1024x768) TFT color , anti-glare, 150 nits Some: [UL] 12.1" (308mm) UltraLight XGA (1024x768) TFT color , anti-glare, 180 nits All: 4:3 aspect ratio, 300:1 contrast ratio												
Graphics controller	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965												
Graphics - external	External VGA monitor support via analog DB-15 connector / no DVI-out support												
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys, standard-size ²⁶ keys 97% size of T Series, 18.5mm pitch, 2.5mm stroke												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Touch pad	None												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	<i>without X6 UltraBase: Slim 4-cell:</i> 10.5" x 8.3" x 0.8-1.1"; 268mm x 211mm x 20-28mm <i>without X6 UltraBase: Enh 4-cell:</i> 10.5" x 8.3" x 0.8-1.1"; 268mm x 211mm x 20-35mm <i>without X6 UltraBase: 8-cell:</i> 10.5" x 9.4" x 0.8-1.4"; 268mm x 238mm x 20-35mm <i>Slim 4-cell:</i> from 2.73 lb (1.24kg); <i>Enh 4-cell:</i> from 2.83 (1.28kg); <i>8-cell:</i> 3.30 lb (1.50kg)												
Weight ²	Color: black; All: magnesium alloy												
Case material	Lithium Ion Slim Line Battery 4-cell (prismatic) or Lithium Ion 8-cell ;									Supports ThinkVantage® technologies			
Battery - type	supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional X6 UltraBase (for two batteries)									ThinkPad X6 UltraBase™ • Provides desktop expansion and cable management for X60 Series • Easily connects to the bottom of the X60 Series for traveling • Converts ThinkPad to a two-spindle system with optional flat bezel Ultrabay Slim options in left side: – ThinkPad Advanced Ultrabay Battery II 3-cell (flat) 43R9250 – ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643 – Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725 Disks supported: • 250GB Disk 5400 rpm 43R8152 • 320GB Disk 7200 rpm 43N3411			
Battery - life ¹⁰	<i>Slim 4-cell:</i> up to 3.5 hr; <i>8-cell:</i> up to 9.0 hr; <i>8-cell and Extended Life Battery:</i> up to 12.5									Other features: • Stereo speakers (1 watt) • Security key lock, security keyhole, and optional security screw • Serial and parallel ports • Analog VGA monitor port (no DVI) • Four USB 2.0 ports • Gigabit ethernet port • Modem port • Microphone in and headphone out • Requires 65 or 90 watt AC adapter • Retractable feet; 1.48 lb; 670g			
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (PC87385 Super I/O, Atmel® 97SC3203 TPM)									65-watt (GMA graphics) AC Adapter ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Media slice	Some: X6 UltraBase media slice (see right side)												
Secure Digital slot	One Secure Digital Card slot, supports SD memory cards used in consumer devices												
PC Card	One slot (Type I, Type II), CardBus Plus (34mm ExpressCard via adapter), door												
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)												
Wireless antenna	UltraConnect™ II Antenna / on-off switch for all wireless radios												
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable												
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG												
Intel 11n ²⁸	Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)												
Verizon ¹⁶	Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe adapter, EV-DO Rev. A, rod antenna, service contract reqd with Verizon® Wireless												
1G Turbo	Some: Intel Turbo Memory, Mini PCIe adapter, 1GB flash, disk-cache accelerator												
Modem	56K V.92 ⁹ modem in Communications Daughter Card												
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator												
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1, PXE												
Intel AMT	Intel Active Management Technology (iAMT)												
Audio support	High Definition (HD) Audio, AD1984 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal microphone, mic input jack (pink), headphone jack (green)												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant												
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip												
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available												
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999												
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000												
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406												
ThinkPad X6 UltraBase	40Y8116												
X60 Slim Line Battery 4-cell (prismatic)	40Y6999												
X60 Enhanced Capacity Battery 4-cell	40Y7001												
ThinkPad X60 High Capacity 8-cell	40Y7003												
ThinkPad X60 Extended Life Battery	40Y7005												

See footnotes for important warranty information

⚡ US models announced September 4, 2007;

previous models on May 31, 2007

⚡ US models withdrawn effective August 2007

* Intel Centrino® processor technology

* Intel Centrino with vPro™ technology

© Lenovo

(KB3-1) September 2007

Type-model	Low Voltage proc- essor	GHz	Memory	Display	Disk SATA GB ⁵ rpm	Optical in UltraBase	ThinkPad X6 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Finger print reader	Bat- tery cells	Workhorse (W) Global (G)	Avail date
7666-34U	L7500	1.60	1GB	12.1" XGA	80GB 5400			*Intel 4965AG ³²		Finger	8	Business 32 W G	Jun 07
7666-36U	L7500	1.60	1GB	12.1" XGA	120G 5400			*Intel 4965AG		Finger	8	Business 32 W G	Jun 07
7666-47U	L7500	1.60	1GB	12.1" XGA	160G 5400			*Intel 11a/b/g ³²	Verizon	Finger	8	Business 32 W	Jun 07
7666-76U	L7300	1.40	512M	12.1" UL XGA	80GB 5400			*Intel 11a/b/g		Finger	4	Business 32	Jun 07
7666-54U	L7500	1.60	1GB	12.1" XGA	80GB 5400			*Intel 11n ²⁸		Finger	8	Business 64	Jun 07
7666-43U	L7500	1.60	1GB	12.1" XGA	120G 5400	DVD±RW UltraBase		*Intel 11a/b/g	AT&T	Finger	8	Ultimate 32	Jun 07
7666-3FU	L7500	1.60	1GB	12.1" XGA	80GB 5400			*Intel 4965AG			8	XP Pro W G	Jun 07
7666-3EU	L7500	1.60	1GB	12.1" XGA	120G 5400			*Intel 4965AG		Finger	8	XP Pro W G	Jun 07
7666-B7U	L7700	1.80	2GB	12.1" XGA	100G 7200			*Intel 4965AG		Finger	8	Business 32 W	Oct 07
7666-8LU	L7500	1.60	2GB	12.1" XGA	160G 7200			*Intel 4965AG	1G Turbo	Finger	8	Business 32 W	Oct 07
7666-48U	L7500	1.60	1GB	12.1" XGA	120G 5400			*Intel 4965AG		Finger	8	Business 32 W	Feb 08
Processor	Intel® Core™ 2 Duo processor L7300, L7500, or L7700 with low voltage, dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache										Preloaded operating system ²⁰		
Memory	512MB, 1GB, or 2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										- Some: Microsoft Windows XP Professional - Some: Microsoft Windows Vista™ Business Edition (32-bit) - Some: Microsoft Windows Vista Business Edition (64-bit) - Some: Microsoft Windows Vista Ultimate Edition (32-bit)		
Diskette drive	None (use optional USB-based diskette drive)										◇ 2GB models: Vista Premium logo ◇ Other Vista models: Vista Basic logo		
EIDE DVD±RW	Some: DVD burner, Super Multi-Burner (40Y8623), dual-layer, removable from X6										Preloaded applications ¹⁴ (all OSes; only some listed)		
Ultrabay™ Slim	Supports Ultrabay Slim devices in optional or standard X6 UltraBase										• Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • Norton Internet Security™ • Diskeeper® Home • PC-Doctor™ (diagnostics) • Some: Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW)		
Serial ATA disk	80GB ⁸ (5400 rpm), 100GB (7200 rpm), 120GB (5400), or 160GB (5400 or 7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, supports 2nd disk in std or optional X6 UltraBase, ThinkPad Shock Mounted Hard Drive, Active Protection System™												
Display	Some: 12.1" (308mm) XGA (1024x768) TFT color, anti-glare, 150 nits Some: [UL] 12.1" (308mm) UltraLight XGA (1024x768) TFT color, anti-glare, 180 nits All: 4:3 aspect ratio, 300:1 contrast ratio										Supports ThinkVantage® technologies		
Graphics controller	Intel Graphics Media Accelerator X3100 (GMA X3100), integrated in GM965										ThinkPad X6 UltraBase™		
Graphics - external	External VGA monitor support via analog DB-15 connector / no DVI-out support										• Provides desktop expansion and cable management for X60 Series • Easily connects to the bottom of the X60 Series for traveling • Converts ThinkPad to a two-spindle system with optional flat bezel Ultrabay Slim options in left side: - ThinkPad Advanced Ultrabay Battery II 3-cell (flat) 43R9250 - ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643 - Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725 Disks supported: • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411		
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys, standard-size ²⁶ keys 97% size of T Series, 18.5mm pitch, 2.5mm stroke										Other features:		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										• Stereo speakers (1 watt) • Security key lock, security keyhole, and optional security screw • Serial and parallel ports • Analog VGA monitor port (no DVI) • Four USB 2.0 ports • Gigabit ethernet port • Modem port • Microphone in and headphone out • Requires 65 or 90 watt AC adapter • Retractable feet; 1.48 lb; 670g		
Touch pad	None										65-watt (GMA graphics) AC Adapter		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										ENERGY STAR® 4.0-compliant		
Dimensions ³	without X6 UltraBase: Slim 4-cell: 10.5" x 8.3" x 0.8-1.1"; 268mm x 211mm x 20-28mm without X6 UltraBase: Enh 4-cell: 10.5" x 8.3" x 0.8-1.1"; 268mm x 211mm x 20-35mm without X6 UltraBase: 8-cell: 10.5" x 9.4" x 0.8-1.4"; 268mm x 238mm x 20-35mm Slim 4-cell: from 2.73 lb (1.24kg); Enh 4-cell: from 2.83 (1.28kg); 8-cell: 3.30 lb (1.50kg)										International Warranty Service ¹⁷		
Weight ²	Color: black; All: magnesium alloy										24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
Case material	Lithium Ion Slim Line Battery 4-cell (prismatic) or Lithium Ion 8-cell; supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional X6 UltraBase (for two batteries)												
Battery - type	Slim 4-cell: up to 3.5 hr; 8-cell: up to 9.0 hr; 8-cell and Extended Life Battery: up to 12.5												
Battery - life ¹⁰													
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (PC87385 Super I/O, Atmel® 97SC3203 TPM)												
Media slice	Some: X6 UltraBase media slice (see right side)												
Secure Digital slot	One Secure Digital Card slot, supports SD memory cards used in consumer devices												
PC Card slot	One Type I or one Type II, CardBus Plus (34mm ExpressCard via adapter), door												
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)												
Wireless antenna	UltraConnect™ II Antenna / on-off switch for all wireless radios												
Mini PCI Express	Two Mini PCI Express slots												
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG												
Intel 4965AG ³²	Some: 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG												
Intel 11n ²⁸	Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)												
WWAN upg	None												
Verizon ¹⁶	Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe adapter, EV-DO Rev. A, rod antenna, service contract reqd with Verizon												
AT&T ²³	Some: Wireless WAN, GPRS/EDGE/UMTS/HSDPA support, Mini PCIe adapter and SIM, rod antenna, service contract reqd with AT&T®												
1G Turbo	Some: Intel Turbo Memory, Mini PCIe adapter, 1GB flash, disk-cache accelerator												
Modem	56K V.92 ⁹ modem in Communications Daughter Card												
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator												
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1, PXE												
Intel AMT	Intel Active Management Technology (IAMT)												
Audio support	High Definition (HD) Audio, AD1984 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal microphone, mic input jack (pink), headphone jack (green)												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, Atmel chip, TCG 1.2-compliant												
Fingerprint reader	Some: Fingerprint reader on palm rest, swipe sensor, supports the security chip												
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available												

See footnotes for important warranty information

* Intel Centrino® processor technology

© Lenovo

Ⓜ US model announced February 19, 2008;
previous models on May 31 or October 30, 2007

* Intel Centrino with vPro™ technology

(KB3-2) February 2008

Ⓜ US models withdrawn effective Sept 2007, Jan 2008, or May 2008

ThinkPad® X61s (7667) - Onsite

Personal Systems Reference (PSREF)

Type-model	Low Voltage				Disk	Optical	ThinkPad	Mini PCIe	Mini PCIe	Finger	Bat-	Workhorse (W)			
	proc- essor	GHz	Memory	Display	SATA GB ⁸ rpm	in UltraBase	X6 UltraBase	802.11 wireless	WWAN or Turbo	print reader	tery cells	Preload	Global (G)	Avail	
													GMP (P)	date	
	7667-34U	L7500	1.60	1GB	12.1" XGA	80GB 5400	Optional	Optional	* Intel 4965AG ³²	None	Finger	8	Business 32	W G P Jun 07	
	7667-36U	L7500	1.60	1GB	12.1" XGA	120G 5400	Optional	Optional	* Intel 4965AG	None	Finger	8	Business 32	W G P Jun 07	
7667-3FU	L7500	1.60	1GB	12.1" XGA	80GB 5400	Optional	Optional	* Intel 4965AG	None	Finger	8	XP Pro	W G P Jun 07		
7667-3EU	L7500	1.60	1GB	12.1" XGA	120G 5400	Optional	Optional	* Intel 4965AG	None	Finger	8	XP Pro	W G P Jun 07		

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

Processor	Intel® Core™ 2 Duo processor L7500 with low voltage, dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache			Preloaded operating system ²⁰ - Some: Microsoft® Windows® XP Professional - Some: Microsoft Windows Vista® Business Edition (32-bit) ◇ Vista models: Vista Basic logo Preloaded applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Some: Fingerprint Software • Microsoft Office 2007 Trial (60-day)		
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 1 socket; 1 socket available					
Diskette drive EIDE DVD±RW Ultrabay™ Slim Serial ATA disk	None (use optional USB-based diskette drive) Option for <i>ThinkPad X6 Tablet UltraBase</i> Supports Ultrabay Slim devices in optional X6 <i>UltraBase</i> 80GB⁸ (5400 rpm), 120GB (5400) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, supports 2nd disk in std or optional X6 <i>UltraBase</i> , ThinkPad Shock Mounted Hard Drive, Active Protection System™					
Display	12.1" (308mm) XGA (1024x768) TFT color , anti-glare, 150 nits, 4:3 aspect ratio, 300:1 contrast ratio					
Graphics controller Graphics - external	Intel Graphics Media Accelerator X3100 (GMA X3100), integrated in GM965 External VGA monitor support via analog DB-15 connector / no DVI-out support			Supports ThinkVantage® technologies ThinkPad X6 UltraBase™ • Provides desktop expansion and cable management for X60 Series • Easily connects to the bottom of the X60 Series for traveling • Converts ThinkPad to a two-spindle system with optional flat bezel Ultrabay Slim options in left side: – ThinkPad Advanced Ultrabay Battery II 3-cell (flat) 43R9250 – ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643 – Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725 Disks supported: • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411 Other features: • Stereo speakers (1 watt) • Security key lock, security keyhole, and optional security screw • Serial and parallel ports • Analog VGA monitor port (no DVI) • Four USB 2.0 ports • Gigabit ethernet port • Modem port • Microphone in and headphone out • Requires 65 or 90 watt AC adapter • Retractable feet; 1.48 lb; 670g 65-watt (GMA graphics) AC Adapter ENERGY STAR® 4.0-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	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys, standard-size ²⁶ keys 97% size of T Series, 18.5mm pitch, 2.5mm stroke TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass					
TrackPoint® Touch pad ThinkLight™	None Illuminates the keyboard to improve visibility in low-light conditions					
Dimensions ³	<i>without X6 UltraBase: Slim 4-cell:</i> 10.5" x 8.3" x 0.8-1.1"; 268mm x 211mm x 20-28mm <i>without X6 UltraBase: Enh 4-cell:</i> 10.5" x 8.3" x 0.8-1.1"; 268mm x 211mm x 20-35mm <i>without X6 UltraBase: 8-cell:</i> 10.5" x 9.4" x 0.8-1.4"; 268mm x 238mm x 20-35mm <i>Slim 4-cell:</i> from 2.73 lb (1.24kg); <i>Enh 4-cell:</i> from 2.83 (1.28kg); <i>8-cell:</i> 3.30 lb (1.50kg) <i>Color:</i> black; <i>All:</i> magnesium alloy					
Weight ² Case material Battery - type	Lithium Ion 8-cell ; supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional X6 UltraBase (for two batteries)					
Battery - life ¹⁰	<i>Slim 4-cell:</i> up to 3.5 hr; <i>8-cell:</i> up to 9.0 hr; <i>8-cell and Extended Life Battery:</i> up to 12.5					
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (PC87385 Super I/O, Atmel® 97SC3203 TPM)					
Media slice Secure Digital slot PC Card slot Ports	<i>Option: ThinkPad X6 UltraBase media slice</i> (see right side) One Secure Digital Card slot, supports SD memory cards used in consumer devices One Type I or one Type II, CardBus Plus (34mm ExpressCard via adapter), door Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)					
Wireless antenna Mini PCI Express Intel 4965AG ³² WWAN Turbo 1G Modem Bluetooth™ Ethernet Intel AMT Audio support	UltraConnect™ II Antenna / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG None None 56K V.92 ⁶ modem in Communications Daughter Card Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1, PXE Intel Active Management Technology (IAMT) High Definition (HD) Audio, AD1984 codec / mono speaker 0.5 watt / volume up, down, mute buttons / internal microphone, mic input jack (pink), headphone jack (green) Power-on password, hard disk password, supervisor password, security keyhole					
Security Security chip Fingerprint reader	Trusted Platform Module , Atmel chip, TCG 1.2-compliant Some: Fingerprint reader on palm rest , swipe sensor, supports the security chip					
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available					
ThinkPlus™, 22 4-year LOR ²⁴ 9x5 NBD ThinkPlus 5-year LOR 9x5 NBD	12X5630 43R2162	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				

See footnotes for important warranty information
US models announced May 31, 2007

* Intel Centrino® with vPro™ technology

⚡ US models withdrawn effective May 2008

© Lenovo
(KB3-3) February 2008

Partial list of accessories supported on:

- ThinkPad X60 originally announced January 5, 2006
- ThinkPad X60s originally announced January 5, 2006
- ThinkPad X61 originally announced May 31, 2007
- ThinkPad X61s originally announced May 31, 2007

Memory

512MB PC2-5300 DDR2 SODIMM	40Y7733	ann	01/05/06
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	ann	03/25/08
1GB PC2-5300 DDR2 SODIMM	40Y7734	ann	01/05/06
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	ann	03/25/08
2GB PC2-5300 DDR2 SODIMM	40Y7735	ann	11/28/06

Ultrabay Slim 9.5mm (best to use flat bezel options)

Most Ultrabay Slim options supported in X6 Ultrabase

Ultrabay Enhanced 12.7mm

None

Storage and removable storage

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

⁴¹ Can be used as the main disk or with

ThinkPad Serial ATA Hard Drive Ultrabay Slim Adapter 40Y8725 in the optional ThinkPad X6 Ultrabase 40Y8116.

USB 2.0 Essential Memory Key 2GB	41U4944	ann	01/23/07
USB 2.0 Essential Memory Key 4GB	45J7904	ann	06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann	07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann	10/28/08
USB 2.0 Security Memory Key 2GB	41U5119	ann	07/17/07
USB 2.0 Security Memory Key 4GB	41U5120	ann	07/17/07
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann	08/26/08

USB Portable Diskette Drive 05K9276	ann	06/05/00
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann 01/05/06
USB 2.0 Portable 160GB Hard Disk	43R1784	ann 09/23/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
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
USB 2.0 Super Multi-Burner Drive	41N5565	ann 01/23/07

ThinkPad Expansion

USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ann	02/26/08
ThinkPad Adjustable Notebook Stand	40Y7676	ann	09/20/05
ThinkPad X6 UltraBase	40Y8116	ann	01/05/06

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
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann	12/07/04
USB Keyboard with UltraNav	31P8950	ann	01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann	04/27/04
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Optical Wheel Mouse (USB)	06P4069	ann	05/21/03
Optical ScrollPoint® Mouse (USB, PS/2)	31P7405	ann	08/27/02
Optical Wheel Travel Mouse (USB, PS/2)	31P7410	ann	06/04/02
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	ann	01/23/07
Lenovo Wireless Laser Mouse (blk, via USB)	45K1696	ann	11/25/08
Lenovo Wireless Laser Mouse (red, via USB)	51J0198	ann	11/25/08
Laser Tilt Wheel Travel Mouse (Bluetooth)	41U5008	ann	01/22/08
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann	12/07/04

Security

Kensington® Cable Lock from Lenovo	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06
PC Card Gemplus Smart Card Reader	41N3004	ann	12/13/05

Multimedia

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann	06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann	08/29/06

Batteries

X60s only:

X60 Slim Line Battery 4-cell (prismatic)	40Y6999	ann	01/05/06
--	---------	-----	----------

All models:

X60 Enhanced Cap Battery 4-cell (cylindric)	40Y7001	ann	01/05/06
X60 High Capacity 8-cell (cylindrical)	40Y7003	ann	01/05/06
X60 Extended Life Battery	40Y7005	ann	01/05/06
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann	09/20/05

⁴⁴ Requires the ThinkPad 90W AC Adapter

40Y7659 (adapter provided with some systems).

ThinkPad 65W AC Adapter	40Y7696	ann	09/20/05
ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
ThinkPad 90W Slim AC/DC Combo Adapter	41N8460	ann	11/27/07
Belkin 1 Outlet Notebook Surge	31P7658		
Belkin Universal Notebook Travel Surge	22P7127		
Belkin Surge Protector	31P7659		

Carrying Cases

Up to 13.3" widescreen models:

ThinkPad Ultraportable Case	41U5062	ann	05/13/08
-----------------------------	---------	-----	----------

Up to 14.1" widescreen models:

ThinkPad Expander Case	43R9118	ann	06/24/08
ThinkPad Women's Microfiber Tote	22P8855		
ThinkPad Women's Leather Trim Tote	22P8856		
ThinkPad Convertible Carrying Case	22P8860		
ThinkPad Women's Executive Leather Tote	22P8857		
Women's Executive Red Leather Tote	22P8858		

Up to 15.4" widescreen models:

Lenovo Carrying Case - Messenger Max	41U5253	ann	05/01/07
Lenovo Carr Case - Performance Backpack	41U5254	ann	05/01/07
Lenovo Standard Case	45K1697	ann	11/25/08
Lenovo Standard Backpack	45K1698	ann	11/25/08
Checkpoint Friendly Business Topload Case	51J0418	ann	02/24/09
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08

Up to 17.0" widescreen models:

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

Monitors

ThinkVision® L174 17" Monitor	9227AE1	ann	04/15/08
ThinkVision L1700p 17" Monitor	9417HE2	ann	09/17/08
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1940p Wide 19" Monitor	4424HB6	ann	09/17/08
ThinkVision L200p Wide 20.1" Monitor	4438HB6	ann	04/15/08
ThinkVision L2240p Wide 22" Monitor	4422HB6	ann	09/17/08
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08
ThinkVision L2440x Wide 24" Monitor	4421HB2	ann	09/17/08

Monitor Accessories⁴⁶

ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
ThinkPad Convertible Monitor Stand	40Y7620	ann	01/05/06
Radial Arm	19K4464	ann	05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.More information at www.lenovo.com/support/monitoraccessoriesOther accessories at www.lenovo.com/accessoriesAccessories Guide pdf at www.lenovo.com/accessoriesguide

Type-model	Low Voltage proc- essor	GHz	Memory	Display	Disk SATA GB ⁸ rpm	Optical in UltraBase	X6 Tablet UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Finger print reader	Bat- tery cells	Workhorse (W) Global (G) Avail date
7762-54U	L7500	1.60	1GB	12.1" XGA	80GB 5400			* Intel 4965AG ³²		Fing	8	Business32 W G Jun 07
7762-95U	L7500	1.60	1GB	12.1" SXGA+ SV	80GB 5400			* Intel 4965AG		Fing	8	Business32 W G Jun 07
7762-D6U	L7500	1.60	2GB	12.1" XGA Touch	160G 5400	DVD±RW	UltraBase	* Intel 11n ²⁸		Fing	8	Ultimate 32 Jun 07
7762-B6U	L7500	1.60	1GB	12.1" XGA Touch	120G 5400			* Intel 4965AG		Fing	8	Business32 W G Jun 07
7762-58U	L7500	1.60	2GB	12.1" XGA	120G 5400			* Intel 4965AG		Fing	8	Ultimate 32 W G Jun 07
7762-44U	L7500	1.60	2GB	12.1" XGA	120G 5400	Combo	UltraBase			Fing	8	XP Tablet TAA Jun 07
7762-H7U	L7700	1.80	2GB	12.1" XGA	100G 7200			* Intel 11a/b/g ³²		Fing	8	Business32 W Oct 07
7762-98U	L7500	1.60	2GB	12.1" SXGA+ SV	160G 5400			* Intel 4965AG	1G Turbo	Fing	8	Business32 W Oct 07
7762-BEU	L7500	1.60	2GB	12.1" XGA Touch	160G 7200			* Intel 4965AG		Fing	8	Business32 W Oct 07
7762-99U	L7500	1.60	2GB	12.1" SXGA+ SV	120G 5400			* Intel 11a/b/g		Fing	8	XP Tablet TAA Nov 07
7762-63U	L7500	1.60	1GB	12.1" XGA	80GB 5400			* Intel 4965AG		Fing	8	Business 32 Feb 08
7762-9CU	L7500	1.60	2GB	12.1" SXGA+ SV	120G 5400			* Intel 11a/b/g		Fing	8	Business 32 TAA Jun 08
US Govt (TAA) ⁵ Processor	44U/99U/9CU: US Government model (Trade Act Agreement-compliant) Intel® Core™ 2 Duo processor L7500 and L7700 with low voltage, dual-core , Intel 64 Technology, 800MHz system bus, and 4MB shared L2 cache 1GB or 2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded operating system²⁰ - Some: Microsoft® Windows® Vista® Business Edition (32-bit) - Some: Microsoft Windows Vista Ultimate Edition (32-bit) - Some: Microsoft Windows XP Tablet PC Edition 2005	
Memory											↗ 2GB Vista D6U/H7U/98U/BEU/9CU: Vista Premium logo ↗ Other Vista models: Vista Basic logo Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Norton Internet Security™ • PC-Doctor™ (diagnostics) • Fingerprint Software • Corel VirtualDrive CD/DVD Emulator	
Ultrabay™ Slim EIDE Combo EIDE DVD±RW Serial ATA disk	Supports Ultrabay Slim devices in optional or standard <i>ThinkPad X6 Tablet UltraBase</i> Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from <i>X6 UltraBase</i> Some: DVD burner, Super Multi-Burner (40Y8623), dual-layer, removable from <i>X6</i> 80GB⁸ (5400 rpm), 100GB (7200 rpm), 120GB , or 160GB (5400 or 7200 rpm) / SATA1.5Gb/s, 9.5mm high, removable, upgradable, supports 2nd disk in std or optional <i>X6 Tablet UltraBase</i> , <i>ThinkPad Shock Mounted Hard Drive</i> , <i>Active Protection System™</i>											
Display	Some: 12.1" (307mm) XGA (1024x768) TFT color, 185 nits, 4:3, 500:1, 170° viewing Some: 12.1" (307mm) SXGA+ (1400x1050) color, 190 nits, 4:3, 500:1, 170° viewing, direct bonding panel (SuperView) for improved outdoor viewability Touch: 12.1" (307mm) XGA (1024x768) TFT color, 4:3, 150 nits, 170° viewing / MultiView (indoor/outdoor), MultiTouch (touchscreen via finger and pen) All: Super Wide Angle FFS / anti-reflective and anti-glare protective coatings / write on screen with standard digitizer pen / pen holder in front base / rotate and swivel hinge in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / buttons on display bottom (power, lock, reboot, rotation, utility, Esc, NavDial/enter)											
Graphics controller	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965											
Graphics - external	External VGA monitor support via analog DB-15 connector / no DVI-out support											
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, 18.5mm pitch											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass											
Dimensions ³	without <i>X6 UltraBase</i> : 4-cell: 10.8" x 9.6" x 1.1-1.3"; 274mm x 244mm x 27.4-33.1mm without <i>X6 UltraBase</i> : 8-cell: 10.8" x 10.5" x 1.1-1.3"; 274mm x 267mm x 27.4-33.1mm 4-cell: starting at 3.77 lb (1.71kg); 8-cell: starting at 4.25 lb (1.93kg)											
Weight ²	Color: black; All: magnesium alloy											
Case material	Li-Ion 8-cell ;											
Battery - type	supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional <i>X6 Tablet UltraBase</i> (for 2 batteries)											
Battery - life ¹⁰	with 4-cell: up to 3.0 hr; with 8-cell: up to 7.0 hr; 8-cell and Ultrabay Slim: up to 9.0 hr with 8-cell and optional Extended Life Battery: up to 9.5 hr											
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (PC87385 Super I/O, Atmel® 97SC3203 TPM)											
Media slice	Some: ThinkPad X6 Tablet UltraBase (see right side)											
Secure Digital slot	One Secure Digital Card slot, supports SD memory cards used in consumer devices											
PC Card	One slot (Type I, Type II), CardBus Plus (34mm ExpressCard via adapter), door											
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											
Mini PCI Express	Two Mini PCI Express slots											
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG											
Intel 4965AG ³²	Some: 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG											
Intel 11n ²⁸	Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)											
WWAN upg	None											
1G Turbo	Some: Intel Turbo Memory, Mini PCIe adapter, 1GB flash, disk-cache accelerator											
Modem	56K V.92 ⁶ modem in Communications Daughter Card											
Bluetooth™	All except 44U/99U/9CU: Bluetooth 2.0 wireless, USB 2.0 via ICH8M, LED indicator											
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE											
Intel AMT	Intel Active Management Technology (iAMT)											
Audio support	High Definition (HD) Audio, AD1984 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal microphone, mic input jack (pink), headphone jack (green)											
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant											
Fingerprint reader	Some: Fingerprint reader on palm rest , swipe sensor, supports the security chip											
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available											

See footnotes for important warranty information

US model announced May 20, 2008;

previous models on May 31, Oct 30, 2007, Feb 12, 2008

US models withdrawn effective December 2007 or May 2008

* Intel Centrino® processor technology

* Intel Centrino with vPro™ technology

© Lenovo
(DL2-2) June 2008

ThinkPad® X61 Tablet (7763) - Onsite

Personal Systems Reference (PSREF)

Type-model	Low Voltage proc- essor	GHz	Memory	Display	Disk SATA GB ³ rpm	Optical in UltraBase	X6 Tablet UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Finger print reader	Bat- tery cells	Vista preload	Workhorse (W) Global (G) GMP (P)	Avail date
7763-54U	L7500	1.60	1GB	12.1" XGA	80GB 5400	Optional	Optional	*Intel 4965AG ³²	None	Fing	8	Business	32 W G P	Jun 07
7763-95U	L7500	1.60	1GB	12.1" SXGA+ SV	80GB 5400	Optional	Optional	*Intel 4965AG	None	Fing	8	Business	32 W G P	Jun 07
7763-B6U	L7500	1.60	1GB	12.1" XGA Touch	120G 5400	Optional	Optional	*Intel 4965AG	None	Fing	8	Business	32 W G P	Jun 07
7763-58U	L7500	1.60	2GB	12.1" XGA	120G 5400	Optional	Optional	*Intel 4965AG	None	Fing	8	Ultimate	32 W G P	Jun 07

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

Positioning Processor	Convertible tablet; one spindle Intel® Core™ 2 Duo processor L7500 with low voltage, dual-core , Intel 64 Technology, EIST ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache 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			Preloaded operating system ²⁰ - <i>Some:</i> Microsoft® Windows® Vista® Business Edition (32-bit) - <i>Some:</i> Microsoft Windows Vista Ultimate Edition (32-bit) ◇ <i>Vista models:</i> Vista Basic logo		
Memory				Preloaded applications ¹⁴ (all OSes; only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• Norton Internet Security™ (90 days of virus definitions)• Diskeeper® Home• ThinkPad Utilities• PC-Doctor™ (diagnostics)• Fingerprint Software• Corel® VirtualDrive CD/DVD Emulator		
Ultrabay™ Slim EIDE DVD±RW Serial ATA disk	Supports Ultrabay Slim devices in optional or standard <i>ThinkPad X6 Tablet UltraBase</i> Option for <i>ThinkPad X6 Tablet UltraBase</i> 80GB ⁸ (5400 rpm), 120GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, supports 2nd disk in std or optional <i>X6 Tablet UltraBase</i> , ThinkPad Shock Mounted Hard Drive, Active Protection System™					
Display	<i>Some:</i> 12.1" (307mm) XGA (1024x768) TFT color, 185 nits, 4:3, 500:1, 170° viewing <i>Some:</i> 12.1" (307mm) SXGA+ (1400x1050) color, 190 nits, 4:3, 500:1, 170° viewing, direct bonding panel (SuperView) for improved outdoor viewability <i>Touch:</i> 12.1" (307mm) XGA (1024x768) TFT color, 4:3, 150 nits, 170° viewing / MultiView (indoor/outdoor), MultiTouch (touchscreen via finger and pen) <i>All:</i> Super Wide Angle FFS / anti-reflective and anti-glare protective coatings / write on screen with standard digitizer pen / pen holder in front base / rotate and swivel hinge in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / buttons on display bottom (power, lock, reboot, rotation, utility, Esc, NavDial/enter)					
Graphics controller	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965					
Graphics - external	External VGA monitor support via analog DB-15 connector / no DVI-out support					
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, 18.5mm pitch					
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass					
Dimensions ³	<i>without X6 UltraBase:</i> 4-cell: 10.8" x 9.6" x 1.1-1.3"; 274mm x 244mm x 27.4-33.1mm <i>without X6 UltraBase:</i> 8-cell: 10.8" x 10.5" x 1.1-1.3"; 274mm x 267mm x 27.4-33.1mm					
Weight ²	4-cell: starting at 3.77 lb (1.71kg); 8-cell: starting at 4.25 lb (1.93kg)					
Case material	Color: black; All: magnesium alloy					
Battery - type	Li-Ion 8-cell ; supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional <i>X6 Tablet UltraBase</i> (for 2 batteries)					
Battery - life ¹⁰	<i>with 4-cell:</i> up to 3.0 hr; <i>with 8-cell:</i> up to 7.0 hr; 8-cell and <i>Ultrabay Slim:</i> up to 9.0 hr <i>with 8-cell and optional Extended Life Battery:</i> up to 9.5 hr					
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (PC87385 Super I/O, Atmel® 97SC3203 TPM)					
Media slice	<i>Option:</i> ThinkPad X6 Tablet UltraBase (see right side)					
Secure Digital slot	One Secure Digital Card slot, supports SD memory cards used in consumer devices					
PC Card slot	One Type I or one Type II, CardBus Plus (34mm ExpressCard via adapter), door					
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)					
Wireless antenna	UltraConnect™ II Antenna / on-off switch for all wireless radios					
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable					
Intel 4965AG ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG					
WWAN	None					
Turbo 1G	None					
Modem	56K V.92 ⁶ modem in Communications Daughter Card					
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 via ICH8M, LED indicator					
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE					
Intel AMT	Intel Active Management Technology (IAMT)					
Audio support	High Definition (HD) Audio, AD1984 codec / mono speaker 0.5 watt / volume up, down, mute buttons / internal microphone, mic input jack (pink), headphone jack (green)					
Security	Power-on password, hard disk password, supervisor password, security keyhole					
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant					
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip					
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available					
ThinkPlus™.22	4-year LOR ²⁴ 9x5 NBD	12X5630	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
ThinkPlus 5-year	LOR 9x5 NBD	43R2162				
				65-watt (GMA graphics) AC Adapter ENERGY STAR® 4.0-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 May 31, 2007

* Intel Centrino with vPro™ technology

© Lenovo
(DL2-6) February 2008

ThinkPad® X61 Tablet (7767) - TopSeller (3-year)

Personal Systems Reference (PSREF)

Type-model	Low Voltage proc- essor	GHz	Memory	Display	Disk SATA GB ⁸ rpm	Optical in UltraBase	X6 Tablet UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Finger Bat- print erty reader cells	Workhorse (W) Vista Global (G) Avail preload date
7767-59U	L7500 LV	1.60	1GB	12.1" XGA	120G 5400			*Intel 11a/b/g ³²		Fing 4	Business 32 Jun 07
7767-5AU	L7500 LV	1.60	1GB	12.1" XGA	120G 5400	DVD±RW	UltraBase	*Intel 11n ²⁸	1G Turbo	Fing 4	Business 32 Jun 07
7767-96U	L7500 LV	1.60	2GB	12.1" SXGA+ SV	120G 5400	DVD±RW	UltraBase	*Intel 11a/b/g	1G Turbo	Fing 8	Business 32 Jun 07
7767-B7U	L7500 LV	1.60	2GB	12.1" XGA Touch	120G 5400			*Intel 11n	1G Turbo	Fing 8	Business 32 Jun 07
7767-C3U	L7500 LV	1.60	1GB	12.1" XGA Touch	100G 7200	DVD±RW	UltraBase	*Intel 11a/b/g	Verizon	Fing 8	Ultimate 32 W Jul 07
7767-C4U	L7500 LV	1.60	1GB	12.1" XGA Touch	120G 5400	DVD±RW	UltraBase	*Intel 11n	AT&T	Fing 8	Ultimate 32 W Jul 07
7767-01U	L7500 LV	1.60	1GB	12.1" XGA	120G 5400			*Intel 11a/b/g		Fing 4	XP Tablet Aug 07
7767-02U	L7500 LV	1.60	1GB	12.1" XGA	120G 5400	DVD±RW	UltraBase	*Intel 11a/b/g		Fing 8	XP Tablet Aug 07
7767-5CU	L7500 LV	1.60	2GB	12.1" XGA	160G 7200	DVD±RW	UltraBase	*Intel 11n	1G Turbo	Fing 8	Business 32 Sep 07
• These small and medium business (SMB) models are part of the US TopSeller™ Program											
Positioning Processor	Convertible tablet; one spindle Intel® Core™ 2 Duo processor L7500 with low voltage, dual-core , Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, EDB, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache 1GB or 2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded operating system²⁰ - <i>Some:</i> Microsoft® Windows® Vista® Business Edition (32-bit) - <i>Some:</i> Microsoft Windows Vista Ultimate Edition (32-bit) - <i>Some:</i> Microsoft Windows XP Tablet PC Edition 2005 with Vista COA ◇ Cxx: Vista Basic logo ◇ Other Vista: Vista Premium logo
Memory	Supports Ultrabay Slim devices in optional or standard <i>ThinkPad X6 Tablet UltraBase</i> <i>Some:</i> DVD burner, Super Multi-Burner (40Y8623), dual-layer, removable from X6 100GB⁸ (7200 rpm), 120GB (5400 rpm), or 160GB (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, supports 2nd disk in std or optional X6 Tablet <i>UltraBase</i> , ThinkPad Shock Mounted Hard Drive, Active Protection System™										Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Norton Internet Security (90 days of virus definitions) • PC-Doctor™ (diagnostics) • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Corel® VirtualDrive CD/DVD Emulator
Ultrabay™ Slim EIDE DVD±RW Serial ATA disk	Supports Ultrabay Slim devices in optional or standard <i>ThinkPad X6 Tablet UltraBase</i> <i>Some:</i> DVD burner, Super Multi-Burner (40Y8623), dual-layer, removable from X6 100GB⁸ (7200 rpm), 120GB (5400 rpm), or 160GB (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, supports 2nd disk in std or optional X6 Tablet <i>UltraBase</i> , ThinkPad Shock Mounted Hard Drive, Active Protection System™										Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Norton Internet Security (90 days of virus definitions) • PC-Doctor™ (diagnostics) • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Corel® VirtualDrive CD/DVD Emulator
Display	<i>Some:</i> 12.1" (307mm) XGA (1024x768) TFT color, 155 nits, 4:3, 500:1, 170° viewing <i>Some:</i> 12.1" (307mm) SXGA+ (1400x1050) color, 190 nits, 4:3, 500:1, 170° viewing, direct bonding panel (SuperView) for improved outdoor viewability <i>Touch:</i> 12.1" (307mm) XGA (1024x768) TFT color, 4:3, 150 nits, 170° viewing / MultiView (indoor/outdoor), MultiTouch (touchscreen via finger and pen) <i>All:</i> Super Wide Angle FFS / anti-reflective and anti-glare protective coatings / write on screen with standard digitizer pen / pen holder in front base / rotate and swivel hinge in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / buttons on display bottom (power, lock, reboot, rotation, utility, Esc, NavDial/enter)										Supports ThinkVantage® technologies ThinkPad X6 Tablet UltraBase • Provides desktop expansion and cable mgmt for X60/X61 Tablet • Connects to the bottom of tablet • Converts tablet to a two-spindle system with optional flat bezel Ultrabay Slim options in right side: – ThinkPad Advanced Ultrabay Battery II 3-cell (flat) 43R9250 – ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643 – Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725 SATA disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411
Graphics controller	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965										
Graphics - external	External VGA monitor support via analog DB-15 connector / no DVI-out support										
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, 18.5mm pitch										
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										
Dimensions ³	<i>without X6 UltraBase:</i> 4-cell: 10.8" x 9.6" x 1.1-1.3"; 274mm x 244mm x 27.4-33.1mm <i>without X6 UltraBase:</i> 8-cell: 10.8" x 10.5" x 1.1-1.3"; 274mm x 267mm x 27.4-33.1mm 4-cell: starting at 3.77 lb (1.71kg); 8-cell: starting at 4.25 lb (1.93kg)										
Weight ²	Color: black; All: magnesium alloy										
Case material	Li-Ion 4-cell or 8-cell;										
Battery - type	supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional X6 Tablet <i>UltraBase</i> (for 2 batteries)										
Battery - life ¹⁰	<i>with 4-cell:</i> up to 3.0 hr; <i>with 8-cell:</i> up to 7.0 hr; <i>8-cell and Ultrabay Slim:</i> up to 9.0 hr <i>with 8-cell and optional Extended Life Battery:</i> up to 9.5 hr										
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (PC87385 Super I/O, Atmel® 97SC3203 TPM)										
Media slice	<i>Some:</i> ThinkPad X6 Tablet UltraBase (see right side)										
Secure Digital slot	One Secure Digital Card slot, supports SD memory cards used in consumer devices										
PC Card	One slot (Type I, Type II), CardBus Plus (34mm ExpressCard via adapter), door										
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										
Wireless antenna	UltraConnect™ II Antenna / on-off switch for all wireless radios										
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable										
Intel 11a/b/g ³²	<i>Some:</i> 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG										
Intel 11n ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)										
Verizon ¹⁶	<i>Some:</i> Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe adapter, EV-DO Rev. A, service contract required with Verizon® Wireless										
AT&T ²³	<i>Some:</i> Wireless WAN, GPRS/EDGE/UMTS/HSDPA support, Mini PCIe adapter and SIM, service contract required with AT&T®										
1G Turbo	<i>Some:</i> Intel Turbo Memory, Mini PCIe adapter, 1GB flash, disk-cache accelerator										
Modem	56K V.92 ⁹ modem in Communications Daughter Card										
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator										
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE										
Intel AMT	Intel Active Management Technology (AMT)										
Audio support	High Definition (HD) Audio, AD1984 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal microphone, mic input jack (pink), headphone jack (green)										
Security	Power-on password, hard disk password, supervisor password, security keyhole										
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant										
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip										
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service, service upgrades ²² available										65-watt (GMA graphics) AC Adapter ENERGY STAR® 4.0-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 4, 2007;

previous models on May 31, June 12, or August 14, 2007

* Intel Centrino® processor technology

* Intel Centrino with vPro™ technology

© Lenovo

(DL2-3) September 2007

ThinkPad® X61 Tablet (Education) - EasyServ

Personal Systems Reference (PSREF)

Type-model	Low Voltage proc- essor	GHz	Memory	Display	Disk SATA GB ⁵ rpm	Optical in UltraBase	X6 Tablet UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Vista preload	Educ pre- load	Limited warranty ¹²	Workhorse (W) Global (G) Avail date
7762-B5U	L7500 LV	1.60	1GB	12.1" XGA	120G 5400	Optional	Optional	11a/b/g ³²	None	Business 32	HE	EasyServ	W Jun 07
7762-01U	L7500 LV	1.60	1GB	12.1" XGA	100G 7200	Optional	Optional	11a/b/g	None	Business 32	HE	EasyServ	July 07
7762-02U	L7500 LV	1.60	1GB	12.1" XGA	100G 7200	Optional	Optional	11a/b/g	None	Business 32	K12	EasyServ	July 07
• These models have an EasyServ™,19 depot repair service 3-year limited warranty Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.													
Positioning Processor	Convertible tablet; one spindle Intel® Core™ 2 Duo processor L7500 with low voltage, dual-core , Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache										Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ◇ Vista Basic logo		
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										Preloaded applications¹⁴ (only some listed) • 01U/02U: Microsoft Office OneNote® 2007 (and CD) • Some (K12): K-12 education software - VitalSource Library School Edition - Adobe® Instructor Resource Center - Adobe Digital School Collection - Photoshop Elements 5 (and CD) - Premier Elements 3 (and DVD) - Acrobat 8 Professional (and CD) - Contribute 4 (and CD) • (HE): Higher education software - VitalSource Library College Edition - Adobe Instructor Resource Center - Adobe Photoshop Elements 5 (and CD) - Adobe Premier Elements 3 (and DVD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • Norton Internet Security • Corel® VirtualDrive CD/DVD Emulator		
Ultrabay™ Slim EIDE DVD±RW Serial ATA disk	Supports Ultrabay Slim devices in optional or standard <i>ThinkPad X6 Tablet UltraBase</i> 120GB⁸ (5400 rpm) or 100GB (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, supports 2nd disk in std or optional <i>X6 Tablet UltraBase</i> , ThinkPad Shock Mounted Hard Drive, Active Protection System™												
Display	<i>Some:</i> 12.1" (307mm) XGA (1024x768) TFT color, 185 nits, 4:3, 500:1, 170° viewing <i>Touch:</i> 12.1" (307mm) XGA (1024x768) TFT color, 4:3, 150 nits, 170° viewing / MultiView (indoor/outdoor), MultiTouch (touchscreen via finger and pen) <i>All:</i> Super Wide Angle FFS / anti-reflective and anti-glare protective coatings / write on screen with standard digitizer pen / pen holder in front base / rotate and swivel hinge in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / buttons on display bottom (power, lock, reboot, rotation, utility, Esc, NavDial/enter)												
Graphics controller	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965												
Graphics - external	External VGA monitor support via analog DB-15 connector / no DVI-out support												
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, 18.5mm pitch												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Dimensions ³	<i>without X6 UltraBase:</i> 4-cell: 10.8" x 9.6" x 1.1-1.3"; 274mm x 244mm x 27.4-33.1mm <i>without X6 UltraBase:</i> 8-cell: 10.8" x 10.5" x 1.1-1.3"; 274mm x 267mm x 27.4-33.1mm 4-cell: starting at 3.77 lb (1.71kg); 8-cell: starting at 4.25 lb (1.93kg)												
Weight ²													
Case material	<i>Color:</i> black; <i>All:</i> magnesium alloy												
Battery - type	Li-Ion 8-cell ; supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional <i>X6 Tablet UltraBase</i> (for 2 batteries)												
Battery - life ¹⁰	<i>with 4-cell:</i> up to 3.0 hr; <i>with 8-cell:</i> up to 7.0 hr; <i>8-cell and Ultrabay Slim:</i> up to 9.0 hr <i>with 8-cell and optional Extended Life Battery:</i> up to 9.5 hr										Supports ThinkVantage® technologies		
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (PC87385 Super I/O, Atmel® 97SC3203 TPM)										ThinkPad X6 Tablet UltraBase • Provides desktop expansion and cable mgmt for X60/X61 Tablet • Connects to the bottom of tablet • Converts tablet to a two-spindle system with optional flat bezel Ultrabay Slim options in right side: - ThinkPad Advanced Ultrabay Battery II 3-cell (flat) 43R9250 - ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643 - Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725 SATA disks supported (some): • 250GB FDE 7200 rpm 43N3410 Other features: • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optional security screw • Serial and parallel ports • Analog VGA monitor port (no DVI) • Four USB 2.0 ports • Gigabit ethernet port (RJ-45) • Modem port (RJ-11) • Microphone in and headphone out • Requires 65- or 90-watt AC adapter • 1.48 lb; 670g		
Media slice	<i>Option:</i> ThinkPad X6 Tablet UltraBase (see right side)												
Secure Digital slot	One Secure Digital Card slot, supports SD memory cards used in consumer devices												
PC Card	One slot (Type I, Type II), CardBus Plus (34mm ExpressCard via adapter), door												
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)												
Wireless antenna	UltraConnect™ II Antenna / on-off switch for all wireless radios												
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g ³² 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX												
WWAN	None												
Turbo 1G	None												
Modem	56K V.92 ⁶ modem in Communications Daughter Card												
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator												
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE												
Intel AMT	Intel Active Management Technology (iAMT)												
Audio support	High Definition (HD) Audio, AD1984 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal microphone, mic input jack (pink), headphone jack (green) Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module , Atmel chip, TCG 1.2-compliant												
Security													
Security chip													
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip												
Limited warranty ¹²	3-years/1-yr battery - EasyServ™,19 depot repair service / service upgrades²² available												
1GB PC2-5300 DDR2 SODIMM	40Y7734			ThinkPad X6 Tablet UltraBase				41U3120					
2GB PC2-5300 DDR2 SODIMM	40Y7735			ThinkPad X60 Tablet Digitizer Pen				41U3143					
USB 2.0 Lenovo Webcam	40Y8519			ThinkPad X60 Tether (3-pack)				41U4820					
USB 2.0 Essential Memory Key 32GB	45K1258			X60 Tablet Li-Ion Battery 8-cell				40Y8318					
USB 2.0 Ultra Secure Memory Key 8GB	45J5918			ThinkPad X60 Extended Life Battery				40Y7005					
USB 2.0 Portable Secure 320GB Hard Disk	43R2019			ThinkPad X60 Tablet Sleeve				41U3142					
USB 2.0 Super Multi-Burner Drive	41N5565			ThinkPad Ultraportable Case				41U5062					
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406			ThinkPlus™, 22 2-year LOR 9x5 NBD				41C9175					
Other accessories on O-X60-T sheet				Other accessories at lenovo.com/accessories									
65-watt (GMA graphics) AC Adapter ENERGY STAR® 4.0-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 July 16, 2007; previous model on May 31, 2007

© Lenovo
(DL2-4) July 2007

ThinkPad® X61 Tablet (Education) - Onsite

Personal Systems Reference (PSREF)

Type-model	Low Voltage proc- essor	GHz	Memory	Display	Disk SATA GB ⁶ rpm	Optical in UltraBase	X6 Tablet UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Vista preload	Educ pre- load	Workhorse (W) Limited Global (G) Avail warranty ¹² date
7763-B5U	L7500 LV	1.60	1GB	12.1" XGA Touch	120G 5400	Optional	Optional	11a/b/g ³²	None	Business 32	HE Onsite	W Jun 07
7763-01U	L7500 LV	1.60	1GB	12.1" XGA	100G 7200	Optional	Optional	11a/b/g	None	Business 32	HE Onsite	July 07
7763-02U	L7500 LV	1.60	1GB	12.1" XGA Touch	100G 7200	Optional	Optional	11a/b/g	None	Business 32	K12 Onsite	July 07
<p>• These models have a limited onsite service²⁴ 3-year limited warranty</p> <p>These educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>												
Positioning Processor	Convertible tablet; one spindle Intel® Core™ 2 Duo processor L7500 with low voltage, dual-core , Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache										Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ◇ Vista Basic logo	
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										Preloaded applications¹⁴ (only some listed) • 01U/02U: Microsoft Office OneNote® 2007 (and CD) • Some (K12): K-12 education software - VitalSource Library School Edition - Adobe® Instructor Resource Center - Adobe Digital School Collection – Photoshop Elements 5 (and CD) – Premier Elements 3 (and DVD) – Acrobat 8 Professional – Contribute 4 • (HE): Higher education software - VitalSource Library College Edition - Adobe Instructor Resource Center - Adobe Photoshop Elements 5 (and CD) - Adobe Premier Elements 3 (and DVD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • Norton Internet Security™ • Corel® VirtualDrive CD/DVD Emulator	
Ultrabay™ Slim EIDE DVD±RW Serial ATA disk	Supports Ultrabay Slim devices in optional or standard <i>ThinkPad X6 Tablet UltraBase</i> Option for <i>ThinkPad X6 Tablet UltraBase</i> 120GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, supports 2nd disk in std or optional <i>X6 Tablet UltraBase</i> , ThinkPad Shock Mounted Hard Drive, Active Protection System™											
Display	<i>Some:</i> 12.1" (307mm) XGA (1024x768) TFT color, 185 nits, 4:3, 500:1, 170° viewing <i>Touch:</i> 12.1" (307mm) XGA (1024x768) TFT color, 4:3, 150 nits, 170° viewing / MultiView (indoor/outdoor), MultiTouch (touchscreen via finger and pen) <i>All:</i> Super Wide Angle FFS / anti-reflective and anti-glare protective coatings / write on screen with standard digitizer pen / pen holder in front base / rotate and swivel hinge in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / buttons on display bottom (power, lock, reboot, rotation, utility, Esc, NavDial/enter)											
Graphics controller	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965											
Graphics - external	External VGA monitor support via analog DB-15 connector / no DVI-out support											
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, 18.5mm pitch											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass											
Dimensions ³	<i>without X6 UltraBase:</i> 4-cell: 10.8" x 9.6" x 1.1-1.3"; 274mm x 244mm x 27.4-33.1mm <i>without X6 UltraBase:</i> 8-cell: 10.8" x 10.5" x 1.1-1.3"; 274mm x 267mm x 27.4-33.1mm 4-cell: starting at 3.77 lb (1.71kg); 8-cell: starting at 4.25 lb (1.93kg)											
Weight ²	<i>Color:</i> black; <i>All:</i> magnesium alloy											
Case material	Li-Ion 8-cell ;											
Battery - type	supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional <i>X6 Tablet UltraBase</i> (for 2 batteries)											
Battery - life ¹⁰	<i>with 4-cell:</i> up to 3.0 hr; <i>with 8-cell:</i> up to 7.0 hr; <i>8-cell and Ultrabay Slim:</i> up to 9.0 hr <i>with 8-cell and optional Extended Life Battery:</i> up to 9.5 hr										Supports ThinkVantage® technologies	
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (PC87385 Super I/O, Atmel® 97SC3203 TPM)										ThinkPad X6 Tablet UltraBase • Provides desktop expansion and cable mgmt for X60/X61 Tablet • Connects to the bottom of tablet • Converts tablet to a two-spindle system with optional flat bezel Ultrabay Slim options in right side: – ThinkPad Advanced Ultrabay Battery II 3-cell (flat) 43R9250 – ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643 – Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725 SATA disks supported (some): • 250GB FDE 7200 rpm 43N3410 Other features: • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optional security screw • Serial and parallel ports • Analog VGA monitor port (no DVI) • Four USB 2.0 ports • Gigabit ethernet port (RJ-45) • Modem port (RJ-11) • Microphone in and headphone out • Requires 65- or 90-watt AC adapter • 1.48 lb; 670g	
Media slice	<i>Option:</i> ThinkPad X6 Tablet UltraBase (see right side)											
Secure Digital slot	One Secure Digital Card slot, supports SD memory cards used in consumer devices											
PC Card slot	One Type I or one Type II, CardBus Plus (34mm ExpressCard via adapter), door											
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											
Wireless antenna	UltraConnect™ II Antenna / on-off switch for all wireless radios											
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable											
11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX											
WWAN	None											
Turbo 1G	None											
Modem	56K V.92 ⁶ modem in Communications Daughter Card											
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator											
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE											
Intel AMT	Intel Active Management Technology (iAMT)											
Audio support	High Definition (HD) Audio, AD1984 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal microphone, mic input jack (pink), headphone jack (green)											
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant											
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip											
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time ²⁴											
1GB PC2-5300 DDR2 SODIMM	40Y7734		ThinkPad X6 Tablet UltraBase				41U3120					
2GB PC2-5300 DDR2 SODIMM	40Y7735		ThinkPad X60 Tablet Digitizer Pen				41U3143					
USB 2.0 Lenovo Multimedia Headset	40Y8518		ThinkPad X60 Tether (3-pack)				41U4820					
USB 2.0 Security Memory Key 4GB	41U5120		X60 Tablet Li-ion Battery 8-cell				40Y8318					
USB 2.0 Super Multi-Burner Drive	41N5565		ThinkPad X60 Extended Life Battery				40Y7005					
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411		ThinkPad X60 Tablet Sleeve				41U3142					
TrackPoint Cap Collection	73P2698		ThinkPad Ultraportable Case				41U5062					
Other accessories on O-X60-T sheet	Other accessories at lenovo.com/accessories											
65-watt (GMA graphics) AC Adapter ENERGY STAR® 4.0-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

® Turbo models announced July 16, 2007; previous model on May 31, 2007

© Lenovo
(DL2-5) July 2007

Partial list of accessories supported on:

- ThinkPad X60 Tablet originally announced on Nov 14, 2006
- ThinkPad X61 Tablet originally announced on May 31, 2007

Memory

512MB PC2-5300 DDR2 SODIMM	40Y7733	ann	01/05/06
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	ann	03/25/08
1GB PC2-5300 DDR2 SODIMM	40Y7734	ann	01/05/06
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	ann	03/25/08
2GB PC2-5300 DDR2 SODIMM	40Y7735	ann	11/28/06

Ultrabay Slim 9.5mmNone (Ultrabay Slim on optional *ThinkPad X6 Tablet UltraBase*)**Ultrabay Enhanced 12.7mm**

None

Storage and removable storage

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

⁴¹ Can be used as the main disk or with *ThinkPad Serial ATA Hard Drive Ultrabay Slim Adapter 40Y8725* in the optional *ThinkPad X6 Tablet UltraBase 41U3120*.

128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ann	08/26/08
USB 2.0 Essential Memory Key 4GB	45J7904	ann	06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann	07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann	10/28/08
USB 2.0 Security Memory Key 2GB	41U5119	ann	07/17/07
USB 2.0 Security Memory Key 4GB	41U5120	ann	07/17/07
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann	08/26/08
USB Portable Diskette Drive	05K9276	ann	06/05/00
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann	01/05/06
USB 2.0 Portable 160GB Hard Disk	43R1784	ann	09/23/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
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
USB 2.0 Super Multi-Burner Drive	41N5565	ann	01/23/07

ThinkPad Expansion

USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ann	02/26/08
ThinkPad Adjustable Notebook Stand	40Y7676	ann	09/20/05
ThinkPad X6 Tablet UltraBase	41U3120	ann	11/14/06

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
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann	12/07/04
USB Keyboard with UltraNav	31P8950	ann	01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann	04/27/04
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Optical Wheel Mouse (USB)	06P4069	ann	05/21/03
Optical ScrollPoint® Mouse (USB, PS/2)	31P7405	ann	08/27/02
Optical Wheel Travel Mouse (USB, PS/2)	31P7410	ann	06/04/02
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	ann	01/23/07
Lenovo Wireless Laser Mouse (blk, via USB)	45K1696	ann	11/25/08
Lenovo Wireless Laser Mouse (red, via USB)	51J0198	ann	11/25/08
Laser Tilt Wheel Travel Mouse (Bluetooth)	41U5008	ann	01/22/08
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann	12/07/04

Security

Kensington® Cable Lock from Lenovo	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06
PC Card Gemplus Smart Card Reader	41N3004	ann	12/13/05

Multimedia

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann	06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann	08/29/06

Batteries

X60 Tablet Li-Ion 4-cell	40Y8314	ann	11/14/06
X60 Tablet Li-Ion 8-cell	40Y8318	ann	11/14/06
X60 Extended Life Battery	40Y7005	ann	01/05/06
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann	09/20/05

⁴⁴ Requires the *ThinkPad 90W AC Adapter 40Y7659* (adapter provided with some systems).

ThinkPad 65W AC Adapter	40Y7696	ann	09/20/05
ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
ThinkPad 90W Slim AC/DC Combo Adapter	41N8460	ann	11/27/07

Tablet

ThinkPad X60 Tablet Digitizer Pen	41U3143	ann	11/14/06
ThinkPad X60 Tether (3-pack)	41U4820	ann	11/14/06

Carrying Cases

ThinkPad X60 Tablet Sleeve	41U3142	ann	11/14/06
----------------------------	---------	-----	----------

Up to 13.3" widescreen models:

ThinkPad Ultraportable Case	41U5062	ann	05/13/08
-----------------------------	---------	-----	----------

Up to 14.1" widescreen models:

ThinkPad Expander Case	43R9118	ann	06/24/08
ThinkPad Women's Microfiber Tote	22P8855		
ThinkPad Convertible Carrying Case	22P8860		
ThinkPad Women's Executive Leather Tote	22P8857		
Women's Executive Red Leather Tote	22P8858		

Up to 15.4" widescreen models:

Lenovo Carrying Case - Messenger Max	41U5253	ann	05/01/07
Lenovo Carr Case - Performance Backpack	41U5254	ann	05/01/07
Lenovo Standard Case	45K1697	ann	11/25/08
Lenovo Standard Backpack	45K1698	ann	11/25/08
Checkpoint Friendly Business Topload Case	51J0418	ann	02/24/09
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08

Up to 17.0" widescreen models:

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

Monitors

ThinkVision® L174 17" Monitor	9227AE1	ann	04/15/08
ThinkVision L1700p 17" Monitor	9417HE2	ann	09/17/08
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1940p Wide 19" Monitor	4424HB6	ann	09/17/08
ThinkVision L200p Wide 20.1" Monitor	4438HB6	ann	04/15/08
ThinkVision L2240p Wide 22" Monitor	4422HB6	ann	09/17/08
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08
ThinkVision L2440x Wide 24" Monitor	4421HB2	ann	09/17/08

Monitor Accessories⁴⁶

ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington Cable Lock from Lenovo	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
ThinkPad Convertible Monitor Stand	40Y7620	ann	01/05/06
Radial Arm	19K4464	ann	05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

Medialess License Key (MLK)

Microsoft® Office 2007 Basic, English	43R1528	ann	01/31/07
Microsoft Office 2007 Small Business, Engl	43R1534	ann	01/31/07
Microsoft Office 2007 Professional, English	43R1531	ann	01/31/07

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad®



Lenovo ThinkPad X200



Lenovo ThinkPad X200
with 9-cell Battery



Lenovo ThinkPad X200



Lenovo ThinkPad X200
with optional X200 UltraBase,
DVD Burner, and 9-cell Battery



Lenovo ThinkPad X200



Lenovo ThinkPad X200
with optional X200 UltraBase,
DVD Burner, and 9-cell Battery

ThinkPad® X200 (7454) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Battery Pre-load	Whorse (W) Gbl (G) Educ	Avail date
7454-2GU	P8600	2.40	2GB	12.1" WXGA		160GB 5400			Intel 5100 ²⁸			4 XP Pro		Aug 08
7454-2HU	P8600	2.40	2GB	12.1" WXGA		160GB 5400	DVD±RW	UltraBase	Intel 5100			6 XP Pro		Aug 08
7454-2JU	P8600	2.40	2GB	12.1" WXGA	Cam	160GB 7200	DVD±RW	UltraBase	Intel 5300 ²⁸	WWAN upg	2G Turbo	6 Bus 32		Aug 08
7454-2NU	P8400	2.26	2GB	12.1" WXGA		160GB 5400			Intel 5100	AT&T ²³		4 Bus 32		Aug 08
7454-2PU	P8400	2.26	2GB	12.1" WXGA		160GB 7200	DVD±RW	UltraBase	Intel 5100	AT&T		6 Bus 32		Aug 08
7454-2QU	P8600	2.40	2GB	12.1" WXGA	Cam	160GB 7200	DVD±RW	UltraBase	Intel 5100	AT&T	2G Turbo	6 Bus 32		Aug 08
7454-2ZU	P8600	2.40	2GB	12.1" WXGA	Cam	160GB 7200	DVD±RW	UltraBase	Intel 5100	AT&T		6 XP Pro		Sep 08
7454-95U	P8600	2.40	2GB	12.1" WXGA		160GB 5400			Intel 5100			4 XP Pro		Sep 08
7454-96U	P8600	2.40	2GB	12.1" WXGA	Cam	160GB 7200	DVD±RW	UltraBase	Intel 5300	WWAN upg		6 XP Pro		Sep 08
7454-9FU	P8600	2.40	2GB	12.1" WXGA		160GB 5400			WiMAX	WWAN upg		4 Bus 32		Jan 09
7454-9GU	P8600	2.40	3GB	12.1" WXGA	Cam	128GB SSD	DVD±RW	UltraBase	Intel 5100	WWAN upg		6 XP Pro		Jan 09
7454-9HU	P8600	2.40	2GB	12.1" WXGA	Cam	160GB 5400			Intel 5100	WWAN upg		6 Ult 32	Educ	Mar 09
• These small and medium business (SMB) models are part of the US TopSeller™ Program														
Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ 2 Duo processor P8400 or P8600 with dual-core, Intel HD boost, 1066MHz system bus, and 3MB L2 cache										Preloaded operating system ²⁰			
Memory	2GB or 3GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										- Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) - Some: Microsoft Windows Vista Ultimate Edition (32-bit) ◇ Vista Premium logo			
Diskette drive SATA DVD±RW Ultrabay Slim SATA disk	None (use optional USB-based diskette drive) Some: DVD burner (43N3214), SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) Some: 128GB ⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high Some: 160GB ⁸ (5400 or 7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ All: removable, upgradable, Shock Mounted Hard Drive, supports second disk in optional or std X200 UltraBase										Preloaded applications ¹⁴ (all OSes; only some listed) • Some: Education software - Microsoft Office Ultimate 2007 Academic Edition (and CD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • Fingerprint Software • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW)			
Widescreen display Camera	12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 250:1 contrast ratio Some: camera on top of screen, 1.3-megapixel, fixed focus										Supports ThinkVantage® technologies			
Graphics controller Graphics - external	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45 External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; Maximum external resolution: 2048x1536@75Hz										ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: - CD-RW/DVD-ROM Ultrabay Slim SATA 1.5Gb/s 43N3213 - DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 - Blu-ray™ Burner Ultrabay Slim SATA 1.5Gb/s 43N3215 - Serial Hard Drive Ultrabay Slim Adapter II 43R1980 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411 Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g 65-watt (GMA graphics) AC Adapter Climate Savers® certified ENERGY STAR® 4.0-compliant EPEAT™ Silver rating ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	without X200 UltraBase; 4-cell: 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 21-35mm without X200 UltraBase; 9-cell: 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm 4-cell: from 2.98 lb (1.35kg); 6-cell: from 3.26 lb (1.48kg); 9-cell: from 3.61 lb (1.64kg)													
Weight ² Case color Case material Battery - type Battery - life ¹⁰	Black Magnesium alloy Lithium Ion 4-cell or 6-cell 4-cell: up to 3.3 hr; 6-cell: up to 6.5 hr; 9-cell: up to 9.8 hr													
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)													
Media slice Multicard reader ExpressCard/54 Ports	Some: X200 UltraBase media slice (see right side) 5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)													
Mini PCI Express Intel 5100 ²⁸ Intel 5300 ²⁸ WiMAX	Three Mini PCI Express slots Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5300, 3x3 (Shirley Peak) Some: 11a/b/g/n and WiMAX wireless ⁴ , Mini PCIe adap, Intel WiMAX/WiFi Link 5350, 3x3 (450Mbps) WiFi + 1x2 WiMAX (Echo Peak)													
WWAN upg AT&T ²³	Some: Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) Some: Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T													
2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Some: Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁸ modem Bluetooth 2.0 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 2NU/2PU models: Intel Active Management Technology (IAMT 4.0) High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack													
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip													
Limited warranty ¹²	1-year - EasyServ™.19 depot repair service / service upgrades ²² available													
	2GB PC3-8500 DDR3 SODIMM (TopSeller) 43R2046 128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover) 43N3406 Other accessories on O-X200 sheet					USB 2.0 Super Multi-Burner Drive 41N5565 X200 Series Li-Ion Battery 9-cell 43R9255 Other accessories at lenovo.com/accessories								

See footnotes for important warranty information

✦ Intel Centrino® 2 processor technology

✦ US model announced March 17, 2009; previous models on August 5 or September 2, 2008, or January 6, 2009

✦ US model withdrawn effective September 2008

© Lenovo

(MOC1-1) March 2009

ThinkPad® X200 (7455) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Battery Pre-load	Whorse (W) Gbl (G) Educ	Avail date	
7455-D9U	P8600	2.40	2GB	12.1" WXGA	Cam	160GB 5400	Optional	Optional	Intel 5100 ²⁸	WWAN upg	None	6 Ult	32 Educ	Mar09	
<ul style="list-style-type: none">• This small and medium business (SMB) model is part of the US TopSeller™ Program• This model has an EasyServ™¹⁹ depot repair service 3-year limited warranty															
Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ 2 Duo processor P8600 with dual-core, Intel HD boost, 1066MHz system bus, and 3MB L2 cache										Preloaded operating system²⁰ - Microsoft® Windows® Vista® Ultimate Edition (32-bit) ↗ Vista Premium logo				
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; Non-italics: standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none">• Education software- Microsoft Office Ultimate 2007 Academic Edition (and CD)• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage Productivity Center• PC-Doctor™ (diagnostics)• ThinkPad Utilities (Power Manager and Presentation Director)• Adobe® Reader• Fingerprint Software (fingerprint models)• Windows Live™ Toolbar and Search• Roxio® Creator® Business Edition				
Diskette drive SATA DVD±RW Ultrabay Slim SATA disk	None (use optional USB-based diskette drive) Option for <i>ThinkPad X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 160GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, Active Protection System™, removable, upgradable, Shock Mounted Hard Drive, supports second disk in optional or std <i>X200 UltraBase</i>										Supports ThinkVantage® technologies ThinkPad X200 UltraBase™ <ul style="list-style-type: none">• Provides desktop expansion and cable management for X200 Series• Easily connects to the bottom of the X200 Series for traveling• Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side:<ul style="list-style-type: none">- CD-RW/DVD-ROM Ultrabay Slim SATA 1.5Gb/s 43N3213- DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214- Blu-ray™ Burner Ultrabay Slim SATA 1.5Gb/s 43N3215- Serial Hard Drive Ultrabay Slim Adapter II 43R1980Disks supported (some):<ul style="list-style-type: none">• 250GB FDE 7200 rpm 43N3410• 320GB Disk 7200 rpm 43N3411 Other features: <ul style="list-style-type: none">• Power button (front)• Stereo speakers (2 watt)• Security key lock, security keyhole, and optional security screw• Analog DB-15 monitor port• DisplayPort (supports single-link DVI-D via cable 45J7915)• Four USB 2.0 ports• Gigabit ethernet port• Microphone in and headphone out• Second battery charger• Requires 65 or 90 watt AC adapter• 1.6 lb; 730g				
Widescreen display Camera	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 250:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus														
Graphics controller Graphics - external	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45 External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; Maximum external resolution: 2048x1536 @ 75Hz														
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None Illuminates the keyboard to improve visibility in low-light conditions										65-watt (GMA graphics) AC Adapter Climate Savers® certified ENERGY STAR® 4.0-compliant EPEAT™ Silver rating ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Dimensions ³	without X200 UltraBase; 4-cell: 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 21-35mm without X200 UltraBase; 9-cell: 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm 4-cell: from 2.98 lb (1.35kg); 6-cell: from 3.26 lb (1.48kg); 9-cell: from 3.61 lb (1.64kg)														
Weight ² Case color Case material Battery - type Battery - life ¹⁰	Black Magnesium alloy Lithium Ion 6-cell 4-cell: up to 3.3 hr; 6-cell: up to 6.5 hr; 9-cell: up to 9.8 hr														
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)														
Media slice Multicard reader ExpressCard/54 Ports	Option: ThinkPad X200 UltraBase media slice (see right side) 5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)														
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) None None 56K V.92 ⁶ modem Bluetooth 2.0 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack										Security chip Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader Fingerprint reader on palm rest, swipe sensor, supports the security chip				
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available														
1GB PC3-8500 DDR3 SODIMM					43R1987	X200 Series Li-Ion Battery 4-cell				43R9253					
2GB PC3-8500 DDR3 SODIMM					43R1988	X200 Series Li-Ion Battery 6-cell				43R9254					
Serial ATA Hard Drive Bay Adapter II SATA					43R1980	X200 Series Li-Ion Battery 9-cell				43R9255					
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)					43N3406	90W Slim AC/DC Combo Adapter				41N8460					
320GB Disk SATA 1.5Gb/s (5400 rpm)					43N3403	ThinkPad Ultraportable Case				41U5062					
USB 2.0 Ultra Secure Memory Key 8GB					45J5918	ThinkPad Business Topload Case				43R2476					
USB 2.0 Super Multi-Burner Drive					41N5565	X200 Series 12W Privacy Filter				43R2470					
ThinkPad X200 UltraBase					43R8781	ThinkVision® USB Soundbar (up to 22")				40Y7616					
Verizon WWAN UNDP Broadband					43R9151	ThinkVision L1940p Wide 19" Monitor				4424HB6					
AT&T WWAN HSPA Broadband Mini PCIe					43R9152	ThinkVision L2240p Wide 22" Monitor				4422HB6					
Laser Tilt Wheel Travel Mouse (Bluetooth)					41U5008	ThinkVision L2440x Wide 24" Monitor				4421HB2					
Other accessories on O-X200 sheet	Other accessories at lenovo.com/accessories														

See footnotes for important warranty information
US model announced March 24, 2009

✦ Intel Centrino® 2 processor technology

© Lenovo
(MOC1-7) April 2009

Proc- Type-model	essor GHz	Memory	Wide- screen display	Cam- era	Disk SATA GB ⁹ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Blue- tooth	Finger Bat- print tery	Pre- load	Gbl (G) TAA	Avail date
7458-5EU	P8600	2.40	2GB	12.1" WXGA	160GB 5400	Optional	Optional	Intel 5100 ²⁸			Blue		6	B32	W G Aug 08
7458-5FU	P8600	2.40	2GB	12.1" WXGA	160GB 7200	Optional	Optional	Intel 5100			Blue	Finger	6	B32	W G Aug 08
7458-69U	P8600	2.40	2GB	12.1" WXGA Cam	160GB 5400	Optional	Optional	Intel 5300 ²⁸	WWAN upg	2G Turbo	Blue	Finger	6	B32	W G Aug 08
7458-M2U	P8600	2.40	1GB	12.1" WXGA	160GB 5400	Optional	Optional	Intel 5100			Blue		4	B32	W G Aug 08
7458-M3U	P8600	2.40	1GB	12.1" WXGA	160GB 5400	Optional	Optional	Intel 5100			Blue	Finger	6	B32	W G Aug 08
7458-7DU	P8600	2.40	2GB	12.1" WXGA Cam	160GB 7200	Optional	Optional	Intel 5300	WWAN upg	2G Turbo	Blue	Finger	6	B32	Aug 08
7458-X4U	P8600	2.40	2GB	12.1" WXGA	160GB 5400	Optional	Optional	Intel 5100	WWAN upg				6	B32 TAA	Aug 08
7458-5HU	P8600	2.40	4GB	12.1" WXGA	160GB 7200	Optional	Optional	Intel 5300	Verizon ¹⁶		Blue	Finger	9	B32	W Sep 08
7458-7CU	P8600	2.40	4GB	12.1" WXGA	160GB 7200	Optional	Optional	Intel 5300	AT&T ²³		Blue	Finger	9	B32	W Sep 08
7458-87U	P8600	2.40	2GB	12.1" WXGA	160GB 7200	Optional	Optional	Intel 5100			Blue	Finger	6	XP	G Sep 08
7458-88U	P8600	2.40	4GB	12.1" WXGA	160GB 7200	Optional	Optional	Intel 5300	AT&T		Blue	Finger	9	XP	W Sep 08
7458-89U	P8600	2.40	2GB	12.1" WXGA Cam	160GB 5400	Optional	Optional	Intel 5300	Verizon		Blue	Finger	9	XP	W Sep 08
Positioning US Govt (TAA) ⁵ Processor	An ultraportable for the executive on the move; one spindle X4U: US Government model (Trade Act Agreement-compliant) Intel® Core™ 2 Duo processor P8600 with dual-core, Intel HD boost, 1066MHz system bus, and 3MB L2 cache										Preloaded operating system ²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) ◆ Vista Premium logo				
Memory	1GB, 2GB, or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; Italics: standard memory in both sockets; no sockets available; Non-italics: standard memory in 1 socket; 1 socket available										Preloaded applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • ThinkVantage Productivity Center • ThinkVantage System Update • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Business Edition				
Diskette drive SATA Combo Ultrabay Slim SATA disk	None (use optional USB-based diskette drive) Option for ThinkPad X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 160GB ⁸ (5400 or 7200rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std X200 UltraBase														
Widescreen display Camera	12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 250:1 contrast ratio Some: camera on top of screen, 1.3-megapixel, fixed focus														
Graphics controller Graphics - external	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45 External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; Maximum external resolution: 2048x1536@75Hz (VGA)										Supports ThinkVantage® technologies				
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None Illuminates the keyboard to improve visibility in low-light conditions										ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – CD-RW/DVD-ROM Ultrabay Slim SATA 1.5Gb/s 43N3213 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Blu-ray™ Burner Ultrabay Slim SATA 1.5Gb/s 43N3215 – Serial Hard Drive Ultrabay Slim Adapter II 43R1980 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411				
Dimensions ³	without X200 UltraBase; 4-cell: 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 21-35mm without X200 UltraBase; 9-cell: 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm 4-cell: from 2.98 lb (1.35kg); 6-cell: from 3.26 lb (1.48kg); 9-cell: from 3.61 lb (1.64kg)														
Weight ² Case color Case material Battery - type Battery - life ¹⁰	Black Magnesium alloy Lithium Ion 4-cell, 6-cell, or 9-cell 4-cell: up to 3.3 hr; 6-cell: up to 6.5 hr; 9-cell: up to 9.8 hr														
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)														
Media slice Multicard reader ExpressCard/54 Ports	Option: ThinkPad X200 UltraBase media slice (see right side) 5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)														
Mini PCI Express Intel 5100 ²⁸ Intel 5300 ²⁸ WWAN upg Verizon ¹⁶ AT&T ²³ 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5300, 3x3 (Shirley Peak) Some: Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) Some: Wireless WAN, Qualcomm chipset, Mini PCIe adapter and SIM, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, service contract reqd with Verizon Some: Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T Some: Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem Some: Bluetooth 2.0 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (IAMT 4.0) High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack														
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Some: Fingerprint reader on palm rest, swipe sensor, supports the security chip										65-watt (GMA graphics) AC Adapter Climate Savers® certified ENERGY STAR® 4.0-compliant EPEAT™ Silver rating ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available														
2GB PC3-8500 DDR3 SODIMM 320GB Disk SATA 1.5Gb/s (5400 rpm) USB 2.0 Ultra Secure Memory Key 8GB Other accessories on O-X200 sheet			43R1988 43N3403 45J5918			90W Slim AC/DC Combo Adapter ThinkPad Ultraportable Case X200 Series 12W Privacy Filter Other accessories at lenovo.com/accessories			41N8460 41U5062 43R2470						

See footnotes for important warranty information

◆ Intel Centrino® 2 with vPro™ technology

© Lenovo

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

(MOC1-2) January 2009

US model withdrawn effective August 2008

Proc- Type-model	essor GHz	Memory	Wide- screen display	Cam- era	Disk SATA GB ⁸ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Blue- tooth	Finger print reader	Bat- tery cells	Whorse (W) Pre- Gbl (G) Avail load date	
7458-8SU	P8600	2.40	2GB	12.1" WXGA	Cam 128GB SSD			❖Intel 5100 ²⁸	WWAN upg				6	XP	Dec08
7458-8RU	P8600	2.40	2GB	12.1" WXGA	128GB SSD			❖Intel 5300 ²⁸	WWAN upg		Blue	Finger	6	B32	Dec08
7458-8QU	P8600	2.40	2GB	12.1" WXGA	Cam 128GB SSD			❖WiMAX	WWAN upg		Blue	Finger	6	B32	Dec08
7458-8PU	P8600	2.40	2GB	12.1" WXGA	128GB SSD			❖WiMAX	WWAN upg		Blue	Finger	6	B32	Dec08
7458-7BU	P8600	2.40	2GB	12.1" WXGA	Cam 160GB 7200	Combo UltraBase		❖WiMAX	WWAN upg	2G Turbo	Blue	Finger	9	U32 W	Dec08
Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ 2 Duo processor P8600 with dual-core, Intel HD boost, 1066MHz system bus, and 3MB L2 cache										Preloaded operating system ²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA				
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; Non-italics: standard memory in 1 socket; 1 socket available										- Some: Microsoft Windows Vista Business Edition (32-bit) - Some: Microsoft Windows Vista Ultimate Edition (32-bit) ❖Vista Premium logo				
Diskette drive SATA Combo Ultrabay Slim SATA disk	None (use optional USB-based diskette drive) Some: CD-RW/DVD-ROM (43N3213), 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 ⁸ (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ All: removable, upgradable, shock mounted storage, supports 2nd disk in optional or standard X200 UltraBase										Preloaded applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Business Edition				
Widescreen display Camera	12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 250:1 contrast ratio Some: camera on top of screen, 1.3-megapixel, fixed focus										Supports ThinkVantage® technologies				
Graphics controller Graphics - external	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45 External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; Maximum external resolution: 2048x1536@75Hz (VGA)										ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: - CD-RW/DVD-ROM Ultrabay Slim SATA 1.5Gb/s 43N3213 - DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 - Blu-ray™ Burner Ultrabay Slim SATA 1.5Gb/s 43N3215 - Serial Hard Drive Ultrabay Slim Adapter II 43R1980 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411				
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None Illuminates the keyboard to improve visibility in low-light conditions										Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g				
Dimensions ³	without X200 UltraBase; 4-cell: 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 21-35mm without X200 UltraBase; 9-cell: 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm 4-cell: from 2.98 lb (1.35kg); 6-cell: from 3.26 lb (1.48kg); 9-cell: from 3.61 lb (1.64kg)										65-watt (GMA graphics) AC Adapter Climate Savers® certified ENERGY STAR® 4.0-compliant EPEAT™ Silver rating ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Weight ² Case color Case material Battery - type Battery - life ¹⁰	Black Magnesium alloy Lithium Ion 6-cell or 9-cell 4-cell: up to 3.3 hr; 6-cell: up to 6.5 hr; 9-cell: up to 9.8 hr														
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)														
Media slice Multicard reader ExpressCard/54 Ports	Some: ThinkPad X200 UltraBase media slice (see right side) 5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)														
Mini PCI Express Intel 5100 ²⁸ Intel 5300 ²⁸ WiMAX	Three Mini PCI Express slots Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5300, 3x3 (Shirley Peak) Some: 11a/b/g/n and WiMAX wireless ⁴ , Mini PCIe adap, Intel WiMAX/WiFi Link 5350, 3x3 (450Mbps) WiFi + 1x2 WiMAX (Echo Peak)														
WWAN upg 2G Turbo UWB	Some: Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) Some: Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None														
Modem Bluetooth™ Ethernet Intel AMT Audio support	56K V.92 ⁶ modem Some: Bluetooth 2.0 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (IAMT 4.0) High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack														
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Some: Fingerprint reader on palm rest, swipe sensor, supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available														
1GB PC3-8500 DDR3 SODIMM	43R1987										X200 Series Li-Ion Battery 6-cell 43R9254				
2GB PC3-8500 DDR3 SODIMM	43R1988										X200 Series Li-Ion Battery 9-cell 43R9255				
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406										90W Slim AC/DC Combo Adapter 41N8460				
320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3403										ThinkPad Business Topload Case 43R2476				
USB 2.0 Ultra Secure Memory Key 8GB	45J5918										ThinkPad Business Backpack 43R2482				
USB 2.0 Portable Secure 320GB Hard Disk	43R2019										X200 Series 12W Privacy Filter 43R2470				
USB 2.0 Super Multi-Burner Drive	41N5565										DisplayPort to Single-link DVI-D Cable 45J7915				
ThinkPad X200 UltraBase	43R8781										ThinkVision® L1940p Wide 19" Monitor 4424HB6				
Verizon WWAN UNDP Broadband	43R9151										ThinkVision L2240p Wide 22" Monitor 4422HB6				
AT&T WWAN HSPA Broadband Mini PCIe	43R9152										ThinkVision L2440p Wide 24" Monitor 4420HB2				
Other accessories on O-X200 sheet											Other accessories at lenovo.com/accessories				

See footnotes for important warranty information
US models announced December 2 or December 9, 2008

✦ Intel Centrino® 2 with vPro™ technology

© Lenovo
(MOC1-6) December 2008

ThinkPad® X200 (7459) - Onsite

Personal Systems Reference (PSREF)

	Proc- Type-model	essor	GHz	Mem- ory	Wide- screen display	Cam- era	Disk SATA GB ^s	Optical in Ultra	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger Bat- print tery	Whorse (W) Gbl (G) Avail	
	7459-M2U	P8600	2.40	1GB	12.1" WXGA		160GB 5400			❖ Intel 5100 ²⁸			4	Bus32	WGP Aug08
	7459-M3U	P8600	2.40	1GB	12.1" WXGA		160GB 5400			❖ Intel 5100			Finger 6	Bus32	WGP Aug08
	7459-5EU	P8600	2.40	2GB	12.1" WXGA		160GB 5400			❖ Intel 5100			6	Bus32	WGP Aug08
	7459-5FU	P8600	2.40	2GB	12.1" WXGA		160GB 7200			❖ Intel 5100			Finger 6	Bus32	WGP Aug08
	7459-69U	P8600	2.40	2GB	12.1" WXGA	Cam	160GB 5400			❖ Intel 5300 ²⁸	WWAN upg	2G Turbo	Finger 6	Bus32	WGP Aug08
☞	7459-M4U	P8600	2.40	2GB	12.1" WXGA	Cam	160GB 7200	Combo	UltraBase	❖ WiMAX	WWAN upg		Finger 9	Ult 32	W Oct 08

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

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ 2 Duo processor P8600 with dual-core, Intel HD boost, 1066MHz system bus, and 3MB L2 cache		Preloaded operating system²⁰ - <i>Some:</i> Microsoft® Windows® Vista® Business Edition (32-bit) - <i>Some:</i> Microsoft Windows Vista Ultimate Edition (32-bit) ✧ Vista Premium logo Preloaded applications¹⁴ (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Fingerprint Software (fingerprint models) • Windows Live™ Toolbar and Search • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Business Edition
Memory	1GB or 2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available		
Diskette drive	None (use optional USB-based diskette drive)		
SATA Combo Ultrabay Slim SATA disk	<i>Some:</i> CD-RW/DVD-ROM (43N3213), SATA 1.5Gb/s, removable from <i>X200 UltraBase</i> Supports Ultrabay Slim devices in optional <i>ThinkPad X200 UltraBase</i> (43R8781) 160GB⁸ (5400 or 7200rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std <i>X200 UltraBase</i>		
Widescreen display	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 250:1 contrast ratio <i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus		
Camera			
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45		
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution: 2048x1536@75Hz (VGA)</i>		
Keyboard	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass		
Touch pad	None		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 21-35mm <i>without X200 UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm <i>4-cell:</i> from 2.98 lb (1.35kg); <i>6-cell:</i> from 3.26 lb (1.48kg); <i>9-cell:</i> from 3.61 lb (1.64kg) <i>Color:</i> black; <i>Material:</i> magnesium alloy		
Weight ²	Lithium Ion 4-cell, 6-cell, or 9-cell <i>4-cell:</i> up to 3.3 hr; <i>6-cell:</i> up to 6.5 hr; <i>9-cell:</i> up to 9.8 hr		
Case			
Battery - type			
Battery - life ¹⁰			
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)		
Media slice	<i>Some:</i> ThinkPad X200 UltraBase media slice (see right side)		
Multicard Reader	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC)		
ExpressCard slot	One ExpressCard/34 or ExpressCard/54		
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)		
Mini PCI Express	Three Mini PCI Express slots		
Intel 5100 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)		
Intel 5300 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5300, 3x3 (Shirley Peak)		
WiMAX	<i>Some:</i> 11a/b/g/n and WiMAX wireless ⁴ , Mini PCIe adap, Intel WiMAX/WiFi Link 5350, 3x3 (450Mbps) WiFi + 1x2 WiMAX (Echo Peak)		
WWAN upg	<i>Some:</i> Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)		
2G Turbo	<i>Some:</i> Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator		
UWB	None		
Modem	56K V.92 ⁶ modem		
Bluetooth™	Bluetooth 2.0 wireless, LED indicator		
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1		
Intel AMT	Intel Active Management Technology (IAMT 4.0)		
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant		
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest, swipe sensor, supports the security chip		
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available		
1GB PC3-8500 DDR3 SODIMM	43R1987	X200 Series Li-Ion Battery 6-cell	43R9254
2GB PC3-8500 DDR3 SODIMM	43R1988	X200 Series Li-Ion Battery 9-cell	43R9255
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	90W Slim AC/DC Combo Adapter	41N8460
320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3403	ThinkPad Business Topload Case	43R2476
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ThinkPad Business Backpack	43R2482
USB 2.0 Super Multi-Burner Drive	41N5565	X200 Series 12W Privacy Filter	43R2470
ThinkPad X200 UltraBase	43R8781	ThinkVision® L1940p Wide 19" Monitor	4424HB6
Verizon WWAN UNDP Broadband	43R9151	ThinkVision L2240p Wide 22" Monitor	4422HB6
AT&T WWAN HSPA Broadband Mini PCIe	43R9152	ThinkVision L2440p Wide 24" Monitor	4420HB2
Other accessories on O-X200 sheet		Other accessories at lenovo.com/accessories	

ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – CD-RW/DVD-ROM Ultrabay Slim SATA 1.5Gb/s 43N3213 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Blu-ray™ Burner Ultrabay Slim SATA 1.5Gb/s 43N3215 – Serial Hard Drive Ultrabay Slim Adapter II 43R1980 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411 Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g	65-watt (GMA graphics) AC Adapter Climate Savers® certified ENERGY STAR® 4.0-compliant EPEAT™ Silver rating 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

❖ Intel Centrino® 2 with vPro™ technology

© Lenovo

US model announced October 14, 2008; previous models on August 5, 2008

(MOC1-3) October 2008

ThinkPad® X200 (7458) - Education (EasyServ)

Personal Systems Reference (PSREF)

	Proc- Type-model	essor GHz	Memory	Wide- screen display	Cam- era	Disk SATA GB ⁵	rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Bat- tery cells	Whorse (W) Gbl (G)	Avail date		
	7458-E2U	P8600	2.40	2GB	12.1"	WXGA	Cam	160GB	5400	Optional	Optional	❖Intel 5100 ²⁸	WWAN upg	None	Finger	6	Bus32 W	Aug 08
	7458-FQU	P8600	2.40	2GB	12.1"	WXGA	Cam	160GB	5400	Optional	Optional	❖Intel 5100	WWAN upg	None	Finger	6	Bus32 W	Mar 09

• **This model has an EasyServ™,19 depot repair service 3-year limited warranty**

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

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ 2 Duo processor P8600 with dual-core, Intel HD boost, 1066MHz system bus, and 3MB L2 cache			Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ✦ Vista Premium logo Preloaded applications¹⁴ (only some listed) • E2U model: Education software - Microsoft Office OneNote® 2007 (and CD) - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection - Photoshop Elements (and CD) - Premier Elements (and DVD) - Acrobat 8 Professional - Contribute 4 • FQU model: Education software - Microsoft Office OneNote® 2007 - Adobe Digital School Collection - Instructor Resources (and DVD) - Learning Creative Suite 4 (DVD) - Photoshop Elements 7 (DVD) - Premier Elements 7 (and DVD) - Acrobat 9 Professional (DVD) - Contribute CS4 (and DVD) - Soundbooth CS4 (and DVD)		
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available			Supports ThinkVantage® technologies ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: - CD-RW/DVD-ROM Ultrabay Slim SATA 1.5Gb/s 43N3213 - DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 - Serial Hard Drive Ultrabay Slim Adapter II 43R1980 Disks supported (some): • 320GB Disk 7200 rpm 43N3411		
Diskette drive SATA DVD±RW Ultrabay Slim SATA disk	None (use optional USB-based diskette drive) Option for <i>ThinkPad X200 UltraBase</i> Supports Ultrabay Slim devices in optional <i>ThinkPad X200 UltraBase</i> (43R8781) 160GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std <i>X200 UltraBase</i>			Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g		
Widescreen display Camera	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 250:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus			65-watt (GMA graphics) AC Adapter Climate Savers® certified ENERGY STAR® 4.0-compliant EPEAT™ Silver rating ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
Graphics controller Graphics - external	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45 External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase <i>Maximum external resolution: 2048x1536 @75Hz</i>					
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None Illuminates the keyboard to improve visibility in low-light conditions					
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 21-35mm <i>without X200 UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm <i>6-cell:</i> from 3.26 lb (1.48kg); <i>9-cell:</i> from 3.61 lb (1.64kg) <i>Color:</i> black; <i>Material:</i> magnesium alloy					
Weight ² Case Battery - type Battery - life ¹⁰	Lithium Ion 6-cell <i>6-cell:</i> up to 6.5 hr; <i>9-cell:</i> up to 9.8 hr					
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)					
Media slice Multicard Reader ExpressCard slot Ports	<i>Option: ThinkPad X200 UltraBase media slice</i> (see right side) 5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC) One ExpressCard/34 or ExpressCard/54 Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)					
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) None None 56K V.92 ⁶ modem Bluetooth 2.0 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (IAMT 4.0) High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack					
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip					
Limited warranty ¹²	3-years/1-yr battery - EasyServ™,19 depot repair service / service upgrades²² available					
1GB PC3-8500 DDR3 SODIMM 2GB PC3-8500 DDR3 SODIMM Serial ATA Hard Drive Bay Adapter II SATA 128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover) 320GB Disk SATA 1.5Gb/s (5400 rpm) USB 2.0 Security Memory Key 4GB USB 2.0 Ultra Secure Memory Key 8GB USB 2.0 Super Multi-Burner Drive USB 2.0 Lenovo Enhanced Port Replicator ThinkPad X200 UltraBase Verizon WWAN UNDP Broadband AT&T WWAN HSPA Broadband Mini PCIe Laser Tilt Wheel Travel Mouse (Bluetooth) Other accessories on O-X200 sheet	43R1987 43R1988 43R1980 43N3406 43N3403 41U5120 45J5918 41N5565 43R8770 43R8781 43R9151 43R9152 41U5008	X200 Series Li-Ion Battery 4-cell X200 Series Li-Ion Battery 6-cell X200 Series Li-Ion Battery 9-cell 90W Slim AC/DC Combo Adapter ThinkPad Ultraportable Case ThinkPad Business Topload Case ThinkPad Business Backpack X200 Series 12W Privacy Filter ThinkVision® USB Soundbar (up to 22") ThinkVision L1700p 17" Monitor ThinkVision L1940p Wide 19" Monitor ThinkVision L2240p Wide 22" Monitor ThinkVision L2440x Wide 24" Monitor Other accessories at lenovo.com/accessories	43R9253 43R9254 43R9255 41N8460 41U5062 43R2476 43R2482 43R2470 40Y7616 9417HE2 4424HB6 4422HB6 4421HB2			

See footnotes for important warranty information

❖ Intel Centrino® 2 with vPro™ technology

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

© Lenovo
(MOC1-4) April 2009

ThinkPad® X200 (7459) - Education (Onsite)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Disk SATA GB ⁸	rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Bat- tery cells	Whorse (W) Gbl (G)	Avail date
7459-E3U	P8600	2.40	2GB	12.1"	WXGA	Cam	160GB	5400	Optional	Optional	❖Intel 5100 ²⁸	WWAN upg	None	None	6	Bus32 W Aug08

• **This model has a limited onsite service²⁴ 3-year limited warranty**

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

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel Core 2 Duo processor P8600 with dual-core, Intel HD boost, 1066MHz system bus, and 3MB L2 cache			Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ✧ Vista Premium logo Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none">• Education software<ul style="list-style-type: none">- Microsoft Office OneNote® 2007 (and CD)- VitalSource Library College Edition- Adobe® Instructor Resource Cntr- Adobe Digital School Collection<ul style="list-style-type: none">– Photoshop Elements (and CD)– Premier Elements (and DVD)– Acrobat 8 Professional– Contribute 4• Rescue and Recovery™• Client Security Solution™• ThinkVantage System Update• McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions)• Microsoft Office 2007 Trial (60-day)		
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available			Supports ThinkVantage® technologies ThinkPad X200 UltraBase™ <ul style="list-style-type: none">• Provides desktop expansion and cable management for X200 Series• Easily connects to the bottom of the X200 Series for traveling• Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side:<ul style="list-style-type: none">– CD-RW/DVD-ROM Ultrabay Slim SATA 1.5Gb/s 43N3213– DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214– Blu-ray™ Burner Ultrabay Slim SATA 1.5Gb/s 43N3215– Serial Hard Drive Ultrabay Slim Adapter II 43R1980Disks 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		
Diskette drive SATA DVD±RW Ultrabay Slim SATA disk	None (use optional USB-based diskette drive) Option for <i>ThinkPad X200 UltraBase</i> Supports Ultrabay Slim devices in optional <i>ThinkPad X200 UltraBase</i> (43R8781) 160GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std <i>X200 UltraBase</i>					
Widescreen display Camera	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 250:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus					
Graphics controller Graphics - external	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45 External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase <i>Maximum external resolution: 2048x1536 @75Hz</i>					
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None Illuminates the keyboard to improve visibility in low-light conditions			65-watt (GMA graphics) AC Adapter Climate Savers® certified ENERGY STAR® 4.0-compliant EPEAT™ Silver rating ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 21-35mm <i>without X200 UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm <i>6-cell:</i> from 3.26 lb (1.48kg); <i>9-cell:</i> from 3.61 lb (1.64kg) <i>Color:</i> black; <i>Material:</i> magnesium alloy					
Weight ² Case Battery - type Battery - life ¹⁰	Lithium Ion 6-cell <i>6-cell:</i> up to 6.5 hr; <i>9-cell:</i> up to 9.8 hr					
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)					
Media slice Multicard Reader ExpressCard slot Ports	<i>Option: ThinkPad X200 UltraBase media slice</i> (see right side) 5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC) One ExpressCard/34 or ExpressCard/54 Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)					
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) None None 56K V.92 ⁶ modem Bluetooth 2.0 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (IAMT 4.0) High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole					
Security Security chip Fingerprint reader	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant 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					
1GB PC3-8500 DDR3 SODIMM	43R1987	X200 Series Li-Ion Battery 4-cell	43R9253			
2GB PC3-8500 DDR3 SODIMM	43R1988	X200 Series Li-Ion Battery 6-cell	43R9254			
Serial ATA Hard Drive Bay Adapter II SATA	43R1980	X200 Series Li-Ion Battery 9-cell	43R9255			
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	90W Slim AC/DC Combo Adapter	41N8460			
320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3403	ThinkPad Ultraportable Case	41U5062			
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Business Topload Case	43R2476			
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ThinkPad Business Backpack	43R2482			
USB 2.0 Super Multi-Burner Drive	41N5565	X200 Series 12W Privacy Filter	43R2470			
USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ThinkVision® L1700p 17" Monitor	9417HE2			
ThinkPad X200 UltraBase	43R8781	ThinkVision L1940p Wide 19" Monitor	4424HB6			
Verizon WWAN UNDP Broadband	43R9151	ThinkVision L2240p Wide 22" Monitor	4422HB6			
AT&T WWAN HSPA Broadband Mini PCIe	43R9152	ThinkVision L2440p Wide 24" Monitor	4420HB2			
Other accessories on O-X200 sheet		Other accessories at lenovo.com/accessories				

See footnotes for important warranty information
US models announced August 5, 2008

❖ Intel Centrino® 2 with vPro™ technology

© Lenovo
(MOC1-5) November 2008

ThinkPad®



Lenovo ThinkPad X200s



Lenovo ThinkPad X200s
with optional X200 UltraBase,
DVD Burner, and 9-cell Battery



Lenovo ThinkPad X200s



Lenovo ThinkPad X200s
with optional X200 UltraBase,
DVD Burner, and 9-cell Battery



Lenovo ThinkPad X200s



Lenovo ThinkPad X200s

ThinkPad® X200s (7466) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Widescreen display	Disk SATA GB ⁸ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Blue/ Fing	Bat- tery cells	Workhorse (W) Global (G) Avail date
7466-3GU	SL9400	1.86	4GB	12.1" WXGA+	160GB 7200	DVD±RW	UltraBase	Intel 5100 ²⁸	None	2G Turbo	Yes	9	Bus 32
7466-3HU	SL9400	1.86	2GB	12.1" WXGA+	160GB 7200	DVD±RW	UltraBase	Intel 5100	None	2G Turbo	Yes	6	XP Pro
7466-3JU	SL9400	1.86	4GB	12.1" WXGA+	160GB 7200	DVD±RW	UltraBase	Intel 5100	None	2G Turbo	Yes	9	XP Pro

- Compared to the X200, the X200s has lighter weight, low voltage processors, LED backlight displays, and roll cage in display cover
- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-years limited warranty

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ 2 Duo processor SL9400 with low voltage, dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache											Preloaded operating system ²⁰	
Memory	2GB or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											- Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) ◆ Vista Premium logo	
Diskette drive SATA DVD±RW Ultrabay Slim SATA disk	None (use optional USB-based diskette drive) Some: DVD burner (43N3214), SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 160GB ⁸ (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std X200 UltraBase											Preloaded applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage System Update • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Fingerprint Software • Windows Live™ Toolbar and Search • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW)	
Widescreen display Camera	12.1" (308mm) WXGA+ (1440x900) color, anti-glare, LED backlight, 250 nits, 16:10 aspect ratio, 300:1 contrast ratio None											Supports ThinkVantage® technologies	
Graphics controller Graphics - external	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GS45 External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; Maximum external resolution: 2048x1536@75Hz											ThinkPad X200 UltraBase™	
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None Illuminates the keyboard to improve visibility in low-light conditions											• Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – CD-RW/DVD-ROM Ultrabay Slim SATA 1.5Gb/s 43N3213 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Blu-ray™ Burner Ultrabay Slim SATA 1.5Gb/s 43N3215 – Serial Hard Drive Ultrabay Slim Adapter II 43R1980 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411	
Dimensions ³	without X200 UltraBase; 4-cell: 11.6" x 8.3" x 0.8-1.1"; 295mm x 210mm x 21-29mm without X200 UltraBase; 9-cell: 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm 4-cell: from 2.43 lb (1.1kg); 6-cell: from 2.71 lb (1.23kg); 9-cell: from 3.05 lb (1.38kg)											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	
Weight ²	Color: black; Display cover: Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); Base: Magnesium alloy											65-watt (GMA graphics) AC Adapter Climate Savers® certified ENERGY STAR® 4.0-compliant Next Generation ThinkPad Roll Cage (in display cover) EPEAT™ Gold rating ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
Case material	Lithium Ion 6-cell or 9-cell 4-cell: up to 4.4 hr; 6-cell: up to 8.8 hr; 9-cell: up to 13.2 hr												
Battery - type Battery - life ¹⁰	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)												
Chipset	Some: X200 UltraBase media slice (see right side) 5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)												
Media slice Multicard Reader ExpressCard/54 Ports	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) None Some: Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem Bluetooth 2.0 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (IAMT 4.0) High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip												
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	1GB PC3-8500 DDR3 SODIMM (TopSeller) 43R2045 2GB PC3-8500 DDR3 SODIMM (TopSeller) 43R2046 Serial ATA Hard Drive Bay Adapter II SATA 43R1980 128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover) 43N3406 320GB Disk SATA 1.5Gb/s (5400 rpm) 43N3403 USB 2.0 Essential Memory Key 32GB 45K1258 USB 2.0 Ultra Secure Memory Key 8GB 45J5918 USB 2.0 Super Multi-Burner Drive 41N5565 USB 2.0 Portable Secure 320GB Hard Disk 43R2019 ThinkPad X200 UltraBase 43R8781 Wireless Kybd & Opt Wheel Mouse (USB) 73P4067 Laser Tilt Wheel Travel Mouse (Bluetooth) 41U5008 Other accessories on O-X200 sheet												
Security Security chip Fingerprint reader	Limited warranty ¹² 3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available												
	X200 Series Li-Ion Battery 4-cell 43R9253 X200 Series Li-Ion Battery 6-cell 43R9254 X200 Series Li-Ion Battery 9-cell 43R9255 ThinkPad External Battery Charger 40Y7625 90W Slim AC/DC Combo Adapter 41N8460 ThinkPad Ultraportable Case 41U5062 ThinkPad Business Topload Case 43R2476 ThinkPad Business Backpack 43R2482 X200 Series 12W Privacy Filter 43R2470 ThinkVision® L1940p Wide 19" Monitor 4424HB6 ThinkVision L2240p Wide 22" Monitor 4422HB6 ThinkVision L2440p Wide 24" Monitor 4420HB2 Other accessories at lenovo.com/accessories												

See footnotes for important warranty information
US models announced September 23, 2008

◆ Intel Centrino® 2 with vPro™ technology

© Lenovo
(PEC1-1) September 2008

Type-model	Proc- essor	GHz	Memory	Widescreen display	Disk SATA GB ⁵ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery Blue/ Fing cells	Workhorse (W) Global (G)	Avail date		
7469-5GU	SL9400	1.86	2GB	12.1" WXGA+	160GB 5400			❖ Intel 5100 ²⁸	None	None	Yes	6	Bus 32	G W	Sep 08
7469-5HU	SL9400	1.86	2GB	12.1" WXGA+	160GB 7200			❖ Intel 5300 ²⁸	None	None	Yes	4	Bus 32	G W	Sep 08
7469-5JU	SL9400	1.86	2GB	12.1" WXGA+	80GB SSD	Combo	UltraBase	❖ Intel 5100	None	None	Yes	6	XP Pro	W	Dec 08
7469-74U	SL9400	1.86	2GB	12.1" WXGA+	80GB SSD			❖ Intel 5300	None	None	Yes	4	XP Pro	W	Dec 08
7469-7YU	SL9300	1.60	2GB	12.1" WXGA+	128GB SSD			❖ WiMAX	None	None	Yes	6	Bus 32		Dec 08
7469-7ZU	SL9300	1.60	2GB	12.1" WXGA+	128GB SSD			❖ Intel 5100	None	None		4	Bus 32		Dec 08
7469-82U	SL9300	1.60	2GB	12.1" WXGA+	128GB SSD			❖ Intel 5300	None	None	Yes	6	XP Pro		Dec 08
7469-8TU	SL9400	1.86	3GB	12.1" WXGA+	160GB 5400			❖ Intel 5100	None	None	Yes	6	Bus 32	G W	Mar 09
• Compared to the X200, the X200s has lighter weight, low voltage processors, LED backlight displays, and roll cage in display cover															
Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ 2 Duo processor SL9300 or SL9400 with low voltage, dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache										Preloaded operating system ²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA				
Memory	2GB or 3GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; Italics: standard memory in both sockets; no sockets available; Non-italics: standard memory in 1 socket; 1 socket available										- Some: Microsoft Windows Vista Business Edition (32-bit) ❖ Vista Premium logo				
Diskette drive	None (use optional USB-based diskette drive)										Preloaded applications ¹⁴ (all OSes; only some listed)				
SATA Combo	Some: CD-RW/DVD-ROM (43N3213), SATA 1.5Gb/s, removable from X200 UltraBase										• Rescue and Recovery™				
Ultrabay Slim	Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781)										• Access Connections™				
SATA disk	Some: 80GB ⁸ or 128GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high Some: 160GB ⁸ (5400 or 7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™										• Client Security Solution™				
	All: removable, upgradable, shock mounted storage, supports 2nd disk in optional or standard X200 UltraBase										• ThinkVantage Productivity Center				
											• ThinkVantage System Update				
											• McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions)				
											• ThinkPad Utilities				
											• Windows Live™ Toolbar and Search				
											• Microsoft Office 2007 Trial (60-day)				
											• Roxio® Creator® Business Edition				
Widescreen display	12.1" (308mm) WXGA+ (1440x900) color, anti-glare, LED backlight, 250 nits, 16:10 aspect ratio, 300:1 contrast ratio										Supports ThinkVantage® technologies				
Camera	None										ThinkPad X200 UltraBase™				
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GS45										• Provides desktop expansion and cable management for X200 Series				
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; Maximum external resolution: 2048x1536@75Hz										• Easily connects to the bottom of the X200 Series for traveling				
Keyboard	Full-size, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys										• Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side:				
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										- CD-RW/DVD-ROM Ultrabay Slim				
Touch pad	None										SATA 1.5Gb/s 43N3213				
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										- DVD Burner Ultrabay Slim				
Dimensions ³	without X200 UltraBase; 4-cell: 11.6" x 8.3" x 0.8-1.1"; 295mm x 210mm x 21-29mm without X200 UltraBase; 9-cell: 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm 4-cell: from 2.43 lb (1.1kg); 6-cell: from 2.71 lb (1.23kg); 9-cell: from 3.05 lb (1.38kg)										SATA 1.5Gb/s 43N3214				
Weight ²											- Blu-ray™ Burner Ultrabay Slim				
Case color	Black										SATA 1.5Gb/s 43N3215				
Case material	Display cover: Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); Base: Magnesium alloy										- Serial Hard Drive Ultrabay Slim				
Battery - type	Lithium Ion 4-cell or 6-cell										Adapter II 43R1980				
Battery - life ¹⁰	4-cell: up to 4.4 hr; 6-cell: up to 8.8 hr; 9-cell: up to 13.2 hr										Disks supported (some):				
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)										• 250GB FDE 7200 rpm 43N3410				
Media slice	Some: ThinkPad X200 UltraBase media slice (see right side)										• 320GB Disk 7200 rpm 43N3411				
Multicard reader	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC)										Other features:				
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)										• Power button (front)				
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)										• Stereo speakers (2 watt)				
Mini PCI Express	Three Mini PCI Express slots										• Security key lock, security keyhole, and optional security screw				
Intel 5100 ²⁸	Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)										• Analog DB-15 monitor port				
Intel 5300 ²⁸	Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5300, 3x3 (Shirley Peak)										• DisplayPort (supports single-link DVI-D via cable 45J7915)				
WiMAX	Some: 11a/b/g/n and WiMAX wireless ⁴ , Mini PCIe adap, Intel WiMAX/WiFi Link 5350, 3x3 (450Mbps) WiFi + 1x2 WiMAX (Echo Peak)										• Four USB 2.0 ports				
WWAN upg	None										• Gigabit ethernet port				
2G Turbo	None										• Microphone in and headphone out				
UWB	None										• Second battery charger				
Modem	56K V.92 ²⁶ modem										• Requires 65 or 90 watt AC adapter				
Bluetooth™	Some: Bluetooth 2.0 wireless, LED indicator										• 1.6 lb; 730g				
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1										65-watt (GMA graphics) AC Adapter				
Intel AMT	Intel Active Management Technology (IAMT 4.0)										Climate Savers® certified				
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack										ENERGY STAR® 4.0-compliant				
Security	Power-on password, hard disk password, supervisor password, security keyhole										Next Generation ThinkPad Roll Cage (in display cover)				
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant										EPEAT™ Gold rating				
Fingerprint reader	Some: Fingerprint reader on palm rest, swipe sensor, supports the security chip										ROHS-compliant				
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available										International Warranty Service ¹⁷				
1GB PC3-8500 DDR3 SODIMM					43R1987	X200 Series Li-Ion Battery 6-cell				43R9254	24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
2GB PC3-8500 DDR3 SODIMM					43R1988	X200 Series Li-Ion Battery 9-cell				43R9255					
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)					43N3406	90W Slim AC/DC Combo Adapter				41N8460					
320GB Disk SATA 1.5Gb/s (5400 rpm)					43N3403	ThinkPad Ultraportable Case				41U5062					
USB 2.0 Super Multi-Burner Drive					41N5565	X200 Series 12W Privacy Filter				43R2470					
USB 2.0 Portable Secure 320GB Hard Disk					43R2019	ThinkVision® L2240p Wide 22" Monitor				4422HB6					
Other accessories on O-X200 sheet						Other accessories at lenovo.com/accessories									

See footnotes for important warranty information

❖ Intel Centrino® 2 with vPro™ technology

© Lenovo

US model announced March 10, 2009; previous models on September 23 or December 9, 2008

(PEC1-2) March 2009

Type-model	Proc- essor	GHz	Memory	Widescreen display	Disk SATA GB ⁵ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery Blue/ Fing cells	Workhorse (W) Global (G) Preload GMP (P)	Avail date
7470-5GU	SL9400	1.86	2GB	12.1" WXGA+	160GB 5400	Optional	Optional	Intel 5100 ²⁸	None	None	Yes	6	Bus 32 W G P Sep 08
7470-5HU	SL9400	1.86	2GB	12.1" WXGA+	160GB 7200	Optional	Optional	Intel 5300 ²⁸	None	None	Yes	4	Bus 32 W G P Sep 08
7470-6FU	SL9400	1.86	2GB	12.1" WXGA+	160GB 5400	Optional	Optional	Intel 5100	None	None	Yes	6	Bus 32 W Sep 08
7470-6GU	SL9400	1.86	2GB	12.1" WXGA+	80GB 5400	Optional	Optional	Intel 5300	None	None	Yes	4	Bus 32 W Sep 08
7470-6HU	SL9400	1.86	2GB	12.1" WXGA+	80GB SSD	Optional	Optional	Intel 5300	None	None	Yes	4	XP Pro W Dec 08
7470-8TU	SL9400	1.86	3GB	12.1" WXGA+	160GB 5400	Optional	Optional	Intel 5100	None	None	Yes	6	Bus 32 W G P Mar 09
<ul style="list-style-type: none">Compared to the X200, the X200s has lighter weight, low voltage processors, LED backlight displays, and roll cage in display coverSome models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty													
Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ 2 Duo processor SL9400 with low voltage, dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache										Preloaded operating system ²⁰ <ul style="list-style-type: none">Some: Microsoft® Windows® XP Professional with Vista® COASome: Microsoft Windows Vista Business Edition (32-bit) ◆ Vista Premium logo		
Memory	2GB or 3GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications ¹⁴ (all OSes; only some listed) <ul style="list-style-type: none">Rescue and Recovery™Access Connections™Client Security Solution™ThinkVantage Productivity CenterThinkVantage System UpdateMcAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions)ThinkPad UtilitiesWindows Live™ Toolbar and SearchMicrosoft Office 2007 Trial (60-day)Roxio® Creator® Business Edition		
Diskette drive SATA DVD±RW Ultrabay Slim SATA disk	None (use optional USB-based diskette drive) Option for ThinkPad X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) <i>Some:</i> 80GB ⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 80GB ⁸ (5400) or 160GB (5400 or 7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, shock mounted storage, supports 2nd disk in optional or standard X200 UltraBase										Supports ThinkVantage® technologies		
Widescreen display Camera	12.1" (308mm) WXGA+ (1440x900) color, anti-glare, LED backlight, 250 nits, 16:10 aspect ratio, 300:1 contrast ratio None												
Graphics controller Graphics - external	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GS45 External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; Maximum external resolution: 2048x1536@75Hz										ThinkPad X200 UltraBase™ <ul style="list-style-type: none">Provides desktop expansion and cable management for X200 SeriesEasily connects to the bottom of the X200 Series for travelingConverts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side:<ul style="list-style-type: none">CD-RW/DVD-ROM Ultrabay Slim SATA 1.5Gb/s 43N3213DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214Blu-ray™ Burner Ultrabay Slim SATA 1.5Gb/s 43N3215Serial Hard Drive Ultrabay Slim Adapter II 43R1980Disks supported (some):<ul style="list-style-type: none">250GB FDE 7200 rpm 43N3410320GB 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 screwAnalog DB-15 monitor portDisplayPort (supports single-link DVI-D via cable 45J7915)Four USB 2.0 portsGigabit ethernet portMicrophone in and headphone outSecond battery chargerRequires 65 or 90 watt AC adapter1.6 lb; 730g		
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	without X200 UltraBase; 4-cell: 11.6" x 8.3" x 0.8-1.1"; 295mm x 210mm x 21-29mm without X200 UltraBase; 9-cell: 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm 4-cell: from 2.43 lb (1.1kg); 6-cell: from 2.71 lb (1.23kg); 9-cell: from 3.05 lb (1.38kg)										65-watt (GMA graphics) AC Adapter Climate Savers® certified ENERGY STAR® 4.0-compliant Next Generation ThinkPad Roll Cage (in display cover) EPEAT™ Gold rating ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
Weight ²													
Case color	Black												
Case material	Display cover: Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); Base: Magnesium alloy												
Battery - type	Lithium Ion 4-cell or 6-cell												
Battery - life ¹⁰	4-cell: up to 4.4 hr; 6-cell: up to 8.8 hr; 9-cell: up to 13.2 hr												
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)												
Media slice	Option: ThinkPad X200 UltraBase media slice (see right side)												
Multicard reader ExpressCard/54 Ports	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)												
Mini PCI Express	Three Mini PCI Express slots												
Intel 5100 ²⁸	Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)												
Intel 5300 ²⁸	Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5300, 3x3 (Shirley Peak)												
WWAN upg	None												
2G Turbo	None												
UWB	None												
Modem	56K V.92 ⁶ modem												
Bluetooth™	Bluetooth 2.0 wireless, LED indicator												
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1												
Intel AMT	Intel Active Management Technology (IAMT 4.0)												
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant												
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip												
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available												
1GB PC3-8500 DDR3 SODIMM					43R1987	X200 Series Li-Ion Battery 6-cell				43R9254			
2GB PC3-8500 DDR3 SODIMM					43R1988	X200 Series Li-Ion Battery 9-cell				43R9255			
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)					43N3406	90W Slim AC/DC Combo Adapter				41N8460			
320GB Disk SATA 1.5Gb/s (5400 rpm)					43N3403	ThinkPad Ultraportable Case				41U5062			
USB 2.0 Ultra Secure Memory Key 8GB					45J5918	ThinkPad Business Topload Case				43R2476			
USB 2.0 Super Multi-Burner Drive					41N5565	X200 Series 12W Privacy Filter				43R2470			
USB 2.0 Portable Secure 320GB Hard Disk					43R2019	ThinkVision® L2240p Wide 22" Monitor				4422HB6			
Other accessories on O-X200 sheet						Other accessories at lenovo.com/accessories							

See footnotes for important warranty information

◆ Intel Centrino® 2 with vPro™ technology

© Lenovo

US model announced March 10, 2009; previous models on September 23 or December 9, 2008

(PEC1-3) March 2009

Partial list of accessories supported on:

- ThinkPad X200 originally announced on August 5, 2008
- ThinkPad X200s originally announced on September 23, 2008

Memory

1GB PC3-8500 DDR3 SODIMM (TopSeller)	43R2045	ann	11/04/08
1GB PC3-8500 DDR3 SODIMM	43R1987	ann	08/05/08
2GB PC3-8500 DDR3 SODIMM (TopSeller)	43R2046	ann	11/04/08
2GB PC3-8500 DDR3 SODIMM	43R1988	ann	08/05/08

Ultrabay Slim 9.5mm

Most Ultrabay Slim accessories supported in ThinkPad X200 UltraBase

Storage and removable storage

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

⁴¹ Can be used as the main HDD or with Serial ATA Hard Drive Bay Adapter 43R1980 in X200 UltraBase (43R8781)

128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ann	08/26/08
USB 2.0 Essential Memory Key 2GB	41U4944	ann	01/23/07
USB 2.0 Essential Memory Key 4GB	45J7904	ann	06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann	07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann	10/28/08
USB 2.0 Security Memory Key 2GB	41U5119	ann	07/17/07
USB 2.0 Security Memory Key 4GB	41U5120	ann	07/17/07
USB 2.0 Ultra Secure Memory Key 1GB	45J5915	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann	08/26/08
USB Portable Diskette Drive	05K9276	ann	06/05/00
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann	01/05/06
USB 2.0 Portable 160GB Hard Disk	43R1784	ann	09/23/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
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
USB 2.0 Super Multi-Burner Drive	41N5565	ann	01/23/07

Wireless WAN (Mini PCI Express)

Verizon WWAN UNDP Broadband Mini PCIe ⁴²	43R9151	ann	08/05/08
AT&T® WWAN HSPA Broadband Mini PCIe ⁴²	43R9152	ann	08/26/08

⁴² Supported only in select models

ThinkPad Expansion

USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ann	02/26/08
ThinkPad Adjustable Notebook Stand	40Y7676	ann	09/20/05
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
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann	12/07/04
USB Keyboard with UltraNav	31P8950	ann	01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann	04/27/04
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Optical Wheel Mouse (USB)	06P4069	ann	05/21/03
Optical ScrollPoint® Mouse (USB, PS/2)	31P7405	ann	08/27/02
Optical Wheel Travel Mouse (USB, PS/2)	31P7410	ann	06/04/02
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	ann	01/23/07
Lenovo Wireless Laser Mouse (blk, via USB)	45K1696	ann	11/25/08
Lenovo Wireless Laser Mouse (red, via USB)	51J0198	ann	11/25/08
Laser Tilt Wheel Travel Mouse (Bluetooth)	41U5008	ann	01/22/08

Security

Kensington® Cable Lock from Lenovo	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
ThinkPad X200 Series 12W Privacy Filter	43R2470	ann	08/05/08
ThinkPad X200/X200s 12W Privacy Filter	55Y9264	ann	04/07/09
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06
PC Card Gemplus Smart Card Reader	41N3004	ann	12/13/05
ExpressCard Gemplus Smart Card Reader	41N3043	ann	06/27/06

Multimedia

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann	06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann	08/29/06

Batteries

X200 Series Li-Ion Battery 4-cell	43R9253	ann	08/05/08
X200 Series Li-Ion Battery 6-cell	43R9254	ann	08/05/08
X200 Series Li-Ion Battery 9-cell	43R9255	ann	08/05/08
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann	09/20/05

⁴⁴ Requires the ThinkPad 90W AC Adapter

40Y7659 (adapter provided with some systems).

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter ⁴⁵	40Y7696	ann	01/05/06
---------------------------------------	---------	-----	----------

⁴⁵ Only compatible with the GM45 chipset models.

ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
ThinkPad 90W Slim AC/DC Combo Adapter	41N8460	ann	11/27/07

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

Charging tips for 90W Slim AC/DC Combo Adapter 41N8460

• Dual (ThinkPad+Phone) Charging Y-Cable	41R4345	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 13.3" widescreen models:

ThinkPad Ultraportable Case	41U5062	ann	05/13/08
-----------------------------	---------	-----	----------

Up to 14.1" widescreen models:

ThinkPad Expander Case	43R9118	ann	06/24/08
ThinkPad Women's Microfiber Tote	22P8855		
ThinkPad Women's Leather Trim Tote	22P8856		
ThinkPad Convertible Carrying Case	22P8860		
ThinkPad Women's Executive Leather Tote	22P8857		
Women's Executive Red Leather Tote	22P8858		

Up to 15.4" widescreen models:

Lenovo Carrying Case - Messenger Max	41U5253	ann	05/01/07
Lenovo Carr Case - Performance Backpack	41U5254	ann	05/01/07
Lenovo Standard Case	45K1697	ann	11/25/08
Lenovo Standard Backpack	45K1698	ann	11/25/08
Checkpoint Friendly Business Topload Case	51J0418	ann	02/24/09
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08

Up to 17.0" widescreen models:

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

Lenovo luxury cases at www.lenovoluxurycases.com

Monitors

ThinkVision® L174 17" Monitor	9227AE1	ann	04/15/08
ThinkVision L1700p 17" Monitor	9417HE2	ann	09/17/08
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1940p Wide 19" Monitor	4424HB6	ann	09/17/08
ThinkVision L200p Wide 20.1" Monitor	4438HB2	ann	04/15/08
ThinkVision L2240p Wide 22" Monitor	4422HB6	ann	09/17/08
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08
ThinkVision L2440x Wide 24" Monitor	4421HB2	ann	09/17/08

Monitor Accessories⁴⁶

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 Cable Lock from Lenovo	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
ThinkPad Convertible Monitor Stand	40Y7620	ann	01/05/06
Radial Arm	19K4464	ann	05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide



Lenovo ThinkPad X200 Tablet
with touchscreen for finger and pen



Lenovo ThinkPad X200 Tablet
with frameless screen for pen



Lenovo ThinkPad X200 Tablet
with touchscreen for finger and pen



Lenovo ThinkPad X200 Tablet
with frameless screen for pen



Lenovo X200 UltraBase



Lenovo X200 UltraBase
with optional DVD Burner

ThinkPad® X200 Tablet (7448) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Widescreen display	Cam	Disk SATA GB ⁶ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Bat- tery cells	Preload	Workhorse (W) Global (G) Avail Educ date
7448-2QU	SL9400	1.86	2GB	12.1" WXGA	Cam	160G 5400	Optional	Optional	❖Intel 5100 ²⁸	WWAN upg	8	Ultimate 32	Educ Mar 09
<ul style="list-style-type: none">• This small and medium business (SMB) model is part of the US TopSeller™ Program• This model has an EasyServ™¹⁹ depot repair service 1-year limited warranty													
Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ 2 Duo processor SL9400 with low voltage, dual-core , Intel HD Boost, 1066MHz system bus, and 6MB L2 cache										Preloaded operating system²⁰ - Microsoft® Windows® Vista® Ultimate Edition (32-bit) ❖ Vista Premium logo		
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ (only some listed)		
Diskette drive SATA DVD±RW Ultrabay Slim SATA disk	None (use optional USB-based diskette drive) None Supports Ultrabay Slim devices in optional <i>X200 UltraBase</i> (43R8781) 160GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std <i>X200 UltraBase</i>										<ul style="list-style-type: none">• Education software- Microsoft Office Ultimate 2007 Academic Edition (and CD)• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage System Update• McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions)• Fingerprint Software• Windows Live™ Toolbar and Search• Roxio® Creator® Business Edition• Roxio MyDVD® (DVD±RW)		
Widescreen display	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, CCFL backlight, 190 nits, 16:10 aspect ratio, 500:1 contrast ratio, FFS, frameless screen, WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in front base, rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock) Camera on top of screen, 1.3-megapixel, fixed focus												
Camera	Camera on top of screen, 1.3-megapixel, fixed focus												
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45										Supports ThinkVantage® technologies		
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution: 2048x1536 @ 75Hz (VGA)</i>										ThinkPad X200 UltraBase™		
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None None										<ul style="list-style-type: none">• Provides desktop expansion and cable management for X200 Series• Easily connects to the bottom of the X200 Series for traveling• Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side:<ul style="list-style-type: none">- CD-RW/DVD-ROM Ultrabay Slim SATA 1.5Gb/s 43N3213- DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214- Blu-ray™ Burner Ultrabay Slim SATA 1.5Gb/s 43N3215- Serial Hard Drive Ultrabay Slim Adapter II 43R1980• Disks supported (some):<ul style="list-style-type: none">• 250GB FDE 7200 rpm 43N3410• 320GB Disk 7200 rpm 43N3411		
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33mm <i>without X200 UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33mm <i>4-cell:</i> from 3.5 lb (1.6kg); <i>8-cell:</i> from 3.88 lb (1.76kg) <i>Color:</i> black; <i>Material:</i> magnesium alloy												
Weight ² Case Battery - type Battery - life ¹⁰	<i>4-cell:</i> up to 4.4 hr; <i>8-cell:</i> up to 10.3 hr												
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)												
Media slice Multicard Reader ExpressCard/54 Ports	<i>Optional: X200 UltraBase media slice</i> (see right side) 5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)												
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) None None 56K V.92 ⁶ modem Bluetooth 2.0 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (IAMT 4.0) High Definition (HD) Audio, AD1984HD codec / stereo speakers, 2 watt / volume up, down, mute buttons / dual array microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip												
Security Security chip Fingerprint reader													
Limited warranty ¹²	1-year - EasyServ™¹⁹ depot repair service / service upgrades²² available										65-watt (GMA graphics) AC Adapter Climate Savers® certified ENERGY STAR® 4.0-compliant EPEAT Silver rating ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
1GB PC3-8500 DDR3 SODIMM 2GB PC3-8500 DDR3 SODIMM USB 2.0 Ultra Secure Memory Key 8GB USB 2.0 Portable Secure 320GB Hard Disk USB 2.0 Super Multi-Burner Drive ThinkPad X200 UltraBase Other accessories on O-X200 sheet	43R1987 43R1988 45J5918 43R2019 41N5565 43R8781	X200 Tablet Li-Ion Battery 4-cell X200 Tablet Li-Ion Battery 8-cell 90W Slim AC/DC Combo Adapter ThinkPad X200 Tablet Sleeve ThinkVision® L2240p Wide 22" Monitor ThinkVision L2440x Wide 24" Monitor Other accessories at lenovo.com/accessories	43R9256 43R9257 41N8460 43R9115 4422HB6 4421HB2										

See footnotes for important warranty information
US model announced March 17, 2009

✦ Intel Centrino® 2 with vPro™ technology

© Lenovo
(CML1-7) March 2009

Type-model	Proc- essor	GHz	Memory	Widescreen display	CCFL or LED	Cam	Disk SATA GB ⁵	rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe Bat- tery or Turbo cells	Preload	Avail date
7449-EKU	SL9400	1.86	4GB	12.1" WXGA	Touch	LED Cam	160G	7200	DVD±RW	UltraBase	❖Intel 5100 ²⁸	AT&T ²³	2G Turbo	8	Bus 64 Oct 08
7449-88U	SL9400	1.86	2GB	12.1" WXGA		LED Cam	160G	7200	DVD±RW	UltraBase	❖Intel 5100	WWAN upg	2G Turbo	8	Bus 32 Oct 08
7449-9FU	SL9400	1.86	2GB	12.1" WXGA			160G	5400	DVD±RW	UltraBase	❖Intel 5100	WWAN upg		4	XP Tab Oct 08
7449-8JU	SL9400	1.86	2GB	12.1" WXGA		LED Cam	160G	7200	DVD±RW	UltraBase	❖Intel 5100	WWAN upg		8	XP Tab Oct 08
7449-9EU	SL9400	1.86	2GB	12.1" WXGA			160G	5400			❖Intel 5100	WWAN upg		4	XP Tab Oct 08
7449-F9U	SL9400	1.86	2GB	12.1" WXGA	Touch	LED	160G	5400			❖Intel 5100	WWAN upg		8	XP Tab Oct 08
7449-84U	SL9400	1.86	4GB	12.1" WXGA		LED Cam	128G	SSD	DVD±RW	UltraBase	❖Intel 5100	AT&T		8	XP Tab Oct 08
7449-2QU	SL9400	1.86	2GB	12.1" WXGA		Cam	160G	5400			❖Intel 5100	WWAN upg		8	Ult 32 Mar 09
• These small and medium business (SMB) models are part of the US TopSeller™ Program															
Processor	Intel® Core™ 2 Duo processor SL9400 with low voltage, dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache											Preloaded operating system ²⁰			
Memory	2GB or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											- <i>Some:</i> Microsoft® Windows® XP Tablet PC Edition 2005 with Vista® COA - <i>Some:</i> Microsoft Windows Vista Business Edition (32-bit) - <i>Some:</i> Microsoft Windows Vista Business Edition (64-bit) - <i>Some:</i> Microsoft Windows Vista Ultimate Edition (32-bit) ❖ Vista Premium logo			
Diskette drive SATA DVD±RW Ultrabay Slim SATA disk	None (use optional USB-based diskette drive) <i>Some:</i> DVD burner (43N3214), SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) <i>Some:</i> 128GB ⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high; <i>Some:</i> 160GB ⁸ (5400 or 7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, shock mounted storage, supports 2nd disk in optional or standard X200 UltraBase											Preloaded applications ¹⁴ (all OSes; only some listed) • 2QU model: Education software - Microsoft Office Ultimate 2007 Academic Edition (and CD) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW)			
Widescreen display	<i>Some:</i> 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, CCFL backlight, 190 nits, 16:10 aspect ratio, 500:1 contrast ratio, FFS, frameless screen <i>Some:</i> 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 285 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, frameless screen <i>Touch:</i> 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 230 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, MultiView (indoor/outdoor), MultiTouch (touchscreen via finger and pen) <i>All:</i> WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen, pen holder in front base, rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)											Supports ThinkVantage® technologies			
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus											ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: - CD-RW/DVD-ROM Ultrabay Slim SATA 1.5Gb/s 43N3213 - DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 - Blu-ray™ Burner Ultrabay Slim SATA 1.5Gb/s 43N3215 - Serial Hard Drive Ultrabay Slim Adapter II 43R1980 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411			
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GS45											Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g			
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; Maximum external resolution: 2048x1536@75Hz (VGA)											65-watt (GMA graphics) AC Adapter Climate Savers® certified ENERGY STAR® 4.0-compliant EPEAT™ Gold rating (LED models) EPEAT Silver rating (other 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	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	None														
ThinkLight™	None														
Dimensions ³	without X200 UltraBase; 4-cell: 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33mm without X200 UltraBase; 8-cell: 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33mm 4-cell: from 3.5 lb (1.6kg); 8-cell: from 3.88 lb (1.76kg)														
Weight ²	Color: black; Material: magnesium alloy														
Case	Lithium Ion 4-cell or 8-cell														
Battery - type	4-cell: up to 4.4 hr; 8-cell: up to 10.3 hr														
Battery - life ¹⁰															
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)														
Media slice	Some: X200 UltraBase media slice (see right side)														
Multicard Reader	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC)														
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)														
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)														
Mini PCI Express	Three Mini PCI Express slots														
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)														
WWAN upg	Some: Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)														
AT&T ²³	Some: Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T®														
2G Turbo	Some: Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator														
UWB	None														
Modem	56K V.92® modem														
Bluetooth™	Bluetooth 2.0 wireless, LED indicator														
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1														
Intel AMT	Intel Active Management Technology (IAMT 4.0)														
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 2 watt / volume up, down, mute buttons / dual array microphone, microphone input jack, headphone jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant														
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available														
USB 2.0 Super Multi-Burner Drive					41N5565		Other accessories at lenovo.com/accessories								

See footnotes for important warranty information

✦ Intel Centrino® 2 with vPro™ technology

Ⓜ US model announced March 24, 2009; previous models on September 23 or October 14, 2008

© Lenovo
(CML1-1) April 2009

Type-model	Proc- essor	GHz	Memory	Widescreen display	CCFL or LED	Cam	Disk SATA GB ⁸	Optical in rpm	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Blue/ Fing	Workhorse (W) Global (G) Avail date
7450-2CU	SL9400	1.86	2GB	12.1" WXGA			160G	5400	Optional	Opt	❖ Intel 5100 ²⁸	WWAN upg		Bus 32 W G Oct 08
7450-28U	SL9300	1.60	2GB	12.1" WXGA		Cam	250G	5400	Optional	Opt	❖ Intel 5300 ²⁸	WWAN upg	2G Turbo	Yes Bus 32 W G Oct 08
7450-EDU	SL9400	1.86	2GB	12.1" WXGA	Touch LED		160G	7200	Optional	Opt	❖ Intel 5100	WWAN upg		Yes Bus 32 W G Oct 08
7450-8HU	SL9400	1.86	2GB	12.1" WXGA		LED Cam	160G	7200	Optional	Opt	❖ Intel 5100	WWAN upg		Yes Bus 32 W G Oct 08
7450-9GU	SL9400	1.86	2GB	12.1" WXGA		Cam	160G	7200	Optional	Opt	❖ Intel 5300	WWAN upg		Yes XP Tab W G Oct 08
7450-EYU	SL9300	1.60	2GB	12.1" WXGA	Touch LED	Cam	160G	5400	Optional	Opt	❖ Intel 5300	WWAN upg		Yes XP Tab Oct 08
7450-FDU	SL9400	1.86	2GB	12.1" WXGA	Touch LED		160G	7200	Optional	Opt	❖ Intel 5100	WWAN upg		Yes XP Tab W G Oct 08
Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ 2 Duo processor SL9300 or SL9400 with low voltage, dual-core , Intel HD Boost, 1066MHz system bus, and 6MB L2 cache												Preloaded operating system²⁰ - <i>Some:</i> Microsoft® Windows® XP Tablet PC Edition 2005 with Vista® COA - <i>Some:</i> Microsoft Windows Vista Business Edition (32-bit) ❖ Vista Premium logo	
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available												Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage System Update • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • Fingerprint Software (fingerprint models) • Windows Live™ Toolbar and Search • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW)	
Diskette drive	None (use optional USB-based diskette drive)													
SATA DVD±RW	None													
Ultrabay Slim	Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781)													
SATA disk	160GB⁸ (5400 or 7200 rpm) or 250GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradeable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std <i>X200 UltraBase</i>													
Widescreen display	<i>Some:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, CCFL backlight, 190 nits, 16:10 aspect ratio, 500:1 contrast ratio, FFS, frameless screen <i>Some:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 285 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, frameless screen <i>Touch:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 230 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, MultiView (indoor/outdoor), MultiTouch (touchscreen via finger and pen) <i>All:</i> WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in front base, rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)													
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus												Supports ThinkVantage® technologies	
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45												ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – CD-RW/DVD-ROM Ultrabay Slim SATA 1.5Gb/s 43N3213 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Blu-ray™ Burner Ultrabay Slim SATA 1.5Gb/s 43N3215 – Serial Hard Drive Ultrabay Slim Adapter II 43R1980 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411 Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g 65-watt (GMA graphics) AC Adapter Climate Savers® certified ENERGY STAR® 4.0-compliant EPEAT™ Gold rating (LED models) EPEAT Silver rating (other 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	
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution:</i> 2048x1536 @75Hz													
Keyboard	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	None													
ThinkLight™	None													
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33mm <i>without X200 UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33mm <i>4-cell:</i> from 3.5 lb (1.6kg); <i>8-cell:</i> from 3.8 lb (1.76kg)													
Weight ²	<i>Case:</i> black; <i>Material:</i> magnesium alloy													
Battery - type	Lithium Ion 8-cell													
Battery - life ¹⁰	<i>4-cell:</i> up to 4.4 hr; <i>8-cell:</i> up to 10.3 hr													
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)													
Media slice	<i>Optional: X200 UltraBase media slice</i> (see right side)													
Multicard Reader	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC)													
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)													
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)													
Mini PCI Express	Three Mini PCI Express slots													
Intel 5100 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)													
Intel 5300 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5300, 3x3 (Shirley Peak)													
WWAN upg	Wireless WAN upgradeable, requires Verizon® (43R9151) or AT&T® (43R9152)													
2G Turbo	<i>Some:</i> Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator													
UWB	None													
Modem	56K V.92 ⁶ modem													
Bluetooth™	<i>Some:</i> Bluetooth 2.0 wireless, LED indicator													
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1													
Intel AMT	Intel Active Management Technology (IAMT 4.0)													
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 2 watt / volume up, down, mute buttons / dual array microphone, microphone input jack, headphone jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant													
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest, swipe sensor, supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available													
1GB PC3-8500 DDR3 SODIMM				43R1987	X200 Tablet Li-Ion Battery 8-cell			43R9257						
2GB PC3-8500 DDR3 SODIMM				43R1988	90W Slim AC/DC Combo Adapter			41N8460						
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)				43N3406	ThinkPad Ultraportable Case			41U5062						
USB 2.0 Portable Secure 320GB Hard Disk				43R2019	ThinkVision® L2440x Wide 24" Monitor			4421HB2						
Other accessories on O-X200 sheet					Other accessories at lenovo.com/accessories									

See footnotes for important warranty information
US models announced September 23, 2008

❖ Intel Centrino® 2 with vPro™ technology

© Lenovo
(CML1-2) September 2008

Type-model	Proc- essor	GHz	Memory	Widescreen display	CCFL or LED	Cam	Disk SATA GB ⁸	rpm	Optical in	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Blue/ Fing	Bat- tery cells	Pre- load	Avail date				
7450-8UU	SL94001	.86	2GB	12.1" WXGA		LED Cam	80GBSSD		DVD±RW	Ultrabase	❖Intel 5300 ²⁸	AT&T ²³	None	Yes	8	Bus 32	Dec 08				
7450-G9U	SL93001	.60	2GB	12.1" WXGA			128G SSD				❖Intel 5100 ²⁸	WWAN upg	None		4	Bus 32	Dec 08				
7450-GDU	SL94001	.86	2GB	12.1" WXGA		LED Cam	128G SSD				❖Intel 5300	WWAN upg	None	Yes	8	Bus 32	Dec 08				
7450-GEU	SL94001	.86	2GB	12.1" WXGA		Touch LED Cam	128G SSD				❖Intel 5300	WWAN upg	None	Yes	8	Bus 32	Dec 08				
7450-GAU	SL94001	.86	2GB	12.1" WXGA			128G SSD				❖WiMAX	WWAN upg	None	Yes	8	Bus 32	Jan 09				
7450-GBU	SL94001	.86	2GB	12.1" WXGA		LED Cam	128G SSD				❖WiMAX	WWAN upg	None	Yes	8	Bus 32	Jan 09				
7450-GCU	SL94001	.86	2GB	12.1" WXGA		Touch LED Cam	128G SSD				❖WiMAX	WWAN upg	None	Yes	8	Bus 32	Jan 09				
Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ 2 Duo processor SL9300 or SL9400 with low voltage, dual-core , Intel HD Boost, 1066MHz system bus, and 6MB L2 cache												Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ❖ Vista Premium logo								
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available												Preloaded applications¹⁴ • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Fingerprint Software (fingerprint models) • Windows Live™ Toolbar and Search • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW)								
Diskette drive SATA DVD±RW Ultrabay Slim SATA disk	None (use optional USB-based diskette drive) None Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 80GB⁸ or 128GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high removable, upgradable, shock mounted storage, supports second disk in optional or standard <i>X200 UltraBase</i>																				
Widescreen display	<i>Some:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, CCFL backlight, 190 nits, 16:10 aspect ratio, 500:1 contrast ratio, FFS, frameless screen <i>Some:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 285 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, frameless screen <i>Touch:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 230 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, MultiView (indoor/outdoor), MultiTouch (touchscreen via finger and pen) <i>All:</i> WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in front base, rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock) <i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus																				
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus																				
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45												Supports ThinkVantage® technologies								
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution:</i> 2048x1536@75Hz																				
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None None												ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – CD-RW/DVD-ROM Ultrabay Slim SATA 1.5Gb/s 43N3213 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Blu-ray™ Burner Ultrabay Slim SATA 1.5Gb/s 43N3215 – Serial Hard Drive Ultrabay Slim Adapter II 43R1980 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411 Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g 65-watt (GMA graphics) AC Adapter Climate Savers® certified ENERGY STAR® 4.0-compliant EPEAT™ Gold rating (LED models) EPEAT Silver rating (other 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								
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33mm <i>without X200 UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33mm <i>4-cell:</i> from 3.5 lb (1.6kg); <i>8-cell:</i> from 3.88 lb (1.76kg)																				
Weight ²	<i>4-cell:</i> from 3.5 lb (1.6kg); <i>8-cell:</i> from 3.88 lb (1.76kg)																				
Case color	Black																				
Case material	Magnesium alloy																				
Battery - type	Lithium Ion 4-cell or 8-cell																				
Battery - life ¹⁰	<i>4-cell:</i> up to 4.4 hr; <i>8-cell:</i> up to 10.3 hr																				
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)																				
Media slice	<i>Optional: X200 UltraBase media slice</i> (see right side)																				
Multicard reader	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC)																				
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)																				
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)																				
Mini PCI Express	Three Mini PCI Express slots																				
Intel 5100 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)																				
Intel 5300 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5300, 3x3 (Shirley Peak)																				
WiMAX	<i>Some:</i> 11a/b/g/n and WiMAX wireless ⁴ , Mini PCIe adap, Intel WiMAX/WiFi Link 5350, 3x3 (450Mbps) WiFi + 1x2 WiMAX (Echo Peak)																				
WWAN upg	<i>Some:</i> Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)																				
AT&T ²³	<i>Some:</i> Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T																				
2G Turbo	None																				
UWB	None																				
Modem	56K V.92 ⁶ modem																				
Bluetooth™	<i>Some:</i> Bluetooth 2.0 wireless, LED indicator																				
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1																				
Intel AMT	Intel Active Management Technology (IAMT 4.0)																				
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 2 watt / volume up, down, mute buttons / dual array microphone, microphone input jack, headphone jack																				
Security	Power-on password, hard disk password, supervisor password, security keyhole																				
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant																				
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest, swipe sensor, supports the security chip																				
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available																				
2GB PC3-8500 DDR3 SODIMM					43R1988		ThinkPad Ultraportable Case		41U5062												
Other accessories on O-X200 sheet							Other accessories at lenovo.com/accessories														

See footnotes for important warranty information

❖ Intel Centrino® 2 with vPro™ technology

© Lenovo

US models announced January 6, 2009; previous models December 9, 2008

(CML1-6) January 2009

ThinkPad® X200 Tablet (7453) - Onsite

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Widescreen display	CCFL or LED	Cam	Disk SATA GB ⁸	rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB Blue/ or Turbo	Blue/ Fing	Workhorse (W) Global (G) Avail Preload GMP (P)	date
7453-2CU	SL9400	1.86	2GB	12.1" WXGA			160G	5400	Optional	Opt	❖ Intel 5100 ²⁸	WWAN	upg	None	Bus 32 W G P	Oct 08
7453-EDU	SL9400	1.86	2GB	12.1" WXGA	Touch	LED	160G	7200	Optional	Opt	❖ Intel 5100	WWAN	upg	None	Yes Bus 32 W	Oct 08
7453-9GU	SL9400	1.86	2GB	12.1" WXGA		Cam	160G	7200	Optional	Opt	❖ Intel 5300 ²⁸	WWAN	upg	None	Yes XP Tab W G P	Oct 08
7453-FDU	SL9400	1.86	2GB	12.1" WXGA	Touch	LED	160G	7200	Optional	Opt	❖ Intel 5100	WWAN	upg	None	Yes XP Tab W G P	Oct 08
7453-8HU	SL9400	1.86	2GB	12.1" WXGA		LED Cam	160G	7200	Optional	Opt	❖ Intel 5100	WWAN	upg	None	Yes Bus 32 W	Oct 08
Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ 2 Duo processor SL9300 or SL9400 with low voltage, dual-core , Intel HD Boost, 1066MHz system bus, and 6MB L2 cache												Preloaded operating system²⁰ - Some: Microsoft® Windows® XP Tablet PC Edition 2005 with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) ❖ Vista Premium logo			
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available															
Diskette drive	None (use optional USB-based diskette drive)												Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage System Update • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • Fingerprint Software (fingerprint models) • Windows Live™ Toolbar and Search • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW)			
SATA DVD±RW	None															
Ultrabay Slim	Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781)												Supports ThinkVantage® technologies ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – CD-RW/DVD-ROM Ultrabay Slim SATA 1.5Gb/s 43N3213 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Blu-ray™ Burner Ultrabay Slim SATA 1.5Gb/s 43N3215 – Serial Hard Drive Ultrabay Slim Adapter II 43R1980 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411			
SATA disk	160GB⁸ (5400 or 7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std <i>X200 UltraBase</i>															
Widescreen display	<i>Some:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, CCFL backlight, 190 nits, 16:10 aspect ratio, 500:1 contrast ratio, FFS, frameless screen <i>Some:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 285 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, frameless screen <i>Touch:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 230 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, MultiView (indoor/outdoor), MultiTouch (touchscreen via finger and pen) <i>All:</i> WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in front base, rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)															
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus															
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45												• Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g			
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution:</i> 2048x1536 @75Hz															
Keyboard	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys												65-watt (GMA graphics) AC Adapter Climate Savers® certified ENERGY STAR® 4.0-compliant EPEAT™ Gold rating (LED models) EPEAT Silver rating (other models) ROHS-compliant International Warranty Service¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass															
Touch pad	None															
ThinkLight™	None															
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33mm <i>without X200 UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33mm <i>4-cell:</i> from 3.5 lb (1.6kg); <i>8-cell:</i> from 3.8 lb (1.76kg)															
Weight ²	<i>4-cell:</i> from 3.5 lb (1.6kg); <i>8-cell:</i> from 3.8 lb (1.76kg)															
Case	<i>Color:</i> black; <i>Material:</i> magnesium alloy															
Battery - type	Lithium Ion 8-cell															
Battery - life ¹⁰	<i>4-cell:</i> up to 4.4 hr; <i>8-cell:</i> up to 10.3 hr															
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)															
Media slice	<i>Optional: X200 UltraBase media slice</i> (see right side)															
Multicard Reader	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC)															
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)															
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)															
Mini PCI Express	Three Mini PCI Express slots															
Intel 5100 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)															
Intel 5300 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5300, 3x3 (Shirley Peak)															
WWAN upg	Wireless WAN upgradable, requires <u>Verizon®</u> (43R9151) or <u>AT&T®</u> (43R9152)															
2G Turbo	None															
UWB	None															
Modem	56K V.92 ⁶ modem															
Bluetooth™	<i>Some:</i> Bluetooth 2.0 wireless, LED indicator															
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1															
Intel AMT	Intel Active Management Technology (IAMT 4.0)															
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 2 watt / volume up, down, mute buttons / dual array microphone, microphone input jack, headphone jack															
Security	Power-on password, hard disk password, supervisor password, security keyhole															
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant															
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest, swipe sensor, supports the security chip															
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available															
2GB PC3-8500 DDR3 SODIMM					43R1988			X200 Tablet Li-Ion Battery 8-cell					43R9257			
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)					43N3406			90W Slim AC/DC Combo Adapter					41N8460			
USB 2.0 Super Multi-Burner Drive					41N5565			ThinkPad Ultraportable Case					41U5062			
Other accessories on O-X200 sheet								Other accessories at lenovo.com/accessories								

See footnotes for important warranty information
US models announced September 23, 2008

❖ Intel Centrino® 2 with vPro™ technology

© Lenovo
(CML1-3) September 2008

ThinkPad® X200 Tablet (7450) - Education (EasyServ)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Widescreen display	Cam	Disk SATA GB ⁶	rpm	Optical in	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Blue/ Fing	Bat- tery cells	Workhorse (W) Global (G) Avail date
7450-2DU	SL9400	1.86	2GB	12.1" WXGA	Cam	160G	5400	Optional	Optional	❖ Intel 5100 ²⁸	WWAN upg	None	Yes	8	Bus 32 W Oct 08
7450-2KU	SL9400	1.86	2GB	12.1" WXGA	Cam	160G	7200	Optional	Optional	❖ Intel 5100	WWAN upg	None	Yes	8	Ult 32 W Feb 09
7450-2PU	SL9400	1.86	2GB	12.1" WXGA	Cam	160G	5400	Optional	Optional	❖ Intel 5100	WWAN upg	None	Yes	8	Bus 32 W Mar 09
<ul style="list-style-type: none">• These models have an EasyServ™¹⁹ depot repair service 3-year limited warranty• Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.• Microsoft® Office Ultimate 2007 Academic Edition: Only valid for sale to students, faculty and staff of accredited educational institutions in the United States.															
Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ 2 Duo processor SL9400 with low voltage, dual-core , Intel HD Boost, 1066MHz system bus, and 6MB L2 cache											Preloaded operating system²⁰ <ul style="list-style-type: none">- Some: Microsoft® Windows® Vista® Business Edition (32-bit)- Some: Microsoft Windows Vista Ultimate Edition (32-bit) ❖ Vista Premium logo			
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											Preloaded applications¹⁴ (all OSes; only some listed) <ul style="list-style-type: none">• 2KU model: Education software<ul style="list-style-type: none">- Microsoft Office Ultimate 2007 Academic Edition (and CD)• 2DU model: Education software<ul style="list-style-type: none">- Microsoft Office OneNote® 2007 (and CD)- VitalSource Library College Edition- Adobe® Instructor Resource Cntr- Adobe Digital School Collection<ul style="list-style-type: none">– Photoshop Elements (and CD)– Premier Elements (and DVD)– Acrobat 8 Professional– Contribute 4• 2PU model: Education software<ul style="list-style-type: none">- Microsoft Office OneNote 2007 (and CD)- Adobe Digital School Collection<ul style="list-style-type: none">– Instructor Resources (and DVD)– Learning Creative Suite 4 (DVD)– Photoshop Elements 7 (DVD)– Premier Elements 7 (and DVD)– Acrobat 9 Professional (DVD)– Contribute CS4 (and DVD)– Soundbooth CS4 (and DVD)			
Diskette drive SATA DVD±RW Ultrabay Slim SATA disk	None (use optional USB-based diskette drive) None Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 160GB⁸ (5400 or 7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std <i>X200 UltraBase</i>														
Widescreen display	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, CCFL backlight, 190 nits, 16:10 aspect ratio, 500:1 contrast ratio, FFS, frameless screen, WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in front base, rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock) Camera on top of screen, 1.3-megapixel, fixed focus														
Camera	Camera on top of screen, 1.3-megapixel, fixed focus														
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45														
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution:</i> 2048x1536 @ 75Hz														
Keyboard	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	None														
ThinkLight™	None														
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33mm <i>without X200 UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33mm <i>4-cell:</i> from 3.5 lb (1.6kg); <i>8-cell:</i> from 3.88 lb (1.76kg) <i>Color:</i> black; <i>Material:</i> magnesium alloy														
Weight ²															
Case	Lithium Ion 8-cell														
Battery - type															
Battery - life ¹⁰	<i>4-cell:</i> up to 4.4 hr; <i>8-cell:</i> up to 10.3 hr														
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)														
Media slice	<i>Optional: X200 UltraBase media slice</i> (see right side)														
Multicard Reader	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC)														
ExpressCard slot	One ExpressCard/34 or ExpressCard/54														
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)														
Mini PCI Express	Three Mini PCI Express slots														
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)														
WWAN upg	Wireless WAN upgradable, requires <u>Verizon®</u> (43R9151) or <u>AT&T®</u> (43R9152)														
2G Turbo	None														
UWB	None														
Modem	56K V.92 ⁶ modem														
Bluetooth™	Bluetooth 2.0 wireless, LED indicator														
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1														
Intel AMT	Intel Active Management Technology (IAMT 4.0)														
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 2 watt / volume up, down, mute buttons / dual array microphone, microphone input jack, headphone jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant														
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - EasyServ™¹⁹ depot repair service / service upgrades²² available														
1GB PC3-8500 DDR3 SODIMM			43R1987	X200 Tablet Li-Ion Battery 4-cell		43R9256									
2GB PC3-8500 DDR3 SODIMM			43R1988	X200 Tablet Li-Ion Battery 8-cell		43R9257									
320GB Disk SATA 1.5Gb/s (5400 rpm)			43N3403	90W Slim AC/DC Combo Adapter		41N8460									
ThinkPad X200 UltraBase			43R8781	ThinkPad X200 Tablet Sleeve		43R9115									
Other accessories on O-X200 sheet				Other accessories at lenovo.com/accessories			65-watt (GMA graphics) AC Adapter Climate Savers® certified ENERGY STAR® 4.0-compliant EPEAT Silver rating 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

❖ Intel Centrino® 2 with vPro™ technology

Ⓢ US model announced March 24, 2009; previous models on September 23, 2008 or February 17, 2009

© Lenovo
(CML1-4) April 2009

ThinkPad® X200 Tablet (7453) - Education (Onsite)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Widescreen display	Cam	Disk SATA GB ⁸ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Blue/ Fing	Bat- tery cells	Workhorse (W) Global (G) Avail date	
7453-2DU	SL9400	1.86	2GB	12.1" WXGA	Cam	160G 5400	Optional	Optional	Intel 5100 ²⁸	WWAN upg	None	Yes	8	Bus 32 W Oct 08	
7453-2KU	SL9400	1.86	2GB	12.1" WXGA	Cam	160G 7200	Optional	Optional	Intel 5100	WWAN upg	None	Yes	8	Ult 32 W Feb 09	
<ul style="list-style-type: none">• These models have a limited onsite service²⁴ 3-year limited warranty• Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.• Microsoft® Office Ultimate 2007 Academic Edition: Only valid for sale to students, faculty and staff of accredited educational institutions in the United States.															
Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ 2 Duo processor SL9400 with low voltage, dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache										Preloaded operating system²⁰ <ul style="list-style-type: none">- Some: Microsoft Windows® Vista® Business Edition (32-bit)- Some: Microsoft Windows Vista Ultimate Edition (32-bit) ◇ Vista Premium logo				
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ (all OSes; only some listed) <ul style="list-style-type: none">• 2DU model: Education software<ul style="list-style-type: none">- Microsoft Office OneNote® 2007 (and CD)- VitalSource Library College Edition- Adobe® Instructor Resource Cntr- Adobe Digital School Collection<ul style="list-style-type: none">– Photoshop Elements (and CD)– Premier Elements (and DVD)– Acrobat 8 Professional– Contribute 4• 2KU model: Education software<ul style="list-style-type: none">- Microsoft Office Ultimate 2007 Academic Edition (and CD)				
Diskette drive SATA DVD±RW Ultrabay Slim SATA disk	None (use optional USB-based diskette drive) None Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 160GB⁸ (5400 or 7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std X200 UltraBase										Supports ThinkVantage® technologies ThinkPad X200 UltraBase™ <ul style="list-style-type: none">• Provides desktop expansion and cable management for X200 Series• Easily connects to the bottom of the X200 Series for traveling• Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side:<ul style="list-style-type: none">– CD-RW/DVD-ROM Ultrabay Slim SATA 1.5Gb/s 43N3213– DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214– Blu-ray™ Burner Ultrabay Slim SATA 1.5Gb/s 43N3215– Serial Hard Drive Ultrabay Slim Adapter II 43R1980Disks supported (some):<ul style="list-style-type: none">• 250GB FDE 7200 rpm 43N3410• 320GB Disk 7200 rpm 43N3411 Other features: <ul style="list-style-type: none">• Power button (front)• Stereo speakers (2 watt)• Security key lock, security keyhole, and optional security screw• Analog DB-15 monitor port• DisplayPort (supports single-link DVI-D via cable 45J7915)• Four USB 2.0 ports• Gigabit ethernet port• Microphone in and headphone out• Second battery charger• Requires 65 or 90 watt AC adapter• 1.6 lb; 730g				
Widescreen display	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, CCFL backlight, 190 nits, 16:10 aspect ratio, 500:1 contrast ratio, FFS, frameless screen, WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in front base, rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock) Camera on top of screen, 1.3-megapixel, fixed focus														
Camera	Camera on top of screen, 1.3-megapixel, fixed focus														
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45														
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution:</i> 2048x1536@75Hz														
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None None														
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33mm <i>without X200 UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33mm <i>4-cell:</i> from 3.5 lb (1.6kg); <i>8-cell:</i> from 3.88 lb (1.76kg) <i>Color:</i> black; <i>Material:</i> magnesium alloy														
Weight ² Case Battery - type Battery - life ¹⁰	Lithium Ion 8-cell <i>4-cell:</i> up to 4.4 hr; <i>8-cell:</i> up to 10.3 hr														
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)														
Media slice	<i>Optional: X200 UltraBase media slice</i> (see right side)														
Multicard Reader	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC)														
ExpressCard slot	One ExpressCard/34 or ExpressCard/54														
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)														
Mini PCI Express	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)														
Intel 5100 ²⁸	Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)														
WWAN upg	None														
2G Turbo	None														
UWB	None														
Modem	56K V.92 ⁶ modem														
Bluetooth™	Bluetooth 2.0 wireless, LED indicator														
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1														
Intel AMT	Intel Active Management Technology (IAMT 4.0)														
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 2 watt / volume up, down, mute buttons / dual array microphone, microphone input jack, headphone jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant														
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip														
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available														
2GB PC3-8500 DDR3 SODIMM	43R1988					X200 Tablet Li-Ion Battery 4-cell					43R9256				
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406					X200 Tablet Li-Ion Battery 8-cell					43R9257				
320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3403					90W Slim AC/DC Combo Adapter					41N8460				
USB 2.0 Ultra Secure Memory Key 8GB	45J5918					ThinkPad X200 Tablet Sleeve					43R9115				
USB 2.0 Portable Secure 320GB Hard Disk	43R2019					ThinkPad Ultraportable Case					41U5062				
ThinkPad X200 UltraBase	43R8781					ThinkVision® L2440x Wide 24" Monitor					4421HB2				
Other accessories on O-X200 sheet						Other accessories at lenovo.com/accessories									
										65-watt (GMA graphics) AC Adapter Climate Savers® certified ENERGY STAR® 4.0-compliant EPEAT Silver rating 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

◇ Intel Centrino® 2 with vPro™ technology

Ⓢ US model announced February 17, 2009; previous model on September 23, 2008

© Lenovo

(CML1-5) February 2009

Partial list of accessories supported on:**• ThinkPad X200 Tablet originally announced on Sep 23, 2008****Memory**

1GB PC3-8500 DDR3 SODIMM (TopSeller)	43R2045	ann	11/04/08
1GB PC3-8500 DDR3 SODIMM	43R1987	ann	08/05/08
2GB PC3-8500 DDR3 SODIMM (TopSeller)	43R2046	ann	11/04/08
2GB PC3-8500 DDR3 SODIMM	43R1988	ann	08/05/08

Ultrabay Slim 9.5mm

Most Ultrabay Slim accessories supported in ThinkPad X200 UltraBase

Storage and removable storage

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

⁴¹ Can be used as the main HDD or with *Serial ATA Hard Drive Bay Adapter 43R1980* in X200 UltraBase (43R8781)

128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ann	08/26/08
USB 2.0 Essential Memory Key 2GB	41U4944	ann	01/23/07
USB 2.0 Essential Memory Key 4GB	45J7904	ann	06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann	07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann	10/28/08
USB 2.0 Security Memory Key 2GB	41U5119	ann	07/17/07
USB 2.0 Security Memory Key 4GB	41U5120	ann	07/17/07
USB 2.0 Ultra Secure Memory Key 1GB	45J5915	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann	08/26/08
USB Portable Diskette Drive	05K9276	ann	06/05/00
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann	01/05/06
USB 2.0 Portable 160GB Hard Disk	43R1784	ann	09/23/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
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
USB 2.0 Super Multi-Burner Drive	41N5565	ann	01/23/07

Wireless WAN (Mini PCI Express)

Verizon WWAN UNDP Broadband Mini PCIe ⁴²	43R9151	ann	08/05/08
AT&T® WWAN HSPA Broadband Mini PCIe ⁴²	43R9152	ann	08/26/08

⁴² Supported only in select models**ThinkPad Expansion**

USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ann	02/26/08
ThinkPad Adjustable Notebook Stand	40Y7676	ann	09/20/05
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
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann	12/07/04
USB Keyboard with UltraNav	31P8950	ann	01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann	04/27/04
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Optical Wheel Mouse (USB)	06P4069	ann	05/21/03
Optical ScrollPoint® Mouse (USB, PS/2)	31P7405	ann	08/27/02
Optical Wheel Travel Mouse (USB, PS/2)	31P7410	ann	06/04/02
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	ann	01/23/07
Lenovo Wireless Laser Mouse (blk, via USB)	45K1696	ann	11/25/08
Lenovo Wireless Laser Mouse (red, via USB)	51J0198	ann	11/25/08
Laser Tilt Wheel Travel Mouse (Bluetooth)	41U5008	ann	01/22/08

Security

Kensington® Cable Lock from Lenovo	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06
PC Card Gemplus Smart Card Reader	41N3004	ann	12/13/05
ExpressCard Gemplus Smart Card Reader	41N3043	ann	06/27/06

Multimedia

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann	06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann	08/29/06

Tablet

ThinkPad Digitizer Pen	41U3143	ann	11/14/06
ThinkPad Tablet Tether (3-pack)	41U4820	ann	11/14/06

Batteries

X200 Tablet Li-Ion Battery 4-cell	43R9256	ann	09/23/08
X200 Tablet Li-Ion Battery 8-cell	43R9257	ann	09/23/08
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann	09/20/05

⁴⁴ Requires the *ThinkPad 90W AC Adapter*

40Y7659 (adapter provided with some systems).

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
ThinkPad 90W Slim AC/DC Combo Adapter	41N8460	ann	11/27/07

More info at www.lenovo.com/support/poweradapters*Charging tips for 90W Slim AC/DC Combo Adapter 41N8460*

•Dual (ThinkPad+Phone) Charging Y-Cable	41R4345	ann	12/18/07
•BlackBerry charge tip (L8a)	41R4478	ann	12/18/07

More information at www.lenovopowertips.com**Carrying Cases***X200 Tablet:*

ThinkPad X200 Tablet Sleeve	43R9115	ann	09/23/08
-----------------------------	---------	-----	----------

Up to 13.3" widescreen models:

ThinkPad Ultraportable Case	41U5062	ann	05/13/08
-----------------------------	---------	-----	----------

Up to 14.1" widescreen models:

ThinkPad Expander Case	43R9118	ann	06/24/08
ThinkPad Women's Microfiber Tote	22P8855		
ThinkPad Women's Leather Trim Tote	22P8856		
ThinkPad Convertible Carrying Case	22P8860		
ThinkPad Women's Executive Leather Tote	22P8857		
Women's Executive Red Leather Tote	22P8858		

Up to 15.4" widescreen models:

Lenovo Carrying Case - Messenger Max	41U5253	ann	05/01/07
Lenovo Carr Case - Performance Backpack	41U5254	ann	05/01/07
Lenovo Standard Case	45K1697	ann	11/25/08
Lenovo Standard Backpack	45K1698	ann	11/25/08
Checkpoint Friendly Business Topload Case	51J0418	ann	02/24/09
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08

Up to 17.0" widescreen models:

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

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

ThinkVision® L174 17" Monitor	9227AE1	ann	04/15/08
ThinkVision L1700p 17" Monitor	9417HE2	ann	09/17/08
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1940p Wide 19" Monitor	4424HB6	ann	09/17/08
ThinkVision L200p Wide 20.1" Monitor	4438HB6	ann	04/15/08
ThinkVision L2240p Wide 22" Monitor	4422HB6	ann	09/17/08
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08
ThinkVision L2440x Wide 24" Monitor	4421HB2	ann	09/17/08

Monitor Accessories⁴⁶

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 Cable Lock from Lenovo	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
ThinkPad Convertible Monitor Stand	40Y7620	ann	01/05/06
Radial Arm	19K4464	ann	05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.More information at www.lenovo.com/support/monitoraccessoriesOther accessories at www.lenovo.com/accessoriesAccessories Guide pdf at www.lenovo.com/accessoriesguide



Lenovo ThinkPad X300, X301



Lenovo ThinkPad X300, X301



Lenovo ThinkPad X300, X301



Lenovo ThinkPad X300, X301



Lenovo ThinkPad X300, X301



Lenovo ThinkPad X300, X301



Lenovo ThinkPad X300, X301
(left side)



Lenovo ThinkPad X300, X301
(rear)

ThinkPad® X300 (6478) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Low Voltage proc- essor	GHz	Memory	Wide- screen display	Cam- era	Disk SATA GB ⁸ SSD	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Mini PCIe UWB wireless	Finger print reader	Bat- tery cells	Preload	Avail date					
6478-1HU	SL7100	1.20	2GB	13.3" WXGA+	Cam	64GB SSD	DVD±RW	* Intel 11n ²⁸			Fing	3	Business	32 Feb 08					
6478-1JU	SL7100	1.20	2GB	13.3" WXGA+	Cam	64GB SSD	DVD±RW	* Intel 11n	Verizon+GPS	UWB	Fing	6	Business	32 Feb 08					
6478-1TU	SL7100	1.20	2GB	13.3" WXGA+	Cam	64GB SSD	DVD±RW	* Intel 11n			Fing	3	XP Pro	Feb 08					
6478-1VU	SL7100	1.20	2GB	13.3" WXGA+	Cam	64GB SSD	DVD±RW	* Intel 11n	Verizon+GPS		Fing	6	XP Pro	Feb 08					
<ul style="list-style-type: none">• These small and medium business (SMB) models are part of the US TopSeller™ Program• Thinnest (starting at under .75") and lightest (starting at 2.93 lb) notebook• Latest connectivity options including WLAN, WWAN, UWB, and GPS• Cutting edge technologies including LED backlight, Solid State Drive, and ultrathin DVD• Environmentally-friendly EPEAT Gold rating																			
Positioning Processor	Thinnest and lightest; two spindles Intel® Core™ 2 Duo processor SL7100 with low voltage, dual-core , Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache										Preloaded operating system²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) ♦ Vista models: Vista Basic logo								
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 applications¹⁴ (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper™ Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW) • Corel WinDVD Creator (XP Pro DVD±RW models)								
Diskette drive	None (use optional USB-based diskette drive)										Supports ThinkVantage® technologies 65-watt (GMA graphics) AC Adapter Next Generation ThinkPad Roll Cage (in display cover) EPEAT™ Gold rating ENERGY STAR® 4.0-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 2-year LOR ²⁴ 9x5 NBD 41C9175 ThinkPlus 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								
EIDE DVD±RW	Ultrathin DVD burner, 7mm high, removable from Option Bay, tray-in																		
Option Bay	Modular bay for devices (DVD burner, battery), 7mm high																		
Serial ATA disk	64GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s (system limited to SATA 1.5Gb/s), 1.8" wide, 8mm high, removable, upgradable, shock mounted storage																		
Widescreen display	13.3" (338mm) WXGA+ (1440x900) TFT color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 250:1 contrast ratio																		
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0																		
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GS965, external monitor support via analog VGA DB-15 connector, no DVI-out support																		
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, illuminated buttons (Power, ThinkVantage, Mute, and CapsLk)																		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass																		
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label																		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions																		
Dimensions ³	3-cell: (WxDxH): 12.5" x 9.09" x 0.73-0.92"; 318mm x 231mm x 18.6-23.4mm 6-cell: (WxDxH): 12.5" x 9.09" x 0.85-0.92"; 318mm x 231mm x 18.6-25.9mm 3-cell: from 3.16 lb (1.43kg); 6-cell: from 3.35 (1.52kg)																		
Weight ²																			
Case material	Color: black; Display cover: Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); Base: Magnesium alloy																		
Battery - type	Lithium Polymer 3-cell or Lithium Ion 6-cell ;																		
Battery - life ¹⁰	supports optional Option Bay 3-cell battery (for two batteries) 3-cell: up to 4.3 hr; 6-cell: up to 6.5 hr; 6-cell and Option Bay battery: up to 10 hr																		
Chipset	Mobile Intel GS965 Express Chipset (Graphics Memory Controller Hub); ICH8M-SFF-Enhanced I/O Controller Hub (SATA 1.5Gb/s, ATA-100 EIDE, PCI Express® x1, USB, LPC bus, Bluetooth, fingerprint) / LPC bus (Atmel® 97SC3203 TPM)																		
ExpressCard slot	None																		
Multicard Reader	None																		
Ports	Three USB 2.0, external monitor (VGA DB-15), ethernet (RJ-45)																		
Wireless antenna	UltraConnect™ II Antenna / on-off switch for all wireless radios																		
Mini PCI Express	Three Mini PCI Express slots / 802.11 and WWAN are customer upgradable																		
Intel 11n ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)																		
WWAN upg	None																		
Verizon+GPS ¹⁶	Some: Wireless WAN with GPS, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe adapter, EV-DO Rev. A, service contract required with Verizon®																		
Turbo Memory	None																		
UWB	Some: Wireless USB based on Ultra-Wideband (UWB), Half-Mini PCIe adapter																		
Modem	None (use optional USB-based modem)																		
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH, LED indicator																		
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1, PXE																		
Intel AMT	Intel Active Management Technology (IAMT)																		
Audio support	High Definition (HD) Audio, AD1984A codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack																		
Security	Power-on password, hard disk password, supervisor password, security keyhole																		
Security chip	Trusted Platform Module, Atmel chip, TCG 1.2-compliant																		
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip																		
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available																		
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999					X300 LiPolymer Battery 3-cell									43R1965				
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000					X300 Li-Ion Battery 6-cell									43R1967				
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406					X300 LiPolymer Bay Battery 3-cell									43R1966				
USB 2.0 Portable Secure 320GB Hard Disk	43R2019					90W Slim AC/DC Combo Adapter									41N8460				
USB 2.0 Super Multi-Burner Drive	41N5565					ThinkPad Executive Leather Case									43R2480				
USB 2.0 Lenovo Enhanced Port Replicator	43R8770					ThinkPad Ultraportable Case									41U5062				
ThinkPad Adjustable Notebook Stand	40Y7676					ThinkVision® L2440p Wide 24" Monitor									4420HB2				
Other accessories on O-X300 sheet						Other accessories at lenovo.com/accessories													

See footnotes for important warranty information
US models announced February 26, 2008

* Intel Centrino with vPro™ technology

© Lenovo
(KOD1-1) February 2008

Type-model	Low Voltage proc- essor	GHz	Memory	Wide- screen display	Cam- era	Disk SATA GB ⁸ SSD	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Mini PCIe Finger Bat- tery wireless reader cells	Vista preload	Avail date
6477-1TU	SL7100	1.20	2GB	13.3" WXGA+	Cam	64GB SSD	DVD±RW	* Intel 11n ²⁸		Finger	6 Business 32	Feb 08
6477-1UU	SL7100	1.20	4GB	13.3" WXGA+	Cam	64GB SSD	DVD±RW	* Intel 11n		Finger	6 Ultimate 32	Feb 08
6477-1ZU	SL7100	1.20	2GB	13.3" WXGA+	Cam	64GB SSD	DVD±RW	* Intel 11n	Verizon+GPS ¹⁶	UWB	6 Business 32	Feb 08
6477-01U	SL7100	1.20	2GB	13.3" WXGA+	Cam	64GB SSD	DVD±RW	* Intel 11n	AT&T ²³	UWB	6 Business 32	Apr 08

Italic MTM: not a base model for building a custom model

- **Thinnest (starting at under .75") and lightest (starting at 2.93 lb) notebook**
- **Latest connectivity options including WLAN, WWAN, UWB, and GPS**
- **Cutting edge technologies including LED backlight, Solid State Drive, and ultrathin DVD**
- **Environmentally-friendly EPEAT Gold rating**

Positioning Processor	<i>Thinnest and lightest; two spindles</i> Intel® Core™ 2 Duo processor SL7100 with low voltage, dual-core , Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache										Preloaded operating system²⁰ - <i>Some:</i> Microsoft Windows Vista® Business Edition (32-bit) - <i>Some:</i> Microsoft Windows Vista Ultimate Edition (32-bit) ◇ <i>2GB Vista models:</i> Vista Basic logo ◇ <i>1UU model:</i> Vista Premium logo Preloaded applications¹⁴ (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper™ Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • EarthLink Trial (Vista Ultimate model) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW) • Corel WinDVD Creator (XP Pro DVD±RW models)			
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 socket; one socket available													
Diskette drive	None (use optional USB-based diskette drive)													
EIDE DVD±RW	Ultrathin DVD burner, 7mm high, removable from Option Bay, tray-in													
Option Bay	Modular bay for devices (DVD burner, battery), 7mm high													
Serial ATA disk	64GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s (system limited to SATA 1.5Gb/s), 1.8" wide, 8mm high, removable, upgradable, shock mounted storage													
Widescreen display	13.3" (338mm) WXGA+ (1440x900) TFT color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 250:1 contrast ratio													
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0													
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GS965, external monitor support via analog VGA DB-15 connector, no DVI-out support													
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, illuminated buttons (Power, ThinkVantage, Mute, and CapsLk)													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	<i>3-cell:</i> (WxDxH): 12.5" x 9.09" x 0.73-0.92"; 318mm x 231mm x 18.6-23.4mm <i>6-cell:</i> (WxDxH): 12.5" x 9.09" x 0.85-0.92"; 318mm x 231mm x 18.6-25.9mm													
Weight ²	<i>3-cell:</i> from 3.16 lb (1.43kg); <i>6-cell:</i> from 3.35 (1.52kg)													
Case material	<i>Color:</i> black; <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy													
Battery - type	Lithium Polymer 3-cell or Lithium Ion 6-cell ;													
Battery - life ¹⁰	supports optional Option Bay 3-cell battery (for two batteries) <i>3-cell:</i> up to 4.3 hr; <i>6-cell:</i> up to 6.5 hr; <i>6-cell and Option Bay battery:</i> up to 10 hr													
Chipset	Mobile Intel GS965 Express Chipset (Graphics Memory Controller Hub); ICH8M-SFF-Enhanced I/O Controller Hub (SATA 1.5Gb/s, ATA-100 EIDE, PCI Express® x1, USB, LPC bus, Bluetooth, fingerprint) / LPC bus (Atmel® 97SC3203 TPM)													
ExpressCard slot	None													
Multicard Reader	None													
Ports	Three USB 2.0, external monitor (VGA DB-15), ethernet (RJ-45)													
Wireless antenna	UltraConnect™ II Antenna / on-off switch for all wireless radios													
Mini PCI Express	Three Mini PCI Express slots / 802.11 and WWAN are customer upgradable													
Intel 11n ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)													
WWAN upg	None													
Verizon+GPS ¹⁶	<i>Some:</i> Wireless WAN with GPS, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe adapter, EV-DO Rev. A, service contract required with <u>Verizon</u>													
AT&T ²³	<i>Some:</i> Wireless WAN, GPRS/EDGE/UMTS/HSDPA support, Mini PCIe adapter and SIM, service contract required with <u>AT&T®</u>													
Turbo Memory	None													
UWB	<i>Some:</i> Wireless USB based on Ultra-Wideband (UWB), Half-Mini PCIe adapter													
Modem	None (use optional USB-based modem)													
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH, LED indicator													
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1, PXE													
Intel AMT	Intel Active Management Technology (IAMT)													
Audio support	High Definition (HD) Audio, AD1984A codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module, Atmel chip, TCG 1.2-compliant													
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available													
1GB PC2-5300 DDR2 SODIMM	40Y7734					X300 Li-Ion Battery 6-cell					43R1967			
2GB PC2-5300 DDR2 SODIMM	40Y7735					X300 LiPolymer Bay Battery 3-cell					43R1966			
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406					ThinkPad 90W AC Adapter					40Y7659			
USB 2.0 Portable Secure 320GB Hard Disk	43R2019					ThinkPad Ultraportable Case					41U5062			
USB 2.0 Lenovo Enhanced Port Replicator	43R8770					ThinkVision® L2440x Wide 24" Monitor					4421HB2			
Other accessories on O-X300 sheet	Other accessories at lenovo.com/accessories													

Supports ThinkVantage® technologies	65-watt (GMA graphics) AC Adapter Next Generation ThinkPad Roll Cage (in display cover) EPEAT™ Gold rating ENERGY STAR® 4.0-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 2-year LOR ²⁴ 9x5 NBD		41C9175
ThinkPlus 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		

See footnotes for important warranty information

* Intel Centrino with vPro™ technology

Ⓜ US model announced April 14, 2008; previous models on February 26, 2008

© Lenovo
(KOD1-2) May 2008

ThinkPad® X300 (4052) - Onsite

Personal Systems Reference (PSREF)

Type-model	Low Voltage proc- essor	GHz	Memory	Wide- screen display	Cam- era	Disk SATA GB ⁸ SSD	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Mini PCIe UWB wireless	Finger print reader	Bat- tery cells	Vista preload	GMP (P)	Avail date				
4052-1TU	SL7100	1.20	2GB	13.3" WXGA+	Cam	64GB SSD	DVD±RW	*Intel 11n ²⁸	None	None	Finger	6	Business	32	P Apr 08				
<ul style="list-style-type: none">• This model is part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty• Thinnest (starting at under .75") and lightest (starting at 2.93 lb) notebook• Latest connectivity options including WLAN, WWAN, UWB, and GPS• Cutting edge technologies including LED backlight, Solid State Drive, and ultrathin DVD• Environmentally-friendly EPEAT Gold rating																			
Positioning Processor	Thinnest and lightest; two spindles Intel® Core™ 2 Duo processor SL7100 with low voltage, dual-core , Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache											Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ◇ Vista Basic logo							
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 applications¹⁴ <ul style="list-style-type: none">• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• System Migration Assistant• Norton Internet Security (90 days of virus definitions)• Diskeeper™ Home• PC-Doctor™ (diagnostics)• ThinkPad Utilities (Power Manager and Presentation Director)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Picasa from Google• Fingerprint Software (fingerprint models)• Microsoft Office 2007 Trial (60-day)• EarthLink Trial (Vista Ultimate model)• Sonic RecordNow and Drive Letter Access (DVD±RW)• Corel® WinDVD® (DVD±RW)							
Diskette drive	None (use optional USB-based diskette drive)											Supports ThinkVantage® technologies 65-watt (GMA graphics) AC Adapter Next Generation ThinkPad Roll Cage (in display cover) EPEAT™ Gold rating ENERGY STAR® 4.0-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 2-year LOR ²⁴ 9x5 NBD 41C9175 ThinkPlus 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							
EIDE DVD±RW	Ultrathin DVD burner, 7mm high, removable from Option Bay, tray-in																		
Option Bay	Modular bay for devices (DVD burner, battery), 7mm high																		
Serial ATA disk	64GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s (system limited to SATA 1.5Gb/s), 1.8" wide, 8mm high, removable, upgradable, shock mounted storage																		
Widescreen display	13.3" (338mm) WXGA+ (1440x900) TFT color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 250:1 contrast ratio																		
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0																		
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GS965, external monitor support via analog VGA DB-15 connector, no DVI-out support																		
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, illuminated buttons (Power, ThinkVantage, Mute, and CapsLk)																		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass																		
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label																		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions																		
Dimensions ³	3-cell: (WxDxH): 12.5" x 9.09" x 0.73-0.92"; 318mm x 231mm x 18.6-23.4mm 6-cell: (WxDxH): 12.5" x 9.09" x 0.85-0.92"; 318mm x 231mm x 18.6-25.9mm																		
Weight ²	3-cell: from 3.16 lb (1.43kg); 6-cell: from 3.35 (1.52kg)																		
Case material	Color: black; Display cover: Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); Base: Magnesium alloy																		
Battery - type	Lithium Ion 6-cell ;																		
Battery - life ¹⁰	supports optional Option Bay 3-cell battery (for two batteries) 3-cell: up to 4.3 hr; 6-cell: up to 6.5 hr; 6-cell and Option Bay battery: up to 10 hr																		
Chipset	Mobile Intel GS965 Express Chipset (Graphics Memory Controller Hub); ICH8M-SFF-Enhanced I/O Controller Hub (SATA 1.5Gb/s, ATA-100 EIDE, PCI Express® x1, USB, LPC bus, Bluetooth, fingerprint) / LPC bus (Atmel® 97SC3203 TPM)																		
ExpressCard slot	None																		
Multicard Reader	None																		
Ports	Three USB 2.0, external monitor (VGA DB-15), ethernet (RJ-45)																		
Wireless antenna	UltraConnect™ II Antenna / on-off switch for all wireless radios																		
Mini PCI Express	Three Mini PCI Express slots / 802.11 and WWAN are customer upgradable																		
Intel 11n ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)																		
WWAN upg	None																		
Turbo Memory	None																		
UWB	None																		
Modem	None (use optional USB-based modem)																		
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH, LED indicator																		
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1, PXE																		
Intel AMT	Intel Active Management Technology (IAMT)																		
Audio support	High Definition (HD) Audio, AD1984A codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack																		
Security	Power-on password, hard disk password, supervisor password, security keyhole																		
Security chip	Trusted Platform Module, Atmel chip, TCG 1.2-compliant																		
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip																		
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available																		
1GB PC2-5300 DDR2 SODIMM	40Y7734					X300 LiPolymer Battery 3-cell					43R1965								
2GB PC2-5300 DDR2 SODIMM	40Y7735					X300 Li-Ion Battery 6-cell					43R1967								
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406					X300 LiPolymer Bay Battery 3-cell					43R1966								
USB Portable Diskette Drive	05K9276					ThinkPad 90W AC Adapter					40Y7659								
USB 2.0 Lenovo Modem	43R1814					90W Slim AC/DC Combo Adapter					41N8460								
USB 2.0 Portable Secure 320GB Hard Disk	43R2019					ThinkPad Executive Leather Case					43R2480								
USB 2.0 Super Multi-Burner Drive	41N5565					ThinkPad Ultraportable Case					41U5062								
USB 2.0 Lenovo Enhanced Port Replicator	43R8770					ThinkVision® L2240p Wide 22" Monitor					4422HB6								
ThinkPad Adjustable Notebook Stand	40Y7676					ThinkVision L2440x Wide 24" Monitor					4421HB2								
Other accessories on O-X300 sheet	Other accessories at lenovo.com/accessories																		

See footnotes for important warranty information
US model announced April 8, 2008

* Intel Centrino with vPro™ technology

© Lenovo
(KOD1-3) April 2008

Type-model	Low Voltage proc- essor	GHz	Memory	Wide- screen display	Cam- era	Disk SATA GB ⁸	SSD/RPM	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery Blue/ Fing cellsPreload	Avail date
2776-TMU	SU9400	1.40	4GB	13.3" WXGA+	Cam	128GB	SSD	DVD±RW	❖ Intel 5100 ²⁸	AT&T ²³		Yes 6 Bus 32 Aug 08	
2776-L9U	SU9400	1.40	2GB	13.3" WXGA+	Cam	64GB	SSD	DVD±RW	❖ Intel 5100	WWAN upg		Yes 3 Bus 32 Aug 08	
2776-LAU	SU9400	1.40	2GB	13.3" WXGA+	Cam	64GB	SSD	DVD±RW	❖ Intel 5100	AT&T		Yes 6 Bus 32 Aug 08	
2776-P4U	SU9400	1.40	2GB	13.3" WXGA+	Cam	64GB	SSD	DVD±RW	❖ Intel 5100	WWAN upg		Yes 3 XP Pro Sep 08	
2776-P5U	SU9400	1.40	2GB	13.3" WXGA+	Cam	64GB	SSD	DVD±RW	❖ Intel 5100	AT&T		Yes 6 XP Pro Sep 08	
2776-P6U	SU9400	1.40	4GB	13.3" WXGA+	Cam	128GB	SSD	DVD±RW	❖ Intel 5100	AT&T		Yes 6 XP Pro Sep 08	
2776-V1U	SU9400	1.40	2GB	13.3" WXGA+	Cam	128GB	SSD	DVD±RW	❖ Intel 5300 ²⁸	WWAN upg		Yes 6 Bus 32 Oct 08	
2776-V2U	SU9400	1.40	2GB	13.3" WXGA+	Cam	128GB	SSD	DVD±RW	❖ Intel 5300	WWAN upg		Yes 6 Bus 64 Nov 08	
2776-TKU	SU9400	1.40	2GB	13.3" WXGA+	Cam	80GB	SSD	DVD±RW	❖ Intel 5100	WWAN upg		Yes 3 Bus 32 Nov 08	
2776-TLU	SU9400	1.40	2GB	13.3" WXGA+	Cam	80GB	SSD	DVD±RW	❖ Intel 5100	AT&T		Yes 6 Bus 32 Nov 08	
2776-H1U	SU9400	1.40	2GB	13.3" WXGA+	Cam	120GB	5400	DVD±RW	❖ Intel 5100	WWAN upg	2G Turbo	Yes 6 Bus 32 Dec 08	
• These small and medium business (SMB) models are part of the US TopSeller™ Program													
Positioning Processor	Thin and light; two spindles Intel® Core™ 2 Duo processor SU9400 with ultra low voltage, dual-core, Intel HD Boost, 800MHz system bus, and 3MB L2 cache										Preloaded operating system²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) - Some: Microsoft Windows Vista Business Edition (64-bit) ❖ Vista Premium logo		
Memory	2GB or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available												
Diskette drive	None (use optional USB-based diskette drive)										Preloaded applications¹⁴ (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ (not on model V2U) • ThinkVantage Productivity Center • ThinkVantage System Update • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Windows Live Mail (model V2U) • Windows Live Messenger (model V2U) • Windows Live Photo Gallery (model V2U) • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW)		
EIDE DVD±RW	Ultrathin DVD burner, 7mm high, removable from Option Bay, tray-in												
Option Bay	Modular bay for devices (DVD burner, battery), 7mm high												
Serial ATA disk	<i>Some:</i> 64GB⁸ , 80GB , or 128GB Solid State Drive (SSD) / SATA 3.0Gb/s <i>Some:</i> 120GB⁸ (5400 rpm) / SATA 1.5Gb/s, Active Protection System™ <i>All:</i> 1.8" wide, 8mm high, removable, upgradable, shock mounted storage												
Widescreen display	13.3" (338mm) WXGA+ (1440x900) TFT color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 250:1 contrast ratio										Supports ThinkVantage® technologies		
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0												
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45 External monitor support via analog VGA DB-15 connector or DisplayPort; <i>Maximum external resolution:</i> 2048x1536@75Hz (VGA, DisplayPort)												
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, illuminated buttons (Power, ThinkVantage, Mute, and CapsLk)												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										65-watt (GMA graphics) AC Adapter Next Generation ThinkPad Roll Cage (in display cover) EPEAT™ Gold rating ENERGY STAR® 4.0-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		
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	<i>3-cell:</i> (WxDxH): 12.5" x 9.09" x 0.73-0.92"; 318mm x 231mm x 18.6-23.4mm <i>6-cell:</i> (WxDxH): 12.5" x 9.09" x 0.85-0.92"; 318mm x 231mm x 18.6-25.9mm <i>3-cell:</i> from 3.16 lb (1.43kg); <i>6-cell:</i> from 3.35 (1.52kg)												
Weight ²											ThinkPlus™.22 2-year LOR ²⁴ 9x5 NBD 41C9175		
Case color	Black												
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy												
Battery - type	Lithium Polymer 3-cell or Lithium Ion 6-cell ; supports optional Option Bay 3-cell battery (for two batteries)												
Battery - life ¹⁰	<i>3-cell:</i> up to 3.4 hr; <i>6-cell:</i> up to 5.5 hr; <i>6-cell and Option Bay battery:</i> up to 9.5 hr												
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub); ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), Marvell® SATA-to-EIDE bridge (for optical)										ThinkPlus 3-year LOR 9x5 NBD 41C9176		
ExpressCard	None												
Multicard reader	None												
Ports	Three USB 2.0, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)												
Wireless antenna	UltraConnect™ II Antenna / on-off switch for all wireless radios										ThinkPlus 4-year LOR 9x5 NBD 41C9177		
Mini PCI Express	Three Mini PCI Express slots / 802.11 and WWAN are customer upgradable												
Intel 5100 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)												
Intel 5300 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5300, 3x3 (Shirley Peak)												
WWAN upg	<i>Some:</i> Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)										ThinkPlus 5-year LOR 9x5 NBD 41C9179		
AT&T ²³	<i>Some:</i> Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T												
Turbo Memory	<i>Some:</i> Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator												
UWB	None												
Modem	None (use optional USB-based modem)										ThinkPlus 4-year P&L P/U Depot 41C9178		
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH, LED indicator												
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1												
Intel AMT	None												
Audio support	High Definition (HD) Audio, AD1984A codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack										ThinkPlus 5-year P&L P/U Depot 41C9180		
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant												
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip												
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available												
1GB PC3-8500 DDR3 SODIMM (TopSeller) 43R2045	X300 Li-Ion Battery 6-cell												
2GB PC3-8500 DDR3 SODIMM (TopSeller) 43R2046	90W Slim AC/DC Combo Adapter												
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover) 43N3406	ThinkPad Ultraportable Case												
USB 2.0 Portable Secure 320GB Hard Disk 43R2019	ThinkVision® L2440p Wide 24" Monitor												
Other accessories on O-X300 sheet	Other accessories at lenovo.com/accessories												



See footnotes for important warranty information

❖ Intel Centrino® 2 with vPro™ technology

© Lenovo

US models announced Nov18, Nov 25, or December 2, 2008; previous models on Aug 26, Sep 2, or Oct 14, 2008

(KOD2-1) December 2008

See footnotes for important warranty information.  Intel Centrino® 2 with vPro™ technology
 US models announced Nov 25 or December 2, 2008; previous models on Aug 26, or Sep 2, 2008

ThinkPad® X301 (4057) - Onsite

Personal Systems Reference (PSREF)

Type-model	Low Voltage proc- essor	GHz	Memory	Wide- screen display	Cam- era	Disk SATA GB ⁸ SSD	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Mini PCIe UWB wireless	Blue/ Fing	Bat- tery cells	Workhorse (W) Gbl (G) Avail date
4057-17U	SU9400	1.40	2GB	13.3" WXGA+	Cam	64GB SSD	DVD±RW	❖ Intel 5100 ²⁸	WWAN upg	None	Yes	3	Bus 32 G P Aug 08
4057-18U	SU9400	1.40	4GB	13.3" WXGA+	Cam	64GB SSD	DVD±RW	❖ Intel 5100	WWAN upg	None	Yes	6	Bus 32 G P Aug 08
4057-LDU	SU9400	1.40	2GB	13.3" WXGA+	Cam	64GB SSD	DVD±RW	❖ Intel 5100	WWAN upg	None	Yes	3	XP Pro G P Aug 08

- **These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty**
- **Latest connectivity options including WLAN, WWAN, UWB, and GPS**
- **Cutting edge technologies including LED backlight, Solid State Drive, and ultrathin DVD**
- **Environmentally-friendly EPEAT Gold rating**

Positioning Processor	<i>Thin and light; two spindles</i> Intel® Core™ 2 Duo processor SU9400 with ultra low voltage, dual-core, Intel HD Boost, 800MHz system bus, and 3MB L2 cache			Preloaded operating system²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) ✧ Vista Premium logo Preloaded applications¹⁴ (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW)		
Memory	2GB or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available;					
Diskette drive	None (use optional USB-based diskette drive)					
EIDE DVD±RW	Ultrathin DVD burner, 7mm high, removable from Option Bay, tray-in					
Option Bay	Modular bay for devices (DVD burner, battery), 7mm high					
Serial ATA disk	64GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high, removable, upgradable, shock mounted storage					
Widescreen display	13.3" (338mm) WXGA+ (1440x900) TFT color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 250:1 contrast ratio					
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0					
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45 External monitor support via analog VGA DB-15 connector or DisplayPort; <i>Maximum external resolution: 2048x1536@75Hz</i>					
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, illuminated buttons (Power, ThinkVantage, Mute, and CapsLk)					
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass					
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label					
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions					
Dimensions ³	<i>3-cell:</i> (WxDxH): 12.5" x 9.09" x 0.73-0.92"; 318mm x 231mm x 18.6-23.4mm <i>6-cell:</i> (WxDxH): 12.5" x 9.09" x 0.85-0.92"; 318mm x 231mm x 18.6-25.9mm					
Weight ²	<i>3-cell:</i> from 3.16 lb (1.43kg); <i>6-cell:</i> from 3.35 (1.52kg)					
Case material	<i>Color:</i> black; <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy					
Battery - type	Lithium Polymer 3-cell or Lithium Ion 6-cell ;					
Battery - life ¹⁰	supports optional Option Bay 3-cell battery (for two batteries) <i>3-cell:</i> up to 3.4 hr; <i>6-cell:</i> up to 5.5 hr; <i>6-cell and Option Bay battery:</i> up to 9.5 hr					
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub); ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), Marvell® SATA-to-EIDE bridge (for optical)					
ExpressCard slot	None					
Multicard Reader	None					
Ports	Three USB 2.0, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)					
Wireless antenna	UltraConnect™ II Antenna / on-off switch for all wireless radios					
Mini PCI Express	Three Mini PCI Express slots / 802.11 and WWAN are customer upgradable					
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)					
WWAN upg	Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)					
Turbo Memory	None					
UWB	None					
Modem	None (use optional USB-based modem)					
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH, LED indicator					
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1					
Intel AMT	Intel Active Management Technology (IAMT)					
Audio support	High Definition (HD) Audio, AD1984A codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack					
Security	Power-on password, hard disk password, supervisor password, security keyhole					
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant					
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip					
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available					
1GB PC3-8500 DDR3 SODIMM	43R1987	X300 LiPolymer Battery 3-cell	43R1965			
2GB PC3-8500 DDR3 SODIMM	43R1988	X300 Li-Ion Battery 6-cell	43R1967			
64GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3400	X300 LiPolymer Bay Battery 3-cell	43R1966			
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	90W Slim AC/DC Combo Adapter	41N8460			
USB 2.0 Lenovo Modem	43R1814	USB 2.0 Lenovo Multimedia Headset	40Y8518			
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ThinkPad Ultraportable Case	41U5062			
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Executive Leather Case	43R2480			
USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ThinkVision® L2240p Wide 22" Monitor	4422HB6			
ThinkPad Adjustable Notebook Stand	40Y7676	ThinkVision L2440p Wide 24" Monitor	4420HB2			
Other accessories on O-X300 sheet		Other accessories at lenovo.com/accessories				

See footnotes for important warranty information
US models announced August 26, 2008

❖ Intel Centrino® 2 with vPro™ technology

© Lenovo
(KOD2-3) September 2008

ThinkPad® X301 (2774) - Education

Personal Systems Reference (PSREF)

Type-model	Low Voltage proc- essor	GHz	Memory	Wide- screen display	Cam- era	Disk SATA GB ⁸ SSD	EIDE optical or battery	Mini PCle 802.11 wireless	Mini PCle WWAN or Turbo	Mini PCle UWB wireless	Bat- tery Blue/ Fing cells	Workhorse (W) Global (G) Avail date
2774-E1U	SU9400	1.40	2GB	13.3" WXGA+	Cam	64GBSSD	Blank bezel	❖ Intel 5300 ²⁸	WWAN upg	None	Yes 3	Ult 32 No Feb 09

- **These models have an EasyServ™¹⁹ depot repair service 3-year limited warranty**
- Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.
- Microsoft® Office Ultimate 2007 Academic Edition: Only valid for sale to students, faculty and staff of accredited educational institutions in the United States.

Positioning Processor	<i>Thin and light; two spindles</i> Intel® Core™ 2 Duo processor SU9400 with ultra low voltage, dual-core , Intel HD Boost, 800MHz system bus, and 3MB L2 cache	Preloaded operating system ²⁰ - Microsoft® Windows® Vista® Ultimate Edition (32-bit) ✧ Vista Premium logo Preloaded applications ¹⁴ <ul style="list-style-type: none">• Education software<ul style="list-style-type: none">- Microsoft Office Ultimate 2007 Academic Edition (and CD)• Rescue and Recovery™• Access Connections™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions)• PC-Doctor™ (diagnostics)• ThinkPad Utilities (Power Manager and Presentation Director)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Fingerprint Software (fingerprint models)• Roxio® Creator® Business Edition
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available	
Diskette drive	None (use optional USB-based diskette drive)	
EIDE DVD±RW	None	
Option Bay battery	None	
Option Bay	Modular bay for devices (DVD burner, battery), 7mm high	
Serial ATA disk	64GB ⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high, removable, upgradable, shock mounted storage	
Widescreen display	13.3" (338mm) WXGA+ (1440x900) TFT color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 250:1 contrast ratio	
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0	
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45 External monitor support via analog VGA DB-15 connector or DisplayPort; <i>Maximum external resolution:</i> 2048x1536@75Hz	
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, illuminated buttons (Power, ThinkVantage, Mute, and CapsLk)	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	<i>3-cell:</i> (WxDxH): 12.5" x 9.09" x 0.73-0.92"; 318mm x 231mm x 18.6-23.4mm <i>6-cell:</i> (WxDxH): 12.5" x 9.09" x 0.85-0.92"; 318mm x 231mm x 18.6-25.9mm	
Weight ²	<i>3-cell:</i> from 3.16 lb (1.43kg); <i>6-cell:</i> from 3.35 (1.52kg)	
Case color	Black	
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy	
Battery - type	Lithium Polymer 3-cell ; supports standard or optional Option Bay 3-cell battery (for two batteries)	
Battery - life ¹⁰	<i>3-cell:</i> up to 3.4 hr; <i>6-cell:</i> up to 5.5 hr; <i>6-cell and Option Bay battery:</i> up to 9.5 hr	
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub); ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), Marvell® SATA-to-EIDE bridge (for optical)	
ExpressCard	None	
Multicard reader	None	
Ports	Three USB 2.0, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)	
Wireless antenna	UltraConnect™ II Antenna / on-off switch for all wireless radios	
Mini PCI Express	Three Mini PCI Express slots / 802.11 and WWAN are customer upgradable	
Intel 5300 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5300, 3x3 (Shirley Peak)	
WWAN upg	Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)	
Turbo Memory	None	
UWB	None	
Modem	None (use optional USB-based modem)	
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH, LED indicator	
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1	
Intel AMT	Intel Active Management Technology (IAMT 4.0)	
Audio support	High Definition (HD) Audio, AD1984A codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant	
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available	

Supports ThinkVantage® technologies
65-watt (GMA graphics) AC Adapter Next Generation ThinkPad Roll Cage (in display cover) EPEAT™ Gold rating ENERGY STAR® 4.0-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
Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
US model announced February 17, 2009

❖ Intel Centrino® 2 with vPro™ technology

© Lenovo
(KOD2-4) February 2009

ThinkPad® X301 (4057) - Education (Onsite)

Personal Systems Reference (PSREF)

Type-model	Low Voltage proc- essor	GHz	Memory	Wide- screen display	Cam- era	Disk SATA GB ⁵ SSD	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Mini PCIe UWB wireless	Blue/ Fing	Bat- tery cells	Workhorse (W) Gbl (G) Avail date
4057-E1U	SU9400	1.40	2GB	13.3" WXGA+	Cam	64GBSSD	Blank bezel	❖ Intel 5300 ²⁸	WWAN upg	None	Yes	3	Ult 32 No Feb 09
<ul style="list-style-type: none">• This model has a limited onsite service²⁴ 3-year limited warranty• Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.• 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	Thin and light; two spindles Intel® Core™ 2 Duo processor SU9400 with ultra low voltage, dual-core , Intel HD Boost, 800MHz system bus, and 3MB L2 cache										Preloaded operating system²⁰ - Microsoft® Windows® Vista® - Ultimate Edition (32-bit) ❖ Vista Premium logo		
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ • Education software - Microsoft Office Ultimate 2007 Academic Edition (and CD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Fingerprint Software (fingerprint models) • Roxio® Creator® Business Edition		
Diskette drive	None (use optional USB-based diskette drive)										Supports ThinkVantage® technologies 65-watt (GMA graphics) AC Adapter Next Generation ThinkPad Roll Cage (in display cover) EPEAT™ Gold rating ENERGY STAR® 4.0-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 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		
EIDE DVD±RW	None												
Option Bay	Modular bay for devices (DVD burner, battery), 7mm high												
Serial ATA disk	64GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high, removable, upgradable, shock mounted storage												
Widescreen display	13.3" (338mm) WXGA+ (1440x900) TFT color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 250:1 contrast ratio												
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0												
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45 External monitor support via analog VGA DB-15 connector or DisplayPort; <i>Maximum external resolution:</i> 2048x1536 @75Hz												
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, illuminated buttons (Power, ThinkVantage, Mute, and CapsLk)												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	3-cell: (WxDxH): 12.5" x 9.09" x 0.73-0.92"; 318mm x 231mm x 18.6-23.4mm 6-cell: (WxDxH): 12.5" x 9.09" x 0.85-0.92"; 318mm x 231mm x 18.6-25.9mm 3-cell: from 3.16 lb (1.43kg); 6-cell: from 3.35 (1.52kg)												
Weight ²													
Case material	<i>Color:</i> black; <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy												
Battery - type	Lithium Polymer 3-cell ;												
Battery - life ¹⁰	supports optional Option Bay 3-cell battery (for two batteries) 3-cell: up to 3.4 hr; 6-cell: up to 5.5 hr; 6-cell and Option Bay battery: up to 9.5 hr												
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub); ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), Marvell® SATA-to-EIDE bridge (for optical)												
ExpressCard slot	None												
Multicard Reader	None												
Ports	Three USB 2.0, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)												
Wireless antenna	UltraConnect™ II Antenna / on-off switch for all wireless radios												
Mini PCI Express	Three Mini PCI Express slots / 802.11 and WWAN are customer upgradable												
Intel 5300 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5300, 3x3 (Shirley Peak)												
WWAN upg	Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)												
Turbo Memory	None												
UWB	None												
Modem	None (use optional USB-based modem)												
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH, LED indicator												
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1												
Intel AMT	Intel Active Management Technology (IAMT)												
Audio support	High Definition (HD) Audio, AD1984A codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant												
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip												
Limited warranty ¹²	3-years/1-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 17, 2009

❖ Intel Centrino® 2 with vPro™ technology

© Lenovo
 (KOD2-5) February 2009

Partial list of accessories supported on:

- ThinkPad X300 originally announced on February 26, 2008
- ThinkPad X301 originally announced on August 26, 2008

Memory**X300:**

512MB PC2-5300 DDR2 SODIMM	40Y7733	ann	01/05/06
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	ann	03/25/08
1GB PC2-5300 DDR2 SODIMM	40Y7734	ann	01/05/06
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	ann	03/25/08
2GB PC2-5300 DDR2 SODIMM	40Y7735	ann	11/28/06

X301:

1GB PC3-8500 DDR3 SODIMM (TopSeller)	43R2045	ann	11/04/08
1GB PC3-8500 DDR3 SODIMM	43R1987	ann	08/05/08
2GB PC3-8500 DDR3 SODIMM (TopSeller)	43R2046	ann	11/04/08
2GB PC3-8500 DDR3 SODIMM	43R1988	ann	08/05/08

Storage and removable storage

128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ann	08/26/08
USB 2.0 Essential Memory Key 2GB	41U4944	ann	01/23/07
USB 2.0 Essential Memory Key 4GB	45J7904	ann	06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann	07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann	10/28/08
USB 2.0 Security Memory Key 2GB	41U5119	ann	07/17/07
USB 2.0 Security Memory Key 4GB	41U5120	ann	07/17/07
USB 2.0 Ultra Secure Memory Key 1GB	45J5915	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann	08/26/08
USB Portable Diskette Drive	05K9276	ann	06/05/00
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann	01/05/06
USB 2.0 Portable 160GB Hard Disk	43R1784	ann	09/23/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
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
USB 2.0 Super Multi-Burner Drive	41N5565	ann	01/23/07

Wireless WAN (Mini PCI Express)**X301 WWAN upgradable models:**

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

ThinkPad Expansion

USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ann	02/26/08
ThinkPad Adjustable Notebook Stand	40Y7676	ann	09/20/05

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann	12/07/04
USB Keyboard with UltraNav	31P8950	ann	01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann	04/27/04
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09
Logitech Bluetooth Cordless Desktop MX5500	45J5831	third-party	

Mouse

Optical Wheel Mouse (USB)	06P4069	ann	05/21/03
Optical ScrollPoint® Mouse (USB, PS/2)	31P7405	ann	08/27/02
Optical Wheel Travel Mouse (USB, PS/2)	31P7410	ann	06/04/02
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	ann	01/23/07
Lenovo Wireless Laser Mouse (blk, via USB)	45K1696	ann	11/25/08
Lenovo Wireless Laser Mouse (red, via USB)	51J0198	ann	11/25/08
Laser Tilt Wheel Travel Mouse (Bluetooth)	41U5008	ann	01/22/08
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann	12/07/04
Logitech Bluetooth Cordless Desktop MX5500	45J5831	third-party	

Security

Kensington® Cable Lock from Lenovo	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08

Multimedia

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann	06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann	08/29/06

Modem

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

Batteries

X300 LiPolymer Battery 3-cell	43R1965	ann	02/26/08
X300 Li-Ion Battery 6-cell	43R1967	ann	02/26/08
X300 LiPolymer Bay Battery 3-cell	43R1966	ann	02/26/08

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
ThinkPad 90W Slim AC/DC Combo Adapter	41N8460	ann	11/27/07

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

Charging tips for 90W Slim AC/DC Combo Adapter 41N8460

•Dual (ThinkPad+Phone) Charging Y-Cable	41R4345	ann	12/18/07
•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 13.3" widescreen models:**

ThinkPad Ultraportable Case	41U5062	ann	05/13/08
-----------------------------	---------	-----	----------

Up to 14.1" widescreen models:

ThinkPad Expander Case	43R9118	ann	06/24/08
ThinkPad Women's Microfiber Tote	22P8855		
ThinkPad Women's Leather Trim Tote	22P8856		
ThinkPad Convertible Carrying Case	22P8860		
ThinkPad Women's Executive Leather Tote	22P8857		
Women's Executive Red Leather Tote	22P8858		

Up to 15.4" widescreen models:

Lenovo Carrying Case - Messenger Max	41U5253	ann	05/01/07
Lenovo Carr Case - Performance Backpack	41U5254	ann	05/01/07
Lenovo Standard Case	45K1697	ann	11/25/08
Lenovo Standard Backpack	45K1698	ann	11/25/08
Checkpoint Friendly Business Topload Case	51J0418	ann	02/24/09
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08

Up to 17.0" widescreen models:

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

Lenovo luxury cases at www.lenovoluxurycases.com

Monitors

ThinkVision® L174 17" Monitor	9227AE1	ann	04/15/08
ThinkVision L1700p 17" Monitor	9417HE2	ann	09/17/08
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1940p Wide 19" Monitor	4424HB6	ann	09/17/08
ThinkVision L200p Wide 20.1" Monitor	4438HB6	ann	04/15/08
ThinkVision L2240p Wide 22" Monitor	4422HB6	ann	09/17/08
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08
ThinkVision L2440x Wide 24" Monitor	4421HB2	ann	09/17/08

Monitor Accessories⁴⁶

ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington Cable Lock from Lenovo	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
ThinkPad Convertible Monitor Stand	40Y7620	ann	01/05/06
Radial Arm	19K4464	ann	05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide

**Partial list of Lenovo® ThinkPlus Services²²
for ThinkPad notebooks**

For more information see:

http://www.lenovo.com/services_warranty/us/en/index.html

ThinkPlus service upgrade options ThinkPad notebook with 1-year Depot warranty <i>Depot = Depot repair</i> 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 <i>LOR = Lenovo Onsite Repair</i> 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 ThinkPad notebook with 3-year Depot warranty <i>Depot = Depot repair</i> 4-year parts and labor depot repair service 41C9178 5-year parts and labor depot repair service 41C9180 <i>LOR = Lenovo Onsite Repair</i> 2-year LOR 9x5 Next Business Day 41C9175 3-year LOR 9x5 Next Business Day 41C9176 4-year LOR 9x5 Next Business Day 41C9177 5-year LOR 9x5 Next Business Day 41C9179 ThinkPad notebook with 3-year Onsite warranty <i>LOR = Lenovo Onsite Repair</i> 4-year LOR 9x5 Next Business Day 12X5630 5-year LOR 9x5 Next Business Day 43R2162	ThinkPlus Priority Support for enterprise customers • 9x5 next-business-day response Lenovo Onsite Repair • 24x7 support with priority routing and advanced level technicians ThinkPad notebook with 1-year Depot warranty 3-year Priority Support 45J9094 ThinkPad notebook with 3-year Depot warranty 3-year Priority Support 45J9095 4-year Priority Support 45J9096 5-year Priority Support 45J9097 3-year Priority Support 4-hour response 45J9101 4-year Priority Support 4-hour response 45J9102 5-year Priority Support 4-hour response 45J9103 ThinkPad notebook with 3-year Onsite (GMP) warranty 3-year Priority Support 45J9098 4-year Priority Support 45J9099 5-year Priority Support 45J9100 3-year Priority Support 4-hour response 45J9104 4-year Priority Support 4-hour response 45J9105 5-year Priority Support 4-hour response 45J9106 ThinkPad Workstation (W500, W700) notebook with 1-year Depot warranty 3-year Priority Support 45J9107 ThinkPad Workstation (W500, W700) notebook with 3-year Depot warranty 3-year Priority Support 45J9108 4-year Priority Support 45J9109 5-year Priority Support 45J9110 3-year Priority Support 4-hour response 45J9114 4-year Priority Support 4-hour response 45J9115 5-year Priority Support 4-hour response 45J9116 ThinkPad Workstation (W500, W700) notebook with 3-year Onsite (GMP) warranty 3-year Priority Support 45J9111 4-year Priority Support 45J9112 5-year Priority Support 45J9113 3-year Priority Support 4-hour response 45J9117 4-year Priority Support 4-hour response 45K1520 5-year Priority Support 4-hour response 45K1521
ThinkPlus Secure Business Lenovo Online Data Backup <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 1-year Lenovo Online Data Backup - 10GB 51J0787 1-year Lenovo Online Data Backup - 25GB 51J0795 1-year Lenovo Online Data Backup - 50GB 45K5849 1-year Lenovo Online Data Backup - Unlimited 45K5870 ThinkPad notebook with 1-year Depot warranty <i>Depot = Depot repair</i> 1-year Secure Business 55Y2380 <ul style="list-style-type: none"> 1-year Lenovo Onsite Repair service upgrade 1-year ThinkPad Protection 1-year 50GB Lenovo Online Data Backup 3-year Secure Business 55Y2381 <ul style="list-style-type: none"> 3-year Lenovo Onsite Repair service upgrade 3-year ThinkPad Protection 3-year 50GB Lenovo Online Data Backup ThinkPad notebook with 3-year Depot warranty <i>Depot = Depot repair</i> 3-year Secure Business 45K5893 <ul style="list-style-type: none"> 3-year Lenovo Onsite Repair service upgrade 3-year ThinkPad Protection 3-year 50GB Lenovo Online Data Backup 	

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 Windows XP Professional 64-bit and Windows Vista 64-bit Editions.

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 not been finalized and is currently in draft release. The ThinkPad 11a/b/g/n (11n) Wireless LAN Mini PCI Express Adapters are based on the Draft Release, Version 1.02, of the IEEE 802.11n specification. The Intel Mini PCI Express Adapters are based on the Draft Release, Version 2.0 of the IEEE 802.11n specification. 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, 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.

This publication was developed for products and services offered in the United States. Lenovo may not offer the products, services or features discussed in this document in other countries. Lenovo may withdraw an offering at any time. Information is subject to change without notice. Consult your local representative for information on offerings available in your area.

Lenovo reserves the right to change specifications or other product information without notice. Lenovo is not responsible for photographic or typographical errors. LENOVO PROVIDES THIS PUBLICATION "AS IS," WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some jurisdictions do not allow disclaimer of express or implied warranties in certain transactions, therefore this disclaimer may not apply to you.



Trademarks: Lenovo, the Lenovo logo, New World, New Thinking., Access Connections, Active Protection System, Rescue and Recovery, ThinkPad, ThinkVantage, ThinkVision, ThinkPlus, ThinkCentre, TrackPoint, UltraConnect, UltraNav, and Ultrabay are trademarks or registered trademarks of Lenovo. The Bluetooth word mark and logos are owned by the Bluetooth SIG, Inc. Any use of such marks by Lenovo is under license. Microsoft, Windows, and Vista are registered trademarks of Microsoft Corporation. Intel, the Intel logo, Intel Inside logo, Intel Core and Core Inside, Intel Centrino logo, Pentium, Celeron and Intel SpeedStep are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries. Cisco and Aironet are registered trademarks of Cisco Corporation. Linux is a trademark of Linus Torvalds in the United States, other countries, or both. Other company, product and service names may be trademarks or service marks of others.

Visit www.lenovo.com/safecomputing periodically for the latest information on safe and effective computing.

Visit www.lenovo.com/psref for the latest version of Personal Systems Reference.

© Lenovo, 2009.
All rights reserved.

Lenovo
1009 Think Place
Morrisville, NC 27560
U.S.A.

April 2009
tabook.pdf



Personal Systems Reference

Lenovo® ThinkPad® SL Notebooks

April 2009 - Version 354



Lenovo ThinkPad SL500

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

ThinkPad®



Lenovo ThinkPad SL300



Lenovo ThinkPad SL300



Lenovo ThinkPad SL300



Lenovo ThinkPad SL300



Lenovo ThinkPad SL300



Lenovo ThinkPad SL300

Proc- Type-model	essor GHz	Memory	Wide- screen display	Screen type	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery Blue- tooth	Preload	Avail date
2738-4BU T5670	1.80	2GB	13.3"	WXGA Glossy	Cam	GMA	250G 5400	DVD±RW	* Intel 5100 ²⁸	AT&T ²³	None	Blue	6 Home P	Aug 08
2738-4CU T5670	1.80	2GB	13.3"	WXGA Glossy		GMA	160G 5400	DVD±RW	* Intel 5100	AT&T	None	Blue	6 Bus 32	Aug 08
2738-4DU T5670	1.80	2GB	13.3"	WXGA Glossy	Cam	GMA	250G 5400	DVD±RW	* Intel 5100	AT&T	None	Blue	6 Bus 32	Aug 08
2738-4EU T5670	1.80	2GB	13.3"	WXGA Glossy	Cam	GMA	250G 5400	DVD±RW	* Intel 5100	WWAN upg	None	Blue	6 Home P	Aug 08
2738-4FU T5670	1.80	2GB	13.3"	WXGA Glossy		GMA	160G 5400	DVD±RW	* Intel 5100	WWAN upg	None	Blue	6 Bus 32	Aug 08
2738-4HU T5670	1.80	2GB	13.3"	WXGA Glossy	Cam	GMA	250G 5400	DVD±RW	* Intel 5100	WWAN upg	None	Blue	6 Bus 32	Aug 08
2738-24U P8600	2.40	2GB	13.3"	WXGA Glossy	Cam	GMA	250G 5400	DVD±RW	÷ Intel 5100	AT&T	None	Blue	4 Bus 32	Aug 08
2738-25U P8400	2.26	2GB	13.3"	WXGA Glossy		GMA	160G 5400	DVD±RW	÷ Intel 5100	AT&T	None	Blue	4 Bus 32	Aug 08
2738-43U P8600	2.40	2GB	13.3"	WXGA Glossy	Cam	GMA	250G 5400	DVD±RW	÷ Intel 5100	AT&T	None	Blue	6 Bus 32	Aug 08
2738-44U P8400	2.26	2GB	13.3"	WXGA Glossy		GMA	160G 5400	DVD±RW	÷ Intel 5100	AT&T	None	Blue	6 Bus 32	Aug 08
2738-48U P8600	2.40	2GB	13.3"	WXGA Glossy	Cam	GMA	250G 5400	DVD±RW	÷ Intel 5100	WWAN upg	None	Blue	6 Bus 32	Aug 08
2738-49U P8400	2.26	2GB	13.3"	WXGA Glossy		GMA	160G 5400	DVD±RW	÷ Intel 5100	WWAN upg	None	Blue	6 Bus 32	Aug 08
2738-72U P8400	2.26	2GB	13.3"	WXGA Glossy		GMA	160G 5400	DVD±RW	÷ Intel 5100	AT&T	None	Blue	6 XP Pro	Aug 08
2738-73U P8600	2.40	2GB	13.3"	WXGA Glossy	Cam	GMA	250G 5400	DVD±RW	÷ Intel 5100	WWAN upg	None	Blue	6 XP Pro	Aug 08
2738-74U T5670	1.80	2GB	13.3"	WXGA Glossy		GMA	160G 5400	DVD±RW	* Intel 5100	WWAN upg	None	Blue	6 XP Pro	Aug 08
2738-75U T5670	1.80	2GB	13.3"	WXGA Glossy	Cam	GMA	250G 5400	DVD±RW	* Intel 5100	WWAN upg	None	Blue	6 XP Pro	Aug 08
2738-7EU P8400	2.26	2GB	13.3"	WXGA Glossy		GMA	160G 5400	DVD±RW	÷ Intel 5100	WWAN upg	None	Blue	6 XP Pro	Aug 08
2738-8ZU P7370	2.00	2GB	13.3"	WXGA Glossy		GMA	250G 5400	DVD±RW	÷ Intel 5100	WWAN upg	None	Blue	6 XP Pro	Sep 08
2738-2ZU T5870	2.00	2GB	13.3"	WXGA Glossy	Cam	GMA	250G 5400	DVD±RW	* Intel 5100	WWAN upg	None	Blue	6 XP Pro	Oct 08

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

Processor	Intel® Core™ 2 Duo processor T5670 or T5870 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core 2 Duo processor P7370, P8400, or P8600 with dual-core, Intel HD boost, 1066MHz system bus, and 3MB L2 cache										Preloaded operating system ²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) - Some: Microsoft Windows Vista Home Premium (32-bit) ✧ XP Pro models: Vista Basic logo ✧ Vista models: Vista Premium logo	
Memory	2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available											
SATA DVD±RW SATA disk	Some: 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, ThinkPad Shock Mounted Hard Drive, Active Protection System™										Preloaded applications ¹⁴ (all OSes) • Lenovo Care™ Tools • Rescue and Recovery™ • Access Connections™ • Password Manager • System Update • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar and Search • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Small Business Edition • Roxio MyDVD® (DVD±RW)	
Widescreen display	13.3" (338mm) WXGA (1280x800) color, VibrantView (glossy), LED backlight, 300 nits, 16:10 aspect ratio, 300:1 contrast ratio											
Camera	Some: camera on top of screen, 1.3-megapixel, fixed focus											
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, HDMI port supporting HDCP to output protected content; Max external resolution: 2048x1536@75Hz (VGA DB-15); 1920x1080 (HDMI)											
Keyboard	89-key, Lenovo Care button, spill-resistant, multimedia Fn keys											
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass											
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label											
Lighting FX	Illuminated power button, Lenovo Care button, and red dot on ThinkPad logo											
Dimensions ³	6-cell (WxDxH): 12.5" x 9.4" x 1.18–1.33"; 318mm x 238mm x 30–34mm											
Weight ²	4-cell: starting at 4.57 lb (2.07kg) 6-cell: starting at 4.76 lb (2.16kg)											
Case color	Black											
Case material	Scratch-resistant ABS plastic, high-gloss top cover											
Battery - type	Lithium Ion 4-cell or 6-cell											
Battery - life ¹⁰	4-cell: up to 3.0 hr; 6-cell: up to 4.5 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, security chip, ethernet MAC), LPC bus (IT8752 Super I/O)										65-watt (GMA graphics) AC adapter EPEAT™ Gold rating ENERGY STAR® 4.0-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/54	One slot (ExpressCard/34, ExpressCard/54)											
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, external monitor (VGA DB-15, HDMI), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										ThinkPlus™.22 2-year LOR ²⁴ 9x5 NBD 45K5969	
Mini PCI Express	Three Mini PCI Express slots										ThinkPlus 3-year LOR 9x5 NBD 45K5970	
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)										ThinkPlus 4-year LOR 9x5 NBD 45K5973	
WWAN upg	Some: Wireless WAN upgradable, optional AT&T® (43R9152)										ThinkPlus 5-year LOR 9x5 NBD 45K5975	
AT&T ²³	Some: Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T®										ThinkPlus 2-year P&L P/U Depot 45K5971	
2G Turbo	None										ThinkPlus 3-year P&L P/U Depot 45K5972	
UWB	None										ThinkPlus 4-year P&L P/U Depot 45K5974	
Modem	56K V.92 ⁶ modem										ThinkPlus 5-year P&L P/U Depot 45K5976	
Bluetooth™	Bluetooth 2.0 wireless, LED indicator										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty	
Ethernet	Realtek RTL8111C Gigabit Network Connection, PHY, PCIe x1											
Intel AMT	None											
Audio support	High Definition (HD) Audio, CX20561-15Z codec / stereo speakers, 1.5 watt / volume up, down, mute buttons / dual array microphone, mic input jack, headphone jack											
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	None											
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip											
Limited warranty ¹²	1-year - EasyServ™.19 depot repair service / service upgrades ²² available											

See footnotes for important warranty information

* Intel Centrino® processor technology

© Lenovo

US model announced October 14, 2008;

÷ Intel Centrino 2 processor technology

(CAR1-1) December 2008

previous models on August 12, August 19, or September 30, 2008

✕ US models withdrawn effective September 2008 or January 2009

ThinkPad® SL300 2738 (GMA) - TopSeller (January 2009)

Personal Systems Reference (PSREF)

	Proc-				Wide-				Disk		Mini PCIe	Mini PCIe	Mini PCIe	Finger	Bat-		
Type-model	essor	GHz	Memory		screen	Screen	Cam-	Integrated	SATA	SATA	802.11	WWAN	UWB	Blue-	print	tery	Avail
					display	type	era	graphics	GB ⁸	rpm	wireless		or Turbo	tooth	reader	cells	Preload
2738-A2U	T5870	2.00	2GB	13.3"	WXGA	Glossy		GMA	160G	5400	DVD±RW	* Intel 5100 ²⁸	WWAN upg	None	Blue	Fing	6 XP Pro
2738-A3U	T5870	2.00	2GB	13.3"	WXGA	Glossy		GMA	160G	5400	DVD±RW	* Intel 5100	WWAN upg	None	Blue	Fing	6 Bus 32
2738-A4U	T5870	2.00	3GB	13.3"	WXGA	Glossy	Cam	GMA	250G	5400	DVD±RW	* Intel 5100	WWAN upg	None	Blue	Fing	6 Home P
2738-2JU	P8600	2.40	2GB	13.3"	WXGA	Glossy	Cam	GMA	250G	5400	DVD±RW	÷ Intel 5100	WWAN upg	None		Fing	4 Bus 32
2738-H2U	P8600	2.40	2GB	13.3"	WXGA	Glossy		GMA	160G	5400	DVD±RW	÷ WiMAX	WWAN upg	None	Blue	Fing	6 Bus 32
2738-K3U	T5870	2.00	1GB	13.3"	WXGA	Glossy		GMA	160G	5400	DVD±RW	* Intel 5100		None		Fing	6 XP Pro

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

Processor	Intel® Core™ 2 Duo processor T5870 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core 2 Duo processor P8600 with dual-core, Intel HD boost, 1066MHz system bus, and 3MB L2 cache			Preloaded operating system ²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) - Some: Microsoft Windows Vista Home Premium (32-bit) ◇ 2JU model: Vista Premium logo ◇ Other models: Vista Basic logo		
Memory	1GB, 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	Some: DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (5400 rpm) or 250GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™					
Widescreen display	13.3" (338mm) WXGA (1280x800) color, VibrantView (glossy) , LED backlight, 300 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: camera on top of screen, 1.3-megapixel, fixed focus					
Camera						
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); 1920x1080 (HDMI)			Preloaded applications ¹⁴ (all OSes) • Lenovo Care™ Tools • Rescue and Recovery™ • Access Connections™ • Password Manager • System Update • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Windows Live Mail (model 2JU) • Windows Live Messenger (model 2JU) • Windows Live Photo Gallery (model 2JU) • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Small Business Edition • Roxio MyDVD® (DVD±RW)		
Keyboard	89-key, Lenovo Care button, spill-resistant, multimedia Fn keys					
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass					
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label					
Lighting FX	Illuminated power button, Lenovo Care button, and red dot on ThinkPad logo					
Dimensions ³	6-cell (WxDxH): 12.5" x 9.4" x 1.18–1.33"; 318mm x 238mm x 30–34mm					
Weight ²	4-cell: starting at 4.57 lb (2.07kg) 6-cell: starting at 4.76 lb (2.16kg)					
Case color	Black					
Case material	Scratch-resistant ABS plastic, high-gloss top cover					
Battery - type	Lithium Ion 4-cell or 6-cell					
Battery - life ¹⁰	4-cell: up to 3.0 hr; 6-cell: up to 4.5 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, security chip, ethernet MAC), LPC bus (IT8752 Super I/O)					
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)					
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, external monitor (VGA DB-15, HDMI), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)			Supports ThinkVantage® technologies		
Mini PCI Express	Three Mini PCI Express slots			65-watt (GMA graphics) AC adapter EPEAT™ Gold rating ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
Intel 5100 ²⁸	Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)			ThinkPlus™ ²² 1-year LOR ²⁴ 9x5 NBD 45K5968		
WiMAX	Some: 11a/b/g/n and WiMAX wireless ⁴ , Mini PCIe adap, Intel WiMAX/WiFi Link 5150, 1x2 (300Mbps) WiFi + 1x2 WiMAX (Echo Peak)			ThinkPlus 2-year LOR 9x5 NBD 45K5969		
WWAN upg	Wireless WAN upgradable, optional AT&T® (43R9152)			ThinkPlus 3-year LOR 9x5 NBD 45K5970		
2G Turbo	None			ThinkPlus 4-year LOR 9x5 NBD 45K5973		
UWB	None			ThinkPlus 5-year LOR 9x5 NBD 45K5975		
Modem	56K V.92 ⁶ modem			ThinkPlus 2-year P&L P/U Depot 45K5971		
Bluetooth™	Some: Bluetooth 2.0 wireless, LED indicator			ThinkPlus 3-year P&L P/U Depot 45K5972		
Ethernet	Realtek RTL8111C Gigabit Network Connection, PHY, PCIe x1			ThinkPlus 4-year P&L P/U Depot 45K5974		
Intel AMT	None			ThinkPlus 5-year P&L P/U Depot 45K5976		
Audio support	High Definition (HD) Audio, CX20561-15Z codec / stereo speakers, 1.5 watt / volume up, down, mute buttons / dual array microphone, mic input jack, headphone jack			Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		
Security	Power-on password, hard disk password, supervisor password, security keyhole					
Security chip	None					
Fingerprint reader	Some: Fingerprint reader on palm rest, swipe sensor, supports the security chip					
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available					
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	SL300 Series Li-Ion Battery 4-cell	43R9252			
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	T/R/W/SL Series Li-Ion Battery 6-cell	40Y6799			
SL 320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3405	T/R/W/SL Series Li-Ion Battery 9-cell	40Y6797			
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ThinkPad Basic Case	43R9113			
USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ThinkPad Business Backpack	43R2482			
Laser Tilt Wheel Travel Mouse (Bluetooth)	41U5008	ThinkVision® L2240p Wide 22" Monitor	4422HB6			
AT&T HSPA WWAN (Ericsson) Mini PCIe	43R9152	ThinkVision L2440p Wide 24" Monitor	4420HB2			
Other accessories on O-SL300 sheet		Other accessories at lenovo.com/accessories				

See footnotes for important warranty information
US model announced Feb 24, 2009:
previous models on Dec 16, 2008 or Jan 6, 2009

* Intel Centrino® processor technology
✦ Intel Centrino 2 processor technology

© Lenovo
(CAR11-1) February 2009

See footnotes for important warranty information ⚡ Intel Centrino 2 processor technology
 🇺🇸 US model announced February 10, 2009; previous models on August 12 or August 19, 2008
 🇺🇸 **US models withdrawn effective September 2008**

Partial list of accessories supported on:**• ThinkPad SL300 originally announced on August 12, 2008****Memory**

1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	ann	03/25/08
1GB PC2-5300 DDR2 SODIMM	40Y7734	ann	01/05/06
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	ann	03/25/08
2GB PC2-5300 DDR2 SODIMM	40Y7735	ann	11/28/06

Storage and removable storage

SL 320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3405	ann	07/15/08
USB 2.0 Essential Memory Key 2GB	41U4944	ann	01/23/07
USB 2.0 Essential Memory Key 4GB	45J7904	ann	06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann	07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann	10/28/08
USB 2.0 Security Memory Key 4GB	41U5120	ann	07/17/07
USB 2.0 Ultra Secure Memory Key 1GB	45J5915	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann	08/26/08
USB Portable Diskette Drive	05K9276	ann	06/05/00
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann	01/05/06
USB 2.0 Portable 160GB Hard Disk	43R1784	ann	09/23/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
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
USB 2.0 Super Multi-Burner Drive	41N5565	ann	01/23/07

Wireless WAN (Mini PCI Express)*Only WWAN upgradeable models:*

AT&T WWAN HSPA Broadband Mini PCIe	43R9152	ann	08/26/08
------------------------------------	---------	-----	----------

ThinkPad Expansion

USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ann	02/26/08
ThinkPad Adjustable Notebook Stand	40Y7676	ann	09/20/05

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann	12/07/04
USB Keyboard with UltraNav	31P8950	ann	01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann	04/27/04
Preferred Pro USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo® USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Optical Wheel Mouse (USB)	06P4069	ann	05/21/03
Optical ScrollPoint® Mouse (USB, PS/2)	31P7405	ann	08/27/02
Optical Wheel Travel Mouse (USB, PS/2)	31P7410	ann	06/04/02
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	ann	01/23/07
Lenovo Wireless Laser Mouse (blk, via USB)	45K1696	ann	11/25/08
Lenovo Wireless Laser Mouse (red, via USB)	51J0198	ann	11/25/08
Laser Tilt Wheel Travel Mouse (Bluetooth)	41U5008	ann	01/22/08

Security

Kensington® Cable Lock from Lenovo	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06
ExpressCard Gemplus Smart Card Reader ⁴⁷	41N3043	ann	06/27/06

⁴⁷ Requires ExpressCard slot**Multimedia**

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann	06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann	08/29/06

Batteries

SL300 Series Li-Ion Battery 4-cell	43R9252	ann	08/12/08
T/R/W/SL Series Li-Ion Battery 6-cell	40Y6799	ann	01/05/06
T/R/W/SL Series Li-Ion Battery 9-cell	40Y6797	ann	09/20/05
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann	09/20/05

⁴⁴ Requires the *ThinkPad 90W AC Adapter*

40Y7659 (adapter provided with some systems).

More information at www.lenovo.com/alldaycomputingThinkPad 65W AC Adapter⁴⁵ 40Y7696⁴⁵ Only compatible with the GM45 chipset models.

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

More info at www.lenovo.com/support/poweradapters**Carrying Cases**

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

Up to 14.1" widescreen models:

ThinkPad Expander Case	43R9118 ann 06/24/08
ThinkPad Women's Microfiber Tote	22P8855
ThinkPad Women's Leather Trim Tote	22P8856
ThinkPad Convertible Carrying Case	22P8860
ThinkPad Women's Executive Leather Tote	22P8857
Women's Executive Red Leather Tote	22P8858

Up to 15.4" widescreen models:

Lenovo Carrying Case - Messenger Max	41U5253 ann 05/01/07
Lenovo Carr Case - Performance Backpack	41U5254 ann 05/01/07
Lenovo Standard Case	45K1697 ann 11/25/08
Lenovo Standard Backpack	45K1698 ann 11/25/08
Checkpoint Friendly Business Topload Case	51J0418 ann 02/24/09
ThinkPad Business Topload Case	43R2476 ann 05/13/08
ThinkPad Business Backpack	43R2482 ann 05/13/08
ThinkPad Deluxe Expander Case	43R2478 ann 05/13/08
ThinkPad Executive Leather Case	43R2480 ann 05/13/08

Up to 17.0" widescreen models:

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

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

ThinkVision® L174 17" Monitor	9227AE1 ann 04/15/08
ThinkVision L1700p 17" Monitor	9417HE2 ann 09/17/08
ThinkVision L1900p 19" Monitor	4431HE1 ann 11/11/08
ThinkVision L1940p Wide 19" Monitor	4424HB6 ann 09/17/08
ThinkVision L200p Wide 20.1" Monitor	4438HB6 ann 04/15/08
ThinkVision L2240p Wide 22" Monitor	4422HB6 ann 09/17/08
ThinkVision L2440p Wide 24" Monitor	4420HB2 ann 09/17/08
ThinkVision L2440x Wide 24" Monitor	4421HB2 ann 09/17/08

Monitor Accessories⁴⁶

ThinkVision USB Soundbar	40Y7616 ann 08/23/05
ThinkVision Soundbar	45K1263 ann 09/16/08
Kensington Cable Lock from Lenovo	73P2582 ann 12/29/03
Kensington Twin Head Cable Lock	45K1620 ann 09/30/08
ThinkPad Convertible Monitor Stand	40Y7620 ann 01/05/06
Radial Arm	19K4464 ann 05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.More information at www.lenovo.com/support/monitoraccessoriesOther accessories at www.lenovo.com/accessoriesAccessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad®



Lenovo ThinkPad SL400



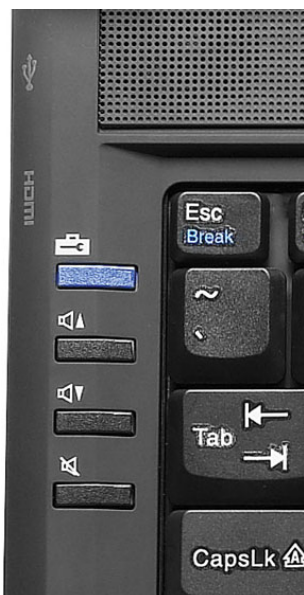
Lenovo ThinkPad SL400



Lenovo ThinkPad SL400



Lenovo ThinkPad SL400



Lenovo ThinkPad SL400



Lenovo ThinkPad SL400



ThinkPad® SL400 2743 (GMA) - TopSeller (Celeron)

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	Mini PCIe UWB or Turbo	Blue- tooth	Bat- tery cells	Preload	Avail date	
2743-9YU	Cel 585	2.16	1GB	14.1" WXGA		Glossy	None	GMA 80G	5400	DVD±RW	11b/g ³²	WWAN upg	None	None	6	Home B	Aug 08	
2743-9ZU	Cel 585	2.16	1GB	14.1" WXGA			None	GMA 160G	5400	DVD±RW	11b/g	WWAN upg	None	None	6	XP Pro	Aug 08	
2743-B2U	Cel T1600	1.66	1GB	14.1" WXGA			None	GMA 160G	5400	DVD±RW	11b/g	WWAN upg	None	None	6	XP Pro	Sep 08	
2743-LHU	Cel T1600	1.66	1GB	14.1" WXGA	LED	Glossy	None	GMA 160G	5400	DVD±RW	11b/g		None	None	6	XP Pro	Mar 09	
<ul style="list-style-type: none">• These small and medium business (SMB) models are part of the US TopSeller™ Program• A comprehensive computing solution for small and medium business• Balanced between serious business computing and powerful multimedia features																		
Processor	Intel® Celeron® Processor 585 with single-core, 667MHz system bus, and 1MB L2 cache or Intel Celeron Processor T1600 with dual-core, 667MHz system bus, and 1MB L2 cache											Preloaded operating system ²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Home Basic Edition (32-bit) ◇ Vista Basic logo						
Memory	1GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; Non-italics: 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 80GB ⁸ (5400 rpm) or 160GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™											Preloaded applications ¹⁴ (all OSes) • Lenovo Care™ Tools • Rescue and Recovery™ • Access Connections™ • Password Manager • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Small Business Edition • Roxio MyDVD® (DVD±RW)						
Widescreen display	Some: 14.1" (358.1mm) WXGA (1280x800) color, anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: 14.1" (358.1mm) WXGA (1280x800) color, VibrantView (glossy), CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: 14.1" (358.1mm) WXGA (1280x800) color, VibrantView (glossy), LED backlight, high brightness 680 nits, 16:10 aspect ratio, 300:1 contrast ratio																	
Camera	None																	
Integrated graphics	Intel Graphics Media Accelerator 4500M (GMA 4500M), in GL40, HDMI port supporting HDCP to output protected content; Max external resolution: 2048x1536@75Hz (DB-15 port); 1920x1080 (HDMI port)																	
Keyboard	89-key, Lenovo Care button, spill-resistant, multimedia Fn keys, Windows/Appl keys																	
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass																	
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label																	
Lighting FX	Illuminated power button, Lenovo Care button, and red dot on ThinkPad logo																	
Dimensions ³	6-cell 14.1W" (WxDxH): 13.2" x 9.7" x 1.34–1.46"; 336mm x 247mm x 34–37mm																	
Weight ²	6-cell: starting at 5.5 lb (2.5kg)																	
Case	Color: black; Material: scratch-resistant ABS plastic, high-gloss top cover																	
Battery - type	Lithium Ion 6-cell																	
Battery - life ¹⁰	6-cell: up to 4.1 hr; 9-cell: up to 6 hr																	
Chipset	Mobile Intel GL40 Express Chipset (Graphics Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (IT8752 Super I/O)											65-watt (GMA graphics) AC adapter EPEAT™ Silver rating 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, ExpressCard/54)																	
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)																	
PC Card Std	None																	
Smart Card Read	None																	
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)											ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968						
Mini PCI Express	Three Mini PCI Express slots											ThinkPlus 2-year LOR 9x5 NBD 45K5969						
11b/g ³²	11b/g wireless ⁴ , ThinkPad 11b/g Mini PCIe Adapter III, Atheros AR5007EG											ThinkPlus 3-year LOR 9x5 NBD 45K5970						
WWAN upg	Some: Wireless WAN upgradable, optional AT&T® (43R9152)											ThinkPlus 4-year LOR 9x5 NBD 45K5973						
2G Turbo	None											ThinkPlus 5-year LOR 9x5 NBD 45K5975						
UWB	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™	None											ThinkPlus 4-year P&L P/U Depot 45K5974						
Ethernet	Realtek RTL8111C Gigabit Network Connection, PHY, PCIe x1											ThinkPlus 5-year P&L P/U Depot 45K5976						
Intel AMT	None																	
Audio support	High Definition (HD) Audio, CX20561-15Z codec / stereo speakers, 2 watt / volume up, down, mute buttons / dual array microphone, 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 - EasyServ™.19 depot repair service / service upgrades ²² available																	
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000				T/R/W/SL Series Li-Ion Battery 9-cell				40Y6797				Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty					
SL 320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3405				90W Slim AC/DC Combo Adapter				41N8460									
Other accessories on O-SL400 sheet	Other accessories at lenovo.com/accessories																	

See footnotes for important warranty information

US model announced March 31, 2009; previous models on August 20 or September 30, 2008

© Lenovo
(CAY1-3) April 2009

ThinkPad® SL400 2743 (GMA) - TopSeller

Personal Systems Reference (PSREF)

	Proc- Type-model	essor GHz	Memory	Wide- screen display	Screen type	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery Blue- tooth cells	Preload	Avail date		
☞	2743-48U	T5670	1.80	2GB	14.1"	WXGA	GMA	250G 5400	DVD±RW	* Intel 5100 ²⁸	AT&T ²³		6	Bus 32	July 08		
☞	2743-49U	T5670	1.80	2GB	14.1"	WXGA	Glossy Cam	GMA	250G 5400	DVD±RW	* Intel 5100	AT&T	Blue	6	Home P	July 08	
☞	2743-4AU	T5670	1.80	2GB	14.1"	WXGA	GMA	250G 5400	DVD±RW	* Intel 5100	WWAN upg		6	Bus 32	July 08		
☞	2743-4BU	T5670	1.80	2GB	14.1"	WXGA	Glossy Cam	GMA	250G 5400	DVD±RW	* Intel 5100	WWAN upg	Blue	6	Home P	July 08	
☞	2743-42U	P8400	2.26	1GB	14.1"	WXGA	GMA	160G 5400	Combo	☛ Intel 5100	AT&T		6	Bus 32	July 08		
	2743-43U	P8400	2.26	2GB	14.1"	WXGA	GMA	160G 5400	DVD±RW	☛ Intel 5100	AT&T		6	Bus 32	July 08		
☞	2743-45U	P8400	2.26	1GB	14.1"	WXGA	GMA	160G 5400	Combo	☛ Intel 5100	WWAN upg		6	Bus 32	July 08		
	2743-46U	P8400	2.26	2GB	14.1"	WXGA	GMA	160G 5400	DVD±RW	☛ Intel 5100	WWAN upg		6	Bus 32	July 08		
☞	2743-23U	P8600	2.40	2GB	14.1"	WXGA	Cam	GMA	160G 5400	DVD±RW	☛ Intel 5100	AT&T	Blue	6	Home P	July 08	
	2743-26U	P8600	2.40	2GB	14.1"	WXGA	Cam	GMA	160G 5400	DVD±RW	☛ Intel 5100	WWAN upg	2G Turbo	Blue	6	Bus 32	July 08
	2743-72U	P8400	2.26	2GB	14.1"	WXGA	GMA	160G 5400	DVD±RW	☛ Intel 5100	AT&T		Blue	6	XP Pro	Aug 08	
	2743-83U	P8400	2.26	2GB	14.1"	WXGA	GMA	160G 5400	DVD±RW	☛ Intel 5100	WWAN upg		6	XP Pro	Aug 08		
☞	2743-86U	T5670	1.80	2GB	14.1"	WXGA	GMA	250G 5400	DVD±RW	* Intel 5100	WWAN upg		6	XP Pro	Aug 08		
	2743-89U	P8400	2.26	2GB	14.1"	WXGA	Cam	GMA	250G 5400	DVD±RW	☛ Intel 5100	WWAN upg	Blue	6	XP Pro	Aug 08	
	2743-8CUP	P8600	2.40	2GB	14.1"	WXGA	Cam	GMA	160G 5400	DVD±RW	☛ Intel 5100	WWAN upg	Blue	6	XP Pro	Aug 08	
	2743-6DUP	P7370	2.00	2GB	14.1"	WXGA	GMA	250G 5400	DVD±RW	☛ Intel 5100	WWAN upg		6	XP Pro	Sep 08		
☞	2743-6AU	T5870	2.00	2GB	14.1"	WXGA	Cam	GMA	250G 5400	DVD±RW	☛ Intel 5100	WWAN upg	Blue	6	XP Pro	Oct 08	

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

Processor	Intel® Core™ 2 Duo processor T5670 or T5870 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core 2 Duo processor P7370, P8400, or P8600 with dual-core, Intel HD boost, 1066MHz system bus, and 3MB L2 cache	Preloaded operating system ²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) - Some: Microsoft Windows Vista Ultimate Edition (32-bit) ◇ 42U/45U/XP Pro models: Vista Basic logo ◇ 2GB Vista models: Vista Premium logo
Memory	1GB or 2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	Preloaded applications ¹⁴ (all OSes) • Lenovo Care™ Tools • Rescue and Recovery™ • Access Connections™ • Password Manager • System Update • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities • Adobe® Reader • Windows Live™ Toolbar and Search • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Small Business Edition • Roxio MyDVD® (DVD±RW)
SATA Combo SATA DVD±RW SATA disk	Some: DVD-ROM/CD-RW, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in Some: DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB ⁸ (5400 rpm), 250GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	Some: 14.1" (358.1mm) WXGA (1280x800) color, anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: 14.1" (358.1mm) WXGA (1280x800) color, VibrantView (glossy), CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio	
Camera	Some: camera on top of screen, 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); 1920x1080 (HDMI)	
Keyboard TrackPoint® Touch pad Lighting FX	89-key, Lenovo Care 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 Illuminated power button, Lenovo Care button, and red dot on ThinkPad logo	
Dimensions ³ Weight ² Case Battery - type Battery - life ¹⁰	6-cell 14.1W" (WxDxH): 13.2" x 9.7" x 1.34–1.46"; 336mm x 247mm x 34–37mm 6-cell: starting at 5.5 lb (2.5kg) Color: black; Material: scratch-resistant ABS plastic, high-gloss top cover Lithium Ion 6-cell 6-cell: up to 4.1 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, security chip, ethernet MAC), LPC bus (IT8752 Super I/O)	65-watt (GMA graphics) AC adapter EPEAT™ Silver rating ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
ExpressCard Multicard Reader PC Card Std Smart Card Read Ports	One slot (ExpressCard/34, ExpressCard/54) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) None None 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)	ThinkPlus™, 22 2-year LOR ²⁴ 9x5 NBD 45K5969
Mini PCI Express Intel 5100 ²⁸ WWAN upg AT&T ²³	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Some: Wireless WAN upgradable, optional AT&T® (43R9152) Some: Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T®	ThinkPlus 3-year LOR 9x5 NBD 45K5970
2G Turbo UWB	Some: Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None	ThinkPlus 4-year LOR 9x5 NBD 45K5973
Modem Bluetooth™ Ethernet Intel AMT Audio support	56K V.92 ⁶ modem Some: Bluetooth 2.0 wireless, LED indicator Realtek RTL8111C Gigabit Network Connection, PHY, PCIe x1 None High Definition (HD) Audio, CX20561-15Z codec / stereo speakers, 2 watt / volume up, down, mute buttons / dual array microphone, mic input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole None	ThinkPlus 5-year LOR 9x5 NBD 45K5975
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole None Fingerprint reader on palm rest, swipe sensor, supports the security chip	ThinkPlus 2-year P&L P/U Depot 45K5971
Limited warranty ¹²	1-year - EasyServ™, 19 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
		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

* Intel Centrino® processor technology

© Lenovo

US model announced October 7, 2008;

Intel Centrino 2 processor technology

(CAY1-1) October 2008

previous models on July 15, July 29, or September 30, 2008

US models withdrawn effective September 2008 or January 2009

ThinkPad® SL400 2743 (GMA) - TopSeller (January 2009)

Personal Systems Reference (PSREF)

Proc-				Wide-				Disk		Mini PCIe	Mini PCIe	Mini PCIe	Finger	Bat-		
Type-model	essor	GHz	Memory	screen	Screen	Cam-	Integrated	SATA	SATA	802.11	WWAN	UWB	Blue-	print	tery	Pre-
				display	type	era	graphics	GB ⁸	rpm	wireless		or Turbo	tooth	reader	cells	load
2743-6GU	T5870	2.00	2GB	14.1"	WXGA		GMA	250G	5400	DVD±RW	* Intel 5100 ²⁸	WWAN	upg	None	Fing	6 XP Pro
2743-6HU	T5870	2.00	2GB	14.1"	WXGA		GMA	250G	5400	DVD±RW	* Intel 5100	WWAN	upg	None	Fing	6 Bus 32
2743-6JU	T5870	2.00	3GB	14.1"	WXGA	Glossy	Cam	GMA	250G	5400	DVD±RW	* Intel 5100	WWAN	upg	None	Blue
2743-3WUP	P8600	2.40	2GB	14.1"	WXGA		Cam	GMA	160G	5400	DVD±RW	÷ Intel 5100	WWAN	upg	None	Fing
2743-H2U	P8600	2.40	2GB	14.1"	WXGA			GMA	160G	5400	DVD±RW	÷ WiMAX	WWAN	upg	None	Fing
2743-H3U	P8600	2.40	3GB	14.1"	WXGA		Cam	GMA	160G	5400	DVD±RW	÷ Intel 5100	WWAN	upg	None	Blue

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

Processor	Intel® Core™ 2 Duo processor T5870 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core 2 Duo processor P8600 with dual-core, Intel HD boost, 1066MHz system bus, and 3MB L2 cache			Preloaded operating system ²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) - Some: Microsoft Windows Vista Ultimate Edition (32-bit) ◇ 3WU model: Vista Premium logo ◇ Other models: Vista Basic logo		
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), 250GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™					
Widescreen display	Some: 14.1" (358.1mm) WXGA (1280x800) color, anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: 14.1" (358.1mm) WXGA (1280x800) color, VibrantView (glossy), CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio					
Camera	Some: camera on top of screen, 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); 1920x1080 (HDMI)			Preloaded applications ¹⁴ (all OSes) • Lenovo Care™ Tools • Rescue and Recovery™ • Access Connections™ • Password Manager • System Update • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Windows Live Mail (model 3WU) • Windows Live Messenger (model 3WU) • Windows Live Photo Gallery (model 3WU) • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Small Business Edition • Roxio MyDVD® (DVD±RW)		
Keyboard	89-key, Lenovo Care button, spill-resistant, multimedia Fn keys					
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass					
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label					
Lighting FX	Illuminated power button, Lenovo Care button, and red dot on ThinkPad logo					
Dimensions ³	6-cell 14.1W" (WxDxH): 13.2" x 9.7" x 1.34–1.46"; 336mm x 247mm x 34–37mm					
Weight ²	6-cell: starting at 5.5 lb (2.5kg)					
Case	Color: black; Material: scratch-resistant ABS plastic, high-gloss top cover					
Battery - type	Lithium Ion 6-cell					
Battery - life ¹⁰	6-cell: up to 4.1 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, security chip, ethernet MAC), LPC bus (IT8752 Super I/O)			65-watt (GMA graphics) AC adapter EPEAT™ Silver ratings ENERGY STAR® 4.0-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, ExpressCard/54)					
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)					
PC Card Std	None					
Smart Card Read	None					
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)					
Mini PCI Express	Three Mini PCI Express slots					
Intel 5100 ²⁸	Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)					
WiMAX	Some: 11a/b/g/n and WiMAX wireless ⁴ , Mini PCIe adap, Intel WiMAX/WiFi Link 5150, 1x2 (300Mbps) WiFi + 1x2 WiMAX (Echo Peak)					
WWAN upg	Some: Wireless WAN upgradable, optional AT&T® (43R9152)			ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968		
AT&T ²³	Some: Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T®			ThinkPlus 2-year LOR 9x5 NBD 45K5969		
2G Turbo	Some: Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator			ThinkPlus 3-year LOR 9x5 NBD 45K5970		
UWB	None			ThinkPlus 4-year LOR 9x5 NBD 45K5973		
Modem	56K V.92® modem			ThinkPlus 5-year LOR 9x5 NBD 45K5975		
Bluetooth™	Some: Bluetooth 2.0 wireless, LED indicator			ThinkPlus 2-year P&L P/U Depot 45K5971		
Ethernet	Realtek RTL8111C 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, CX20561-15Z codec / stereo speakers, 2 watt / volume up, down, mute buttons / dual array microphone, mic input jack, headphone jack			ThinkPlus 5-year P&L P/U Depot 45K5976		
Security	Power-on password, hard disk password, supervisor password, security keyhole			Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		
Security chip	None					
Fingerprint reader	Some: Fingerprint reader on palm rest, swipe sensor, supports the security chip					
Limited warranty ¹²	1-year - EasyServ™.19 depot repair service / service upgrades ²² available					
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	T/R/W/SL Series Li-Ion Battery 6-cell	40Y6799			
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	T/R/W/SL Series Li-Ion Battery 9-cell	40Y6797			
SL 320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3405	ThinkPad Basic Case	43R9113			
AT&T HSPA WWAN (Ericsson) Mini PCIe	43R9152	ThinkVision® L2440p Wide 24" Monitor	4420HB2			
Other accessories on O-SL300 sheet	Other accessories at lenovo.com/accessories					

See footnotes for important warranty information
US models announced Dec 16, 2008 or Jan 6, 2009

* Intel Centrino® processor technology
÷ Intel Centrino 2 processor technology

© Lenovo
(CAY11-1) January 2009

ThinkPad® SL400 2743 (GMA) - TopSeller (April 2009)

Personal Systems Reference (PSREF)

Type-model	Proc-essor	GHz	Memory	Wide-screen display	Screen type	Cam-era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Blue-tooth	Finger print reader	Bat-tery Pre-load	Whorse (W)	
																Gbl (G) Educ	Avail date
2743-LJU	T5870	2.00	2GB	14.1"	WXGA Glossy		GMA 160G5400	DVD±RW	* Intel 5100 ²⁸	None	None	None			6 XP Pro	Mar 09	
2743-LKU	T5870	2.00	3GB	14.1"	WXGA Glossy		GMA 250G5400	DVD±RW	* Intel 5100	None	None	None		Fing	6 XP Pro	Mar 09	
2743-LLU	T5870	2.00	3GB	14.1"	WXGA Glossy		GMA 250G5400	DVD±RW	* Intel 5100	None	None	None		Fing	6 Bus 32	Mar 09	
2743-LMU	T6570	2.10	3GB	14.1"	WXGA Glossy	Cam	GMA 320G5400	DVD±RW	* Intel 5100	None	None	None	Blue	Fing	6 XP Pro	Mar 09	
2743-LNU	P8600	2.40	2GB	14.1"	WXGA Glossy	Cam	GMA 250G5400	DVD±RW	* Intel 5100	None	None	None	Blue	Fing	6 XP Pro	Mar 09	
2743-Q3U	T6570	2.10	2GB	14.1"	WXGA Glossy	Cam	GMA 250G5400	DVD±RW	* Intel 5100	None	None	None	Blue	Fing	6 Ult 32	Educ Apr 09	

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

Processor	Intel® Core™ 2 Duo processor T5870 or T6570 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core 2 Duo processor P8600 with dual-core, Intel HD boost, 1066MHz system bus, and 3MB L2 cache			Preloaded operating system ²⁰ - <i>Some:</i> Microsoft® Windows® XP Professional with Vista® COA - <i>Some:</i> Microsoft Windows Vista Business Edition (32-bit) - <i>Some:</i> Microsoft Windows Vista Ultimate Edition (32-bit) ◇ Vista Basic logo Preloaded applications ¹⁴ (all OSes, only some listed) • Q3U model: Education software - Microsoft Office Ultimate 2007 Academic Edition (and CD) • Lenovo Care™ Tools • Rescue and Recovery™ • Access Connections™ • Password Manager • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Fingerprint Software • Roxio® Creator® Small Business Edition • Roxio MyDVD® (DVD±RW) 65-watt (GMA graphics) AC adapter EPEAT™ Silver rating ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™. ²² 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		
Memory	2GB 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), 250GB (5400 rpm), or 320GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™					
Widescreen display Camera	14.1" (358.1mm) WXGA (1280x800) color, VibrantView (glossy), LED backlight, high brightness 680 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus					
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, HDMI port supporting HDCP to output protected content; <i>Max external resolution:</i> 2048x1536@75Hz (VGA); 1920x1080 (HDMI)					
Keyboard TrackPoint® Touch pad Lighting FX	89-key, Lenovo Care 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 Illuminated power button, Lenovo Care button, and red dot on ThinkPad logo					
Dimensions ³ Weight ² Case Battery - type Battery - life ¹⁰	6-cell 14.1W" (WxDxH): 13.2" x 9.7" x 1.34–1.46"; 336mm x 247mm x 34–37mm 6-cell: starting at 5.5 lb (2.5kg) <i>Color:</i> black; <i>Material:</i> scratch-resistant ABS plastic, high-gloss top cover Lithium Ion 6-cell 6-cell: up to 4.1 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, security chip, ethernet MAC), LPC bus (IT8752 Super I/O)					
ExpressCard Multicard Reader PC Card Std Smart Card Read Ports	One slot (ExpressCard/34, ExpressCard/54) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) None None 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)					
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) None None None None 56K V.92 ⁶ modem <i>Some:</i> Bluetooth 2.0 wireless, LED indicator Realtek RTL8111C Gigabit Network Connection, PHY, PCIe x1 None High Definition (HD) Audio, CX20561-15Z codec / stereo speakers, 2 watt / volume up, down, mute buttons / dual array microphone, mic input jack, headphone jack					
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole None <i>Some:</i> Fingerprint reader on palm rest, swipe sensor, supports the security chip					
Limited warranty ¹² 1-year - EasyServ™. ¹⁹ depot repair service / service upgrades ²² available						
1GB PC2-5300 DDR2 SODIMM (TopSeller)		43R1999	T/R/W/SL Series Li-Ion Battery 6-cell	40Y6799		
2GB PC2-5300 DDR2 SODIMM (TopSeller)		43R2000	T/R/W/SL Series Li-Ion Battery 9-cell	40Y6797		
SL 320GB Disk SATA 1.5Gb/s (5400 rpm)		43N3405	ThinkPad 90W AC Adapter	40Y7659		
USB 2.0 Ultra Secure Memory Key 8GB		45J5918	90W Slim AC/DC Combo Adapter	41N8460		
USB 2.0 Portable Secure 320GB Hard Disk		43R2019	ThinkPad Business Topload Case	43R2476		
Other accessories on O-SL300 sheet		Other accessories at lenovo.com/accessories				

See footnotes for important warranty information
US models announced Mar 31 or April 7, 2009

* Intel Centrino® processor technology
✦ Intel Centrino 2 processor technology

© Lenovo
(CAY11-2) April 2009

ThinkPad® SL400 2743 (NVIDIA®) - TopSeller

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Screen type	Cam-Discrete era graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery cells	Preload	Avail date
2743-44U P8400	2.26	2GB	14.1"	WXGA+	Cam 9300M	160G 5400	DVD±RW	Intel 5100 ²⁸	AT&T ²³		6	Business 32	July 08
2743-47U P8400	2.26	2GB	14.1"	WXGA+	Cam 9300M	160G 5400	DVD±RW	Intel 5100	WWAN upg		6	Business 32	July 08
2743-22U P8400	2.26	2GB	14.1"	WXGA	Glossy Cam 9300M	250G 5400	DVD±RW	Intel 5100	AT&T		6	Business 32	July 08
2743-24U P8600	2.40	2GB	14.1"	WXGA	Glossy Cam 9300M	250G 5400	DVD±RW	Intel 5100	AT&T	2G Turbo	6	Business 32	July 08
2743-25U T9400	2.53	4GB	14.1"	WXGA+	Cam 9300M	320G 5400	BD burner	Intel 5100	AT&T	2G Turbo	9	Ultimate 32	July 08
2743-82U P8400	2.26	2GB	14.1"	WXGA+	Cam 9300M	160G 5400	DVD±RW	Intel 5100	AT&T ²³		6	XP Pro	Aug 08
2743-84U P8400	2.26	2GB	14.1"	WXGA+	Cam 9300M	160G 5400	DVD±RW	Intel 5100	WWAN upg		6	XP Pro	Aug 08
<ul style="list-style-type: none">• These small and medium business (SMB) models are part of the US TopSeller™ Program• A comprehensive computing solution for small and medium business• Balanced between serious business computing and powerful multimedia features													
Processor	Intel® Core™ 2 Duo processor P8400, P8600, or T9400 with dual-core, Intel HD boost, 1066MHz system bus; P8400/P8600: 3MB L2 cache; T9400: 6MB L2 cache									Preloaded operating system ²⁰ <ul style="list-style-type: none">- Some: Microsoft® Windows® XP Professional with Vista® COA- Some: Microsoft Windows Vista Business Edition (32-bit)- Some: Microsoft Windows Vista Ultimate Edition (32-bit) ◇ XP Pro models: Vista Basic logo ◇ Vista models: Vista Premium logo			
Memory	1GB, 2GB, or 4GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; Italics: standard memory in both sockets; no sockets available; Non-italics: standard memory in one socket; one socket available												
SATA DVD±RW SATA BD burner SATA disk	Some: DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in Some: Blu-ray™ burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB ⁸ (5400 rpm), 250GB (5400 rpm), or 320GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™												
Widescreen display	Some: 14.1" (358.1mm) WXGA (1280x800) color, VibrantView (glossy), CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: 14.1" (358.1mm) WXGA+ (1440x900) color, anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio												
Camera	Camera on top of screen, 2.0-megapixel, fixed focus												
Discrete graphics	NVIDIA® GeForce 9300M, PCI Express® x16, 256MB memory, HDMI port supporting HDCP to output protected content; Max external resolution: 2048x1536@85Hz (DB-15 port); 1920x1080 (HDMI port)												
Keyboard TrackPoint® Touch pad Lighting FX	89-key, Lenovo Care 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 Illuminated power button, Lenovo Care button, and red dot on ThinkPad logo												
Dimensions ³ Weight ² Case Battery - type Battery - life ¹⁰	6-cell 14.1W" (WxDxH): 13.2" x 9.7" x 1.34–1.46"; 336mm x 247mm x 34–37mm 6-cell: starting at 5.5 lb (2.5kg); 9-cell: starting at 5.9 lb (2.7kg) Color: black; Material: scratch-resistant ABS plastic, high-gloss top cover Lithium Ion 6-cell or 9-cell 6-cell: up to 3.6 hr; 9-cell: up to 5.5 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, PCI 2.3, security chip, ethernet MAC), LPC bus (IT8752 Super I/O)												
ExpressCard slot Multicard Reader PC Card Std slot Smart Card Read Ports	One ExpressCard/34 or ExpressCard/54 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) None None 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)												
Mini PCI Express Intel 5100 ²⁸ WWAN upg AT&T ²³	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Some: Wireless WAN upgradable, optional AT&T® (43R9152) Some: Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T®									90-watt (NVIDIA graphics) AC adapter EPEAT™ Silver rating ENERGY STAR® 4.0-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			
2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Some: Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem Bluetooth 2.0 wireless, LED indicator Realtek RTL8111C Gigabit Network Connection, PHY, PCIe x1 None High Definition (HD) Audio, CX20561-15Z codec / stereo speakers, 2 watt / volume up, down, mute buttons / dual array microphone, mic input jack, headphone jack									ThinkPlus™. 22 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976			
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole None Fingerprint reader on palm rest, swipe sensor, supports the security chip												
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available												
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999					T/R/W/SL Series Li-Ion Battery 6-cell			40Y6799				
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000					T/R/W/SL Series Li-Ion Battery 9-cell			40Y6797				
SL 320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3405					ThinkPad 90W AC Adapter			40Y7659				
USB 2.0 Ultra Secure Memory Key 8GB	45J5918					90W Slim AC/DC Combo Adapter			41N8460				
USB 2.0 Portable Secure 320GB Hard Disk	43R2019					ThinkPad Business Topload Case			43R2476				
USB 2.0 Lenovo Enhanced Port Replicator	43R8770					ThinkPad Business Backpack			43R2482				
ThinkPad Convertible Monitor Stand	40Y7620					ThinkVision® L2240p Wide 22" Monitor			4422HB6				
Laser Tilt Wheel Travel Mouse (Bluetooth)	41U5008					ThinkVision L2440x Wide 24" Monitor			4421HB2				
Other accessories on O-SL400 sheet													
Other accessories at lenovo.com/accessories													
Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty													

See footnotes for important warranty information

✦ Intel Centrino® 2 processor technology

© Lenovo

US models announced July 29, 2008; previous models on July 15, 2008

(CAY1-2) August 2008

US models withdrawn effective September 2008

Partial list of accessories supported on:**• ThinkPad SL400 originally announced on July 15, 2008****Memory**

1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	ann 03/25/08
1GB PC2-5300 DDR2 SODIMM	40Y7734	ann 01/05/06
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	ann 03/25/08
2GB PC2-5300 DDR2 SODIMM	40Y7735	ann 11/28/06

Storage and removable storage

SL 320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3405	ann 07/15/08
USB 2.0 Essential Memory Key 2GB	41U4944	ann 01/23/07
USB 2.0 Essential Memory Key 4GB	45J7904	ann 06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann 07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann 10/28/08
USB 2.0 Security Memory Key 4GB	41U5120	ann 07/17/07
USB 2.0 Ultra Secure Memory Key 1GB	45J5915	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann 08/26/08
USB Portable Diskette Drive	05K9276	ann 06/05/00
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann 01/05/06
USB 2.0 Portable 160GB Hard Disk	43R1784	ann 09/23/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
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
USB 2.0 Super Multi-Burner Drive	41N5565	ann 01/23/07

Wireless WAN (Mini PCI Express)**Only WWAN upgradable models:**

AT&T WWAN HSPA Broadband Mini PCIe	43R9152	ann 08/26/08
------------------------------------	---------	--------------

ThinkPad Expansion

USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ann 02/26/08
ThinkPad Adjustable Notebook Stand	40Y7676	ann 09/20/05

Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann 12/07/04
USB Keyboard with UltraNav	31P8950	ann 01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann 04/27/04
Preferred Pro USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo® USB Smartcard Keyboard	51J0155	ann 03/24/09

Mouse

Optical Wheel Mouse (USB)	06P4069	ann 05/21/03
Optical ScrollPoint® Mouse (USB, PS/2)	31P7405	ann 08/27/02
Optical Wheel Travel Mouse (USB, PS/2)	31P7410	ann 06/04/02
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	ann 01/23/07
Lenovo Wireless Laser Mouse (blk, via USB)	45K1696	ann 11/25/08
Lenovo Wireless Laser Mouse (red, via USB)	51J0198	ann 11/25/08
Laser Tilt Wheel Travel Mouse (Bluetooth)	41U5008	ann 01/22/08

Security

Kensington® Cable Lock from Lenovo	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06
ExpressCard Gemplus Smart Card Reader ⁴⁷	41N3043	ann 06/27/06

⁴⁷ Requires ExpressCard slot**Multimedia**

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann 06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann 08/29/06

Batteries

T/R/W/SL Series Li-Ion Battery 6-cell	40Y6799	ann 01/05/06
T/R/W/SL Series Li-Ion Battery 9-cell	40Y6797	ann 09/20/05
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann 09/20/05

⁴⁴ Requires the *ThinkPad 90W AC Adapter*

40Y7659 (adapter provided with some systems).

More information at www.lenovo.com/alldaycomputingThinkPad 65W AC Adapter⁴⁵ 40Y7696⁴⁵ Only compatible with the GM45 chipset models.

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

ThinkPad 90W Slim AC/DC Combo Adapter 41N8460 ann 11/27/07

More info at www.lenovo.com/support/poweradapters*Charging tips for 90W Slim AC/DC Combo Adapter 41N8460*

•Dual (ThinkPad+Phone) Charging Y-Cable 41R4345 ann 12/18/07

•Palm device charge tip (L7) 41R4315 ann 12/18/07

•Blackberry charge tip (L8a) 41R4478 ann 12/18/07

•Ipad and Iphone charge tip (L10a) 41R4481 ann 12/18/07

More information at www.lenovopowertips.com**Carrying Cases***Up to 14.1" widescreen models:*

ThinkPad Expander Case	43R9118	ann 06/24/08
ThinkPad Women's Microfiber Tote	22P8855	
ThinkPad Women's Leather Trim Tote	22P8856	
ThinkPad Convertible Carrying Case	22P8860	
ThinkPad Women's Executive Leather Tote	22P8857	
Women's Executive Red Leather Tote	22P8858	

Up to 15.4" widescreen models:

Lenovo Carrying Case - Messenger Max	41U5253	ann 05/01/07
Lenovo Carr Case - Performance Backpack	41U5254	ann 05/01/07
Lenovo Standard Case	45K1697	ann 11/25/08
Lenovo Standard Backpack	45K1698	ann 11/25/08
Checkpoint Friendly Business Topload Case	51J0418	ann 02/24/09
ThinkPad Business Topload Case	43R2476	ann 05/13/08
ThinkPad Business Backpack	43R2482	ann 05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann 05/13/08
ThinkPad Executive Leather Case	43R2480	ann 05/13/08

Up to 17.0" widescreen models:

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

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

ThinkVision® L174 17" Monitor	9227AE1	ann 04/15/08
ThinkVision L1700p 17" Monitor	9417HE2	ann 09/17/08
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1940p Wide 19" Monitor	4424HB6	ann 09/17/08
ThinkVision L200p Wide 20.1" Monitor	4438HB6	ann 04/15/08
ThinkVision L2240p Wide 22" Monitor	4422HB6	ann 09/17/08
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann 09/17/08
ThinkVision L2440x Wide 24" Monitor	4421HB2	ann 09/17/08

Monitor Accessories⁴⁶

ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington Cable Lock from Lenovo	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
ThinkPad Convertible Monitor Stand	40Y7620	ann 01/05/06
Radial Arm	19K4464	ann 05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.More information at www.lenovo.com/support/monitoraccessoriesOther accessories at www.lenovo.com/accessoriesAccessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad®



Lenovo ThinkPad SL500



Lenovo ThinkPad SL500



Lenovo ThinkPad SL500



Lenovo ThinkPad SL500



Lenovo ThinkPad SL500



Lenovo ThinkPad SL500

ThinkPad® SL500 2746 (GMA) - TopSeller (Celeron)

Personal Systems Reference (PSREF)

Type-model	Celeron processor	GHz	Memory	Wide-screen display	CCFL or LED	Screen type	Camera	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Battery Blue/terry Fing cells	Preload	Avail date	
2746-8XU	Cel 585	2.16	1GB	15.4" WXGA		Glossy	None	GMA	80G 5400	DVD±RW	11b/g ³²	WWAN upg	None	None	6	Home B	Aug 08
2746-8YU	Cel 585	2.16	1GB	15.4" WXGA			None	GMA	160G 5400	DVD±RW	11b/g	WWAN upg	None	None	6	XP Pro	Aug 08
2746-BKU	Cel T1600	1.66	1GB	15.4" WXGA			None	GMA	160G 5400	DVD±RW	11b/g	WWAN upg	None	None	6	XP Pro	Sep 08
2746-9VU	Cel T1600	1.66	1GB	15.4" WXGA			None	GMA	160G 5400	DVD±RW	11b/g	WWAN upg	None	None	6	Home B	Dec 08
2746-MGU	Cel T1600	1.66	1GB	15.4" WXGA	LED		None	GMA	160G 5400	DVD±RW	11b/g		None	None	6	Home B	Mar 09
2746-MHU	Cel T1600	1.66	1GB	15.4" WXGA	LED		None	GMA	160G 5400	DVD±RW	11b/g		None	None	6	XP Pro	Mar 09
<ul style="list-style-type: none">• These small and medium business (SMB) models are part of the US TopSeller™ Program• A comprehensive computing solution for small and medium business• Balanced between serious business computing and powerful multimedia features																	
Processor	Intel® Celeron® Processor 585 with single-core, 667MHz system bus, and 1MB L2 cache or Intel Celeron Processor T1600 with dual-core, 667MHz system bus, and 1MB L2 cache											Preloaded operating system ²⁰ <ul style="list-style-type: none">- Some: Microsoft® Windows® XP Professional with Vista® COA- Some: Microsoft Windows Vista Home Basic Edition (32-bit) ◆ Vista Basic logo					
Memory	1GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; Non-italics: 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 80GB ⁸ (5400 rpm) or 160GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™											Preloaded applications ¹⁴ (all OSes) <ul style="list-style-type: none">• Lenovo Care™ Tools• Rescue and Recovery™• Access Connections™• Password Manager• McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions)• PC-Doctor™ (diagnostics)• ThinkPad Utilities (Power Manager and Presentation Director)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Fingerprint Software• Microsoft Office 2007 Trial (60-day)• Roxio® Creator® Small Business Edition• Roxio MyDVD® (DVD±RW)					
Widescreen display	Some: 15.4" (391.2mm) WXGA (1280x800) color, anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: 15.4" (391.2mm) WXGA (1280x800) color, VibrantView (glossy), CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: 15.4" (391mm) WXGA (1280x800) color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 400:1 contrast ratio																
Camera	None																
Integrated graphics	Intel Graphics Media Accelerator 4500M (GMA 4500M), in GL40, HDMI port supporting HDCP to output protected content Max external resolution: 2048x1536@75Hz (VGA DB-15 port); 1920x1080 (HDMI port)																
Keyboard	6-row, Lenovo Care button, spill-resistant, multimedia Fn keys, Windows/Appl keys																
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass																
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label																
Lighting FX	Illuminated power button, Lenovo Care button, and red dot on ThinkPad logo																
Dimensions ³	6-cell 15.4W" (WxDxH): 14.1" x 10.2" x 1.46–1.53"; 358 x 260mm x 37–39mm																
Weight ²	6-cell: starting at 6.3 lb (2.9kg)																
Case color	Black																
Case material	Scratch-resistant ABS plastic, high-gloss top cover																
Battery - type	Lithium Ion 6-cell																
Battery - life ¹⁰	6-cell: up to 3.6 hr; 9-cell: up to 5.5 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, security chip, ethernet MAC), LPC bus (IT8752 Super I/O)																
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)											65-watt (GMA graphics) AC adapter EPEAT™ Silver rating RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378					
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	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)																
Mini PCI Express	Three Mini PCI Express slots																
11b/g ³²	11b/g wireless ⁴ , ThinkPad 11b/g Mini PCIe Adapter III, Atheros AR5007EG																
WWAN upg	Some: Wireless WAN upgradable, optional AT&T® (43R9152)											ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968					
2G Turbo	None											ThinkPlus 2-year LOR 9x5 NBD 45K5969					
UWB	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	Realtek® RTL8111C Gigabit Network Connection, PHY, PCIe x1											ThinkPlus 2-year P&L P/U Depot 45K5971					
Intel AMT	None											ThinkPlus 3-year P&L P/U Depot 45K5972					
Audio support	High Definition (HD) Audio, CX20561-15Z codec / stereo speakers, 2 watt / volume up, down, mute buttons / dual array microphone, mic input jack, headphone 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	None																
Fingerprint reader	None											Post-warranty agreements at lenovo.com/thinkplus/warranty					
Limited warranty ¹²	1-year - EasyServ™.19 depot repair service / service upgrades ²² available																
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999				T/R/W/SL Series Li-Ion Battery 6-cell				40Y6799								
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000				T/R/W/SL Series Li-Ion Battery 9-cell				40Y6797								
SL 320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3405				ThinkPad 90W AC Adapter				40Y7659								
USB 2.0 Portable Secure 320GB Hard Disk	43R2019				90W Slim AC/DC Combo Adapter				41N8460								
Other accessories on O-SL500 sheet					Other accessories at lenovo.com/accessories												

See footnotes for important warranty information

US models announced March 2009; previous models on August 20, September 30 or December 16, 2008

© Lenovo
(TAR1-3) April 2009

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Screen type	Cam- era	Inte- grated graphics	Disk SATA GB ⁸	rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue- tooth	Bat- tery cells	Preload	Avail date
✖ 2746-3UU	T5670	1.80	2GB	15.4"	WXGA		GMA 250G 5400 DVD±RW	* Intel 5100 ²⁸		AT&T ²³				Fing	6	Bus 32	July 08	
✖ 2746-3VU	T5670	1.80	2GB	15.4"	WXGA	Glossy Cam	GMA 250G 5400 DVD±RW	* Intel 5100		AT&T				Fing Blue	6	Home P	July 08	
✖ 2746-3WU	T5670	1.80	2GB	15.4"	WXGA	Cam	GMA 160G 5400 DVD±RW	* Intel 5100		AT&T				Fing Blue	6	Bus 32	July 08	
✖ 2746-3XU	T5670	1.80	2GB	15.4"	WXGA		GMA 250G 5400 DVD±RW	* Intel 5100		WWAN upg				Fing	6	Bus 32	July 08	
✖ 2746-3YU	T5670	1.80	2GB	15.4"	WXGA	Glossy Cam	GMA 250G 5400 DVD±RW	* Intel 5100		WWAN upg				Fing Blue	6	Home P	July 08	
✖ 2746-3ZU	T5670	1.80	2GB	15.4"	WXGA	Cam	GMA 160G 5400 DVD±RW	* Intel 5100		WWAN upg				Fing Blue	6	Bus 32	July 08	
✖ 2746-3NU	P8400	2.26	1GB	15.4"	WXGA		GMA 160G 5400 Combo	÷ Intel 5100		AT&T				Fing	6	Bus 32	July 08	
✖ 2746-3PU	P8400	2.26	2GB	15.4"	WXGA		GMA 160G 5400 DVD±RW	* Intel 5100		AT&T				Fing	6	Bus 32	July 08	
✖ 2746-3RU	P8400	2.26	1GB	15.4"	WXGA		GMA 160G 5400 Combo	÷ Intel 5100		WWAN upg				Fing	6	Bus 32	July 08	
2746-3SU	P8400	2.26	2GB	15.4"	WXGA		GMA 160G 5400 DVD±RW	÷ Intel 5100		WWAN upg				Fing	6	Bus 32	July 08	
✖ 2746-23U	P8600	2.40	2GB	15.4"	WXGA	Cam	GMA 250G 5400 DVD±RW	* Intel 5100		AT&T				Fing Blue	6	Bus 32	July 08	
2746-26U	P8600	2.40	2GB	15.4"	WXGA	Cam	GMA 160G 5400 DVD±RW	÷ Intel 5100		WWAN upg	2GB Turbo	Fing Blue	6	Bus 32	July 08			
2746-6VU	P8400	2.26	2GB	15.4"	WXGA		GMA 160G 5400 DVD±RW	÷ Intel 5100		AT&T				Fing	6	XP Pro	Aug 08	
2746-6XU	P8400	2.26	2GB	15.4"	WXGA		GMA 160G 5400 DVD±RW	÷ Intel 5100		WWAN upg				Fing	6	XP Pro	Aug 08	
✖ 2746-6ZU	T5670	1.80	2GB	15.4"	WXGA		GMA 250G 5400 DVD±RW	* Intel 5100		WWAN upg				Fing	6	XP Pro	Aug 08	
✖ 2746-72U	T5670	1.80	2GB	15.4"	WXGA	Cam	GMA 160G 5400 DVD±RW	* Intel 5100		WWAN upg				Fing Blue	6	XP Pro	Aug 08	
✖ 2746-73U	T5670	1.80	1GB	15.4"	WXGA		GMA 160G 5400 DVD±RW	* Intel 5100		WWAN upg				Fing	6	XP Pro	Aug 08	
2746-7DU	P8600	2.40	2GB	15.4"	WXGA	Cam	GMA 160G 5400 DVD±RW	÷ Intel 5100		WWAN upg				Fing Blue	6	XP Pro	Aug 08	

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

Processor	Intel® Core™ 2 Duo processor T5670 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core 2 Duo processor P8400 or P8600 with dual-core, Intel HD boost, 1066MHz system bus, and 3MB L2 cache										Preloaded operating system²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft® Windows® Vista® Home Premium Ed (32-bit) - Some: Microsoft Windows Vista Business Edition (32-bit) ◇ 1GB Vista/XP Pro models: Vista Basic logo ◇ 2GB models: Vista Premium logo Preloaded applications¹⁴ (all OSes) • Lenovo Care™ Tools • Rescue and Recovery™ • Access Connections™ • Password Manager • System Update • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Small Business Edition • Roxio MyDVD® (DVD±RW)							
Memory	1GB or 2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available																	
SATA Combo SATA DVD±RW SATA disk	<i>Some:</i> DVD-ROM/CD-RW, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in <i>Some:</i> DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (5400 rpm) or 250GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™																	
Widescreen display	<i>Some:</i> 15.4" (391.2mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 15.4" (391.2mm) WXGA (1280x800) color, VibrantView (glossy), CCFL backlight, 200 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 Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, HDMI port supporting HDCP to output protected content <i>Max external resolution:</i> 2048x1536@75Hz (DB-15 port); 1920x1080 (HDMI port)																	
Keyboard	6-row, Lenovo Care button, spill-resistant, multimedia Fn keys																	
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass																	
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label																	
Lighting FX	Illuminated power button, Lenovo Care button, and red dot on ThinkPad logo																	
Dimensions ³	6-cell 15.4W" (WxDxH): 14.1" x 10.2" x 1.46–1.53"; 358 x 260mm x 37–39mm																	
Weight ²	6-cell: starting at 6.3 lb (2.9kg)																	
Case	Color: black; Material: scratch-resistant ABS plastic, high-gloss top cover																	
Battery - type	Lithium Ion 6-cell																	
Battery - life ¹⁰	6-cell: up to 3.6 hr; 9-cell: up to 5.5 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, security chip, ethernet MAC), LPC bus (IT8752 Super I/O)																	
ExpressCard slot	One ExpressCard/34 or ExpressCard/54																	
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)																	
PC Card Std slot	None																	
Smart Card Read	None																	
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)																	
Mini PCI Express	Three Mini PCI Express slots																	
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)																	
WWAN upg	<i>Some:</i> Wireless WAN upgradable, optional AT&T® (43R9152)																	
AT&T ²³	<i>Some:</i> Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T®																	
2G Turbo	<i>Some:</i> Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator																	
UWB	None																	
Modem	56K V.92 ⁶ modem																	
Bluetooth™	<i>Some:</i> Bluetooth 2.0 wireless, LED indicator																	
Ethernet	Realtek RTL8111C Gigabit Network Connection, PHY, PCIe x1																	
Intel AMT	None																	
Audio support	High Definition (HD) Audio, CX20561-15Z codec / stereo speakers, 2 watt / volume up, down, mute buttons / dual array microphone, mic input jack, headphone jack																	
Security	Power-on password, hard disk password, supervisor password, security keyhole																	
Security chip	None																	
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest, swipe sensor, supports the security chip																	
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available																	

See footnotes for important warranty information
US models announced July 15 or 29, 2008

* Intel Centrino® processor technology
÷ Intel Centrino® 2 processor technology

© Lenovo
(TAR1-1) August 2008

< US models withdrawn effective September 2008 or January 2009

ThinkPad® SL500 2746 (GMA) - TopSeller (September 2008)

Personal Systems Reference (PSREF)

	Type	model	Proc- essor	GHz	Memory	Wide- screen display	Screen type	Cam- era	Inte- grated graphics	Disk SATA GB ⁸	rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue- tooth	Bat- tery cells	Pre- load	Avail date
✓	2746-6DU	T5670	1.80	1GB	15.4"	WXGA			GMA	80GB	5400	DVD±RW	★ Intel 5100 ²⁸	WWAN	upg	None	Fing	6 XP Pro		Sep08
	2746-6EU	P7370	2.00	2GB	15.4"	WXGA			GMA	250G	5400	DVD±RW	☆ Intel 5100	WWAN	upg	None	Fing	6 XP Pro		Sep08
	2746-6JU	T5870	2.00	2GB	15.4"	WXGA		Cam	GMA	250G	5400	DVD±RW	★ Intel 5100	WWAN	upg	None	Fing	Blue 6 XP Pro		Oct 08
	2746-9LU	P7370	2.00	3GB	15.4"	WXGA		Cam	GMA	250G	5400	DVD±RW	☆ Intel 5100	WWAN	upg	None	Fing	Blue 6 XP Pro		Nov08
✗	2746-9MU	T5870	2.00	1GB	15.4"	WXGA			GMA	160G	5400	DVD±RW	★ Intel 5100	WWAN	upg	None		6 XP Pro		Dec08
✗	2746-9NU	T5870	2.00	2GB	15.4"	WXGA			GMA	250G	5400	DVD±RW	★ Intel 5100	WWAN	upg	None	Fing	6 XP Pro		Dec08
✗	2746-9PU	T5870	2.00	2GB	15.4"	WXGA			GMA	250G	5400	DVD±RW	★ Intel 5100	WWAN	upg	None	Fing	6 Bus 32		Dec08
✗	2746-9QU	T5870	2.00	3GB	15.4"	WXGA	Glossy	Cam	GMA	250G	5400	DVD±RW	★ Intel 5100	WWAN	upg	None		Blue 6 Home P		Dec08
✗	2746-ASU	P8600	2.40	2GB	15.4"	WXGA		Cam	GMA	250G	5400	DVD±RW	☆ Intel 5100	WWAN	upg	None	Fing	6 Bus 32		Dec08
✗	2746-H2U	P8600	2.40	2GB	15.4"	WXGA			GMA	160G	5400	DVD±RW	☆ WiMAX	WWAN	upg	None	Fing	6 Bus 32		Jan 09
✗	2746-H3U	P8600	2.40	3GB	15.4"	WXGA		Cam	GMA	160G	5400	DVD±RW	☆ Intel 5100	WWAN	upg	None	Fing	Blue 6 XP Pro		Jan 09

- ***These small and medium business (SMB) models are part of the US TopSeller™ Program***
- ***A comprehensive computing solution for small and medium business***

Processor	Intel® Core™ 2 Duo processor T5670 or T5870 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core 2 Duo processor P7370 or P8600 with dual-core, Intel HD boost, 1066MHz system bus, and 3MB L2 cache		Preloaded operating system ²⁰ - <i>Some:</i> Microsoft® Windows® XP Professional with Vista® COA - <i>Some:</i> Microsoft Windows Vista Home Premium Edition (32-bit) - <i>Some:</i> Microsoft Windows Vista Business Edition (32-bit) ♦ <i>ASU model:</i> Vista Premium logo ♦ <i>Other models:</i> Vista Basic logo Preloaded applications ¹⁴ (all OSes) • Lenovo Care™ Tools • Rescue and Recovery™ • Access Connections™ • Password Manager • System Update • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Windows Live Mail (model ASU) • Windows Live Messenger (model ASU) • Windows Live Photo Gallery (model ASU) • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Small Business Edition • Roxio MyDVD® (DVD±RW)
Memory	1GB, 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 80GB ⁸ (5400 rpm), 160GB (5400 rpm), or 250GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™		
Widescreen display	<i>Some:</i> 15.4" (391.2mm) WXGA (1280x800) color, VibrantView (glossy), CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 15.4" (391.2mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 200 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 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); 1920x1080 (HDMI)		
Keyboard TrackPoint® Touch pad Lighting FX	6-row, Lenovo Care 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 Illuminated power button, Lenovo Care button, and red dot on ThinkPad logo		
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>6-cell 15.4W"</i> (WxDxH): 14.1" x 10.2" x 1.46–1.53"; 358 x 260mm x 37–39mm <i>6-cell:</i> starting at 6.3 lb (2.9kg) Black Scratch-resistant ABS plastic, high-gloss top cover Lithium Ion 6-cell <i>6-cell:</i> up to 3.6 hr; <i>9-cell:</i> up to 5.5 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, security chip, ethernet MAC), LPC bus (IT8752 Super I/O) One slot (ExpressCard/34, ExpressCard/54) 7-in-1 reader (MMC, Memory Stick, Mem Stick PRO™, SD, SDHC, XD, XD Type H)		
ExpressCard/54 Multicard reader PC Card Smart Card read Ports	None None 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)		
Mini PCI Express Intel 5100 ²⁸ WiMAX	Three Mini PCI Express slots <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> 11a/b/g/n and WiMAX wireless ⁴ , Mini PCIe adap, Intel WiMAX/WiFi Link 5150, 1x2 (300Mbps) WiFi + 1x2 WiMAX (Echo Peak)		
WWAN upg 2G Turbo UWB	Wireless WAN upgradable, optional AT&T® (43R9152) None None		
Modem Bluetooth™ Ethernet Intel AMT Audio support	56K V.92 ⁶ modem <i>Some:</i> Bluetooth 2.0 wireless, LED indicator Realtek® RTL8111C Gigabit Network Connection, PHY, PCIe x1 None High Definition (HD) Audio, CX20561-15Z codec / stereo speakers, 2 watt / volume up, down, mute buttons / dual array microphone, 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, supports the security chip		
Limited warranty ¹² 1-year - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available			
1GB PC2-5300 DDR2 SODIMM (TopSeller) 43R1999 2GB PC2-5300 DDR2 SODIMM (TopSeller) 43R2000 SL 320GB Disk SATA 1.5Gb/s (5400 rpm) 43N3405 USB 2.0 Portable Secure 320GB Hard Disk 43R2019 Other accessories on O-SL500 sheet		T/R/W/SL Series Li-Ion Battery 9-cell 40Y6797 90W Slim AC/DC Combo Adapter 41N8460 ThinkPad Business Topload Case 43R2476 ThinkVision® L2440x Wide 24" Monitor 4421HB2 Other accessories at lenovo.com/accessories	
ThinkPlus™, 22-2-year LOR ²⁴ 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 agreements at lenovo.com/thinkplus/warranty			

See footnotes for important warranty information

US models announced Dec 16, 2008 or Jan 6, 2009;
previous models on Sep 30, Oct 7, or November 25, 2008

X US models withdrawn effective January 2009

- * Intel Centrino® processor technology
- ✱ Intel Centrino 2 processor technology

© Lenovo
(TAR1-4) January 2009

ThinkPad® SL500 2746 (GMA) - TopSeller (April 2009)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	CCFL or LED	Cam- era	Inte- grated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Finger print reader	Bat- tery tooth	ENERGY STAR 4.0	Pre- load	Whorse (W) Gbl (G) Educ	Avail date
2746-MJU	T5870	2.00	2GB	15.4" WXGA	LED		GMA 160G	5400	DVD±RW	* Intel 5100 ²⁸			6	ES40	XP Pro		Mar 09
2746-MKU	T5870	2.00	3GB	15.4" WXGA	LED	Cam	GMA 250G	5400	DVD±RW	* Intel 5100			Blue	6	ES40 Home P		Mar 09
2746-MLU	T5870	2.00	3GB	15.4" WXGA	LED		GMA 250G	5400	DVD±RW	* Intel 5100		Fing	6	ES40	XP Pro		Mar 09
2746-MMU	T5870	2.00	3GB	15.4" WXGA	LED		GMA 250G	5400	DVD±RW	* Intel 5100	AT&T ²³	Fing	6	ES40	Bus32		Mar 09
2746-MNU	T6570	2.10	3GB	15.4" WXGA	LED	Cam	GMA 320G	5400	DVD±RW	* Intel 5100		Fing	Blue	6	ES40	XP Pro	Mar 09
2746-MPU	P8600	2.40	3GB	15.4" WXGA	LED	Cam	GMA 250G	5400	DVD±RW	÷ Intel 5100		Fing	Blue	6	ES40	XP Pro	Mar 09
2746-N9U	T6570	2.10	2GB	15.4" WXGA	LED	Cam	GMA 250G	5400	DVD±RW	* Intel 5100		Fing	Blue	6	ES40 Ult 32	Educ	Apr 09

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- A comprehensive computing solution for small and medium business

Processor	Intel Core™ 2 Duo processor T5870 or T6570 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core 2 Duo processor P8600 with dual-core, Intel HD boost, 1066MHz system bus, and 3MB L2 cache			Preloaded operating system ²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Home Premium Edition (32-bit) - Some: Microsoft Windows Vista Business Edition (32-bit) - Some: Microsoft Windows Vista Ultimate Edition (32-bit) ↔Vista Basic logo		
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			Preloaded applications ¹⁴ (all OSes, only some listed) • N9U model: Education software - Microsoft Office Ultimate 2007 Academic Edition (and CD) • Lenovo Care™ Tools • Rescue and Recovery™ • Access Connections™ • Password Manager • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar/Search • Fingerprint Software • Roxio® Creator® Small Business Edition • Roxio MyDVD® (DVD±RW) 65-watt (GMA graphics) AC adapter EPEAT™ Silver rating ENERGY STAR® 4.0-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 2-year LOR ²⁴ 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 agreements at lenovo.com/thinkplus/warranty		
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB ⁸ (5400 rpm), 250GB (5400 rpm), or 320GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™					
Widescreen display Camera	15.4" (391.2mm) WXGA (1280x800) color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: camera on top of screen, 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); 1920x1080 (HDMI)					
Keyboard TrackPoint® Touch pad Lighting FX	6-row, Lenovo Care 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 Illuminated power button, Lenovo Care button, and red dot on ThinkPad logo					
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	6-cell 15.4W" (WxDxH): 14.1" x 10.2" x 1.46–1.53"; 358 x 260mm x 37–39mm 6-cell: starting at 6.3 lb (2.9kg) Black Scratch-resistant ABS plastic, high-gloss top cover Lithium Ion 6-cell 6-cell: up to 3.6 hr; 9-cell: up to 5.5 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, security chip, ethernet MAC), LPC bus (IT8752 Super I/O) One slot (ExpressCard/34, ExpressCard/54) 7-in-1 reader (MMC, Memory Stick, Mem Stick PRO™, SD, SDHC, XD, XD Type H) 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)					
ExpressCard/54 Multicard reader PC Card Smart Card read Ports	One slot (ExpressCard/34, ExpressCard/54) 7-in-1 reader (MMC, Memory Stick, Mem Stick PRO™, SD, SDHC, XD, XD Type H) None None 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)					
Mini PCI Express Intel 5100 ²⁸ AT&T ²³	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Some: Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T					
2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	None None 56K V.92 ⁶ modem Some: Bluetooth 2.0 wireless, LED indicator Realtek® RTL8111C Gigabit Network Connection, PHY, PCIe x1 None High Definition (HD) Audio, CX20561-15Z codec / stereo speakers, 2 watt / volume up, down, mute buttons / dual array microphone, mic input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole					
Security Security chip Fingerprint reader	None None Some: Fingerprint reader on palm rest, swipe sensor, supports the security chip					
Limited warranty ¹²	1-year - EasyServ™.19 depot repair service / service upgrades ²² available					
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	T/R/W/SL Series Li-Ion Battery 9-cell	40Y6797			
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	90W Slim AC/DC Combo Adapter	41N8460			
SL 320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3405	ThinkPad Business Topload Case	43R2476			
Other accessories on O-SL500 sheet	Other accessories at lenovo.com/accessories					

See footnotes for important warranty information
US models announced Mar 31 or April 7, 2009

* Intel Centrino® processor technology
✦ Intel Centrino 2 processor technology

© Lenovo
(TAR1-5) April 2009

ThinkPad® SL500 2746 (NVIDIA®) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Screen type	Cam-Discrete era graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery cells	Vista preload	Avail date
2746-3QU	P8400	2.26	2GB	15.4"	WSXGA+	Cam 9300M	160G 5400	DVD±RW	Intel 5100 ²⁸	AT&T ²³		6	Bus 32	July 08
2746-3TU	P8400	2.26	2GB	15.4"	WSXGA+	Cam 9300M	160G 5400	DVD±RW	Intel 5100	WWAN upg		6	Bus 32	July 08
2746-22U	P8400	2.26	2GB	15.4"	WXGA	Glossy	Cam 9300M	160G 5400	DVD±RW	Intel 5100	AT&T	6	Bus 32	July 08
2746-24U	P8600	2.40	2GB	15.4"	WSXGA+	Cam 9300M	320G 5400	DVD±RW	Intel 5100	AT&T	2GB Turbo	9	Bus 32	July 08
2746-25U	T9400	2.53	4GB	15.4"	WSXGA+	Cam 9300M	320G 5400	BD burner	Intel 5100	AT&T	2GB Turbo	9	Ult 32	July 08
2746-6WU	P8400	2.26	2GB	15.4"	WSXGA+	Cam 9300M	160G 5400	DVD±RW	Intel 5100	AT&T		6	XP Pro	Aug 08
2746-6YU	P8400	2.26	2GB	15.4"	WSXGA+	Cam 9300M	160G 5400	DVD±RW	Intel 5100	WWAN upg		6	XP Pro	Aug 08
2746-H4U	P8600	2.40	2GB	15.4"	WSXGA+	Cam 9300M	250G 5400	BD player	Intel 5100			6	XP Pro	Feb 09
• These small and medium business (SMB) models are part of the US TopSeller™ Program • A comprehensive computing solution for small and medium business														
Processor	Intel® Core™ 2 Duo processor P8400, P8600, or T9400 with dual-core, Intel HD boost, 1066MHz system bus; P8400/P8600: 3MB L2 cache; T9400: 6MB L2 cache										Preloaded operating system ²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA			
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 socket; one socket available										- Some: Microsoft® Windows® Vista® Business Edition (32-bit) - Some: Microsoft Windows Vista Ultimate Edition (32-bit)			
SATA DVD±RW SATA BD burner SATA BD player SATA disk	Some: DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in Some: Blu-ray™ burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in Some: Blu-ray player, DVD burner, SATA 1.5Gb/s, 12.7mm, fixed, not removable, tray-in 160GB ⁸ (5400 rpm), 250GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™										♦ Vista Premium logo Preloaded applications ¹⁴ • Lenovo Care™ Tools • Rescue and Recovery™ • Access Connections™ • Password Manager • System Update • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Roxio® Creator Small Business Edition • Roxio MyDVD® (DVD±RW, Blu-ray)			
Widescreen display	Some: 15.4" (391.2mm) WXGA (1280x800) color, VibrantView (glossy), CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: 15.4" (391.2mm) WSXGA+ (1680x1050) color, anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio													
Camera	Camera on top of screen, 2.0-megapixel, fixed focus													
Discrete graphics	NVIDIA® GeForce 9300M, PCI Express® x16, 256MB memory, HDMI port supporting HDCP to output protected content; Max external resolution: 2048x1536@85Hz (DB-15 port); 1920x1080 (HDMI port)													
Keyboard TrackPoint® Touch pad Lighting FX	6-row, Lenovo Care 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 Illuminated power button, Lenovo Care button, ThinkPad logo													
Dimensions ³ Weight ² Case Battery - type Battery - life ¹⁰	6-cell 15.4W" (WxDxH): 14.1" x 10.2" x 1.46–1.53"; 358 x 260mm x 37–39mm 6-cell: starting at 6.3 lb (2.9kg); 9-cell: starting at 6.7 lb (3.0kg) Color: black; Material: scratch-resistant ABS plastic, high-gloss top cover Lithium Ion 6-cell or 9-cell 6-cell: up to 3 hr; 9-cell: up to 4.9 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, PCI 2.3, security chip, ethernet MAC), LPC bus (IT8752 Super I/O)													
ExpressCard Multicard Reader PC Card Std Smart Card Read Ports	One slot (ExpressCard/34, ExpressCard/54) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) 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)													
Mini PCI Express Intel 5100 ²⁸ WWAN upg AT&T ²³	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Some: Wireless WAN upgradable, optional AT&T® (43R9152) Some: Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T®										90-watt (NVIDIA) AC adapter EPEAT™ Silver rating ENERGY STAR® 4.0-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			
2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Some: Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem Bluetooth 2.0 wireless, LED indicator Realtek RTL8111C Gigabit Network Connection, PHY, PCIe x1 None High Definition (HD) Audio, CX20561-15Z codec / stereo speakers, 2 watt / volume up, down, mute buttons / dual array microphone, mic input jack, headphone jack										ThinkPlus™, ²² 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976			
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole None 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 - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available													
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999										T/R/W/SL Series Li-Ion Battery 6-cell 40Y6799			
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000										T/R/W/SL Series Li-Ion Battery 9-cell 40Y6797			
SL 320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3405										ThinkPad 90W AC Adapter 40Y7659			
USB 2.0 Essential Memory Key 32GB	45K1258										90W Slim AC/DC Combo Adapter 41N8460			
USB 2.0 Portable Secure 320GB Hard Disk	43R2019										ThinkPad Business Topload Case 43R2476			
USB 2.0 Lenovo Enhanced Port Replicator	43R8770										ThinkPad Business Backpack 43R2482			
ThinkPad Convertible Monitor Stand	40Y7620										ThinkVision® L2240p Wide 22" Monitor 4422HB6			
Laser Tilt Wheel Travel Mouse (Bluetooth)	41U5008										ThinkVision L2440p Wide 24" Monitor 4420HB2			
Other accessories on O-SL500 sheet											Other accessories at lenovo.com/accessories			

Partial list of accessories supported on:**• ThinkPad SL500 originally announced on July 15, 2008****Memory**

1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	ann 03/25/08
1GB PC2-5300 DDR2 SODIMM	40Y7734	ann 01/05/06
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	ann 03/25/08
2GB PC2-5300 DDR2 SODIMM	40Y7735	ann 11/28/06

Storage and removable storage

SL 320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3405	ann 07/15/08
USB 2.0 Essential Memory Key 2GB	41U4944	ann 01/23/07
USB 2.0 Essential Memory Key 4GB	45J7904	ann 06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann 07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann 10/28/08
USB 2.0 Security Memory Key 4GB	41U5120	ann 07/17/07
USB 2.0 Ultra Secure Memory Key 1GB	45J5915	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann 08/26/08
USB Portable Diskette Drive	05K9276	ann 06/05/00
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann 01/05/06
USB 2.0 Portable 160GB Hard Disk	43R1784	ann 09/23/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
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
USB 2.0 Super Multi-Burner Drive	41N5565	ann 01/23/07

Wireless WAN (Mini PCI Express)*Only WWAN upgradeable models:*

AT&T WWAN HSPA Broadband Mini PCIe	43R9152	ann 08/26/08
------------------------------------	---------	--------------

ThinkPad Expansion

USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ann 02/26/08
ThinkPad Adjustable Notebook Stand	40Y7676	ann 09/20/05

Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann 12/07/04
USB Keyboard with UltraNav	31P8950	ann 01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann 04/27/04
Preferred Pro USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo® USB Smartcard Keyboard	51J0155	ann 03/24/09

Mouse

Optical Wheel Mouse (USB)	06P4069	ann 05/21/03
Optical ScrollPoint® Mouse (USB, PS/2)	31P7405	ann 08/27/02
Optical Wheel Travel Mouse (USB, PS/2)	31P7410	ann 06/04/02
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	ann 01/23/07
Lenovo Wireless Laser Mouse (blk, via USB)	45K1696	ann 11/25/08
Lenovo Wireless Laser Mouse (red, via USB)	51J0198	ann 11/25/08
Laser Tilt Wheel Travel Mouse (Bluetooth)	41U5008	ann 01/22/08

Security

Kensington® Cable Lock from Lenovo	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06
ExpressCard Gemplus Smart Card Reader ⁴⁷	41N3043	ann 06/27/06

⁴⁷ Requires ExpressCard slot**Multimedia**

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann 06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann 08/29/06

Batteries

T/R/W/SL Series Li-Ion Battery 6-cell	40Y6799	ann 01/05/06
T/R/W/SL Series Li-Ion Battery 9-cell	40Y6797	ann 09/20/05
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann 09/20/05

⁴⁴ Requires the *ThinkPad 90W AC Adapter*

40Y7659 (adapter provided with some systems).

More information at www.lenovo.com/alldaycomputingThinkPad 65W AC Adapter⁴⁵ 40Y7696 ann 01/05/06⁴⁵ Only compatible with the GM45 chipset models.

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

ThinkPad 90W Slim AC/DC Combo Adapter 41N8460 ann 11/27/07

More info at www.lenovo.com/support/poweradapters*Charging tips for 90W Slim AC/DC Combo Adapter 41N8460*

•Dual (ThinkPad+Phone) Charging Y-Cable 41R4345 ann 12/18/07

•Palm device charge tip (L7) 41R4315 ann 12/18/07

•BlackBerry charge tip (L8a) 41R4478 ann 12/18/07

•iPod and iPhone charge tip (L10a) 41R4481 ann 12/18/07

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

Lenovo Carrying Case - Messenger Max 41U5253 ann 05/01/07

Lenovo Carr Case - Performance Backpack 41U5254 ann 05/01/07

Lenovo Standard Case 45K1697 ann 11/25/08

Lenovo Standard Backpack 45K1698 ann 11/25/08

Checkpoint Friendly Business Topload Case 51J0418 ann 02/24/09

ThinkPad Business Topload Case 43R2476 ann 05/13/08

ThinkPad Business Backpack 43R2482 ann 05/13/08

ThinkPad Deluxe Expander Case 43R2478 ann 05/13/08

ThinkPad Executive Leather Case 43R2480 ann 05/13/08

Up to 17.0" widescreen models:

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

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

ThinkVision® L174 17" Monitor 9227AE1 ann 04/15/08

ThinkVision L1700p 17" Monitor 9417HE2 ann 09/17/08

ThinkVision L1900p 19" Monitor 4431HE1 ann 11/11/08

ThinkVision L1940p Wide 19" Monitor 4424HB6 ann 09/17/08

ThinkVision L200p Wide 20.1" Monitor 4438HB6 ann 04/15/08

ThinkVision L2240p Wide 22" Monitor 4422HB6 ann 09/17/08

ThinkVision L2440p Wide 24" Monitor 4420HB2 ann 09/17/08

ThinkVision L2440x Wide 24" Monitor 4421HB2 ann 09/17/08

Monitor Accessories⁴⁶

ThinkVision USB Soundbar 40Y7616 ann 08/23/05

ThinkVision Soundbar 45K1263 ann 09/16/08

Kensington Cable Lock from Lenovo 73P2582 ann 12/29/03

Kensington Twin Head Cable Lock 45K1620 ann 09/30/08

ThinkPad Convertible Monitor Stand 40Y7620 ann 01/05/06

Radial Arm 19K4464 ann 05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.More information at www.lenovo.com/support/monitoraccessoriesOther 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 Windows XP Professional 64-bit and Windows Vista 64-bit Editions.

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 not been finalized and is currently in draft release. The ThinkPad 11a/b/g/n (11n) Wireless LAN Mini PCI Express Adapters are based on the Draft Release, Version 1.02, of the IEEE 802.11n specification. The Intel Mini PCI Express Adapters are based on the Draft Release, Version 2.0 of the IEEE 802.11n specification. 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, 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.

This publication was developed for products and services offered in the United States. Lenovo may not offer the products, services or features discussed in this document in other countries. Lenovo may withdraw an offering at any time. Information is subject to change without notice. Consult your local representative for information on offerings available in your area.

Lenovo reserves the right to change specifications or other product information without notice. Lenovo is not responsible for photographic or typographical errors. LENOVO PROVIDES THIS PUBLICATION "AS IS," WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some jurisdictions do not allow disclaimer of express or implied warranties in certain transactions, therefore this disclaimer may not apply to you.



Trademarks: Lenovo, the Lenovo logo, New World, New Thinking., Access Connections, Active Protection System, Rescue and Recovery, ThinkPad, ThinkVantage, ThinkVision, ThinkPlus, ThinkCentre, TrackPoint, UltraConnect, UltraNav, and Ultrabay are trademarks or registered trademarks of Lenovo. The Bluetooth word mark and logos are owned by the Bluetooth SIG, Inc. Any use of such marks by Lenovo is under license. Microsoft, Windows, and Vista are registered trademarks of Microsoft Corporation. Intel, the Intel logo, Intel Inside logo, Intel Core and Core Inside, Intel Centrino logo, Pentium, Celeron and Intel SpeedStep are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries. Cisco and Aironet are registered trademarks of Cisco Corporation. Linux is a trademark of Linus Torvalds in the United States, other countries, or both. Other company, product and service names may be trademarks or service marks of others.

Visit www.lenovo.com/safecomputing periodically for the latest information on safe and effective computing.

Visit www.lenovo.com/psref for the latest version of Personal Systems Reference.

© Lenovo, 2009.
All rights reserved.

Lenovo
1009 Think Place
Morrisville, NC 27560
U.S.A.

April 2009
slbook.pdf



Personal Systems Reference Lenovo® ThinkCentre Desktops

April 2009 - Version 354



Lenovo ThinkCentre M58p Eco Ultra Small
with ThinkVision 2440x Wide monitor

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



Lenovo ThinkCentre M57e Small



Lenovo ThinkCentre M57e Small



Lenovo ThinkCentre M57e Desktop



Lenovo ThinkCentre M57e Desktop
with Lenovo ThinkVision monitor



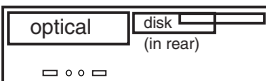
Lenovo ThinkCentre M57e Tower



Lenovo ThinkCentre M57e Tower
with dual Lenovo ThinkVision monitors

ThinkCentre® M57e Small (6305) - TopSeller

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Core	Memory ⁸	SATA disk	SATA optical	Graphics	Preload	Vista logo	Global Educ	Avail date
M57e	6305-B1U	2x3	Pentium E2200	2.20	1MB	Dual	1GB	160GB ²	DVD	GMA	XP Pro		None	Jun 08
M57e	6305-B2U	2x3	Pentium E2200	2.20	1MB	Dual	2GB	160GB	DVD±RW	GMA	XP Pro		None	Jun 08
M57e	6305-B4U	2x3	Core 2 Duo E7200	2.53	3MB	Dual	1GB	160GB	DVD	GMA	XP Pro		None	Jun 08
M57e	6305-B3U	2x3	Core 2 Duo E7200	2.53	3MB	Dual	2GB	160GB	DVD±RW	GMA	XP Pro		None	Jun 08
M57e	6305-B5U	2x3	Core 2 Duo E8400	3.00	6MB	Dual	2GB	160GB	DVD±RW	GMA	XP Pro		None	Jun 08
M57e	6305-B6U	2x3	Core 2 Quad Q6600	2.40	8MB	Quad	2GB	160GB	DVD±RW	GMA	XP Pro		None	Jun 08
M57e	6305-B7U	2x3	Pentium E2200	2.20	1MB	Dual	1GB	160GB	DVD	GMA	Business32	Premium	None	Sep 08
M57e	6305-B8U	2x3	Pentium E2200	2.20	1MB	Dual	2GB	160GB	DVD±RW	GMA	Business32	Premium	None	Sep 08
M57e	6305-B9U	2x3	Core 2 Quad Q6600	2.40	8MB	Quad	2GB	160GB	DVD±RW	GMA	Business32	Premium	None	Sep 08
<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	Stability and manageability for small and medium businesses Intel® Pentium® Dual-Core Processor E2200 with dual-core, Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 1MB 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 Duo Processor E8400 with dual-core, Intel 64 Technology, Virtualization Technology, Execute Disable Bit, EIST, TXT, 1333MHz system bus, and 6MB 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, and 1066MHz system bus with 8MB 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/diskette)			
Memory	1GB or 2GB 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 avail; <i>Non-italics:</i> standard memory in one socket; one socket available										Slot 1: Low Profile, PCI Express x16 (35w max) Slot 2: Low Profile, 32-bit PCI 2.3			
Graphics	Intel Graphics Media Accelerator 3100 (GMA 3100), integrated graphics in G31, uses main memory (up to 256MB), one analog VGA DB-15 connector, 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 • 16.1 lb (7.3 kg) in maximum configuration • Bays 1, 2, 3 flip up (latched and pivoting) • Toolless cover flips up and tilts backward on rear hinges • Toolless disk, diskette drive, optical drive removal • Toolless adapter retention • Toolless systemboard retention • Steel chassis supports 100 lb (45kg) monitor on top • System floor stand for vertical orientation			
SATA disk	160GB, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts										Security			
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7										• Security slot (in rear for attachment of optional Kensington® Microsaver® cable) - optional cable also locks the cover by deactivating the cover release buttons			
SATA DVD	Some: DVD-ROM DL SATA 1.5Gb/s 16-48X Max4 Drive										• Power-on password			
SATA DVD±RW	Some: Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive										• Administrator password			
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar										• Hard disk password			
eSATA port	None										• Boot sequence control			
EIDE controller	Enhanced IDE, ATA-100, integrated in ICH7, one EIDE connector on planar										• Boot without keyboard, mouse, diskette			
Diskette drive	None										• Serial port I/O control			
Media reader	None										• Parallel port I/O control			
Chipset	Intel G31 Express Chipset; I/O Controller Hub 7 (ICH7) for SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI 2.3, USB, LPC bus / ITE Tech® IT8718 Super I/O for serial, parallel, keyboard, mouse functions										• USB port disablement			
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)										Supports ThinkVantage® technologies			
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)										RoHS-compliant			
Internal connector	Two USB 2.0 planar connectors (one used; one open for media reader)										Limited Warranty ¹			
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)										⇒ 3-year parts and labor			
Audio	High Definition (HD) Audio, Realtek® ALC662 codec										⇒ International Warranty Service®			
Speaker	One internal speaker for business audio										⇒ 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)			
Ethernet	Gigabit ethernet on planar, Marvell® 88E8056, PCIe x1, Wake on LAN®										⇒ Onsite service upgrade options (in eligible locations): ⁷			
Intel AMT	None										• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)			
Modem	None										• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)			
Security chip	None										• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo										• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)			
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo										• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)			
Power supply	280 watts with variable speed fan, autosensing										⇒ ThinkPlus services at lenovo.com/thinkplus/warranty			
Preloaded operating system ²⁰				Accessories										
- Some: Microsoft® Windows® XP Professional with Vista® COA				1GB PC2-5300 CL5 NP DDR2 UDIMM				73P4984						
- Some: Microsoft Windows Vista Business Edition (32-bit)				2GB PC2-5300 CL5 NP DDR2 UDIMM				73P4985						
Preloaded applications ⁵ (all OSes; only some listed)				1GB PC2-6400 NP DDR2 UDIMM				41U2977						
• Rescue and Recovery™				2GB PC2-6400 NP DDR2 UDIMM				41U2978						
• Client Security Solution™				USB 2.0 Lenovo Multimedia Headset				40Y8518						
• ThinkVantage Productivity Center				ThinkVision® L2440p Wide 24" Monitor				4420HB2						
• Norton Internet Security™				Wireless Kbd & Opt Wheel Mouse (via USB)				73P4067						
• Diskeeper® Home				Kensington Cable Lock from Lenovo				73P2582						
• Microsoft Office 2007 Trial (60-day)				ADD2 DVI-I PCIe Connection Adapter				73P2516						
• Corel® WinDVD® (DVD, DVD±RW)				ADD2 DVI-D Monitor Connection (HDCP)				43R1985						
				ATI™ Radeon™ HD 2400 Pro 128MB				43R1961						
				ATI Radeon HD 2400 XT 256MB				43R1962						
				Acc Guide in pdf lenovo.com/accessoriesguide										
				Other accessories at lenovo.com/accessories										

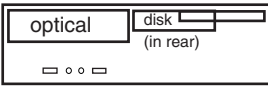
See footnotes for important warranty information










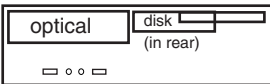
US models announced August 19, 2008; previous models on June 24, 2008

© Lenovo
(MONA2-4) August 2008


Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Preload	Vista logo	Global Educ	Avail date
M57e	6305-BBU	2x3	Pentium E5200	2.50	2MB	2	1GB	160GB ²	DVD	GMA	XP Pro	Premium	None	Nov 08
M57e	6305-BCU	2x3	Pentium E5200	2.50	2MB	2	2GB	160GB	DVD±RW	GMA	XP Pro	Premium	None	Nov 08
M57e	6305-BEU	2x3	Core 2 Duo E7300	2.66	3MB	2	1GB	160GB	DVD	GMA	XP Pro	Premium	None	Nov 08
M57e	6305-BDU	2x3	Core 2 Duo E7300	2.66	3MB	2	2GB	160GB	DVD±RW	GMA	XP Pro	Premium	None	Nov 08

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a 3-year limited warranty¹**

Positioning Processor	Stability and manageability for small and medium businesses Intel® Pentium® Dual-Core Processor E5200 with dual-core , 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7300 with dual-core , 1066MHz system bus, and 3MB L2 cache Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket		Small																																																
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader/diskette)																																																
Memory	1GB or 2GB std , 4GB max ⁸ , PC2-5300 667MHz 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 3100 (GMA 3100) , integrated graphics in G31, uses main memory (up to 256MB), one analog VGA DB-15 connector, 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• 16.1 lb (7.3 kg) in maximum configuration• Bays 1, 2, 3 flip up (latched and pivoting)• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention• Toolless systemboard retention• Steel chassis supports 100 lb (45kg) monitor on top• 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)- 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		Supports ThinkVantage® technologies																																																
eSATA port	None																																																		
EIDE controller	Enhanced IDE, ATA-100, integrated in ICH7, one EIDE connector																																																		
Diskette drive	None																																																		
Media reader	None		RoHS-compliant																																																
Chipset	Intel G31 Express Chipset ; I/O Controller Hub 7 (ICH7) for SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI 2.3, USB, LPC bus / ITE Tech® IT8718 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, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)																																																		
Internal connector	Two USB 2.0 planar connectors (one used; one open for media 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">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)➤ ThinkPlus services at lenovo.com/thinkplus/warranty➤ Post warranty maintenance services available➤ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																																																
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)																																																		
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																																																		
Speaker	One internal speaker for business audio																																																		
Ethernet	Gigabit ethernet on planar, Marvell® 88E8056, PCIe x1, Wake on LAN®																																																		
Intel AMT	None																																																		
Modem	None																																																		
Security chip	None																																																		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																																																		
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																																																		
Power supply	280 watts with variable speed fan, autosensing																																																		
Preloaded operating system²⁰ <ul style="list-style-type: none">- Microsoft® Windows® XP Professional with Vista® COA➤ Disk-to-Disk Recovery (in hidden protected area) Preloaded applications⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• System Migration Assistant• Norton Internet Security™ (90 days of virus definitions)• Diskeeper® Home• PC-Doctor™ (diagnostics)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Picasa from Google• Microsoft Office 2007 Trial (60-day)• Multimedia Center for Think Offerings (DVD, DVD±RW)• Sonic RecordNow and Drive Letter Access (DVD±RW)• Corel® WinDVD® (DVD, DVD±RW)• Corel WinDVD Creator (DVD±RW)			Accessories <table><tr><td>1GB PC2-5300 CL5 NP DDR2 UDIMM</td><td>73P4984</td></tr><tr><td>2GB PC2-5300 CL5 NP DDR2 UDIMM</td><td>73P4985</td></tr><tr><td>1GB PC2-6400 NP DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 NP 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>USB Portable Diskette Drive</td><td>05K9276</td></tr><tr><td>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Essential Memory Key 32GB</td><td>45K1258</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</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>ThinkVision® L2240p Wide 22" Monitor</td><td>4422HB6</td></tr><tr><td>ThinkVision L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>ADD2 DVI-I PCIe Connection Adapter</td><td>73P2516</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI™ Radeon™ HD 2400 Pro 128MB</td><td>43R1961</td></tr><tr><td>ATI Radeon HD 2400 XT 256MB</td><td>43R1962</td></tr></table> Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories			1GB PC2-5300 CL5 NP DDR2 UDIMM	73P4984	2GB PC2-5300 CL5 NP DDR2 UDIMM	73P4985	1GB PC2-6400 NP DDR2 UDIMM	41U2977	2GB PC2-6400 NP DDR2 UDIMM	41U2978	250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	USB Portable Diskette Drive	05K9276	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Lenovo Webcam	40Y8519	USB 2.0 Essential Memory Key 32GB	45K1258	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	DVD-ROM DL SATA 1.5Gb/s 16-48X Max	41N5618	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ThinkVision® L2240p Wide 22" Monitor	4422HB6	ThinkVision L2440p Wide 24" Monitor	4420HB2	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Kensington Cable Lock from Lenovo	73P2582	ADD2 DVI-I PCIe Connection Adapter	73P2516	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI™ Radeon™ HD 2400 Pro 128MB	43R1961	ATI Radeon HD 2400 XT 256MB	43R1962
1GB PC2-5300 CL5 NP DDR2 UDIMM	73P4984																																																		
2GB PC2-5300 CL5 NP DDR2 UDIMM	73P4985																																																		
1GB PC2-6400 NP DDR2 UDIMM	41U2977																																																		
2GB PC2-6400 NP DDR2 UDIMM	41U2978																																																		
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015																																																		
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																																																		
USB Portable Diskette Drive	05K9276																																																		
USB 2.0 Lenovo Multimedia Headset	40Y8518																																																		
USB 2.0 Lenovo Webcam	40Y8519																																																		
USB 2.0 Essential Memory Key 32GB	45K1258																																																		
USB 2.0 Ultra Secure Memory Key 8GB	45J5918																																																		
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																																		
DVD-ROM DL SATA 1.5Gb/s 16-48X Max	41N5618																																																		
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																																																		
ThinkVision® L2240p Wide 22" Monitor	4422HB6																																																		
ThinkVision L2440p Wide 24" Monitor	4420HB2																																																		
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067																																																		
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074																																																		
Kensington Cable Lock from Lenovo	73P2582																																																		
ADD2 DVI-I PCIe Connection Adapter	73P2516																																																		
ADD2 DVI-D Monitor Connection (HDCP)	43R1985																																																		
ATI™ Radeon™ HD 2400 Pro 128MB	43R1961																																																		
ATI Radeon HD 2400 XT 256MB	43R1962																																																		

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Core	Memory ⁸	SATA disk	SATA optical	Graphics	Preload	Limited warranty ¹	Global Educ	Avail date					
	M57e	9482-BGU	2x3	Pentium E2160	1.80	1MB	Dual	1GB	160GB ²	DVD	GMA	XP Pro	3-yr	Mar 08					
	M57e	9482-BHU	2x3	Pentium E2160	1.80	1MB	Dual	1GB	160GB	Combo	GMA	XP Pro	3-yr	Mar 08					
	M57e	9482-BKU	2x3	Core 2 Duo E4500	2.20	2MB	Dual	1GB	160GB	DVD	GMA	XP Pro	3-yr	Mar 08					
	M57e	9482-BJU	2x3	Core 2 Duo E4500	2.20	2MB	Dual	1GB	160GB	Combo	GMA	XP Pro	3-yr	Mar 08					
	M57e	9482-BLU	2x3	Core 2 Duo E4500	2.20	2MB	Dual	1GB	160GB	Combo	GMA	XP Pro	3-yr	Mar 08					
	M57e	9482-BMU	2x3	Core 2 Duo E4500	2.20	2MB	Dual	1GB	160GB	Combo	GMA	XP Pro	3-yr	Mar 08					
	M57e	9482-BPU	2x3	Core 2 Duo E6550	2.33	4MB	Dual	1GB	160GB	DVD	GMA	XP Pro	3-yr	Mar 08					
	M57e	9482-BNU	2x3	Core 2 Duo E6550	2.33	4MB	Dual	1GB	160GB	Combo	GMA	XP Pro	3-yr	Mar 08					
	M57e	9482-DAU	2x3	Core 2 Duo E8200	2.66	6MB	Dual	1GB	160GB	Combo	GMA	XP Pro	3-yr	Mar 08					
Positioning	Mainstream enterprise stability and manageability									Small									
Processor	Intel® Pentium® Dual-Core Processor E2160 with dual-core, Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 1MB shared L2 cache or Intel Core™ 2 Duo Processor E4500 with dual-core, Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 2MB shared L2 cache or Intel Core 2 Duo Processor E6550 with dual-core, Intel 64 Technology, Virtualization Technology, Execute Disable Bit, EIST, TXT, 1333MHz system bus, and 4MB shared L2 cache or Intel Core 2 Duo Processor E8200 with dual-core, Intel 64 Technology, Virtualization Technology, Execute Disable Bit, EIST, TXT, and 1333MHz system bus with 6MB shared L2 cache Processor in FC-LGA6 or FC-LGA8 package 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/diskette)									
Memory	1GB std, 4GB max⁸, PC2-5300 667MHz 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 3100 (GMA 3100) , integrated graphics in G31, uses main memory (up to 256MB), one analog VGA DB-15 connector, 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• 16.1 lb (7.3 kg) in maximum configuration• Bays 1, 2, 3 flip up (latched and pivoting)• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention• Toolless systemboard retention• Steel chassis supports 100 lb (45kg) monitor on top• System floor stand for vertical orientation									
SATA disk	160GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts									Security <ul style="list-style-type: none">• Security slot (in rear for attachment of optional Kensington® Microsaver® cable)<ul style="list-style-type: none">- optional cable also locks the cover by deactivating the cover release buttons• Power-on password• Administrator password• Hard disk password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement									
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7																		
SATA DVD	<i>Some</i> : DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive																		
SATA Combo	<i>Some</i> : CD-RW/DVD-ROM Combo SATA 1.5Gb/s Drive																		
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar																		
eSATA port	None									Supports ThinkVantage® technologies									
EIDE controller	Enhanced IDE, ATA-100, integrated in ICH7, one EIDE connector on planar																		
Diskette drive	None																		
Media reader	None																		
Chipset	Intel G31 Express Chipset ; I/O Controller Hub 7 (ICH7) for SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI 2.3, USB, LPC bus / ITE Tech® IT8718 Super I/O for serial, parallel, keyboard, mouse functions																		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)									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)																		
Internal connector	Two USB 2.0 planar connectors (one used; one open for media reader)																		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)																		
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																		
Speaker	One internal speaker for business audio									Limited Warranty¹ <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									
Ethernet	Gigabit ethernet on planar, Marvell® 88E8056, PCIe x1, 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																
- Microsoft® Windows® XP Professional with Vista® COA			1GB PC2-5300 CL5 NP DDR2 UDIMM			73P4984													
- Disk-to-Disk Recovery (in hidden protected area)			2GB PC2-5300 CL5 NP DDR2 UDIMM			73P4985													
			1GB PC2-6400 NP DDR2 UDIMM			41U2977													
			2GB PC2-6400 NP DDR2 UDIMM			41U2978													
			500GB SATA 3.0Gb/s Disk (7200 rpm)			43R1990													
			USB 2.0 Lenovo Multimedia Headset			40Y8518													
			USB 2.0 Essential Memory Key 32GB			45K1258													
			USB 2.0 Ultra Secure Memory Key 8GB			45J5918													
			USB 2.0 Portable Secure 320GB Hard Disk			43R2019													
			Super Multi-Burner DL DVD±RW SATA Drive			41N5620													
			ThinkVision® L2440p Wide 24" Monitor			4420HB2													
			Wireless Kbd & Opt Wheel Mouse (via USB)			73P4067													
			Kensington Cable Lock from Lenovo			73P2582													
			ADD2 DVI-I PCIe Connection Adapter			73P2516													
			ADD2 DVI-D Monitor Connection (HDCP)			43R1985													
			ATI™ Radeon™ HD 2400 Pro 128MB			43R1961													
			ATI Radeon HD 2400 XT 256MB			43R1962													
			Acc Guide in pdf lenovo.com/accessoriesguide																
			Other accessories at lenovo.com/accessories																

See footnotes for important warranty information

 US models announced March 18, 2008; previous models on February 26, 2008 US models withdrawn effective September 2008 or January 2009

© Lenovo

(MONA1-4) March 2008



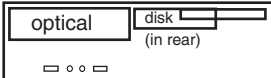
Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Core	Memory ⁶	SATA disk	SATA optical	Graphics	Preload	Limited warranty ¹	Global Educ	Avail date
M57e	9482-HJU	2x3	Pentium E2180	2.00	1MB	Dual	1GB	160GB ²	DVD	GMA	XP Pro	3-yr	None	Sep 08
M57e	9482-HKU	2x3	Pentium E2200	2.20	1MB	Dual	1GB	160GB	DVD	GMA	XP Pro	3-yr	None	Sep 08
M57e	9482-HLU	2x3	Pentium E2200	2.20	1MB	Dual	2GB	160GB	DVD±RW	GMA	XP Pro	3-yr	None	Sep 08
M57e	9482-HHU	2x3	Core 2 Duo E7200	2.53	3MB	Dual	2GB	160GB	DVD	GMA	XP Pro	3-yr	None	Sep 08
M57e	9482-HFU	2x3	Core 2 Duo E7300	2.66	3MB	Dual	1GB	160GB	DVD±RW	GMA+ADD2	XP Pro	3-yr	None	Sep 08
M57e	9482-HGU	2x3	Core 2 Duo E7300	2.66	3MB	Dual	2GB	160GB	DVD	GMA	XP Pro	3-yr	None	Sep 08

Positioning Processor	<i>Mainstream enterprise stability and manageability</i> Intel® Pentium® Dual-Core Processor E2180 or E2200 with dual-core , Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo Processor E7200 or E7300 with dual-core , Intel 64 Technology, Execute Disable Bit, EIST, and 1066MHz system bus with 3MB L2 cache Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket								Small <div><div>optical</div><div>disk</div><div>(in rear)</div></div>	
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/diskette)	
Memory	1GB or 2GB std , 4GB max ⁸ , PC2-5300 667MHz 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 * used in some models	
Graphics	<i>All:</i> Intel Graphics Media Accelerator 3100 (GMA 3100) , integrated graphics in G31, uses main memory (up to 256MB), one analog VGA DB-15 connector <i>Some:</i> ADD2 DVI-D Monitor Connection (HDCP) , PCI Express® adapter in PCIe x16 slot, provides DVI-D connector to support second monitor, HDCP-compliant								<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• 16.1 lb (7.3 kg) in maximum configuration• Bays 1, 2, 3 flip up (latched and pivoting)• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention• Toolless systemboard retention• Steel chassis supports 100 lb (45kg) monitor on top• 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 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</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), two SATA connectors									
eSATA port	None								Supports ThinkVantage® technologies	
EIDE controller	Enhanced IDE, ATA-100, integrated in ICH7, one EIDE connector on planar									
Diskette drive	None									
Media reader	None									
Chipset	Intel G31 Express Chipset ; I/O Controller Hub 7 (ICH7) for SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI 2.3, USB, LPC bus / ITE Tech® IT8718 Super I/O for serial, parallel, keyboard, mouse functions									
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)								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, DVI-D in some models)									
Internal connector	Two USB 2.0 planar connectors (one used; one open for media reader)									
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)									
Audio	High Definition (HD) Audio, Realtek® ALC662 codec									
Speaker	One internal speaker for business audio								Limited Warranty ¹ <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>	
Ethernet	Gigabit ethernet on planar, Marvell® 88E8056, PCIe x1, Wake on LAN®									
Intel AMT	None									
Modem	None									
Security chip	None									
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo									
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo									
Power supply	280 watts with variable speed fan, autosensing									

Preloaded operating system²⁰ <ul style="list-style-type: none">- Microsoft® Windows® XP Professional with Vista® COA⇒ Disk-to-Disk Recovery (in hidden protected area) Preloaded applications⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• System Migration Assistant• Norton Internet Security™ (90 days of virus definitions)• Diskeeper® Home• PC-Doctor™ (diagnostics)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Picasa from Google• Microsoft Office 2007 Trial (60-day)• Multimedia Center for Think Offerings (DVD, DVD±RW)• Sonic RecordNow and Drive Letter Access (DVD±RW)• Corel® WinDVD® (DVD, DVD±RW)• Corel WinDVD Creator (DVD±RW)	Accessories <ul style="list-style-type: none">1GB PC2-5300 CL5 NP DDR2 UDIMM 73P49842GB PC2-5300 CL5 NP DDR2 UDIMM 73P49851GB PC2-6400 NP DDR2 UDIMM 41U29772GB PC2-6400 NP DDR2 UDIMM 41U2978250GB SATA 3.0Gb/s Disk (7200 rpm) 41N3015500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990USB Portable Diskette Drive 05K9276USB 2.0 Lenovo Multimedia Headset 40Y8518USB 2.0 Lenovo Webcam 40Y8519USB 2.0 Essential Memory Key 32GB 45K1258USB 2.0 Ultra Secure Memory Key 8GB 45J5918USB 2.0 Portable Secure 320GB Hard Disk 43R2019DVD-ROM DL SATA 1.5Gb/s 16-48X Max 41N5618Super Multi-Burner DL DVD±RW SATA Drive 41N5620ThinkVision® L2240p Wide 22" Monitor 4422HB6ThinkVision L2440p Wide 24" Monitor 4420HB2Wireless Kbd & Opt Wheel Mouse (via USB) 73P4067Laser Tilt Wheel Mouse (USB, PS/2) 41U3074Kensington Cable Lock from Lenovo 73P2582ADD2 DVI-I PCIe Connection Adapter 73P2516ADD2 DVI-D Monitor Connection (HDCP) 43R1985ATI™ Radeon™ HD 2400 Pro 128MB 43R1961ATI Radeon HD 2400 XT 256MB 43R1962Acc Guide in pdf lenovo.com/accessoriesguideOther accessories at lenovo.com/accessories	
--	---	--

See footnotes for important warranty information
 US models announced August 19, 2008

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Core	Memory ^a	SATA disk	SATA optical	Graphics	Vista preload	Limited warranty ¹	Global Educ	Avail date
M57e	9482-AUU	2x3	Celeron 420	1.60	512KB	Single	1GB	160GB ²	DVD	GMA	Bus32	3-yr	None	Mar 08
M57e	9482-AAU	2x3	Celeron 430	1.80	512KB	Single	1GB	80GB	DVD	GMA	Bus32	3-yr	None	Mar 08
M57e	9482-ABU	2x3	Pentium E2160	1.80	1MB	Dual	1GB	80GB	DVD	GMA	Bus32	3-yr	None	Mar 08
M57e	9482-ACU	2x3	Pentium E2160	1.80	1MB	Dual	1GB	80GB	Combo	GMA	Bus32	3-yr	None	Mar 08
M57e	9482-AVU	2x3	Pentium E2160	1.80	1MB	Dual	1GB	160GB	DVD	GMA	Bus32	3-yr	None	Mar 08
M57e	9482-AWU	2x3	Pentium E2160	1.80	1MB	Dual	1GB	160GB	Combo	GMA	Bus32	3-yr	None	Mar 08
M57e	9482-ADU	2x3	Core 2 Duo E4500	2.20	2MB	Dual	1GB	80GB	DVD	GMA	Bus32	3-yr	None	Mar 08
M57e	9482-AEU	2x3	Core 2 Duo E4500	2.20	2MB	Dual	1GB	80GB	Combo	GMA	Bus32	3-yr	None	Mar 08
M57e	9482-B1U	2x3	Core 2 Duo E4500	2.20	2MB	Dual	1GB	160GB	DVD	GMA	Bus32	3-yr	None	Mar 08
M57e	9482-B2U	2x3	Core 2 Duo E4500	2.20	2MB	Dual	1GB	160GB	Combo	GMA	Bus32	3-yr	None	Mar 08
M57e	9482-AFU	2x3	Core 2 Duo E6550	2.33	4MB	Dual	1GB	80GB	Combo	GMA	Bus32	3-yr	None	Mar 08
M57e	9482-AGU	2x3	Core 2 Duo E6550	2.33	4MB	Dual	1GB	80GB	DVD±RW	GMA	Bus32	3-yr	None	Mar 08
M57e	9482-B6U	2x3	Core 2 Duo E6550	2.33	4MB	Dual	1GB	160GB	DVD	GMA	Bus32	3-yr	None	Mar 08
M57e	9482-B5U	2x3	Core 2 Duo E6550	2.33	4MB	Dual	1GB	160GB	Combo	GMA	Bus32	3-yr	None	Mar 08
Positioning	Mainstream enterprise stability and manageability								Small <div><div>optical</div><div>disk</div><div>(in rear)</div></div> <p>Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader/diskette)</p> <p>Slot 1: Low Profile, PCI Express x16 (35w max) Slot 2: Low Profile, 32-bit PCI 2.3</p> <ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.1 lb (7.3 kg) in maximum configuration• Bays 1, 2, 3 flip up (latched and pivoting)• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention• Toolless systemboard retention• Steel chassis supports 100 lb (45kg) monitor on top• System floor stand for vertical orientation					
Processor	Intel® Celeron® Processor 420 or 430 with single-core, Intel 64 Technology, EDBit, 800MHz bus, and 512KB L2 cache or Intel Pentium® Dual-Core Processor E2160 with dual-core, Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 1MB shared L2 cache or Intel Core™ 2 Duo Processor E4500 with dual-core, Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 2MB shared L2 cache or Intel Core 2 Duo Processor E6550 with dual-core, Intel 64 Technology, Virtualization Technology, Execute Disable Bit, EIST, TXT, and 1333MHz system bus with 4MB shared L2 cache Processor in FC-LGA6 package in LGA775 socket													
Implementation														
Memory	1GB std, 4GB max ^a , PC2-5300 667MHz 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 3100 (GMA 3100), integrated graphics in G31, uses main memory (up to 256MB), one analog VGA DB-15 connector, supports dual independent display with optional ADD2 adapter													
SATA disk	80GB or 160GB, 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	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive													
SATA Combo	<i>Some:</i> CD-RW/DVD-ROM Combo SATA 1.5Gb/s Drive													
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive													
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar													
eSATA port	None													
EIDE controller	Enhanced IDE, ATA-100, integrated in ICH7, one EIDE connector on planar													
Diskette drive	None													
Media reader	None													
Chipset	Intel G31 Express Chipset; I/O Controller Hub 7 (ICH7) for SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI 2.3, USB, LPC bus / ITE Tech® IT8718 Super I/O for serial, parallel, keyboard, mouse functions													
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)								Supports ThinkVantage® technologies					
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)													
Internal connector	Two USB 2.0 planar connectors (one used; one open for media reader)								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 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)⇒ 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					
Speaker	One internal speaker for business audio													
Ethernet	Gigabit ethernet on planar, Marvell® 88E8056, PCIe x1, 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										
- Microsoft® Windows® Vista Business Edition (32-bit) ♦ Vista Basic logo				1GB PC2-5300 CL5 NP DDR2 UDIMM				73P4984						
				2GB PC2-5300 CL5 NP DDR2 UDIMM				73P4985						
				1GB PC2-6400 NP DDR2 UDIMM				41U2977						
Preloaded applications ⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• Norton Internet Security™• Diskkeeper® Home• Microsoft Office 2007 Trial (60-day)• Sonic RecordNow and Drive Letter Access (combo, DVD±RW)• Corel® WinDVD® (combo, DVD, DVD±RW)				2GB PC2-6400 NP DDR2 UDIMM				41U2978						
				500GB SATA 3.0Gb/s Disk (7200 rpm)				43R1990						
				USB 2.0 Lenovo Multimedia Headset				40Y8518						
				ThinkVision® L2440p Wide 24" Monitor				4420HB2						
				Wireless Kbd & Opt Wheel Mouse (via USB)				73P4067						
				Kensington Cable Lock from Lenovo				73P2582						
				ADD2 DVI-I PCIe Connection Adapter				73P2516						
				ADD2 DVI-D Monitor Connection (HDCP)				43R1985						
				ATI™ Radeon™ HD 2400 Pro 128MB				43R1961						
				ATI Radeon HD 2400 XT 256MB				43R1962						
				Other accessories at lenovo.com/accessories										

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Core	Memory ⁸	SATA disk	SATA optical	Graphics	Floor stand	Vista preload	Vista logo	Global Educ	Avail date	
 	M57e 9482-B8U	2x3	Pentium E2180	2.00	1MB	Dual	1GB	160GB ²	DVD±RW	GMA	Stand	Bus32	Basic	Gbl	Sep 08	
	M57e 9482-E9U	2x3	Pentium E2200	2.20	1MB	Dual	1GB	160GB	Combo	GMA	Stand	Bus32	Basic	Gbl	Mar 08	
	M57e 9482-FLU	2x3	Core 2 Duo E4500	2.20	2MB	Dual	1GB	160GB	Combo	GMA	Stand	Bus32	Basic	Educ	Apr 08	
	M57e 9482-FAU	2x3	Core 2 Duo E4600	2.40	2MB	Dual	1GB	160GB	Combo	GMA+ADD2		Bus32	Basic	Gbl	Mar 08	
	M57e 9482-DBU	2x3	Core 2 Duo E8200	2.66	6MB	Dual	1GB	160GB	Combo	GMA	Stand	Bus32	Basic	Gbl	Mar 08	
	M57e 9482-FBU	2x3	Core 2 Duo E8400	3.00	6MB	Dual	2GB	250GB	DVD±RW	GMA+ADD2		Bus32	Prem	Gbl	Mar 08	
• These models have a 3-year limited warranty ¹																
Positioning	Mainstream enterprise stability and manageability										Small					
Processor	Intel® Pentium® Dual-Core Processor E2180 or E2200 with dual-core, Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 1MB shared L2 cache or Intel Core™ 2 Duo Processor E4500 or E4600 with dual-core, Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 2MB shared L2 cache or Intel Core 2 Duo Processor E8200 or E8400 with dual-core, Intel 64 Technology, Virtualization Technology, Execute Disable Bit, EIST, TXT, and 1333MHz system bus with 6MB shared L2 cache Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket										Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader/diskette)		Slot 1: Low Profile, PCI Express x16 (35w max)* Slot 2: Low Profile, 32-bit PCI 2.3			
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket										* used in some models					
Memory	1GB or 2GB 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 avail; <i>Non-italics:</i> standard memory in one socket; one socket 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 • 16.1 lb (7.3 kg) in maximum configuration • Bays 1, 2, 3 flip up (latched and pivoting) • Toolless cover flips up and tilts backward on rear hinges • Toolless disk, diskette drive, optical drive removal • Toolless adapter retention • Toolless systemboard retention • Steel chassis supports 100 lb (45kg) monitor on top • <i>Some:</i> system floor stand for vertical orientation					
Graphics	<i>All:</i> Intel Graphics Media Accelerator 3100 (GMA 3100), integrated graphics in G31, uses main memory (up to 256MB), one analog VGA DB-15 connector <i>Some:</i> ADD2 DVI-I PCIe Connection Adapter, PCI Express® adapter in PCIe x16 slot, provides DVI-I connector to support second monitor, no DVI-to-VGA dongle												Security			
SATA disk	160GB or 250GB, SATA 3.0Gb/s 7200 rpm, vibration dampening												• Security slot (in rear for attachment of optional Kensington® Microsaver® cable) - optional cable also locks the cover by deactivating the cover release buttons			
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7												• Power-on password			
SATA Combo	<i>Some:</i> CD-RW/DVD-ROM Combo SATA 1.5Gb/s Drive												• Administrator password			
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive												• Hard disk password			
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar												• Boot sequence control			
eSATA port	None												• Boot without keyboard, mouse, diskette			
EIDE controller	Enhanced IDE, ATA-100, integrated in ICH7, one EIDE connector on planar												• Serial port I/O control			
Diskette drive	None												• Parallel port I/O control			
Media reader	None												• USB port disablement			
Chipset	Intel G31 Express Chipset; I/O Controller Hub 7 (ICH7) for SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI 2.3, USB, LPC bus / ITE Tech® IT8718 Super I/O for serial, parallel, keyboard, mouse functions												Supports ThinkVantage® technologies			
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)												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, DVI-I in some models)															
Internal connector	Two USB 2.0 planar connectors (one used; one open for media reader)															
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															
Ethernet	Gigabit ethernet on planar, Marvell® 88E8056, PCIe x1, 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												
- Microsoft® Windows® Vista Business Edition (32-bit)				1GB PC2-5300 CL5 NP DDR2 UDIMM				73P4984								
				2GB PC2-5300 CL5 NP DDR2 UDIMM				73P4985								
Preloaded applications ⁵ (only some listed)				1GB PC2-6400 NP DDR2 UDIMM				41U2977								
• <i>Some:</i> Education software				2GB PC2-6400 NP DDR2 UDIMM				41U2978								
- VitalSource Library College Edition				500GB SATA 3.0Gb/s Disk (7200 rpm)				43R1990								
- Adobe® Instructor Resource Center				USB 2.0 Lenovo Multimedia Headset				40Y8518								
- Adobe Digital School Collection				USB 2.0 Lenovo Webcam				40Y8519								
- Photoshop Elements 6 (and CD)				USB 2.0 Essential Memory Key 32GB				45K1258								
- Premier Elements 4 (and DVD)				USB 2.0 Ultra Secure Memory Key 8GB				45J5918								
- Acrobat 8 Professional (and CD)				USB 2.0 Portable Secure 320GB Hard Disk				43R2019								
- Contribute 4 (and CD)				Super Multi-Burner DL DVD±RW SATA Drive				41N5620								
• Rescue and Recovery™				ThinkVision® L2240p Wide 22" Monitor				4422HB6								
• Client Security Solution™				ThinkVision L2440p Wide 24" Monitor				4420HB2								
• ThinkVantage Productivity Center				Wireless Kbd & Opt Wheel Mouse (via USB)				73P4067								
• Norton Internet Security™				Kensington Cable Lock from Lenovo				73P2582								
• Diskkeeper® Home				ADD2 DVI-I PCIe Connection Adapter				73P2516								
• Microsoft Office 2007 Trial (60-day)				ADD2 DVI-D Monitor Connection (HDCP)				43R1985								
• Sonic RecordNow and Drive Letter Access (combo, DVD±RW)				ATI™ Radeon™ HD 2400 Pro 128MB				43R1961								
• Corel® WinDVD® (combo, DVD±RW)				ATI Radeon HD 2400 XT 256MB				43R1962								
				Acc Guide in pdf lenovo.com/accessoriesguide												
				Other accessories at lenovo.com/accessories												
• Limited Warranty ¹																
➤ 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)																
➤ 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 August 19, 2008; previous models on March 18 or March 25, 2008

 US model withdrawn effective September 2008

© Lenovo
(MONA1-8) August 2008

Personal Systems Reference (PSREF)

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

See footnotes for important warranty information © Lenovo
US model announced August 19, 2008; previous models on June 24, 2008 (MONA2-1) August 2008

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

© Lenovo
(MONA3-1) October 2008

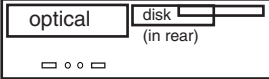
Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Core	Memory ⁸	SATA disk	SATA optical	Graphics	ENERGY STAR 4.0	Floor stand	Vista preload	Vista logo	Global Educ	Avail date
M57e	9487-ADU	2x3	Core 2 Duo E4600	2.40	2MB	Dual	1GB	160GB ²	Combo	GMA	ES40	Stand	Bus32	Basic	Gbl	Mar 08
M57e	9487-AFU	2x3	Core 2 Duo E4600	2.40	2MB	Dual	1GB	160GB	Combo	GMA+ADD2	ES40		Bus32	Basic	Gbl	Mar 08
M57e	9487-AEU	2x3	Core 2 Duo E8200	2.66	6MB	Dual	1GB	160GB	Combo	GMA	ES40	Stand	Bus32	Basic	Gbl	Mar 08
M57e	9487-AGU	2x3	Core 2 Duo E8400	3.00	6MB	Dual	2GB	250GB	DVD±RW	GMA+ADD2	ES40		Bus32	Prem	Gbl	Mar 08

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

Positioning Processor	Mainstream enterprise stability and manageability Intel® Core™ 2 Duo Processor E4600 with dual-core , Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 2MB shared L2 cache or Intel Core 2 Duo Processor E8200 or E8400 with dual-core , Intel 64 Technology, Virtualization Technology, Execute Disable Bit, EIST, TXT, and 1333MHz system bus with 6MB shared L2 cache Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket			Small <div><div>optical</div><div>disk (in rear)</div></div> <div>Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader/diskette)</div> <div>Slot 1: Low Profile, PCI Express x16 (35w max)* Slot 2: Low Profile, 32-bit PCI 2.3</div> <div>* used in some models</div> <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• 16.1 lb (7.3 kg) in maximum configuration• Bays 1, 2, 3 flip up (latched and pivoting)• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention• Toolless systemboard retention• Steel chassis supports 100 lb (45kg) monitor on top• <i>Some:</i> system floor stand for vertical orientation</div>	
Implementation					
Memory	1GB or 2GB 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 avail; <i>Non-italics:</i> standard memory in one socket; one socket available				
Graphics	<i>All:</i> Intel Graphics Media Accelerator 3100 (GMA 3100) , integrated graphics in G31, uses main memory (up to 256MB), one analog VGA DB-15 connector <i>Some:</i> ADD2 DVI-I PCIe Connection Adapter , PCI Express® adapter in PCIe x16 slot, provides DVI-I connector to support second monitor, no DVI-to-VGA dongle				
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 Combo	<i>Some:</i> CD-RW/DVD-ROM Combo SATA 1.5Gb/s Drive				
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive				
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar				
eSATA port	None				
EIDE controller	Enhanced IDE, ATA-100, integrated in ICH7, one EIDE connector on planar				
Diskette drive	None				
Media reader	None				
Chipset	Intel G31 Express Chipset ; I/O Controller Hub 7 (ICH7) for SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI 2.3, USB, LPC bus / ITE Tech® IT8718 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, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DVI-I in some models)				
Internal connector	Two USB 2.0 planar connectors (one used; one open for media reader)				
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				
Ethernet	Gigabit ethernet on planar, Marvel® 88E8056, PCIe x1, 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, 80% PSU				
Preloaded operating system²⁰		Accessories			
- Microsoft® Windows® Vista® Business Edition (32-bit)		1GB PC2-5300 CL5 NP DDR2 UDIMM		73P4984	
		2GB PC2-5300 CL5 NP DDR2 UDIMM		73P4985	
		1GB PC2-6400 NP DDR2 UDIMM		41U2977	
		2GB PC2-6400 NP DDR2 UDIMM		41U2978	
Preloaded applications⁵		250GB SATA 3.0Gb/s Disk (7200 rpm)		41N3015	
• Rescue and Recovery™		500GB SATA 3.0Gb/s Disk (7200 rpm)		43R1990	
• Client Security Solution™		USB 2.0 Lenovo Multimedia Headset		40Y8518	
• ThinkVantage Productivity Center		USB 2.0 Lenovo Webcam		40Y8519	
• System Migration Assistant		USB 2.0 Essential Memory Key 32GB		45K1258	
• Norton Internet Security™ (90 days of virus definitions)		USB 2.0 Ultra Secure Memory Key 4GB		45J5917	
• Diskeeper® Home		USB 2.0 Ultra Secure Memory Key 8GB		45J5918	
• PC-Doctor™ (diagnostics)		USB 2.0 Portable Secure 320GB Hard Disk		43R2019	
• Adobe® Reader		Super Multi-Burner DL DVD±RW SATA Drive		41N5620	
• Windows Live™ Toolbar		ThinkVision® L1940p Wide 19" Monitor		4424HB6	
• Windows Live Search		ThinkVision L2240p Wide 22" Monitor		4422HB6	
• Picasa from Google		ThinkVision L2440p Wide 24" Monitor		4420HB2	
• Microsoft Office 2007 Trial (60-day)		Wireless Kbd & Opt Wheel Mouse (via USB)		73P4067	
• Sonic RecordNow and Drive Letter Access (combo, DVD±RW)		Kensington Cable Lock from Lenovo		73P2582	
• Corel® WinDVD® (combo, DVD±RW)		ADD2 DVI-I PCIe Connection Adapter		73P2516	
		ADD2 DVI-D Monitor Connection (HDCP)		43R1985	
		ATI™ Radeon™ HD 2400 Pro 128MB		43R1961	
		ATI Radeon HD 2400 XT 256MB		43R1962	
		Acc Guide in pdf lenovo.com/accessoriesguide			
		Other accessories at lenovo.com/accessories			
Security					
<ul style="list-style-type: none">• Security slot (in rear for attachment of optional Kensington® Microsaver® cable)<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					
EPEAT™ Gold rating ENERGY STAR 4.0-compliant RoHS-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)					
➤ Onsite service upgrade options (in eligible locations):⁷					
• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)					
• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)					
• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)					
• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)					
• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)					
➤ ThinkPlus services at lenovo.com/thinkplus/warranty					
➤ Post warranty maintenance services available					
➤ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378					

	Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Core	Memory ⁸	SATA disk	SATA optical	Graphics	ENERGY STAR 4.0	Preload	Vista logo	Global Educ	Avail date
ES	M57e	9487-B3U	2x3	Pentium E2180	2.00	1MB	Dual	1GB	160GB ²	DVD±RW	GMA	ES40	XP Pro		None	Sep 08
ES	M57e	9487-B4U	2x3	Pentium E2200	2.20	1MB	Dual	2GB	160GB	DVD±RW	GMA	ES40	XP Pro		None	Sep 08
ES	M57e	9487-B5U	2x3	Core 2 Duo E7200	2.53	3MB	Dual	1GB	160GB	DVD±RW	GMA	ES40	XP Pro		None	Sep 08
ES	M57e	9487-B6U	2x3	Core 2 Duo E7200	2.53	3MB	Dual	2GB	160GB	DVD	GMA	ES40	XP Pro		None	Sep 08
ES	M57e	9487-B1U	2x3	Core 2 Duo E7200	2.53	3MB	Dual	1GB	160GB	DVD±RW	GMA	ES40	Bus32	Basic	None	Jul 08
ES	M57e	9487-B7U	2x3	Core 2 Duo E7300	2.66	3MB	Dual	1GB	160GB	DVD±RW	GMA	ES40	Bus32	Prem	None	Sep 08

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

Positioning Processor	Mainstream enterprise stability and manageability Intel® Pentium® Dual-Core Processor E2180 or E2200 with dual-core , Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo Processor E7200 or E7300 with dual-core , Intel 64 Technology, Execute Disable Bit, EIST, and 1066MHz system bus with 3MB L2 cache		Small			
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader/diskette)		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 , PC2-5300 667MHz 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 • 16.1 lb (7.3 kg) in maximum configuration • Bays 1, 2, 3 flip up (latched and pivoting) • Toolless cover flips up and tilts backward on rear hinges • Toolless disk, diskette drive, optical drive removal • Toolless adapter retention • Toolless systemboard retention • Steel chassis supports 100 lb (45kg) monitor on top • System floor stand for vertical orientation 			
Graphics	Intel Graphics Media Accelerator 3100 (GMA 3100) , integrated graphics in G31, uses main memory (up to 256MB), one analog VGA DB-15 connector, 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	<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					
EIDE controller	Enhanced IDE, ATA-100, integrated in ICH7, one EIDE connector on planar					
Diskette drive	None					
Media reader	None					
Chipset	Intel G31 Express Chipset ; I/O Controller Hub 7 (ICH7) for SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI 2.3, USB, LPC bus / ITE Tech® IT8718 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, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)					
Internal connector	Two USB 2.0 planar connectors (one used; one open for media reader)					
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					
Ethernet	Gigabit ethernet on planar, Marvell® 88E8056, PCIe x1, 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, 80% PSU					

Preloaded operating system²⁰		Accessories		Limited Warranty¹	
- <i>Some:</i> Microsoft® Windows® XP Professional with Vista® COA		1GB PC2-5300 CL5 NP DDR2 UDIMM		⇒ 3-year parts and labor	
- <i>Some:</i> Microsoft Windows Vista Business Edition (32-bit)		2GB PC2-5300 CL5 NP DDR2 UDIMM		⇒ 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)	
Preloaded applications⁵ (all OSes)		1GB PC2-6400 NP DDR2 UDIMM		⇒ Onsite service upgrade options (in eligible locations):⁷	
• Rescue and Recovery™		2GB PC2-6400 NP DDR2 UDIMM		• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)	
• Client Security Solution™		250GB SATA 3.0Gb/s Disk (7200 rpm)		• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)	
• ThinkVantage Productivity Center		500GB SATA 3.0Gb/s Disk (7200 rpm)		• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)	
• System Migration Assistant		USB Portable Diskette Drive		• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)	
• Norton Internet Security™ (90 days of virus definitions)		USB 2.0 Lenovo Multimedia Headset		• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)	
• Diskkeeper® Home		USB 2.0 Essential Memory Key 32GB		⇒ ThinkPlus services at lenovo.com/thinkplus/warranty	
• PC-Doctor™ (diagnostics)		USB 2.0 Ultra Secure Memory Key 8GB		⇒ Post warranty maintenance services available	
• Adobe® Reader		USB 2.0 Portable Secure 320GB Hard Disk		⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378	
• Windows Live™ Toolbar		DVD-ROM DL SATA 1.5Gb/s 16-48X Max			
• Windows Live Search		Super Multi-Burner DL DVD±RW SATA Drive			
• Picasa from Google		ThinkVision® L2240p Wide 22" Monitor			
• Microsoft Office 2007 Trial (60-day)		ThinkVision L2440p Wide 24" Monitor			
• Multimedia Center for Think Offerings (DVD, DVD±RW) (XP)		Wireless Kbd & Opt Wheel Mouse (via USB)			
• Sonic RecordNow and Drive Letter Access (DVD±RW)		Laser Tilt Wheel Mouse (USB, PS/2)			
• Corel® WinDVD® (DVD, DVD±RW)		Kensington Cable Lock from Lenovo			
• Corel WinDVD Creator (DVD±RW) (XP)		ADD2 DVI-I PCIe Connection Adapter			
		ADD2 DVI-D Monitor Connection (HDCP)			
		ATI™ Radeon™ HD 2400 Pro 128MB			
		ATI Radeon HD 2400 XT 256MB			
		Acc Guide in pdf lenovo.com/accessoriesguide			
		Other accessories at lenovo.com/accessories			

See footnotes for important warranty information

ES US models announced August 19, 2008; previous model on June 24, 2008

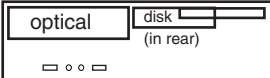
© Lenovo
(MONA2-2) August 2008

ThinkCentre® M57e Small (6178) - ENERGY STAR® 4.0 (GMP)

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Core	Memory ^a	SATA disk	SATA optical	Graphics	ENERGY STAR 4.0	Vista preload	Limited warranty ¹	Global (G) GMP (P)	Avail date
M57e	6178-B1U	2x3	Core 2 Duo E8400	3.00	6MB	Dual	1GB	160GB ²	DVD±RW	GMA	ES40	Business32	3-yr	G P	Jul 08

- This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty

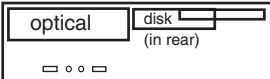
Positioning Processor	Mainstream enterprise stability and manageability Intel® Core™ 2 Duo Processor E8400 with dual-core, Intel 64 Technology, Virtualization Technology, Execute Disable Bit, EIST, TXT, and 1333MHz system bus with 6MB L2 cache		Small 
Implementation	Processor in FC-LGA8 package in LGA775 socket		
Memory	1GB std , 4GB max ⁸ , PC2-5300 667MHz 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/diskette)
Graphics	Intel Graphics Media Accelerator 3100 (GMA 3100) , integrated graphics in G31, uses main memory (up to 256MB), one analog VGA DB-15 connector, supports dual independent display with optional ADD2 adapter		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• 16.1 lb (7.3 kg) in maximum configuration• Bays 1, 2, 3 flip up (latched and pivoting)• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention• Toolless systemboard retention• Steel chassis supports 100 lb (45kg) monitor on top• 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		
EIDE controller	Enhanced IDE, ATA-100, integrated in ICH7, one EIDE connector		
Diskette drive	None		
Media reader	None		
Chipset	Intel G31 Express Chipset ; I/O Controller Hub 7 (ICH7) for SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI 2.3, USB, LPC bus / ITE Tech® IT8718 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, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)		
Internal connector	Two USB 2.0 planar connectors (one used; one open for media reader)		
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		
Ethernet	Gigabit ethernet on planar, Marvell® 88E8056, PCIe x1, 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, 80% PSU		
Preloaded operating system²⁰			
- Microsoft® Windows® Vista® Business Edition (32-bit)			
◇ Vista Basic logo			
Preloaded applications⁵			
• Rescue and Recovery™			
• Client Security Solution™			
• ThinkVantage Productivity Center			
• System Migration Assistant			
• Norton Internet Security™ (90 days of virus definitions)			
• Diskkeeper® Home			
• PC-Doctor™ (diagnostics)			
• Adobe® Reader			
• Windows Live™ Toolbar			
• Windows Live Search			
• Picasa from Google			
• Microsoft Office 2007 Trial (60-day)			
• Sonic RecordNow and Drive Letter Access (DVD±RW)			
• Corel® WinDVD® (DVD±RW)			
Accessories			
1GB PC2-5300 CL5 NP DDR2 UDIMM			73P4984
2GB PC2-5300 CL5 NP DDR2 UDIMM			73P4985
1GB PC2-6400 NP DDR2 UDIMM			41U2977
2GB PC2-6400 NP DDR2 UDIMM			41U2978
250GB SATA 3.0Gb/s Disk (7200 rpm)			41N3015
500GB SATA 3.0Gb/s Disk (7200 rpm)			43R1990
USB Portable Diskette Drive			05K9276
USB 2.0 Lenovo Multimedia Headset			40Y8518
USB 2.0 Lenovo Webcam			40Y8519
USB 2.0 Essential Memory Key 32GB			45K1258
USB 2.0 Security Memory Key 4GB			41U5120
USB 2.0 Ultra Secure Memory Key 2GB			45J5916
USB 2.0 Ultra Secure Memory Key 4GB			45J5917
USB 2.0 Ultra Secure Memory Key 8GB			45J5918
USB 2.0 Portable 160GB Hard Disk			43R1784
USB 2.0 Portable Secure 320GB Hard Disk			43R2019
Super Multi-Burner DL DVD±RW SATA Drive			41N5620
ThinkVision® L1700p 17" Monitor			9417HE2
ThinkVision L1940p Wide 19" Monitor			4424HB6
ThinkVision L2240p Wide 22" Monitor			4422HB6
ThinkVision L2440p Wide 24" Monitor			4420HB2
Wireless Kbd & Opt Wheel Mouse (via USB)			73P4067
Laser Tilt Wheel Mouse (USB, PS/2)			41U3074
Kensington Cable Lock from Lenovo			73P2582
ADD2 DVI-I PCIe Connection Adapter			73P2516
ADD2 DVI-D Monitor Connection (HDCP)			43R1985
ATI™ Radeon™ HD 2400 Pro 128MB			43R1961
ATI Radeon HD 2400 XT 256MB			43R1962
Acc Guide in pdf lenovo.com/accessoriesguide			
Other accessories at lenovo.com/accessories			
			Supports ThinkVantage® technologies
			EPEAT™ Gold rating ENERGY STAR 4.0-compliant RoHS-compliant
			Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 4-year LOR 9x5, Next Business Day (ThinkPlus™ part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378


See footnotes for important warranty information
US model announced June 24, 2008

© Lenovo
(MONA2-3) June 2008

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Core	Memory ^a	SATA disk	SATA optical	Graphics	Vista preload	Vista logo	Limited warranty ¹	Global (G) GMP (P)	Avail date
M57e	7066-AAU	2x3	Pentium E2200	2.20	1MB	Dual	1GB	160GB ²	Combo	GMA	Business32	Basic	3-yr	G P	Apr 08

- This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty

Positioning Processor	Mainstream enterprise stability and manageability Intel® Pentium® Dual-Core Processor E2200 with dual-core, Intel 64 Technology, Execute Disable Bit, EIST, and 800MHz system bus with 1MB shared L2 cache Processor in FC-LGA6 package in LGA775 socket			Small 	
Implementation					
Memory	1GB std, 4GB max⁸, PC2-5300 667MHz 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 3100 (GMA 3100) , integrated graphics in G31, uses main memory (up to 256MB), one analog VGA DB-15 connector, 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/diskette)</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• 16.1 lb (7.3 kg) in maximum configuration• Bays 1, 2, 3 flip up (latched and pivoting)• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention• Toolless systemboard retention• Steel chassis supports 100 lb (45kg) monitor on top• System floor stand for vertical orientation	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7				
SATA Combo	CD-RW/DVD-ROM Combo SATA 1.5Gb/s Drive				
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors				
eSATA port	None				
EIDE controller	Enhanced IDE, ATA-100, integrated in ICH7, one EIDE connector				
Diskette drive	None				
Media reader	None				
Chipset	Intel G31 Express Chipset ; I/O Controller Hub 7 (ICH7) for SATA 3.0Gb/s, ATA-100 EIDE, PCI Express [®] x1, PCI 2.3, USB, LPC bus / ITE Tech [®] IT8718 Super I/O for serial, parallel, keyboard, mouse functions				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)				
Internal connector	Two USB 2.0 planar connectors (one used; one open for media reader)				
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				
Ethernet	Gigabit ethernet on planar, Marvell [®] 88E8056, PCIe x1, 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				
Preloaded operating system²⁰		Accessories			RoHS-compliant
- Microsoft [®] Windows [®] Vista [®] Business Edition (32-bit)		1GB PC2-5300 CL5 NP DDR2 UDIMM	73P4984		
Preloaded applications⁵		2GB PC2-5300 CL5 NP DDR2 UDIMM	73P4985		
• Rescue and Recovery [™]		1GB PC2-6400 NP DDR2 UDIMM	41U2977		
• Client Security Solution [™]		2GB PC2-6400 NP DDR2 UDIMM	41U2978		
• ThinkVantage Productivity Center		250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015		
• System Migration Assistant		500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990		
• Norton Internet Security [™] (90 days of virus definitions)		USB 2.0 Lenovo Multimedia Headset	40Y8518		
• Diskeeper [®] Home		USB 2.0 Lenovo Webcam	40Y8519		
• PC-Doctor [™] (diagnostics)		USB 2.0 Essential Memory Key 32GB	45K1258		
• Adobe [®] Reader		USB 2.0 Ultra Secure Memory Key 2GB	45J5916		
• Windows Live [™] Toolbar		USB 2.0 Ultra Secure Memory Key 4GB	45J5917		
• Windows Live Search		USB 2.0 Ultra Secure Memory Key 8GB	45J5918		
• Picasa from Google		USB 2.0 Portable 160GB Hard Disk	43R1784		
• Microsoft Office 2007 Trial (60-day)		USB 2.0 Portable Secure 320GB Hard Disk	43R2019		
• Sonic RecordNow and Drive Letter Access (combo)		Super Multi-Burner DL DVD±RW SATA Drive	41N5620		
• Corel [®] WinDVD [®] (combo)		ThinkVision [®] L1700p 17" Monitor	9417HE2		
		ThinkVision L1940p Wide 19" Monitor	4424HB6		
		ThinkVision L2240p Wide 22" Monitor	4422HB6		
		ThinkVision L2440p Wide 24" Monitor	4420HB2		
		Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067		
		Laser Tilt Wheel Mouse (USB, PS/2)	41U3074		
		Kensington Cable Lock from Lenovo	73P2582		
		ADD2 DVI-I PCIe Connection Adapter	73P2516		
		ADD2 DVI-D Monitor Connection (HDCP)	43R1985		
		ATI [™] Radeon [™] HD 2400 Pro 128MB	43R1961		
		ATI Radeon HD 2400 XT 256MB	43R1962		
		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">• 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 18, 2008; previous models on February 26, 2008
 US models withdrawn effective September 2008 or January 2009

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Core	Memory ⁸	SATA disk	SATA optical	Graphics	Preload	Limited warranty ¹	Global Educ	Avail date
M57e	9481-J1U	4x3	Pentium E2180	2.00	1MB	Dual	1GB	160GB ²	DVD	GMA	XP Pro	3-yr	None	Aug 08
M57e	9481-J2U	4x3	Pentium E2180	2.00	1MB	Dual	1GB	160GB	DVD±RW	GMA+ADD2	XP Pro	3-yr	None	Aug 08
M57e	9481-J3U	4x3	Pentium E2200	2.20	1MB	Dual	1GB	160GB	DVD	GMA	XP Pro	3-yr	None	Aug 08
M57e	9481-J4U	4x3	Pentium E2200	2.20	1MB	Dual	2GB	160GB	DVD±RW	GMA	XP Pro	3-yr	None	Aug 08
M57e	9481-J6U	4x3	Core 2 Duo E7200	2.53	3MB	Dual	2GB	160GB	DVD	GMA	XP Pro	3-yr	None	Aug 08
M57e	9481-J5U	4x3	Core 2 Duo E7200	2.53	3MB	Dual	2GB	160GB	DVD±RW	GMA+ADD2	XP Pro	3-yr	None	Aug 08
M57e	9481-J7U	4x3	Core 2 Duo E7300	2.66	3MB	Dual	1GB	160GB	DVD±RW	GMA	XP Pro	3-yr	None	Aug 08
Positioning Processor	Mainstream enterprise stability and manageability Intel® Pentium® Dual-Core Processor E2180 or E2200 with dual-core, Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo Processor E7200 or E7300 with dual-core, Intel 64 Technology, Execute Disable Bit, EIST, and 1066MHz system bus with 3MB L2 cache Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket								Desktop <div><div>②</div><div>optical</div><div>disk</div></div> <ul style="list-style-type: none">• Business black color• 13.0" W X 16.2" D X 4.1" H• 331mm W X 412mm D X 104mm H• 19.4 lb (8.8 kg) in max configuration• 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 3.5", 1" high, access, open (reader/diskette) Bay ③ 3.5", 1" high, no access, std disk Slot 1: Low Profile, PCI Express x16 (35w 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 * used in some models					
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket													
Memory	1GB or 2GB std, 4GB max ⁸ , PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 240-pin DIMM sockets; Non-italics: standard memory in one socket; one socket available													
Graphics	All: Intel Graphics Media Accelerator 3100 (GMA 3100), integrated graphics in G31, uses main memory (up to 256MB), one analog VGA DB-15 connector Some: ADD2 DVI-D Monitor Connection (HDCP), PCI Express® adapter in PCIe x16 slot, provides DVI-D connector to support second monitor, HDCP-compliant													
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	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													
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors on planar													
eSATA port	None													
EIDE controller	Enhanced IDE, ATA-100, integrated in ICH7, one EIDE connector on planar													
Diskette drive	None													
Media reader	None													
Chipset	Intel G31 Express Chipset; I/O Controller Hub 7 (ICH7) for SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI 2.3, USB, LPC bus / ITE Tech® IT8718 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, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DVI-D in some models)													
Internal connector	Two USB 2.0 planar connectors (one used; one open for media reader)													
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													
Ethernet	Gigabit ethernet on planar, Marvell® 88E8056, PCIe x1, 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	220 watts with variable speed fan, manual switch													
Preloaded operating system ²⁰									Accessories					
- Microsoft® Windows® XP Professional with Vista® COA									1GB PC2-5300 CL5 NP DDR2 UDIMM 73P4984					
◇ Disk-to-Disk Recovery (in hidden protected area)									2GB PC2-5300 CL5 NP DDR2 UDIMM 73P4985					
									1GB PC2-6400 NP DDR2 UDIMM 41U2977					
									2GB PC2-6400 NP DDR2 UDIMM 41U2978					
Preloaded applications ⁵									250GB SATA 3.0Gb/s Disk (7200 rpm) 41N3015					
• Rescue and Recovery™									500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990					
• Client Security Solution™									USB 2.0 Lenovo Multimedia Headset 40Y8518					
• ThinkVantage Productivity Center									USB 2.0 Lenovo Webcam 40Y8519					
• System Migration Assistant									USB 2.0 Essential Memory Key 32GB 45K1258					
• Norton Internet Security™									USB 2.0 Ultra Secure Memory Key 8GB 45J5918					
• Diskeeper® Home									USB 2.0 Portable Secure 320GB Hard Disk 43R2019					
• PC-Doctor™ (diagnostics)									Super Multi-Burner DL DVD±RW SATA Drive 41N5620					
• Adobe® Reader									ThinkVision® L2240p Wide 22" Monitor 4422HB6					
• Windows Live™ Toolbar									ThinkVision L2440p Wide 24" Monitor 4420HB2					
• Windows Live Search									Wireless Kbd & Opt Wheel Mouse (via USB) 73P4067					
• Picasa from Google									Laser Tilt Wheel Mouse (USB, PS/2) 41U3074					
• Microsoft Office 2007 Trial (60-day)									Kensington Cable Lock from Lenovo 73P2582					
• Multimedia Center for Think Offerings (DVD, DVD±RW)									ADD2 DVI-I PCIe Connection Adapter 73P2516					
• Sonic RecordNow and Drive Letter Access (DVD±RW)									ADD2 DVI-D Monitor Connection (HDCP) 43R1985					
• Corel® WinDVD® (DVD, DVD±RW)									ATI™ Radeon™ HD 2400 Pro 128MB 43R1961					
• Corel WinDVD Creator (DVD±RW)									ATI Radeon HD 2400 XT 256MB 43R1962					
									NVIDIA® Quadro® 256MB NVS 290 43R1765					
									Acc Guide in pdf lenovo.com/accessoriesguide					
									Other accessories at lenovo.com/accessories					
									73P4984					
									73P4985					
									41U2977					
									41U2978					
									41N3015					
									43R1990					
									40Y8518					
									40Y8519					
									45K1258					
									45J5918					
									43R2019					
									41N5620					
									4422HB6					
									4420HB2					
									73P4067					
									41U3074					
									73P2582					
									73P2516					
									43R1985					
									43R1961					
									43R1962					
									43R1765					

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Core	Memory ⁸	SATA disk	SATA optical	Graphics	Vista preload	Limited warranty ¹	Global Educ	Avail date
M57e	9481-A5U	4x3	Celeron 420	1.60	512KB	Single	1GB	160GB ²	DVD	GMA	Business32	3-yr		Mar 08
M57e	9481-A4U	4x3	Pentium E2160	1.80	1MB	Dual	1GB	160GB	Combo	GMA	Business32	3-yr		Mar 08
M57e	9481-D5U	4x3	Pentium E2200	2.20	1MB	Dual	1GB	160GB	Combo	GMA	Business32	3-yr	Gbl	Mar 08
M57e	9481-A3U	4x3	Core 2 Duo E4500	2.20	2MB	Dual	1GB	160GB	Combo	GMA	Business32	3-yr		Mar 08
M57e	9481-D6U	4x3	Core 2 Duo E4600	2.40	2MB	Dual	1GB	160GB	Combo	GMA	Business32	3-yr	Gbl	Mar 08
M57e	9481-A8U	4x3	Core 2 Duo E6550	2.33	4MB	Dual	1GB	160GB	DVD±RW	GMA	Business32	3-yr		Mar 08
M57e	9481-A9U	4x3	Core 2 Duo E8200	2.66	6MB	Dual	1GB	160GB	Combo	GMA	Business32	3-yr	Gbl	Mar 08

Positioning Processor	Mainstream enterprise stability and manageability Intel® Celeron® Processor 420 with single-core, Intel 64 Tech, Execute Disable Bit, 800MHz system bus, and 512KB L2 cache or Intel Pentium® Dual-Core Processor E2160 or E2200 with dual-core, Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 1MB shared L2 cache or Intel Core™ 2 Duo Processor E4500 or E4600 with dual-core, Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 2MB shared L2 cache or Intel Core 2 Duo Processor E6550 with dual-core, Intel 64 Technology, Virtualization Technology, Execute Disable Bit, EIST, TXT, 1333MHz system bus, and 4MB shared L2 cache or Intel Core 2 Duo Processor E8200 with dual-core, Intel 64 Technology, Virtualization Technology, Execute Disable Bit, EIST, TXT, and 1333MHz system bus with 6MB shared L2 cache Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket	Desktop <div><div>②</div><div>optical</div><div>disk</div></div> <ul style="list-style-type: none">• Business black color• 13.0" W X 16.2" D X 4.1" H• 331mm W X 412mm D X 104mm H• 19.4 lb (8.8 kg) in max configuration• 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 3.5", 1" high, access, open (reader/diskette) Bay ③ 3.5", 1" high, no access, std disk Slot 1: Low Profile, PCI Express x16 (35w 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																																		
Implementation																																				
Memory	1GB std, 4GB max⁸, PC2-5300 667MHz 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 3100 (GMA 3100) , integrated graphics in G31, uses main memory (up to 256MB), one analog VGA DB-15 connector, 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	160GB , 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 16X-48X Max ⁴ Drive																																			
SATA Combo	<i>Some:</i> CD-RW/DVD-ROM Combo SATA 1.5Gb/s 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																																			
EIDE controller	Enhanced IDE, ATA-100, integrated in ICH7, one EIDE connector on planar																																			
Diskette drive	None																																			
Media reader	None																																			
Chipset	Intel G31 Express Chipset ; I/O Controller Hub 7 (ICH7) for SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI 2.3, USB, LPC bus / ITE Tech® IT8718 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, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)																																			
Internal connector	Two USB 2.0 planar connectors (one used; one open for media reader)	Supports ThinkVantage® technologies																																		
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	RoHS-compliant																																		
Speaker	One internal speaker for business audio																																			
Ethernet	Gigabit ethernet on planar, Marvell® 88E8056, PCIe x1, Wake on LAN®	Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																																		
Intel AMT	None																																			
Modem	None																																			
Security chip	None																																			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																																			
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																																			
Power supply	220 watts with variable speed fan, manual switch																																			
Preloaded operating system²⁰ <ul style="list-style-type: none">- Microsoft® Windows® Vista Business Edition (32-bit)◇ Vista Basic logo Preloaded applications⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• Norton Internet Security™• Diskeeper® Home• PC-Doctor™ (diagnostics)• Picasa from Google• Microsoft Office 2007 Trial (60-day)• Sonic RecordNow and Drive Letter Access (combo, DVD±RW)• Corel® WinDVD® (combo, DVD, DVD±RW)	Accessories <table><tr><td>1GB PC2-5300 CL5 NP DDR2 UDIMM</td><td>73P4984</td></tr><tr><td>2GB PC2-5300 CL5 NP DDR2 UDIMM</td><td>73P4985</td></tr><tr><td>1GB PC2-6400 NP DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 NP DDR2 UDIMM</td><td>41U2978</td></tr><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Essential Memory Key 32GB</td><td>45K1258</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</td></tr><tr><td>ThinkVision® L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>ADD2 DVI-I PCIe Connection Adapter</td><td>73P2516</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI™ Radeon™ HD 2400 Pro 128MB</td><td>43R1961</td></tr><tr><td>ATI Radeon HD 2400 XT 256MB</td><td>43R1962</td></tr><tr><td>NVIDIA® Quadro® 256MB NVS 290</td><td>43R1765</td></tr></table> Other accessories at lenovo.com/accessories	1GB PC2-5300 CL5 NP DDR2 UDIMM	73P4984	2GB PC2-5300 CL5 NP DDR2 UDIMM	73P4985	1GB PC2-6400 NP DDR2 UDIMM	41U2977	2GB PC2-6400 NP DDR2 UDIMM	41U2978	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Essential Memory Key 32GB	45K1258	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ThinkVision® L2440p Wide 24" Monitor	4420HB2	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Kensington Cable Lock from Lenovo	73P2582	ADD2 DVI-I PCIe Connection Adapter	73P2516	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI™ Radeon™ HD 2400 Pro 128MB	43R1961	ATI Radeon HD 2400 XT 256MB	43R1962	NVIDIA® Quadro® 256MB NVS 290	43R1765	
1GB PC2-5300 CL5 NP DDR2 UDIMM	73P4984																																			
2GB PC2-5300 CL5 NP DDR2 UDIMM	73P4985																																			
1GB PC2-6400 NP DDR2 UDIMM	41U2977																																			
2GB PC2-6400 NP DDR2 UDIMM	41U2978																																			
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																																			
USB 2.0 Lenovo Multimedia Headset	40Y8518																																			
USB 2.0 Essential Memory Key 32GB	45K1258																																			
USB 2.0 Ultra Secure Memory Key 8GB	45J5918																																			
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																			
ThinkVision® L2440p Wide 24" Monitor	4420HB2																																			
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067																																			
Kensington Cable Lock from Lenovo	73P2582																																			
ADD2 DVI-I PCIe Connection Adapter	73P2516																																			
ADD2 DVI-D Monitor Connection (HDCP)	43R1985																																			
ATI™ Radeon™ HD 2400 Pro 128MB	43R1961																																			
ATI Radeon HD 2400 XT 256MB	43R1962																																			
NVIDIA® Quadro® 256MB NVS 290	43R1765																																			

See footnotes for important warranty information

US models announced March 18, 2008; previous models on February 19, 2008

US models withdrawn effective September 2008 or January 2009

© Lenovo
(MONA1-2) March 2008

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Core	Memory ^a	SATA disk	SATA optical	Graphics	Vista preload	Limited warranty ¹	Global Educ	Avail date
M57e	9481-F2U	4x3	Core 2 Duo E7200	2.53	3MB	Dual	1GB	160GB ²	DVD±RW	GMA	Business32	3-yr	None	Jun 08

• **This model has a 3-year limited warranty¹**

Positioning Processor	Mainstream enterprise stability and manageability Intel® Core™ 2 Duo Processor E7200 with dual-core, Intel 64 Technology, Execute Disable Bit, EIST, and 1066MHz system bus with 3MB L2 cache	Desktop <div><div><div>②</div><div>optical</div></div><div><div>• • •</div><div>disk</div></div></div> <ul style="list-style-type: none">• Business black color• 13.0" W X 16.2" D X 4.1" H• 331mm W X 412mm D X 104mm H• 19.4 lb (8.8 kg) in max configuration• 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 3.5", 1" high, access, open (reader/diskette) Bay ③ 3.5", 1" high, no access, std disk Slot 1: Low Profile, PCI Express x16 (35w 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																																																										
Implementation	Processor in FC-LGA8 package in LGA775 socket																																																											
Memory	1GB std , 4GB max ⁸ , PC2-5300 667MHz 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 3100 (GMA 3100) , integrated graphics in G31, uses main memory (up to 256MB), one analog VGA DB-15 connector, supports dual independent display with optional ADD2 adapter																																																											
SATA disk	160GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts	Security <ul style="list-style-type: none">• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® Microsaver® cable)• Power-on password• Administrator password• Hard disk password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement																																																										
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7																																																											
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																																																											
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors																																																											
eSATA port	None																																																											
EIDE controller	Enhanced IDE, ATA-100, integrated in ICH7, one EIDE connector on planar																																																											
Diskette drive	None																																																											
Media reader	None																																																											
Chipset	Intel G31 Express Chipset ; I/O Controller Hub 7 (ICH7) for SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI 2.3, USB, LPC bus / ITE Tech® IT8718 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, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)																																																											
Internal connector	Two USB 2.0 planar connectors (one used; one open for media reader)																																																											
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																																																											
Ethernet	Gigabit ethernet on planar, Marvell® 88E8056, PCIe x1, 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	220 watts with variable speed fan, manual switch																																																											
Preloaded operating system ²⁰ <ul style="list-style-type: none">- Microsoft® Windows® Vista Business Edition (32-bit)✦ Vista Basic logo Preloaded applications ⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• System Migration Assistant• Norton Internet Security™ (90 days of virus definitions)• Diskkeeper® Home• PC-Doctor™ (diagnostics)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Picasa from Google• Microsoft Office 2007 Trial (60-day)• Sonic RecordNow and Drive Letter Access (DVD±RW)• Corel® WinDVD® (DVD±RW)		Accessories <table><tr><td>1GB PC2-5300 CL5 NP DDR2 UDIMM</td><td>73P4984</td></tr><tr><td>2GB PC2-5300 CL5 NP DDR2 UDIMM</td><td>73P4985</td></tr><tr><td>1GB PC2-6400 NP DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 NP 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>USB Portable Diskette Drive</td><td>05K9276</td></tr><tr><td>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Essential Memory Key 32GB</td><td>45K1258</td></tr><tr><td>USB 2.0 Security Memory Key 4GB</td><td>41U5120</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 2GB</td><td>45J5916</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 4GB</td><td>45J5917</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable 160GB Hard Disk</td><td>43R1784</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>ThinkVision® L1700p 17" Monitor</td><td>9417HE2</td></tr><tr><td>ThinkVision L1940p Wide 19" Monitor</td><td>4424HB6</td></tr><tr><td>ThinkVision L2240p Wide 22" Monitor</td><td>4422HB6</td></tr><tr><td>ThinkVision L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>ADD2 DVI-I PCIe Connection Adapter</td><td>73P2516</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI™ Radeon™ HD 2400 Pro 128MB</td><td>43R1961</td></tr><tr><td>ATI Radeon HD 2400 XT 256MB</td><td>43R1962</td></tr><tr><td>NVIDIA® Quadro® 256MB NVS 290</td><td>43R1765</td></tr></table> Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories	1GB PC2-5300 CL5 NP DDR2 UDIMM	73P4984	2GB PC2-5300 CL5 NP DDR2 UDIMM	73P4985	1GB PC2-6400 NP DDR2 UDIMM	41U2977	2GB PC2-6400 NP DDR2 UDIMM	41U2978	250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	USB Portable Diskette Drive	05K9276	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Lenovo Webcam	40Y8519	USB 2.0 Essential Memory Key 32GB	45K1258	USB 2.0 Security Memory Key 4GB	41U5120	USB 2.0 Ultra Secure Memory Key 2GB	45J5916	USB 2.0 Ultra Secure Memory Key 4GB	45J5917	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable 160GB Hard Disk	43R1784	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ThinkVision® L1700p 17" Monitor	9417HE2	ThinkVision L1940p Wide 19" Monitor	4424HB6	ThinkVision L2240p Wide 22" Monitor	4422HB6	ThinkVision L2440p Wide 24" Monitor	4420HB2	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Kensington Cable Lock from Lenovo	73P2582	ADD2 DVI-I PCIe Connection Adapter	73P2516	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI™ Radeon™ HD 2400 Pro 128MB	43R1961	ATI Radeon HD 2400 XT 256MB	43R1962	NVIDIA® Quadro® 256MB NVS 290	43R1765
1GB PC2-5300 CL5 NP DDR2 UDIMM	73P4984																																																											
2GB PC2-5300 CL5 NP DDR2 UDIMM	73P4985																																																											
1GB PC2-6400 NP DDR2 UDIMM	41U2977																																																											
2GB PC2-6400 NP DDR2 UDIMM	41U2978																																																											
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015																																																											
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																																																											
USB Portable Diskette Drive	05K9276																																																											
USB 2.0 Lenovo Multimedia Headset	40Y8518																																																											
USB 2.0 Lenovo Webcam	40Y8519																																																											
USB 2.0 Essential Memory Key 32GB	45K1258																																																											
USB 2.0 Security Memory Key 4GB	41U5120																																																											
USB 2.0 Ultra Secure Memory Key 2GB	45J5916																																																											
USB 2.0 Ultra Secure Memory Key 4GB	45J5917																																																											
USB 2.0 Ultra Secure Memory Key 8GB	45J5918																																																											
USB 2.0 Portable 160GB Hard Disk	43R1784																																																											
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																																											
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																																																											
ThinkVision® L1700p 17" Monitor	9417HE2																																																											
ThinkVision L1940p Wide 19" Monitor	4424HB6																																																											
ThinkVision L2240p Wide 22" Monitor	4422HB6																																																											
ThinkVision L2440p Wide 24" Monitor	4420HB2																																																											
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067																																																											
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074																																																											
Kensington Cable Lock from Lenovo	73P2582																																																											
ADD2 DVI-I PCIe Connection Adapter	73P2516																																																											
ADD2 DVI-D Monitor Connection (HDCP)	43R1985																																																											
ATI™ Radeon™ HD 2400 Pro 128MB	43R1961																																																											
ATI Radeon HD 2400 XT 256MB	43R1962																																																											
NVIDIA® Quadro® 256MB NVS 290	43R1765																																																											
		Supports ThinkVantage® technologies																																																										
		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 ^a	SATA disk	SATA optical	Graphics	Vista preload	Vista logo	Global Educ	Avail date
M57e	9481-JCU	4x3	Pentium E5200	2.50	2MB	2	1GB	160GB ²	DVD	GMA	Business32	Premium	None	Nov 08
M57e	9481-JDU	4x3	Pentium E5200	2.50	2MB	2	1GB	250GB	DVD±RW	GMA	Business32	Premium	None	Nov 08

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

Positioning Processor	Mainstream enterprise stability and manageability Intel® Pentium® Dual-Core Processor E5200 with dual-core , 800MHz system bus, and 2MB L2 cache Processor in FC-LGA6 package in LGA775 socket		Desktop <ul style="list-style-type: none">• Business black color• 13.0" W X 16.2" D X 4.1" H• 331mm W X 412mm D X 104mm H• 19.4 lb (8.8 kg) in max configuration• 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 3.5", 1" high, access, open (reader/diskette) Bay ③ 3.5", 1" high, no access, std disk Slot 1: Low Profile, PCI Express x16 (35w 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																																																																																															
Implementation																																																																																																		
Memory	1GB std , 4GB max [®] , PC2-5300 667MHz 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 3100 (GMA 3100) , integrated graphics in G31, uses main memory (up to 256MB), one analog VGA DB-15 connector, 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), four SATA connectors																																																																																																	
eSATA port	None																																																																																																	
EIDE controller	Enhanced IDE, ATA-100, integrated in ICH7, one EIDE connector on planar																																																																																																	
Diskette drive	None																																																																																																	
Media reader	None																																																																																																	
Chipset	Intel G31 Express Chipset ; I/O Controller Hub 7 (ICH7) for SATA 3.0Gb/s, ATA-100 EIDE, PCI Express [®] x1, PCI 2.3, USB, LPC bus / ITE Tech [®] IT8718 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, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)																																																																																																	
Internal connector	Two USB 2.0 planar connectors (one used; one open for media reader)																																																																																																	
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																																																																																																	
Ethernet	Gigabit ethernet on planar, Marvell [®] 88E8056, PCIe x1, 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	220 watts with variable speed fan, manual switch																																																																																																	
<table><tr><td>Preloaded operating system²⁰</td><td>Accessories</td><td></td></tr><tr><td>- Microsoft[®] Windows[®] Vista Business Edition (32-bit)</td><td>1GB PC2-5300 CL5 NP DDR2 UDIMM</td><td>73P4984</td></tr><tr><td></td><td>2GB PC2-5300 CL5 NP DDR2 UDIMM</td><td>73P4985</td></tr><tr><td></td><td>1GB PC2-6400 NP DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>Preloaded applications⁵</td><td>2GB PC2-6400 NP DDR2 UDIMM</td><td>41U2978</td></tr><tr><td>• Rescue and Recovery[™]</td><td>250GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>41N3015</td></tr><tr><td>• Client Security Solution[™]</td><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>• ThinkVantage Productivity Center</td><td>USB Portable Diskette Drive</td><td>05K9276</td></tr><tr><td>• System Migration Assistant</td><td>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>• Norton Internet Security[™] (90 days of virus definitions)</td><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>• Diskeeper[®] Home</td><td>USB 2.0 Essential Memory Key 32GB</td><td>45K1258</td></tr><tr><td>• PC-Doctor[™] (diagnostics)</td><td>USB 2.0 Security Memory Key 4GB</td><td>41U5120</td></tr><tr><td>• Adobe[®] Reader</td><td>USB 2.0 Ultra Secure Memory Key 4GB</td><td>45J5917</td></tr><tr><td>• Windows Live[™] Toolbar</td><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>• Windows Live Search</td><td>USB 2.0 Portable 160GB Hard Disk</td><td>43R1784</td></tr><tr><td>• Picasa from Google</td><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</td></tr><tr><td>• Microsoft Office 2007 Trial (60-day)</td><td>DVD-ROM DL SATA 1.5Gb/s 16-48X Max</td><td>41N5618</td></tr><tr><td>• Sonic RecordNow and Drive Letter Access (DVD±RW)</td><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>• Corel[®] WinDVD[®] (DVD, DVD±RW)</td><td>ThinkVision[®] L1700p 17" Monitor</td><td>9417HE2</td></tr><tr><td></td><td>ThinkVision L1940p Wide 19" Monitor</td><td>4424HB6</td></tr><tr><td></td><td>ThinkVision L2240p Wide 22" Monitor</td><td>4422HB6</td></tr><tr><td></td><td>ThinkVision L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td></td><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td></td><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td></td><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td></td><td>ADD2 DVI-I PCIe Connection Adapter</td><td>73P2516</td></tr><tr><td></td><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td></td><td>ATI[™] Radeon[™] HD 2400 Pro 128MB</td><td>43R1961</td></tr><tr><td></td><td>ATI Radeon HD 2400 XT 256MB</td><td>43R1962</td></tr><tr><td></td><td>NVIDIA[®] Quadro[®] 256MB NVS 290</td><td>43R1765</td></tr><tr><td></td><td>Acc Guide in pdf lenovo.com/accessoriesguide</td><td></td></tr><tr><td></td><td>Other accessories at lenovo.com/accessories</td><td></td></tr></table>			Preloaded operating system ²⁰	Accessories		- Microsoft [®] Windows [®] Vista Business Edition (32-bit)	1GB PC2-5300 CL5 NP DDR2 UDIMM	73P4984		2GB PC2-5300 CL5 NP DDR2 UDIMM	73P4985		1GB PC2-6400 NP DDR2 UDIMM	41U2977	Preloaded applications ⁵	2GB PC2-6400 NP 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	USB Portable Diskette Drive	05K9276	• System Migration Assistant	USB 2.0 Lenovo Multimedia Headset	40Y8518	• Norton Internet Security [™] (90 days of virus definitions)	USB 2.0 Lenovo Webcam	40Y8519	• Diskeeper [®] Home	USB 2.0 Essential Memory Key 32GB	45K1258	• PC-Doctor [™] (diagnostics)	USB 2.0 Security Memory Key 4GB	41U5120	• Adobe [®] Reader	USB 2.0 Ultra Secure Memory Key 4GB	45J5917	• Windows Live [™] Toolbar	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	• Windows Live Search	USB 2.0 Portable 160GB Hard Disk	43R1784	• Picasa from Google	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	• Microsoft Office 2007 Trial (60-day)	DVD-ROM DL SATA 1.5Gb/s 16-48X Max	41N5618	• Sonic RecordNow and Drive Letter Access (DVD±RW)	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	• Corel [®] WinDVD [®] (DVD, DVD±RW)	ThinkVision [®] L1700p 17" Monitor	9417HE2		ThinkVision L1940p Wide 19" Monitor	4424HB6		ThinkVision L2240p Wide 22" Monitor	4422HB6		ThinkVision L2440p Wide 24" Monitor	4420HB2		Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067		Laser Tilt Wheel Mouse (USB, PS/2)	41U3074		Kensington Cable Lock from Lenovo	73P2582		ADD2 DVI-I PCIe Connection Adapter	73P2516		ADD2 DVI-D Monitor Connection (HDCP)	43R1985		ATI [™] Radeon [™] HD 2400 Pro 128MB	43R1961		ATI Radeon HD 2400 XT 256MB	43R1962		NVIDIA [®] Quadro [®] 256MB NVS 290	43R1765		Acc Guide in pdf lenovo.com/accessoriesguide			Other accessories at lenovo.com/accessories	
Preloaded operating system ²⁰	Accessories																																																																																																	
- Microsoft [®] Windows [®] Vista Business Edition (32-bit)	1GB PC2-5300 CL5 NP DDR2 UDIMM	73P4984																																																																																																
	2GB PC2-5300 CL5 NP DDR2 UDIMM	73P4985																																																																																																
	1GB PC2-6400 NP DDR2 UDIMM	41U2977																																																																																																
Preloaded applications ⁵	2GB PC2-6400 NP 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	USB Portable Diskette Drive	05K9276																																																																																																
• System Migration Assistant	USB 2.0 Lenovo Multimedia Headset	40Y8518																																																																																																
• Norton Internet Security [™] (90 days of virus definitions)	USB 2.0 Lenovo Webcam	40Y8519																																																																																																
• Diskeeper [®] Home	USB 2.0 Essential Memory Key 32GB	45K1258																																																																																																
• PC-Doctor [™] (diagnostics)	USB 2.0 Security Memory Key 4GB	41U5120																																																																																																
• Adobe [®] Reader	USB 2.0 Ultra Secure Memory Key 4GB	45J5917																																																																																																
• Windows Live [™] Toolbar	USB 2.0 Ultra Secure Memory Key 8GB	45J5918																																																																																																
• Windows Live Search	USB 2.0 Portable 160GB Hard Disk	43R1784																																																																																																
• Picasa from Google	USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																																																																																
• Microsoft Office 2007 Trial (60-day)	DVD-ROM DL SATA 1.5Gb/s 16-48X Max	41N5618																																																																																																
• Sonic RecordNow and Drive Letter Access (DVD±RW)	Super Multi-Burner DL DVD±RW SATA Drive	41N5620																																																																																																
• Corel [®] WinDVD [®] (DVD, DVD±RW)	ThinkVision [®] L1700p 17" Monitor	9417HE2																																																																																																
	ThinkVision L1940p Wide 19" Monitor	4424HB6																																																																																																
	ThinkVision L2240p Wide 22" Monitor	4422HB6																																																																																																
	ThinkVision L2440p Wide 24" Monitor	4420HB2																																																																																																
	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067																																																																																																
	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074																																																																																																
	Kensington Cable Lock from Lenovo	73P2582																																																																																																
	ADD2 DVI-I PCIe Connection Adapter	73P2516																																																																																																
	ADD2 DVI-D Monitor Connection (HDCP)	43R1985																																																																																																
	ATI [™] Radeon [™] HD 2400 Pro 128MB	43R1961																																																																																																
	ATI Radeon HD 2400 XT 256MB	43R1962																																																																																																
	NVIDIA [®] Quadro [®] 256MB NVS 290	43R1765																																																																																																
	Acc Guide in pdf lenovo.com/accessoriesguide																																																																																																	
	Other accessories at lenovo.com/accessories																																																																																																	
Security <ul style="list-style-type: none">• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington[®] Microsaver[®] cable)• Power-on password• Administrator password• Hard disk password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement																																																																																																		
Supports ThinkVantage [®] technologies																																																																																																		
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																																																																																																		

See footnotes for important warranty information
US models announced October 21, 2008

© Lenovo
(MONA3-2) October 2008

	Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Core	Memory ⁸	SATA disk	SATA optical	Graphics	ENERGY STAR 4.0	Preload	Vista logo	Global Educ	Avail date
ES	M57e	9438-AJU	4x3	Pentium E2180	2.00	1MB	Dual	1GB	160GB ²	DVD±RW	GMA	ES40	XP Pro		No	Sep 08
ES	M57e	9438-AKU	4x3	Pentium E2200	2.20	1MB	Dual	2GB	160GB	DVD±RW	GMA	ES40	XP Pro		No	Sep 08
ES	M57e	9438-ALU	4x3	Core 2 Duo E7200	2.53	3MB	Dual	1GB	160GB	DVD±RW	GMA	ES40	XP Pro		No	Sep 08
ES	M57e	9438-AMU	4x3	Core 2 Duo E7200	2.53	3MB	Dual	2GB	160GB	DVD	GMA+ADD2	ES40	XP Pro		No	Sep 08
ES	M57e	9438-B1U	4x3	Core 2 Duo E7200	2.53	3MB	Dual	1GB	160GB	DVD±RW	GMA	ES40	Bus32	Basic	No	Jun 08
ES	M57e	9438-ANU	4x3	Core 2 Duo E7300	2.66	3MB	Dual	1GB	160GB	DVD±RW	GMA	ES40	Bus32	Prem	No	Sep 08

• These models have a 3-year limited warranty¹

Positioning Processor	Mainstream enterprise stability and manageability Intel® Pentium® Dual-Core Processor E2180 or E2200 with dual-core , Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo Processor E7200 or E7300 with dual-core , Intel 64 Technology, Execute Disable Bit, EIST, and 1066MHz system bus with 3MB L2 cache Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket		Desktop <div><div><div>②</div><div>optical</div></div><div><div>• • • •</div><div>disk</div></div></div> <ul style="list-style-type: none">• Business black color• 13.0" W X 16.2" D X 4.1" H• 331mm W X 412mm D X 104mm H• 19.4 lb (8.8 kg) in max configuration• 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 3.5", 1" high, access, open (reader/diskette) Bay ③ 3.5", 1" high, no access, std disk Slot 1: Low Profile, PCI Express x16 (35w 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 * used in some models																																																	
Implementation																																																				
Memory	1GB or 2GB std , 4GB max ⁸ , PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available																																																			
Graphics	<i>All:</i> Intel Graphics Media Accelerator 3100 (GMA 3100) , integrated graphics in G31, uses main memory (up to 256MB), one analog VGA DB-15 connector <i>Some:</i> ADD2 DVI-D Monitor Connection (HDCP) , PCI Express® adapter in PCIe x16 slot, provides DVI-D connector to support second monitor, HDCP-compliant																																																			
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	<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 cables	Two SATA cables (each 1-drop to device), four SATA connectors on planar																																																			
eSATA port	None																																																			
EIDE controller	Enhanced IDE, ATA-100, integrated in ICH7, one EIDE connector on planar																																																			
Diskette drive	None																																																			
Media reader	None																																																			
Chipset	Intel G31 Express Chipset ; I/O Controller Hub 7 (ICH7) for SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI 2.3, USB, LPC bus / ITE Tech® IT8718 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, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DVI-D in some models)																																																			
Internal connector	Two USB 2.0 planar connectors (one used; one open for media reader)																																																			
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																																																			
Ethernet	Gigabit ethernet on planar, Marvell® 88E8056, PCIe x1, 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	220 watts with variable speed fan, autosensing, 80% PSU																																																			
<table><tr><td>Preloaded operating system²⁰<ul style="list-style-type: none">- <i>Some:</i> Microsoft® Windows® XP Professional with Vista® COA- <i>Some:</i> Microsoft Windows Vista Business Edition (32-bit)Preloaded applications⁵ (all OSes)<ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• System Migration Assistant• Norton Internet Security™• Diskeeper® Home• PC-Doctor™ (diagnostics)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Picasa from Google• Microsoft Office 2007 Trial (60-day)• Multimedia Center for Think Offerings (DVD, DVD±RW) (XP)• Sonic RecordNow and Drive Letter Access (DVD±RW)• Corel® WinDVD® (DVD, DVD±RW)• Corel WinDVD Creator (DVD±RW) (XP)</td><td>Accessories<table><tr><td>1GB PC2-5300 CL5 NP DDR2 UDIMM</td><td>73P4984</td></tr><tr><td>2GB PC2-5300 CL5 NP DDR2 UDIMM</td><td>73P4985</td></tr><tr><td>1GB PC2-6400 NP DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 NP 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>USB Portable Diskette Drive</td><td>05K9276</td></tr><tr><td>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>ThinkVision® L2240p Wide 22" Monitor</td><td>4422HB6</td></tr><tr><td>ThinkVision L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>ADD2 DVI-I PCIe Connection Adapter</td><td>73P2516</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI™ Radeon™ HD 2400 Pro 128MB</td><td>43R1961</td></tr><tr><td>ATI Radeon HD 2400 XT 256MB</td><td>43R1962</td></tr><tr><td>NVIDIA® Quadro® 256MB NVS 290</td><td>43R1765</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></td></tr></table>			Preloaded operating system²⁰ <ul style="list-style-type: none">- <i>Some:</i> Microsoft® Windows® XP Professional with Vista® COA- <i>Some:</i> Microsoft Windows Vista Business Edition (32-bit) Preloaded applications⁵ (all OSes) <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• System Migration Assistant• Norton Internet Security™• Diskeeper® Home• PC-Doctor™ (diagnostics)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Picasa from Google• Microsoft Office 2007 Trial (60-day)• Multimedia Center for Think Offerings (DVD, DVD±RW) (XP)• Sonic RecordNow and Drive Letter Access (DVD±RW)• Corel® WinDVD® (DVD, DVD±RW)• Corel WinDVD Creator (DVD±RW) (XP)	Accessories <table><tr><td>1GB PC2-5300 CL5 NP DDR2 UDIMM</td><td>73P4984</td></tr><tr><td>2GB PC2-5300 CL5 NP DDR2 UDIMM</td><td>73P4985</td></tr><tr><td>1GB PC2-6400 NP DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 NP 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>USB Portable Diskette Drive</td><td>05K9276</td></tr><tr><td>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>ThinkVision® L2240p Wide 22" Monitor</td><td>4422HB6</td></tr><tr><td>ThinkVision L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>ADD2 DVI-I PCIe Connection Adapter</td><td>73P2516</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI™ Radeon™ HD 2400 Pro 128MB</td><td>43R1961</td></tr><tr><td>ATI Radeon HD 2400 XT 256MB</td><td>43R1962</td></tr><tr><td>NVIDIA® Quadro® 256MB NVS 290</td><td>43R1765</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>	1GB PC2-5300 CL5 NP DDR2 UDIMM	73P4984	2GB PC2-5300 CL5 NP DDR2 UDIMM	73P4985	1GB PC2-6400 NP DDR2 UDIMM	41U2977	2GB PC2-6400 NP DDR2 UDIMM	41U2978	250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	USB Portable Diskette Drive	05K9276	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Lenovo Webcam	40Y8519	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ThinkVision® L2240p Wide 22" Monitor	4422HB6	ThinkVision L2440p Wide 24" Monitor	4420HB2	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Kensington Cable Lock from Lenovo	73P2582	ADD2 DVI-I PCIe Connection Adapter	73P2516	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI™ Radeon™ HD 2400 Pro 128MB	43R1961	ATI Radeon HD 2400 XT 256MB	43R1962	NVIDIA® Quadro® 256MB NVS 290	43R1765	Acc Guide in pdf lenovo.com/accessoriesguide		Other accessories at lenovo.com/accessories	
Preloaded operating system²⁰ <ul style="list-style-type: none">- <i>Some:</i> Microsoft® Windows® XP Professional with Vista® COA- <i>Some:</i> Microsoft Windows Vista Business Edition (32-bit) Preloaded applications⁵ (all OSes) <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• System Migration Assistant• Norton Internet Security™• Diskeeper® Home• PC-Doctor™ (diagnostics)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Picasa from Google• Microsoft Office 2007 Trial (60-day)• Multimedia Center for Think Offerings (DVD, DVD±RW) (XP)• Sonic RecordNow and Drive Letter Access (DVD±RW)• Corel® WinDVD® (DVD, DVD±RW)• Corel WinDVD Creator (DVD±RW) (XP)	Accessories <table><tr><td>1GB PC2-5300 CL5 NP DDR2 UDIMM</td><td>73P4984</td></tr><tr><td>2GB PC2-5300 CL5 NP DDR2 UDIMM</td><td>73P4985</td></tr><tr><td>1GB PC2-6400 NP DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 NP 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>USB Portable Diskette Drive</td><td>05K9276</td></tr><tr><td>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>ThinkVision® L2240p Wide 22" Monitor</td><td>4422HB6</td></tr><tr><td>ThinkVision L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>ADD2 DVI-I PCIe Connection Adapter</td><td>73P2516</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI™ Radeon™ HD 2400 Pro 128MB</td><td>43R1961</td></tr><tr><td>ATI Radeon HD 2400 XT 256MB</td><td>43R1962</td></tr><tr><td>NVIDIA® Quadro® 256MB NVS 290</td><td>43R1765</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>	1GB PC2-5300 CL5 NP DDR2 UDIMM	73P4984	2GB PC2-5300 CL5 NP DDR2 UDIMM	73P4985	1GB PC2-6400 NP DDR2 UDIMM	41U2977	2GB PC2-6400 NP DDR2 UDIMM	41U2978	250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	USB Portable Diskette Drive	05K9276	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Lenovo Webcam	40Y8519	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ThinkVision® L2240p Wide 22" Monitor	4422HB6	ThinkVision L2440p Wide 24" Monitor	4420HB2	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Kensington Cable Lock from Lenovo	73P2582	ADD2 DVI-I PCIe Connection Adapter	73P2516	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI™ Radeon™ HD 2400 Pro 128MB	43R1961	ATI Radeon HD 2400 XT 256MB	43R1962	NVIDIA® Quadro® 256MB NVS 290	43R1765	Acc Guide in pdf lenovo.com/accessoriesguide		Other accessories at lenovo.com/accessories				
1GB PC2-5300 CL5 NP DDR2 UDIMM	73P4984																																																			
2GB PC2-5300 CL5 NP DDR2 UDIMM	73P4985																																																			
1GB PC2-6400 NP DDR2 UDIMM	41U2977																																																			
2GB PC2-6400 NP DDR2 UDIMM	41U2978																																																			
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015																																																			
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																																																			
USB Portable Diskette Drive	05K9276																																																			
USB 2.0 Lenovo Multimedia Headset	40Y8518																																																			
USB 2.0 Lenovo Webcam	40Y8519																																																			
USB 2.0 Ultra Secure Memory Key 8GB	45J5918																																																			
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																																			
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																																																			
ThinkVision® L2240p Wide 22" Monitor	4422HB6																																																			
ThinkVision L2440p Wide 24" Monitor	4420HB2																																																			
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067																																																			
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074																																																			
Kensington Cable Lock from Lenovo	73P2582																																																			
ADD2 DVI-I PCIe Connection Adapter	73P2516																																																			
ADD2 DVI-D Monitor Connection (HDCP)	43R1985																																																			
ATI™ Radeon™ HD 2400 Pro 128MB	43R1961																																																			
ATI Radeon HD 2400 XT 256MB	43R1962																																																			
NVIDIA® Quadro® 256MB NVS 290	43R1765																																																			
Acc Guide in pdf lenovo.com/accessoriesguide																																																				
Other accessories at lenovo.com/accessories																																																				
Security <ul style="list-style-type: none">• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® Microsaver® cable)• Power-on password• Administrator password• Hard disk password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement																																																				
Supports ThinkVantage® technologies																																																				
EPEAT™ Gold rating ENERGY STAR 4.0-compliant 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 August 19, 2008; previous model on June 24, 2008

© Lenovo
(MONA2-6) August 2008

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Core	Memory ⁶	SATA disk	SATA optical	Graphics	ENERGY STAR 4.0	Vista preload	Limited warranty ¹	Global (G) GMP (P)	Avail date
M57e	6177-B1U	4x3	Core 2 Duo E8400	3.00	6MB	Dual	1GB	160GB ²	DVD±RW	GMA	ES40	Business32	3-yr	G P	Jul 08

- **This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty**

Positioning Processor	Mainstream enterprise stability and manageability Intel® Core™ 2 Duo Processor E8400 with dual-core, Intel 64 Technology, Virtualization Technology, Execute Disable Bit, EIST, TXT, and 1333MHz system bus with 6MB L2 cache Processor in FC-LGA8 package in LGA775 socket		Desktop <div><div><div>②</div><div>optical</div></div><div><div>⋮</div><div>disk</div></div></div> <ul style="list-style-type: none">• Business black color• 13.0" W X 16.2" D X 4.1" H• 331mm W X 412mm D X 104mm H• 19.4 lb (8.8 kg) in max configuration• 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 3.5", 1" high, access, open (reader/diskette) Bay ③ 3.5", 1" high, no access, std disk Slot 1: Low Profile, PCI Express x16 (35w 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																																																					
Implementation																																																								
Memory	1GB std, 4GB max⁸, PC2-5300 667MHz 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 3100 (GMA 3100) , integrated graphics in G31, uses main memory (up to 256MB), one analog VGA DB-15 connector, 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																																																							
EIDE controller	Enhanced IDE, ATA-100, integrated in ICH7, one EIDE connector on planar																																																							
Diskette drive	None																																																							
Media reader	None																																																							
Chipset	Intel G31 Express Chipset ; I/O Controller Hub 7 (ICH7) for SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI 2.3, USB, LPC bus / ITE Tech® IT8718 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, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)																																																							
Internal connector	Two USB 2.0 planar connectors (one used; one open for media reader)																																																							
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																																																							
Ethernet	Gigabit ethernet on planar, Marvell® 88E8056, PCIe x1, 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	220 watts with variable speed fan, autosensing, 80% PSU																																																							
Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ♦ Vista Basic logo																																																								
Preloaded applications⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• System Migration Assistant• Norton Internet Security™ (90 days of virus definitions)• Diskkeeper® Home• PC-Doctor™ (diagnostics)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Picasa from Google• Microsoft Office 2007 Trial (60-day)• Sonic RecordNow and Drive Letter Access (DVD±RW)• Corel® WinDVD® (DVD±RW)																																																								
Accessories <table><tr><td>1GB PC2-5300 CL5 NP DDR2 UDIMM</td><td>73P4984</td></tr><tr><td>2GB PC2-5300 CL5 NP DDR2 UDIMM</td><td>73P4985</td></tr><tr><td>1GB PC2-6400 NP DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 NP 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>USB Portable Diskette Drive</td><td>05K9276</td></tr><tr><td>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Essential Memory Key 32GB</td><td>45K1258</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 4GB</td><td>45J5917</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable 160GB Hard Disk</td><td>43R1784</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>ThinkVision® L1700p 17" Monitor</td><td>9417HE2</td></tr><tr><td>ThinkVision L1940p Wide 19" Monitor</td><td>4424HB6</td></tr><tr><td>ThinkVision L2240p Wide 22" Monitor</td><td>4422HB6</td></tr><tr><td>ThinkVision L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>ADD2 DVI-I PCIe Connection Adapter</td><td>73P2516</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI™ Radeon™ HD 2400 Pro 128MB</td><td>43R1961</td></tr><tr><td>ATI Radeon HD 2400 XT 256MB</td><td>43R1962</td></tr><tr><td>NVIDIA® Quadro® 256MB NVS 290</td><td>43R1765</td></tr></table> Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories			1GB PC2-5300 CL5 NP DDR2 UDIMM	73P4984	2GB PC2-5300 CL5 NP DDR2 UDIMM	73P4985	1GB PC2-6400 NP DDR2 UDIMM	41U2977	2GB PC2-6400 NP DDR2 UDIMM	41U2978	250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	USB Portable Diskette Drive	05K9276	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Lenovo Webcam	40Y8519	USB 2.0 Essential Memory Key 32GB	45K1258	USB 2.0 Ultra Secure Memory Key 4GB	45J5917	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable 160GB Hard Disk	43R1784	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ThinkVision® L1700p 17" Monitor	9417HE2	ThinkVision L1940p Wide 19" Monitor	4424HB6	ThinkVision L2240p Wide 22" Monitor	4422HB6	ThinkVision L2440p Wide 24" Monitor	4420HB2	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Kensington Cable Lock from Lenovo	73P2582	ADD2 DVI-I PCIe Connection Adapter	73P2516	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI™ Radeon™ HD 2400 Pro 128MB	43R1961	ATI Radeon HD 2400 XT 256MB	43R1962	NVIDIA® Quadro® 256MB NVS 290	43R1765
1GB PC2-5300 CL5 NP DDR2 UDIMM	73P4984																																																							
2GB PC2-5300 CL5 NP DDR2 UDIMM	73P4985																																																							
1GB PC2-6400 NP DDR2 UDIMM	41U2977																																																							
2GB PC2-6400 NP DDR2 UDIMM	41U2978																																																							
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015																																																							
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																																																							
USB Portable Diskette Drive	05K9276																																																							
USB 2.0 Lenovo Multimedia Headset	40Y8518																																																							
USB 2.0 Lenovo Webcam	40Y8519																																																							
USB 2.0 Essential Memory Key 32GB	45K1258																																																							
USB 2.0 Ultra Secure Memory Key 4GB	45J5917																																																							
USB 2.0 Ultra Secure Memory Key 8GB	45J5918																																																							
USB 2.0 Portable 160GB Hard Disk	43R1784																																																							
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																																							
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																																																							
ThinkVision® L1700p 17" Monitor	9417HE2																																																							
ThinkVision L1940p Wide 19" Monitor	4424HB6																																																							
ThinkVision L2240p Wide 22" Monitor	4422HB6																																																							
ThinkVision L2440p Wide 24" Monitor	4420HB2																																																							
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067																																																							
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074																																																							
Kensington Cable Lock from Lenovo	73P2582																																																							
ADD2 DVI-I PCIe Connection Adapter	73P2516																																																							
ADD2 DVI-D Monitor Connection (HDCP)	43R1985																																																							
ATI™ Radeon™ HD 2400 Pro 128MB	43R1961																																																							
ATI Radeon HD 2400 XT 256MB	43R1962																																																							
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																																																								
EPEAT™ Gold rating ENERGY STAR 4.0-compliant 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																																																								

ThinkCentre® M57e Desktop (7065) - GMP

Personal Systems Reference (PSREF)

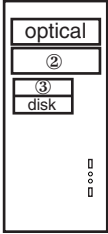
Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Core	Memory ^a	SATA disk	SATA optical	Graphics	Vista preload	Limited warranty ¹	Global (G) GMP (P)	Avail date
M57e	7065-AAU	4x3	Pentium E2200	2.20	1MB	Dual	1GB	160GB ²	Combo	GMA	Business32	3-yr	G P	Apr 08
M57e	7065-ABU	4x3	Core 2 Duo E4600	2.40	2MB	Dual	1GB	160GB	Combo	GMA	Business32	3-yr	G P	Apr 08
M57e	7065-ACU	4x3	Core 2 Duo E8200	2.66	6MB	Dual	1GB	160GB	Combo	GMA	Business32	3-yr	G P	Apr 08

- These models are part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty

Positioning Processor	Mainstream enterprise stability and manageability Intel® Pentium® Dual-Core Processor E2200 with dual-core, Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 1MB shared L2 cache or Intel Core™ 2 Duo Processor E4600 with dual-core, Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 2MB shared L2 cache or Intel Core 2 Duo Processor E8200 with dual-core, Intel 64 Technology, Virtualization Technology, Execute Disable Bit, EIST, TXT, and 1333MHz system bus with 6MB shared L2 cache Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket		Desktop <div><div><div>②</div><div>optical</div></div><div><div>• • •</div><div>disk</div></div></div> <ul style="list-style-type: none">• Business black color• 13.0" W X 16.2" D X 4.1" H• 331mm W X 412mm D X 104mm H• 19.4 lb (8.8 kg) in max configuration• 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 3.5", 1" high, access, open (reader/diskette) Bay ③ 3.5", 1" high, no access, std disk Slot 1: Low Profile, PCI Express x16 (35w 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																																														
Implementation			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																																														
Memory	1GB std, 4GB max⁸, PC2-5300 667MHz 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 3100 (GMA 3100) , integrated graphics in G31, uses main memory (up to 256MB), one analog VGA DB-15 connector, 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 Combo	CD-RW/DVD-ROM Combo SATA 1.5Gb/s Drive																																																
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors on planar																																																
eSATA port	None																																																
EIDE controller	Enhanced IDE, ATA-100, integrated in ICH7, one EIDE connector on planar																																																
Diskette drive	None																																																
Media reader	None																																																
Chipset	Intel G31 Express Chipset ; I/O Controller Hub 7 (ICH7) for SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI 2.3, USB, LPC bus / ITE Tech® IT8718 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, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)																																																
Internal connector	Two USB 2.0 planar connectors (one used; one open for media reader)																																																
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																																																
Ethernet	Gigabit ethernet on planar, Marvell® 88E8056, PCIe x1, 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	220 watts with variable speed fan, manual switch																																																
			Supports ThinkVantage® technologies																																														
			RoHS-compliant																																														
Preloaded operating system²⁰ <ul style="list-style-type: none">- Microsoft® Windows® Vista® Business Edition (32-bit)♦ Vista Basic logo Preloaded applications⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• System Migration Assistant• Norton Internet Security™ (90 days of virus definitions)• Diskkeeper® Home• PC-Doctor™ (diagnostics)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Picasa from Google• Microsoft Office 2007 Trial (60-day)• Sonic RecordNow and Drive Letter Access (combo)• Corel® WinDVD® (combo)			Accessories <table><tr><td>1GB PC2-5300 CL5 NP DDR2 UDIMM</td><td>73P4984</td></tr><tr><td>2GB PC2-5300 CL5 NP DDR2 UDIMM</td><td>73P4985</td></tr><tr><td>1GB PC2-6400 NP DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 NP 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>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Essential Memory Key 32GB</td><td>45K1258</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>ThinkVision® L2240p Wide 22" Monitor</td><td>4422HB6</td></tr><tr><td>ThinkVision L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>ADD2 DVI-I PCIe Connection Adapter</td><td>73P2516</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI™ Radeon™ HD 2400 Pro 128MB</td><td>43R1961</td></tr><tr><td>ATI Radeon HD 2400 XT 256MB</td><td>43R1962</td></tr><tr><td>NVIDIA® Quadro® 256MB NVS 290</td><td>43R1765</td></tr></table> Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories			1GB PC2-5300 CL5 NP DDR2 UDIMM	73P4984	2GB PC2-5300 CL5 NP DDR2 UDIMM	73P4985	1GB PC2-6400 NP DDR2 UDIMM	41U2977	2GB PC2-6400 NP DDR2 UDIMM	41U2978	250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Lenovo Webcam	40Y8519	USB 2.0 Essential Memory Key 32GB	45K1258	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ThinkVision® L2240p Wide 22" Monitor	4422HB6	ThinkVision L2440p Wide 24" Monitor	4420HB2	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Kensington Cable Lock from Lenovo	73P2582	ADD2 DVI-I PCIe Connection Adapter	73P2516	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI™ Radeon™ HD 2400 Pro 128MB	43R1961	ATI Radeon HD 2400 XT 256MB	43R1962	NVIDIA® Quadro® 256MB NVS 290	43R1765
1GB PC2-5300 CL5 NP DDR2 UDIMM	73P4984																																																
2GB PC2-5300 CL5 NP DDR2 UDIMM	73P4985																																																
1GB PC2-6400 NP DDR2 UDIMM	41U2977																																																
2GB PC2-6400 NP DDR2 UDIMM	41U2978																																																
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015																																																
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																																																
USB 2.0 Lenovo Multimedia Headset	40Y8518																																																
USB 2.0 Lenovo Webcam	40Y8519																																																
USB 2.0 Essential Memory Key 32GB	45K1258																																																
USB 2.0 Ultra Secure Memory Key 8GB	45J5918																																																
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																																
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																																																
ThinkVision® L2240p Wide 22" Monitor	4422HB6																																																
ThinkVision L2440p Wide 24" Monitor	4420HB2																																																
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067																																																
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074																																																
Kensington Cable Lock from Lenovo	73P2582																																																
ADD2 DVI-I PCIe Connection Adapter	73P2516																																																
ADD2 DVI-D Monitor Connection (HDCP)	43R1985																																																
ATI™ Radeon™ HD 2400 Pro 128MB	43R1961																																																
ATI Radeon HD 2400 XT 256MB	43R1962																																																
NVIDIA® Quadro® 256MB NVS 290	43R1765																																																

See footnotes for important warranty information
 US models announced March 18, 2008

© Lenovo
 (MONA1-12) March 2008

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Core	Memory ⁸	SATA disk	2nd Disk Bay	SATA optical	Graphics	Preload	Vista logo	Global Educ	Avail date
M57e	6179-B2U	4x4	Pentium E2200	2.20	1MB	Dual	1GB	160GB ²	None	DVD	GMA	XP Pro		None	Jun 08
M57e	6179-B1U	4x4	Pentium E2200	2.20	1MB	Dual	2GB	160GB	None	DVD±RW	GMA	XP Pro		None	Jun 08
M57e	6179-B3U	4x4	Core 2 Duo E7200	2.53	3MB	Dual	1GB	160GB	None	DVD	GMA	XP Pro		None	Jun 08
M57e	6179-B4U	4x4	Core 2 Duo E7200	2.53	3MB	Dual	2GB	160GB	None	DVD±RW	GMA	XP Pro		None	Jun 08
M57e	6179-B5U	4x4	Pentium E2200	2.20	1MB	Dual	1GB	160GB	None	DVD	GMA	Business32	Prem	None	Aug 08
M57e	6179-B6U	4x4	Pentium E2200	2.20	1MB	Dual	2GB	160GB	None	DVD±RW	GMA	Business32	Prem	None	Aug 08
<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	Stability and manageability for small and medium businesses Intel® Pentium® Dual-Core Processor E2200 with dual-core, Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo Processor E7200 with dual-core, Intel 64 Technology, Execute Disable Bit, EIST, and 1066MHz system bus with 3MB L2 cache Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket									Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.2 lb (11.0 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention					
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket									Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk					
Memory	1GB or 2GB std, 4GB max⁸, PC2-5300 667MHz 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 3100 (GMA 3100), integrated graphics in G31, uses main memory (up to 256MB), one analog VGA DB-15 connector, 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	<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														
EIDE controller	Enhanced IDE, ATA-100, integrated in ICH7, one EIDE connector on planar														
Diskette drive	None														
Media reader	None														
Chipset	Intel G31 Express Chipset; I/O Controller Hub 7 (ICH7) for SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI 2.3, USB, LPC bus / ITE Tech® IT8718 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, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)														
Internal connector	Two USB 2.0 planar connectors (one used; one open for media reader)														
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														
Ethernet	Gigabit ethernet on planar, Marvell® 88E8056, PCIe x1, Wake on LAN®														
Intel AMT	None														
Modem	None														
Security chip	None														
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo														
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo														
Power supply	280 watts with variable speed fan, manual switch														
Preloaded operating system²⁰															
- <i>Some:</i> Microsoft® Windows® XP Professional with Vista® COA															
- <i>Some:</i> Microsoft Windows Vista Business Edition (32-bit)															
Preloaded applications⁵ (all OSes)															
• Rescue and Recovery™															
• Client Security Solution™															
• ThinkVantage Productivity Center															
• System Migration Assistant															
• Norton Internet Security™															
• Diskeeper® Home															
• PC-Doctor™ (diagnostics)															
• Adobe® Reader															
• Windows Live™ Toolbar															
• Windows Live Search															
• Picasa from Google															
• Microsoft Office 2007 Trial (60-day)															
• Multimedia Center for Think Offerings (DVD, DVD±RW) (XP)															
• Sonic RecordNow and Drive Letter Access (DVD±RW)															
• Corel® WinDVD® (DVD, DVD±RW)															
• Corel WinDVD Creator (DVD±RW) (XP)															
Accessories															
1GB PC2-5300 CL5 NP DDR2 UDIMM 73P4984															
2GB PC2-5300 CL5 NP DDR2 UDIMM 73P4985															
1GB PC2-6400 NP DDR2 UDIMM 41U2977															
2GB PC2-6400 NP DDR2 UDIMM 41U2978															
500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990															
USB 2.0 Lenovo Multimedia Headset 40Y8518															
USB 2.0 Lenovo Webcam 40Y8519															
USB 2.0 Ultra Secure Memory Key 8GB 45J5918															
USB 2.0 Portable Secure 320GB Hard Disk 43R2019															
DVD-ROM DL SATA 1.5Gb/s 16-48X Max 41N5618															
Super Multi-Burner DL DVD±RW SATA Drive 41N5620															
ThinkVision® L2440p Wide 24" Monitor 4420HB2															
Wireless Kbd & Opt Wheel Mouse (via USB) 73P4067															
Laser Tilt Wheel Mouse (USB, PS/2) 41U3074															
Kensington Cable Lock from Lenovo 73P2582															
ADD2 DVI-I PCIe Connection Adapter 73P2516															
ADD2 DVI-D Monitor Connection (HDCP) 43R1985															
ATI™ Radeon™ HD 2400 Pro 128MB 43R1961															
ATI Radeon HD 2400 XT 256MB 43R1962															
ATI Radeon HD 2600 XT 512MB 43R1963															
NVIDIA® Quadro® 256MB NVS 290 43R1765															
NVIDIA Quadro 256MB FX 370 43R1766															
NVIDIA Quadro 512MB FX 1700 43R1767															
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, mouse, diskette															
• Serial port I/O control															
• Parallel port I/O control															
• USB port disablement															
Supports ThinkVantage® technologies															
RoHS-compliant															
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															

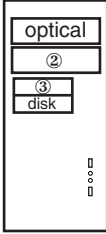
See footnotes for important warranty information

US models announced August 19, 2008; previous models on June 24, 2008

© Lenovo
(MONA2-11) August 2008

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	SATA disk	2nd Disk Bay	SATA optical	Graphics	Preload	Vista logo	Global Educ	Avail date
M57e	6179-BBU	4x4	Pentium E5200	2.50	2MB	2	1GB	160GB ²	None	DVD	GMA	XP Pro	Premium	None	Nov 08
M57e	6179-BCU	4x4	Pentium E5200	2.50	2MB	2	2GB	160GB	None	DVD±RW	GMA	XP Pro	Premium	None	Nov 08
M57e	6179-BFU	4x4	Core 2 Duo E7300	2.66	3MB	2	1GB	160GB	None	DVD	GMA	XP Pro	Premium	None	Nov 08
M57e	6179-BDU	4x4	Core 2 Duo E7300	2.66	3MB	2	2GB	160GB	None	DVD±RW	GMA	XP Pro	Premium	None	Nov 08

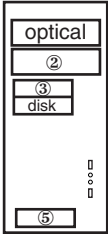
- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-year limited warranty¹

Positioning Processor	Stability and manageability for small and medium businesses Intel® Pentium® Dual-Core Processor E5200 with dual-core , 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7300 with dual-core , 1066MHz system bus, and 3MB L2 cache																																																					
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket																																																					
Memory	1GB or 2GB std , 4GB max ⁸ , PC2-5300 667MHz 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 3100 (GMA 3100) , integrated graphics in G31, uses main memory (up to 256MB), one analog VGA DB-15 connector, supports dual independent display with optional ADD2 adapter																																																					
SATA disk	160GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts		<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>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																																																					
EIDE controller	Enhanced IDE, ATA-100, integrated in ICH7, one EIDE connector on planar																																																					
Diskette drive	None																																																					
Media reader	None																																																					
Chipset	Intel G31 Express Chipset; I/O Controller Hub 7 (ICH7) for SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI 2.3, USB, LPC bus / ITE Tech® IT8718 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, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)																																																					
Internal connector	Two USB 2.0 planar connectors (one used; one open for media reader)																																																					
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																																																					
Ethernet	Gigabit ethernet on planar, Marvell® 88E8056, PCIe x1, 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>Preloaded operating system²⁰<ul style="list-style-type: none">- Microsoft® Windows® XP Professional with Vista® COA⇒ Disk-to-Disk Recovery (in hidden protected area)Preloaded applications⁵<ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• System Migration Assistant• Norton Internet Security™ (90 days of virus definitions)• Diskeeper® Home• PC-Doctor™ (diagnostics)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Picasa from Google• Microsoft Office 2007 Trial (60-day)• Multimedia Center for Think Offerings (DVD, DVD±RW)• Sonic RecordNow and Drive Letter Access (DVD±RW)• Corel® WinDVD® (DVD, DVD±RW)• Corel WinDVD Creator (DVD±RW)</div><div>Accessories<table><tr><td>1GB PC2-5300 CL5 NP DDR2 UDIMM</td><td>73P4984</td></tr><tr><td>2GB PC2-5300 CL5 NP DDR2 UDIMM</td><td>73P4985</td></tr><tr><td>1GB PC2-6400 NP DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 NP 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>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</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>ThinkVision® L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>ADD2 DVI-I PCIe Connection Adapter</td><td>73P2516</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI™ Radeon™ HD 2400 Pro 128MB</td><td>43R1961</td></tr><tr><td>ATI Radeon HD 2400 XT 256MB</td><td>43R1962</td></tr><tr><td>ATI Radeon HD 2600 XT 512MB</td><td>43R1963</td></tr><tr><td>NVIDIA® Quadro® 256MB NVS 290</td><td>43R1765</td></tr><tr><td>NVIDIA Quadro 256MB FX 370</td><td>43R1766</td></tr><tr><td>NVIDIA Quadro 512MB FX 1700</td><td>43R1767</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 PC2-5300 CL5 NP DDR2 UDIMM	73P4984	2GB PC2-5300 CL5 NP DDR2 UDIMM	73P4985	1GB PC2-6400 NP DDR2 UDIMM	41U2977	2GB PC2-6400 NP DDR2 UDIMM	41U2978	250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Lenovo Webcam	40Y8519	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	DVD-ROM DL SATA 1.5Gb/s 16-48X Max	41N5618	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ThinkVision® L2440p Wide 24" Monitor	4420HB2	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Kensington Cable Lock from Lenovo	73P2582	ADD2 DVI-I PCIe Connection Adapter	73P2516	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI™ Radeon™ HD 2400 Pro 128MB	43R1961	ATI Radeon HD 2400 XT 256MB	43R1962	ATI Radeon HD 2600 XT 512MB	43R1963	NVIDIA® Quadro® 256MB NVS 290	43R1765	NVIDIA Quadro 256MB FX 370	43R1766	NVIDIA Quadro 512MB FX 1700	43R1767	Acc Guide in pdf lenovo.com/accessoriesguide		Other accessories at lenovo.com/accessories	
1GB PC2-5300 CL5 NP DDR2 UDIMM	73P4984																																																					
2GB PC2-5300 CL5 NP DDR2 UDIMM	73P4985																																																					
1GB PC2-6400 NP DDR2 UDIMM	41U2977																																																					
2GB PC2-6400 NP DDR2 UDIMM	41U2978																																																					
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015																																																					
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																																																					
USB 2.0 Lenovo Multimedia Headset	40Y8518																																																					
USB 2.0 Lenovo Webcam	40Y8519																																																					
USB 2.0 Ultra Secure Memory Key 8GB	45J5918																																																					
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																																					
DVD-ROM DL SATA 1.5Gb/s 16-48X Max	41N5618																																																					
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																																																					
ThinkVision® L2440p Wide 24" Monitor	4420HB2																																																					
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067																																																					
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074																																																					
Kensington Cable Lock from Lenovo	73P2582																																																					
ADD2 DVI-I PCIe Connection Adapter	73P2516																																																					
ADD2 DVI-D Monitor Connection (HDCP)	43R1985																																																					
ATI™ Radeon™ HD 2400 Pro 128MB	43R1961																																																					
ATI Radeon HD 2400 XT 256MB	43R1962																																																					
ATI Radeon HD 2600 XT 512MB	43R1963																																																					
NVIDIA® Quadro® 256MB NVS 290	43R1765																																																					
NVIDIA Quadro 256MB FX 370	43R1766																																																					
NVIDIA Quadro 512MB FX 1700	43R1767																																																					
Acc Guide in pdf lenovo.com/accessoriesguide																																																						
Other accessories at lenovo.com/accessories																																																						
<div><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, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement</div><div>Supports ThinkVantage® technologies</div></div>																																																						
<div><div>RoHS-compliant</div><div>Limited Warranty¹<ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378</div></div>																																																						

See footnotes for important warranty information
US models announced October 21, 2008

© Lenovo
(MONA3-5) October 2008

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Core	Memory ^a	SATA disk	2nd Disk Bay	SATA optical	Graphics	Preload	Limited warranty ¹	Global Educ	Avail date	
⚡	M57e	9439-B8U	4x5	Pentium E2160	1.80	1MB	Dual	1GB	160GB ²	Bay	Combo	GMA	XP Pro	3-yr	None	Mar 08
⚡	M57e	9439-B9U	4x5	Core 2 Duo E4500	2.20	2MB	Dual	1GB	160GB	Bay	Combo	GMA	XP Pro	3-yr	None	Mar 08
⚡	M57e	9439-BAU	4x5	Core 2 Duo E6550	2.33	4MB	Dual	1GB	160GB	Bay	Combo	GMA	XP Pro	3-yr	None	Mar 08
⚡	M57e	9439-A2U	4x5	Core 2 Duo E8200	2.66	6MB	Dual	1GB	160GB	Bay	Combo	GMA	XP Pro	3-yr	None	Mar 08

Positioning Processor	Mainstream enterprise stability and manageability Intel® Pentium® Dual-Core Processor E2160 with dual-core, Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 1MB shared L2 cache or Intel Core™ 2 Duo Processor E4500 with dual-core, Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 2MB shared L2 cache or Intel Core 2 Duo Processor E6550 with dual-core, Intel 64 Technology, Virtualization Technology, Execute Disable Bit, EIST, TXT, 1333MHz system bus, and 4MB shared L2 cache or Intel Core 2 Duo Processor E8200 with dual-core, Intel 64 Technology, Virtualization Technology, Execute Disable Bit, EIST, TXT, and 1333MHz system bus with 6MB shared L2 cache Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket									Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.2 lb (11.0 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention					
Implementation										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 Bay ⑤ 3.5", 1" high, no access, opt 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		
Memory	1GB std, 4GB max^a, PC2-5300 667MHz 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 3100 (GMA 3100) , integrated graphics in G31, uses main memory (up to 256MB), one analog VGA DB-15 connector, supports dual independent display with optional ADD2 adapter														
SATA disk	160GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts									Security <ul style="list-style-type: none">• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® Microsaver® cable)• Power-on password• Administrator password• Hard disk password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement					
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7														
SATA Combo	CD-RW/DVD-ROM Combo SATA 1.5Gb/s Drive														
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors on planar														
eSATA port	None														
EIDE controller	Enhanced IDE, ATA-100, integrated in ICH7, one EIDE connector on planar														
Diskette drive	None														
Media reader	None														
Chipset	Intel G31 Express Chipset ; I/O Controller Hub 7 (ICH7) for SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI 2.3, USB, LPC bus / ITE Tech® IT8718 Super I/O for serial, parallel, keyboard, mouse functions									Supports ThinkVantage® technologies					
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)									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)														
Internal connector	Two USB 2.0 planar connectors (one used; one open for media reader)									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					
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														
Ethernet	Gigabit ethernet on planar, Marvell® 88E8056, PCIe x1, Wake on LAN®														
Intel AMT	None														
Modem	None														
Security chip	None														
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo														
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo														
Power supply	280 watts with variable speed fan, manual switch														

Preloaded operating system²⁰			Accessories		
- Microsoft® Windows® XP Professional with Vista® COA	1GB PC2-5300 CL5 NP DDR2 UDIMM	73P4984			
⚡ Disk-to-Disk Recovery (in hidden protected area)	2GB PC2-5300 CL5 NP DDR2 UDIMM	73P4985			
	1GB PC2-6400 NP DDR2 UDIMM	41U2977			
	2GB PC2-6400 NP DDR2 UDIMM	41U2978			
	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990			
Preloaded applications⁵	USB 2.0 Lenovo Multimedia Headset	40Y8518			
• Rescue and Recovery™	USB 2.0 Essential Memory Key 32GB	45K1258			
• Client Security Solution™	USB 2.0 Ultra Secure Memory Key 8GB	45J5918			
• ThinkVantage Productivity Center	USB 2.0 Portable Secure 320GB Hard Disk	43R2019			
• System Migration Assistant	Super Multi-Burner DL DVD±RW SATA Drive	41N5620			
• Norton Internet Security™	ThinkVision® L2240p Wide 22" Monitor	4422HB6			
• Diskeeper® Home	ThinkVision L2440p Wide 24" Monitor	4420HB2			
• PC-Doctor™ (diagnostics)	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067			
• Adobe® Reader	Kensington Cable Lock from Lenovo	73P2582			
• Windows Live™ Toolbar	ADD2 DVI-I PCIe Connection Adapter	73P2516			
• Windows Live Search	ADD2 DVI-D Monitor Connection (HDCP)	43R1985			
• Picasa from Google	ATI™ Radeon™ HD 2400 Pro 128MB	43R1961			
• Microsoft Office 2007 Trial (60-day)	ATI Radeon HD 2400 XT 256MB	43R1962			
• Multimedia Center for Think Offerings (combo)	ATI Radeon HD 2600 XT 512MB	43R1963			
• Sonic RecordNow and Drive Letter Access (combo)	NVIDIA® Quadro® 256MB NVS 290	43R1765			
• Corel® WinDVD® (combo)	NVIDIA Quadro 256MB FX 370	43R1766			
	NVIDIA Quadro 512MB FX 1700	43R1767			
	Acc Guide in pdf lenovo.com/accessoriesguide				
	Other accessories at lenovo.com/accessories				

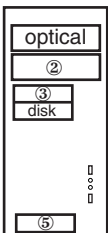
See footnotes for important warranty information

⚡ US model announced March 18, 2008; previous models on February 26, 2008

⚡ US models withdrawn effective September 2008 or January 2009

© Lenovo

(MONA1-6) March 2008

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Core	Memory ⁸	SATA disk	2nd Bay	SATA optical	Graphics	Preload	Global Educ	Avail date
M57e	9439-EBU	4x5	Pentium E2180	2.00	1MB	Dual	1GB	160GB ²	Bay	DVD	GMA+ADD2	XP Pro	None	Aug 08
M57e	9439-E5U	4x5	Pentium E2200	2.20	1MB	Dual	1GB	160GB	Bay	DVD	GMA	XP Pro	None	Aug 08
M57e	9439-E6U	4x5	Pentium E2200	2.20	1MB	Dual	2GB	160GB	Bay	DVD±RW	GMA	XP Pro	None	Aug 08
M57e	9439-E7U	4x5	Core 2 Duo E7200	2.53	3MB	Dual	1GB	160GB	Bay	DVD±RW	GMA	XP Pro	None	Aug 08
M57e	9439-E9U	4x5	Core 2 Duo E7200	2.53	3MB	Dual	2GB	160GB	Bay	DVD	GMA+ADD2	XP Pro	None	Aug 08
M57e	9439-E8U	4x5	Core 2 Duo E7300	2.66	3MB	Dual	2GB	160GB	Bay	DVD±RW	GMA	XP Pro	None	Aug 08
• These models have a 3-year limited warranty ¹														
Positioning Processor	Mainstream enterprise stability and manageability Intel® Pentium® Dual-Core Processor E2180 or E2200 with dual-core, Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo Processor E7200 or E7300 with dual-core, Intel 64 Technology, Execute Disable Bit, EIST, and 1066MHz system bus with 3MB L2 cache									Tower				
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket									• Business black color; metal case • 6.9" W X 17.3" D X 15.8" H • 175mm W X 440mm D X 402mm H • 24.2 lb (11.0 kg) in max configuration • Handle on top front • Toolless cover removal • Toolless disk, diskette drive, optical drive removal • Toolless adapter retention				
Memory	1GB or 2GB std, 4GB max ⁸ , PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 240-pin DIMM sockets; Non-italics: standard memory in one socket; one socket available													
Graphics	All: Intel Graphics Media Accelerator 3100 (GMA 3100), integrated graphics in G31, uses main memory (up to 256MB), one analog VGA DB-15 connector Some: ADD2 DVI-D Monitor Connection (HDCP), PCI Express® adapter in PCIe x16 slot, provides DVI-D connector to support second monitor, HDCP-compliant									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 Bay ⑤ 3.5", 1" high, no access, opt disk				
SATA disk	160GB, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts									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 controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7													
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													
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors													
eSATA port	None													
EIDE controller	Enhanced IDE, ATA-100, integrated in ICH7, one EIDE connector on planar													
Diskette drive	None													
Media reader	None													
Chipset	Intel G31 Express Chipset; I/O Controller Hub 7 (ICH7) for SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI 2.3, USB, LPC bus / ITE Tech® IT8718 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, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DVI-D in some models)													
Internal connector	Two USB 2.0 planar connectors (one used; one open for media reader)													
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													
Ethernet	Gigabit ethernet on planar, Marvell® 88E8056, PCIe x1, 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				
- Microsoft® Windows® XP Professional with Vista® COA										1GB PC2-5300 CL5 NP DDR2 UDIMM 73P4984				
◇ Disk-to-Disk Recovery (in hidden protected area)										2GB PC2-5300 CL5 NP DDR2 UDIMM 73P4985				
Preloaded applications ⁵										1GB PC2-6400 NP DDR2 UDIMM 41U2977				
• Rescue and Recovery™										2GB PC2-6400 NP DDR2 UDIMM 41U2978				
• Client Security Solution™										500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990				
• ThinkVantage Productivity Center										USB 2.0 Lenovo Multimedia Headset 40Y8518				
• System Migration Assistant										USB 2.0 Essential Memory Key 32GB 45K1258				
• Norton Internet Security™										USB 2.0 Ultra Secure Memory Key 8GB 45J5918				
• Diskeeper® Home										USB 2.0 Portable Secure 320GB Hard Disk 43R2019				
• PC-Doctor™ (diagnostics)										ThinkVision® L2240p Wide 22" Monitor 4422HB6				
• Adobe® Reader										ThinkVision L2440p Wide 24" Monitor 4420HB2				
• Windows Live™ Toolbar										Wireless Kbd & Opt Wheel Mouse (via USB) 73P4067				
• Windows Live Search										Laser Tilt Wheel Mouse (USB, PS/2) 41U3074				
• Picasa from Google										Kensington Cable Lock from Lenovo 73P2582				
• Microsoft Office 2007 Trial (60-day)										ADD2 DVI-I PCIe Connection Adapter 73P2516				
• Multimedia Center for Think Offerings (DVD, DVD±RW)										ADD2 DVI-D Monitor Connection (HDCP) 43R1985				
• Sonic RecordNow and Drive Letter Access (DVD±RW)										ATI™ Radeon™ HD 2400 Pro 128MB 43R1961				
• Corel® WinDVD® (DVD, DVD±RW)										ATI Radeon HD 2400 XT 256MB 43R1962				
• Corel WinDVD Creator (DVD±RW)										ATI Radeon HD 2600 XT 512MB 43R1963				
										NVIDIA® Quadro® 256MB NVS 290 43R1765				
										NVIDIA Quadro 256MB FX 370 43R1766				
										NVIDIA Quadro 512MB FX 1700 43R1767				
										Acc Guide in pdf lenovo.com/accessoriesguide				
										Other accessories at lenovo.com/accessories				
										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				
										• 24.2 lb (11.0 kg) in max configuration				
										• Handle on top front				
										• Toolless cover removal				
										• Toolless disk, diskette drive, optical drive removal				
										• Toolless adapter retention				
										Bay ① 5.25", 1.6" high, access, std optical				
										Bay ② 5.25", 1.6" high, access, open				
										Bay ③ 3.5", 1" high, access, open (reader/diskette)				
										Bay ④ 3.5", 1" high, no access, std disk				
										Bay ⑤ 3.5", 1" high, no access, opt 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				
										* used in some models				
										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, diskette				
										• Serial port I/O control				
										• Parallel port I/O control				
										• USB port disablement				
										Supports ThinkVantage® technologies				
										RoHS-compliant				
										Limited Warranty ¹				
										⇨ 3-year parts and labor				
										⇨ International Warranty Service ⁹				
										⇨ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts ³ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)				
										⇨ Onsite service upgrade options (in eligible locations): ⁷				
										• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)				
										• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)				
										• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)				
										• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)				
										• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)				
										⇨ ThinkPlus services at lenovo.com/thinkplus/warranty				
										⇨ Post warranty maintenance services available				
										⇨ 24 hour x 7 day ¹⁴ toll-free support during the warranty period ¹ via 800-426-7378				

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Core	Memory ^a	SATA disk	2nd Disk Bay	SATA optical	Graphics	Vista preload	Limited warranty ¹	Global Educ	Avail date
M57e	9439-B1U	4x5	Celeron 420	1.60	512KB	Single	1GB	160GB ²	Bay	Combo	GMA	Bus32	3-yr	None	Mar 08
M57e	9439-AAU	4x4	Celeron 430	1.80	512KB	Single	1GB	80GB		DVD	GMA	Bus32	3-yr	None	Mar 08
M57e	9439-ABU	4x4	Pentium E2160	1.80	1MB	Dual	1GB	80GB		DVD	GMA	Bus32	3-yr	None	Mar 08
M57e	9439-AQU	4x5	Pentium E2160	1.80	1MB	Dual	1GB	160GB	Bay	DVD	GMA	Bus32	3-yr	None	Mar 08
M57e	9439-APU	4x5	Pentium E2160	1.80	1MB	Dual	1GB	160GB	Bay	Combo	GMA	Bus32	3-yr	None	Mar 08
M57e	9439-ACU	4x4	Core 2 Duo E4500	2.20	2MB	Dual	1GB	80GB		DVD	GMA	Bus32	3-yr	None	Mar 08
M57e	9439-ARU	4x5	Core 2 Duo E4500	2.20	2MB	Dual	1GB	160GB	Bay	DVD	GMA	Bus32	3-yr	None	Mar 08
M57e	9439-ASU	4x5	Core 2 Duo E4500	2.20	2MB	Dual	1GB	160GB	Bay	Combo	GMA	Bus32	3-yr	None	Mar 08
M57e	9439-AUU	4x5	Core 2 Duo E6550	2.33	4MB	Dual	1GB	160GB	Bay	DVD	GMA	Bus32	3-yr	None	Mar 08
M57e	9439-ADU	4x4	Core 2 Duo E6550	2.33	4MB	Dual	1GB	160GB		Combo	GMA	Bus32	3-yr	None	Mar 08
M57e	9439-ATU	4x5	Core 2 Duo E6550	2.33	4MB	Dual	1GB	160GB	Bay	Combo	GMA	Bus32	3-yr	None	Mar 08
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>⑤</div></div>					
Processor	Intel® Celeron® Processor 420 or 430 with single-core, Intel 64 Technology, EDBit, 800MHz bus, and 512KB L2 cache or Intel Pentium® Dual-Core Processor E2160 with dual-core, Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 1MB shared L2 cache or Intel Core™ 2 Duo Processor E4500 with dual-core, Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 2MB shared L2 cache or Intel Core 2 Duo Processor E6550 with dual-core, Intel 64 Technology, Virtualization Technology, Execute Disable Bit, EIST, TXT, and 1333MHz system bus with 4MB shared L2 cache Processor in FC-LGA6 package in LGA775 socket														
Implementation										Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk Bay ⑤ 3.5", 1" high, no access, opt disk*					
Memory	1GB std, 4GB max ^a , PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 240-pin DIMM sockets; Non-italics: standard memory in one socket; one socket available									* 2nd Disk Bay is only available on some models 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 3100 (GMA 3100), integrated graphics in G31, uses main memory (up to 256MB), one analog VGA DB-15 connector, supports dual independent display with optional ADD2 adapter														
SATA disk	80GB or 160GB, SATA 3.0Gb/s 7200 rpm, vibration dampening									Security <ul style="list-style-type: none">• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® Microsaver® cable)• Power-on password• Administrator password• Hard disk password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement Supports ThinkVantage® technologies 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➤ 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	Some: DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive														
SATA Combo	Some: CD-RW/DVD-ROM Combo SATA 1.5Gb/s Drive														
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors on planar														
eSATA port	None														
EIDE controller	Enhanced IDE, ATA-100, integrated in ICH7, one EIDE connector on planar														
Diskette drive	None														
Media reader	None														
Chipset	Intel G31 Express Chipset; I/O Controller Hub 7 (ICH7) for SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI 2.3, USB, LPC bus / ITE Tech® IT8718 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, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)														
Internal connector	Two USB 2.0 planar connectors (one used; one open for media reader)														
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														
Ethernet	Gigabit ethernet on planar, Marvell® 88E8056, PCIe x1, 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											
- Microsoft® Windows® Vista Business Edition (32-bit)				1GB PC2-5300 CL5 NP DDR2 UDIMM				73P4984							
◇ Vista Basic logo				2GB PC2-5300 CL5 NP DDR2 UDIMM				73P4985							
Preloaded applications ⁵ (only some listed)				1GB PC2-6400 NP DDR2 UDIMM				41U2977							
• Rescue and Recovery™				2GB PC2-6400 NP DDR2 UDIMM				41U2978							
• Client Security Solution™				USB 2.0 Lenovo Multimedia Headset				40Y8518							
• ThinkVantage Productivity Center				USB 2.0 Ultra Secure Memory Key 8GB				45J5918							
• System Migration Assistant				ThinkVision® L2440p Wide 24" Monitor				4420HB2							
• Norton Internet Security™				Wireless Kbd & Opt Wheel Mouse (via USB)				73P4067							
• Diskeeper® Home				Kensington Cable Lock from Lenovo				73P2582							
• PC-Doctor™ (diagnostics)				ADD2 DVI-I PCIe Connection Adapter				73P2516							
• Picasa from Google				ADD2 DVI-D Monitor Connection (HDCP)				43R1985							
• Microsoft Office 2007 Trial (60-day)				ATI™ Radeon™ HD 2400 Pro 128MB				43R1961							
• Sonic RecordNow and Drive Letter Access (combo)				ATI Radeon HD 2400 XT 256MB				43R1962							
• Corel® WinDVD® (combo, DVD)				ATI Radeon HD 2600 XT 512MB				43R1963							
				NVIDIA® Quadro® 256MB NVS 290				43R1765							
				NVIDIA Quadro 256MB FX 370				43R1766							
				NVIDIA Quadro 512MB FX 1700				43R1767							
				Other accessories at lenovo.com/accessories											


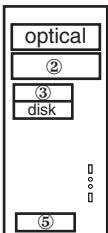
See footnotes for important warranty information

US models announced February 19, 2008

⚠ US models withdrawn effective September 2008 or January 2009

© Lenovo

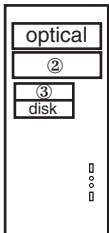
(MONA1-3) February 2008

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Core	Memory ⁶	SATA disk	2nd Disk Bay	SATA optical	Graphics	Vista preload	Vista logo	Global Educ	Avail date	
	M57e	9439-AWU	4x5 Pentium E2180	2.00	1MB	Dual	1GB	160GB ²	Bay	DVD±RW	GMA	Bus32	Basic		Aug 08	
	M57e	9439-DGU	4x4 Pentium E2200	2.20	1MB	Dual	1GB	160GB		Combo	GMA	Bus32	Basic	Gbl	Mar 08	
	M57e	9439-DHU	4x4 Core 2 Duo E4600	2.40	2MB	Dual	1GB	160GB		Combo	GMA+ADD2	Bus32	Basic	Gbl	Mar 08	
	M57e	9439-A3U	4x5 Core 2 Duo E8200	2.66	6MB	Dual	1GB	160GB	Bay	Combo	GMA	Bus32	Basic		Mar 08	
	M57e	9439-DJU	4x4 Core 2 Duo E8400	3.00	6MB	Dual	2GB	250GB		DVD±RW	GMA+ADD2	Bus32	Premium	Gbl	Mar 08	
• These models have a 3-year limited warranty¹																
Positioning Processor	Mainstream enterprise stability and manageability Intel® Pentium® Dual-Core Processor E2180 or E2200 with dual-core , Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 1MB shared L2 cache or Intel Core™ 2 Duo Processor E4600 with dual-core , Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 2MB shared L2 cache or Intel Core 2 Duo Processor E8200 or E8400 with dual-core , Intel 64 Technology, Virtualization Technology, Execute Disable Bit, EIST, TXT, and 1333MHz system bus with 6MB shared L2 cache Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket										Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.2 lb (11.0 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention					
Implementation																
Memory	1GB or 2GB , 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 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 Bay ⑤ 3.5", 1" high, no access, opt disk**					
Graphics	<i>All:</i> Intel Graphics Media Accelerator 3100 (GMA 3100) , integrated graphics in G31, uses main memory (up to 256MB), one analog VGA DB-15 connector <i>Some:</i> ADD2 DVI-I PCIe Connection Adapter , PCI Express [®] adapter in PCIe x16 slot, provides DVI-I connector to support second monitor, no DVI-to-VGA dongle										** 2nd Disk Bay is only available on some models 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															
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7															
SATA Combo	<i>Some:</i> CD-RW/DVD-ROM Combo SATA 1.5Gb/s 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															
EIDE controller	Enhanced IDE, ATA-100, integrated in ICH7, one EIDE connector on planar															
Diskette drive	None															
Media reader	None															
Chipset	Intel G31 Express Chipset ; I/O Controller Hub 7 (ICH7) for SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI 2.3, USB, LPC bus / ITE Tech® IT8718 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, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DVI-I in some models)															
Internal connector	Two USB 2.0 planar connectors (one used; one open for media reader)															
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															
Ethernet	Gigabit ethernet on planar, Marvell® 88E8056, PCIe x1, Wake on LAN®															
Intel AMT	None															
Modem	None															
Security chip	None															
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo															
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo															
Power supply	280 watts with variable speed fan, manual switch															
Preloaded operating system²⁰				Accessories												
- Microsoft® Windows® Vista Business Edition (32-bit)				1GB PC2-5300 CL5 NP DDR2 UDIMM				73P4984								
				2GB PC2-5300 CL5 NP DDR2 UDIMM				73P4985								
Preloaded applications⁵				1GB PC2-6400 NP DDR2 UDIMM				41U2977								
• Rescue and Recovery™				2GB PC2-6400 NP DDR2 UDIMM				41U2978								
• Client Security Solution™				500GB SATA 3.0Gb/s Disk (7200 rpm)				43R1990								
• ThinkVantage Productivity Center				USB 2.0 Lenovo Multimedia Headset				40Y8518								
• System Migration Assistant				USB 2.0 Essential Memory Key 32GB				45K1258								
• Norton Internet Security™ (90 days of virus definitions)				USB 2.0 Ultra Secure Memory Key 8GB				45J5918								
• Diskeeper® Home				ThinkVision® L2440p Wide 24" Monitor				4420HB2								
• PC-Doctor™ (diagnostics)				Wireless Kbd & Opt Wheel Mouse (via USB)				73P4067								
• Adobe® Reader				Kensington Cable Lock from Lenovo				73P2582								
• Windows Live™ Toolbar				ADD2 DVI-I PCIe Connection Adapter				73P2516								
• Windows Live Search				ADD2 DVI-D Monitor Connection (HDCP)				43R1985								
• Picasa from Google				ATI™ Radeon™ HD 2400 Pro 128MB				43R1961								
• Microsoft Office 2007 Trial (60-day)				ATI Radeon HD 2400 XT 256MB				43R1962								
• Sonic RecordNow and Drive Letter Access (combo, DVD±RW)				ATI Radeon HD 2600 XT 512MB				43R1963								
• Corel® WinDVD® (combo, DVD±RW)				NVIDIA® Quadro® 256MB NVS 290				43R1765								
				NVIDIA Quadro 256MB FX 370				43R1766								
				NVIDIA Quadro 512MB FX 1700				43R1767								
				Acc Guide in pdf lenovo.com/accessoriesguide												
				Other accessories at lenovo.com/accessories												
Security <ul style="list-style-type: none">• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® Microsaver® cable)• Power-on password• Administrator password• Hard disk password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement																
Supports ThinkVantage® technologies																
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

☞ US model announced August 19, 2008; previous models on March 18, 2008

© Lenovo
(MONA1-10) August 2008

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Core	Memory ⁸	SATA disk	2nd Disk Bay	SATA optical	Graphics	Vista preload	Limited warranty ¹	Global Educ	Avail date																																																										
M57e	9439-D6U	4x4	Core 2 Duo E7200	2.53	3MB	Dual	1GB	160GB ²	None	DVD±RW	GMA	Bus32	3-yr	None	Jun 08																																																										
• This model has a 3-year limited warranty ¹																																																																									
Positioning Processor	Mainstream enterprise stability and manageability Intel® Core™ 2 Duo Processor E7200 with dual-core, Intel 64 Technology, Execute Disable Bit, EIST, and 1066MHz system bus with 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 			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																																																												
Implementation	Processor in FC-LGA8 package in LGA775 socket																																																																								
Memory	1GB std, 4GB max ⁸ , PC2-5300 667MHz 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 3100 (GMA 3100), integrated graphics in G31, uses main memory (up to 256MB), one analog VGA DB-15 connector, supports dual independent display with optional ADD2 adapter																																																																								
SATA disk	160GB, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts									Security <ul style="list-style-type: none">• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® Microsaver® cable)• Power-on password• Administrator password• Hard disk password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement																																																															
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7																																																																								
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																																																																								
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors																																																																								
eSATA port	None																																																																								
EIDE controller	Enhanced IDE, ATA-100, integrated in ICH7, one EIDE connector																																																																								
Diskette drive	None																																																																								
Media reader	None																																																																								
Chipset	Intel G31 Express Chipset; I/O Controller Hub 7 (ICH7) for SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI 2.3, USB, LPC bus / ITE Tech® IT8718 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, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)																																																																								
Internal connector	Two USB 2.0 planar connectors (one used; one open for media reader)																																																																								
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																																																																								
Ethernet	Gigabit ethernet on planar, Marvell® 88E8056, PCIe x1, Wake on LAN®																																																																								
Intel AMT	None																																																																								
Modem	None																																																																								
Security chip	None																																																																								
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																																																																								
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																																																																								
Power supply	280 watts with variable speed fan, manual switch																																																																								
Preloaded operating system²⁰ <ul style="list-style-type: none">- Microsoft® Windows® Vista Business Edition (32-bit)✦ Vista Basic logo Preloaded applications⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• System Migration Assistant• Norton Internet Security™ (90 days of virus definitions)• Diskkeeper® Home• PC-Doctor™ (diagnostics)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Picasa from Google• Microsoft Office 2007 Trial (60-day)• Sonic RecordNow and Drive Letter Access (DVD±RW)• Corel® WinDVD® (DVD±RW)									Accessories <table><tr><td>1GB PC2-5300 CL5 NP DDR2 UDIMM</td><td>73P4984</td></tr><tr><td>2GB PC2-5300 CL5 NP DDR2 UDIMM</td><td>73P4985</td></tr><tr><td>1GB PC2-6400 NP DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 NP 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>USB Portable Diskette Drive</td><td>05K9276</td></tr><tr><td>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Essential Memory Key 32GB</td><td>45K1258</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 2GB</td><td>45J5916</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 4GB</td><td>45J5917</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>ThinkVision® L1940p Wide 19" Monitor</td><td>4424HB6</td></tr><tr><td>ThinkVision L2240p Wide 22" Monitor</td><td>4422HB6</td></tr><tr><td>ThinkVision L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>ADD2 DVI-I PCIe Connection Adapter</td><td>73P2516</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI™ Radeon™ HD 2400 Pro 128MB</td><td>43R1961</td></tr><tr><td>ATI Radeon HD 2400 XT 256MB</td><td>43R1962</td></tr><tr><td>ATI Radeon HD 2600 XT 512MB</td><td>43R1963</td></tr><tr><td>NVIDIA® Quadro® 256MB NVS 290</td><td>43R1765</td></tr><tr><td>NVIDIA Quadro 256MB FX 370</td><td>43R1766</td></tr><tr><td>NVIDIA Quadro 512MB FX 1700</td><td>43R1767</td></tr></table> Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories							1GB PC2-5300 CL5 NP DDR2 UDIMM	73P4984	2GB PC2-5300 CL5 NP DDR2 UDIMM	73P4985	1GB PC2-6400 NP DDR2 UDIMM	41U2977	2GB PC2-6400 NP DDR2 UDIMM	41U2978	250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	USB Portable Diskette Drive	05K9276	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Lenovo Webcam	40Y8519	USB 2.0 Essential Memory Key 32GB	45K1258	USB 2.0 Ultra Secure Memory Key 2GB	45J5916	USB 2.0 Ultra Secure Memory Key 4GB	45J5917	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ThinkVision® L1940p Wide 19" Monitor	4424HB6	ThinkVision L2240p Wide 22" Monitor	4422HB6	ThinkVision L2440p Wide 24" Monitor	4420HB2	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Kensington Cable Lock from Lenovo	73P2582	ADD2 DVI-I PCIe Connection Adapter	73P2516	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI™ Radeon™ HD 2400 Pro 128MB	43R1961	ATI Radeon HD 2400 XT 256MB	43R1962	ATI Radeon HD 2600 XT 512MB	43R1963	NVIDIA® Quadro® 256MB NVS 290	43R1765	NVIDIA Quadro 256MB FX 370	43R1766	NVIDIA Quadro 512MB FX 1700	43R1767
1GB PC2-5300 CL5 NP DDR2 UDIMM	73P4984																																																																								
2GB PC2-5300 CL5 NP DDR2 UDIMM	73P4985																																																																								
1GB PC2-6400 NP DDR2 UDIMM	41U2977																																																																								
2GB PC2-6400 NP DDR2 UDIMM	41U2978																																																																								
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015																																																																								
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																																																																								
USB Portable Diskette Drive	05K9276																																																																								
USB 2.0 Lenovo Multimedia Headset	40Y8518																																																																								
USB 2.0 Lenovo Webcam	40Y8519																																																																								
USB 2.0 Essential Memory Key 32GB	45K1258																																																																								
USB 2.0 Ultra Secure Memory Key 2GB	45J5916																																																																								
USB 2.0 Ultra Secure Memory Key 4GB	45J5917																																																																								
USB 2.0 Ultra Secure Memory Key 8GB	45J5918																																																																								
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																																																								
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																																																																								
ThinkVision® L1940p Wide 19" Monitor	4424HB6																																																																								
ThinkVision L2240p Wide 22" Monitor	4422HB6																																																																								
ThinkVision L2440p Wide 24" Monitor	4420HB2																																																																								
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067																																																																								
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074																																																																								
Kensington Cable Lock from Lenovo	73P2582																																																																								
ADD2 DVI-I PCIe Connection Adapter	73P2516																																																																								
ADD2 DVI-D Monitor Connection (HDCP)	43R1985																																																																								
ATI™ Radeon™ HD 2400 Pro 128MB	43R1961																																																																								
ATI Radeon HD 2400 XT 256MB	43R1962																																																																								
ATI Radeon HD 2600 XT 512MB	43R1963																																																																								
NVIDIA® Quadro® 256MB NVS 290	43R1765																																																																								
NVIDIA Quadro 256MB FX 370	43R1766																																																																								
NVIDIA Quadro 512MB FX 1700	43R1767																																																																								
Supports ThinkVantage® technologies																																																																									
RoHS-compliant																																																																									
Limited Warranty¹ <ul style="list-style-type: none">✦ 3-year parts and labor✦ International Warranty Service®✦ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)✦ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)✦ ThinkPlus services at lenovo.com/thinkplus/warranty✦ Post warranty maintenance services available✦ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																																																																									

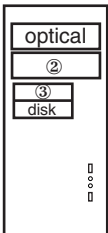
Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ^a	SATA disk	2nd Disk Bay	SATA optical	Graphics	Vista preload	Vista logo	Global Educ	Avail date
M57e	9439-F1U	4x4	Pentium E5200	2.50	2MB	2	1GB	160GB ²	None	DVD	GMA	Bus32	Prem	None	Nov 08
M57e	9439-F2U	4x4	Pentium E5200	2.50	2MB	2	1GB	250GB	None	DVD±RW	GMA	Bus32	Prem	None	Nov 08

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

Positioning Processor	Mainstream enterprise stability and manageability Intel® Pentium® Dual-Core Processor E5200 with dual-core , 800MHz system bus, and 2MB L2 cache Processor in FC-LGA6 package in LGA775 socket		Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.2 lb (11.0 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention <div><div>optical</div><div>②</div><div>③</div><div>disk</div><div>Bay ①</div><div>Bay ②</div><div>Bay ③</div><div>Bay ④</div></div>																																																											
Implementation																																																														
Memory	1GB std , 4GB max [®] , PC2-5300 667MHz 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 3100 (GMA 3100) , integrated graphics in G31, uses main memory (up to 256MB), one analog VGA DB-15 connector, supports dual independent display with optional ADD2 adapter																																																													
SATA disk	160GB or 250GB , SATA 3.0Gb/s 7200 rpm, vibration dampening		Bay ① 5.25", 1.6" high, access, std optical																																																											
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7		Bay ② 5.25", 1.6" high, access, open																																																											
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive		Bay ③ 3.5", 1" high, access, open (reader/diskette)																																																											
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		Bay ④ 3.5", 1" high, no access, std disk																																																											
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors		Slot 1: half-length, full-height, PCI Express x16 (75w max)																																																											
eSATA port	None		Slot 2: half-length, full-height, PCI Express x1																																																											
EIDE controller	Enhanced IDE, ATA-100, integrated in ICH7, one EIDE connector		Slot 3: half-length, full-height, 32-bit PCI 2.3																																																											
Diskette drive	None		Slot 4: half-length, full-height, 32-bit PCI 2.3																																																											
Media reader	None																																																													
Chipset	Intel G31 Express Chipset ; I/O Controller Hub 7 (ICH7) for SATA 3.0Gb/s, ATA-100 EIDE, PCI Express [®] x1, PCI 2.3, USB, LPC bus / ITE Tech [®] IT8718 Super I/O for serial, parallel, keyboard, mouse functions		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)																																																													
Internal connector	Two USB 2.0 planar connectors (one used; one open for media reader)																																																													
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																																																													
Ethernet	Gigabit ethernet on planar, Marvel [®] 88E8056, PCIe x1, Wake on LAN [®]																																																													
Intel AMT	None																																																													
Modem	None																																																													
Security chip	None																																																													
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo [®] logo																																																													
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																																																													
Power supply	280 watts with variable speed fan, manual switch																																																													
Preloaded operating system²⁰ <ul style="list-style-type: none">- Microsoft[®] Windows[®] Vista Business Edition (32-bit) Preloaded applications⁵ <ul style="list-style-type: none">• Rescue and Recovery[™]• Client Security Solution[™]• ThinkVantage Productivity Center• System Migration Assistant• Norton Internet Security[™] (90 days of virus definitions)• Diskeeper[®] Home• PC-Doctor[™] (diagnostics)• Adobe[®] Reader• Windows Live[™] Toolbar• Windows Live Search• Picasa from Google• Microsoft Office 2007 Trial (60-day)• Sonic RecordNow and Drive Letter Access (DVD±RW)• Corel[®] WinDVD[®] (DVD, DVD±RW) Accessories <table><tr><td>1GB PC2-5300 CL5 NP DDR2 UDIMM</td><td>73P4984</td></tr><tr><td>2GB PC2-5300 CL5 NP DDR2 UDIMM</td><td>73P4985</td></tr><tr><td>1GB PC2-6400 NP DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 NP 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>USB Portable Diskette Drive</td><td>05K9276</td></tr><tr><td>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Essential Memory Key 32GB</td><td>45K1258</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable 160GB Hard Disk</td><td>43R1784</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</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>ThinkVision[®] L1940p Wide 19" Monitor</td><td>4424HB6</td></tr><tr><td>ThinkVision L2240p Wide 22" Monitor</td><td>4422HB6</td></tr><tr><td>ThinkVision L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>ADD2 DVI-I PCIe Connection Adapter</td><td>73P2516</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI[™] Radeon[™] HD 2400 Pro 128MB</td><td>43R1961</td></tr><tr><td>ATI Radeon HD 2400 XT 256MB</td><td>43R1962</td></tr><tr><td>ATI Radeon HD 2600 XT 512MB</td><td>43R1963</td></tr><tr><td>NVIDIA[®] Quadro[®] 256MB NVS 290</td><td>43R1765</td></tr><tr><td>NVIDIA Quadro 256MB FX 370</td><td>43R1766</td></tr><tr><td>NVIDIA Quadro 512MB FX 1700</td><td>43R1767</td></tr></table> Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories			1GB PC2-5300 CL5 NP DDR2 UDIMM	73P4984	2GB PC2-5300 CL5 NP DDR2 UDIMM	73P4985	1GB PC2-6400 NP DDR2 UDIMM	41U2977	2GB PC2-6400 NP DDR2 UDIMM	41U2978	250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	USB Portable Diskette Drive	05K9276	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Lenovo Webcam	40Y8519	USB 2.0 Essential Memory Key 32GB	45K1258	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable 160GB Hard Disk	43R1784	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	DVD-ROM DL SATA 1.5Gb/s 16-48X Max	41N5618	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ThinkVision [®] L1940p Wide 19" Monitor	4424HB6	ThinkVision L2240p Wide 22" Monitor	4422HB6	ThinkVision L2440p Wide 24" Monitor	4420HB2	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Kensington Cable Lock from Lenovo	73P2582	ADD2 DVI-I PCIe Connection Adapter	73P2516	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI [™] Radeon [™] HD 2400 Pro 128MB	43R1961	ATI Radeon HD 2400 XT 256MB	43R1962	ATI Radeon HD 2600 XT 512MB	43R1963	NVIDIA [®] Quadro [®] 256MB NVS 290	43R1765	NVIDIA Quadro 256MB FX 370	43R1766	NVIDIA Quadro 512MB FX 1700	43R1767	Supports ThinkVantage [®] technologies	
1GB PC2-5300 CL5 NP DDR2 UDIMM	73P4984																																																													
2GB PC2-5300 CL5 NP DDR2 UDIMM	73P4985																																																													
1GB PC2-6400 NP DDR2 UDIMM	41U2977																																																													
2GB PC2-6400 NP DDR2 UDIMM	41U2978																																																													
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015																																																													
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																																																													
USB Portable Diskette Drive	05K9276																																																													
USB 2.0 Lenovo Multimedia Headset	40Y8518																																																													
USB 2.0 Lenovo Webcam	40Y8519																																																													
USB 2.0 Essential Memory Key 32GB	45K1258																																																													
USB 2.0 Ultra Secure Memory Key 8GB	45J5918																																																													
USB 2.0 Portable 160GB Hard Disk	43R1784																																																													
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																																													
DVD-ROM DL SATA 1.5Gb/s 16-48X Max	41N5618																																																													
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																																																													
ThinkVision [®] L1940p Wide 19" Monitor	4424HB6																																																													
ThinkVision L2240p Wide 22" Monitor	4422HB6																																																													
ThinkVision L2440p Wide 24" Monitor	4420HB2																																																													
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067																																																													
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074																																																													
Kensington Cable Lock from Lenovo	73P2582																																																													
ADD2 DVI-I PCIe Connection Adapter	73P2516																																																													
ADD2 DVI-D Monitor Connection (HDCP)	43R1985																																																													
ATI [™] Radeon [™] HD 2400 Pro 128MB	43R1961																																																													
ATI Radeon HD 2400 XT 256MB	43R1962																																																													
ATI Radeon HD 2600 XT 512MB	43R1963																																																													
NVIDIA [®] Quadro [®] 256MB NVS 290	43R1765																																																													
NVIDIA Quadro 256MB FX 370	43R1766																																																													
NVIDIA Quadro 512MB FX 1700	43R1767																																																													
			RoHS-compliant																																																											
			Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus[™] part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																																																											

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Core	Memory ^a	SATA disk	2nd Disk Bay	SATA optical	Graphics	ENERGY STAR 4.0	Vista preload	Vista logo	Global Educ	Avail date
M57e	9356-ADU	4x4	Core 2 Duo E4600	2.40	2MB	Dual	1GB	160GB ^b	None	Combo	GMA	ES40	Bus32	Basic	Gbl	Mar 08
M57e	9356-AFU	4x4	Core 2 Duo E4600	2.40	2MB	Dual	1GB	160GB	None	Combo	GMA+ADD2	ES40	Bus32	Basic	Gbl	Mar 08
M57e	9356-AEU	4x4	Core 2 Duo E8200	2.66	6MB	Dual	1GB	160GB	None	Combo	GMA	ES40	Bus32	Basic	Gbl	Mar 08
M57e	9356-AGU	4x4	Core 2 Duo E8400	3.00	6MB	Dual	2GB	250GB	None	DVD±RW	GMA+ADD2	ES40	Bus32	Prem	Gbl	Mar 08

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

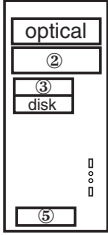
Positioning Processor	Mainstream enterprise stability and manageability Intel® Core™ 2 Duo Processor E4600 with dual-core , Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 2MB shared L2 cache or Intel Core 2 Duo Processor E8200 or E8400 with dual-core , Intel 64 Technology, Virtualization Technology, Execute Disable Bit, EIST, TXT, and 1333MHz system bus with 6MB shared L2 cache Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket			Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.2 lb (11.0 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention 				
Implementation				Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk				
Memory	1GB or 2GB std, 4GB max ^a , PC2-5300 667MHz 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 * used in some models				
Graphics	<i>All:</i> Intel Graphics Media Accelerator 3100 (GMA 3100) , integrated graphics in G31, uses main memory (up to 256MB), one analog VGA DB-15 connector <i>Some:</i> ADD2 DVI-I PCIe Connection Adapter , PCI Express® adapter in PCIe x16 slot, provides DVI-I connector to support second monitor, no DVI-to-VGA dongle			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	160GB or 250GB , SATA 3.0Gb/s 7200 rpm, vibration dampening			Supports ThinkVantage® technologies				
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7							
SATA Combo	<i>Some:</i> CD-RW/DVD-ROM Combo SATA 1.5Gb/s Drive			EPEAT™ Gold rating ENERGY STAR 4.0-compliant RoHS-compliant				
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive							
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors on planar			Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378				
eSATA port	None							
EIDE controller	Enhanced IDE, ATA-100, integrated in ICH7, one EIDE connector on planar							
Diskette drive	None							
Media reader	None							
Chipset	Intel G31 Express Chipset ; I/O Controller Hub 7 (ICH7) for SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI 2.3, USB, LPC bus / ITE Tech® IT8718 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, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DVI-I in some models)							
Internal connector	Two USB 2.0 planar connectors (one used; one open for media reader)							
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							
Ethernet	Gigabit ethernet on planar, Marvell® 88E8056, PCIe x1, 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, 80% PSU							
Preloaded operating system²⁰		Accessories						
- Microsoft® Windows® Vista® Business Edition (32-bit)		1GB PC2-5300 CL5 NP DDR2 UDIMM 73P4984						
		2GB PC2-5300 CL5 NP DDR2 UDIMM 73P4985						
Preloaded applications⁵		1GB PC2-6400 NP DDR2 UDIMM 41U2977						
• Rescue and Recovery™		2GB PC2-6400 NP DDR2 UDIMM 41U2978						
• Client Security Solution™		500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990						
• ThinkVantage Productivity Center		USB 2.0 Lenovo Multimedia Headset 40Y8518						
• System Migration Assistant		USB 2.0 Lenovo Webcam 40Y8519						
• Norton Internet Security™ (90 days of virus definitions)		USB 2.0 Essential Memory Key 32GB 45K1258						
• Diskeeper® Home		USB 2.0 Ultra Secure Memory Key 8GB 45J5918						
• PC-Doctor™ (diagnostics)		USB 2.0 Portable Secure 320GB Hard Disk 43R2019						
• Adobe® Reader		ThinkVision® L2440p Wide 24" Monitor 4420HB2						
• Windows Live™ Toolbar		Wireless Kbd & Opt Wheel Mouse (via USB) 73P4067						
• Windows Live Search		Kensington Cable Lock from Lenovo 73P2582						
• Picasa from Google		ADD2 DVI-I PCIe Connection Adapter 73P2516						
• Microsoft Office 2007 Trial (60-day)		ADD2 DVI-D Monitor Connection (HDCP) 43R1985						
• Sonic RecordNow and Drive Letter Access (combo, DVD±RW)		ATI™ Radeon™ HD 2400 Pro 128MB 43R1961						
• Corel® WinDVD® (combo, DVD±RW)		ATI Radeon HD 2400 XT 256MB 43R1962						
		ATI Radeon HD 2600 XT 512MB 43R1963						
		NVIDIA® Quadro® 256MB NVS 290 43R1765						
		NVIDIA Quadro 256MB FX 370 43R1766						
		NVIDIA Quadro 512MB FX 1700 43R1767						
		Acc Guide in pdf lenovo.com/accessoriesguide						
		Other accessories at lenovo.com/accessories						

See footnotes for important warranty information
 US models announced March 18, 2008

© Lenovo
 (MONA1-9) March 2008

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Core	Memory ^a	SATA disk	2nd Disk Bay	SATA optical	Graphics	ENERGY STAR 4.0	Preload	Vista logo	Global Educ	Avail date
ES M57e	9356-B5U	4x5	Core 2 Duo E7200	2.53	3MB	Dual	1GB	160GB ²	Bay	DVD	GMA	ES40	XP Pro	No	No	Sep 08
M57e	9356-B1U	4x4	Core 2 Duo E7200	2.53	3MB	Dual	1GB	160GB		DVD±RW	GMA	ES40	Bus32	Basic	No	Jun 08
ES M57e	9356-B7U	4x5	Core 2 Duo E7300	2.66	3MB	Dual	1GB	160GB	Bay	DVD±RW	GMA	ES40	Bus32	Prem	No	Sep 08

• These models have a 3-year limited warranty¹

Positioning Processor	Mainstream enterprise stability and manageability Intel® Core™ 2 Duo Processor E7200 or E7300 with dual-core , Intel 64 Technology, Execute Disable Bit, EIST, and 1066MHz system bus with 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 FC-LGA8 package in LGA775 socket		
Memory	1GB std , 4GB max ⁸ , PC2-5300 667MHz 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 3100 (GMA 3100) , integrated graphics in G31, uses main memory (up to 256MB), one analog VGA DB-15 connector, supports dual independent display with optional ADD2 adapter		
SATA disk	160GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts		Bay ① 5.25", 1.6" high, access, std optical Bay ② 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 Bay ⑤ 3.5", 1" high, no access, opt disk* * 2nd Disk Bay is only available on some models 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 controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7		
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 cables	Two SATA cables (each 1-drop to device), four SATA connectors		
eSATA port	None		
EIDE controller	Enhanced IDE, ATA-100, integrated in ICH7, one EIDE connector		
Diskette drive	None		
Media reader	None		
Chipset	Intel G31 Express Chipset ; I/O Controller Hub 7 (ICH7) for SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI 2.3, USB, LPC bus / ITE Tech® IT8718 Super I/O for serial, parallel, keyboard, mouse functions		
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, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement
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)		
Internal connector	Two USB 2.0 planar connectors (one used; one open for media reader)		
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		Supports ThinkVantage® technologies
Ethernet	Gigabit ethernet on planar, Marvell® 88E8056, PCIe x1, Wake on LAN®		
Intel AMT	None		
Modem	None		
Security chip	None		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		EPEAT™ Gold rating ENERGY STAR 4.0-compliant RoHS-compliant
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo		
Power supply	280 watts with variable speed fan, autosensing, 80% PSU		Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378
Preloaded operating system²⁰		Accessories	
- <i>Some</i> : Microsoft® Windows® XP Professional with Vista® COA		1GB PC2-5300 CL5 NP DDR2 UDIMM	73P4984
- <i>Some</i> : Microsoft Windows Vista Business Edition (32-bit)		2GB PC2-5300 CL5 NP DDR2 UDIMM	73P4985
Preloaded applications⁵ (all OSes)		1GB PC2-6400 NP DDR2 UDIMM	41U2977
• Rescue and Recovery™		2GB PC2-6400 NP DDR2 UDIMM	41U2978
• Client Security Solution™		250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015
• ThinkVantage Productivity Center		500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990
• System Migration Assistant		USB Portable Diskette Drive	05K9276
• Norton Internet Security™ (90 days of virus definitions)		USB 2.0 Lenovo Multimedia Headset	40Y8518
• Diskeeper® Home		USB 2.0 Lenovo Webcam	40Y8519
• PC-Doctor™ (diagnostics)		USB 2.0 Essential Memory Key 32GB	45K1258
• Adobe® Reader		USB 2.0 Ultra Secure Memory Key 8GB	45J5918
• Windows Live™ Toolbar		USB 2.0 Portable 160GB Hard Disk	43R1784
• Windows Live Search		USB 2.0 Portable Secure 320GB Hard Disk	43R2019
• Picasa from Google		DVD-ROM DL SATA 1.5Gb/s 16-48X Max	41N5618
• Microsoft Office 2007 Trial (60-day)		Super Multi-Burner DL DVD±RW SATA Drive	41N5620
• Multimedia Center for Think Offerings (DVD) (XP)		ThinkVision® L1940p Wide 19" Monitor	4424HB6
• Sonic RecordNow and Drive Letter Access (DVD±RW)		ThinkVision L2240p Wide 22" Monitor	4422HB6
• Corel® WinDVD® (DVD, DVD±RW)		ThinkVision L2440p Wide 24" Monitor	4420HB2
		Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067
		Laser Tilt Wheel Mouse (USB, PS/2)	41U3074
		Kensington Cable Lock from Lenovo	73P2582
		ADD2 DVI-I PCIe Connection Adapter	73P2516
		ADD2 DVI-D Monitor Connection (HDCP)	43R1985
		ATI™ Radeon™ HD 2400 Pro 128MB	43R1961
		ATI Radeon HD 2400 XT 256MB	43R1962
		ATI Radeon HD 2600 XT 512MB	43R1963
		NVIDIA® Quadro® 256MB NVS 290	43R1765
		NVIDIA Quadro 256MB FX 370	43R1766
		NVIDIA Quadro 512MB FX 1700	43R1767
		Acc Guide in pdf lenovo.com/accessoriesguide	
		Other accessories at lenovo.com/accessories	

See footnotes for important warranty information

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Core	Memory ⁸	SATA disk	2nd Disk Bay	SATA optical	Graphics	ENERGY STAR 4.0	Vista preload	Global (G) GMP (P)	Avail date
M57e	6176-B1U	4x4	Core 2 Duo E8400	3.00	6MB	Dual	1GB	160GB ²	None	DVD±RW	GMA	ES40	Business32	G P	Jul 08

- This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty

Positioning Processor	Mainstream enterprise stability and manageability Intel® Core™ 2 Duo Processor E8400 with dual-core, Intel 64 Technology, Virtualization Technology, Execute Disable Bit, EIST, TXT, and 1333MHz system bus with 6MB L2 cache Processor in FC-LGA8 package in LGA775 socket		<div><div>optical</div><div>②</div><div>③</div><div>disk</div><div>④</div></div>																																																									
Implementation	Processor in FC-LGA8 package in LGA775 socket																																																											
Memory	1GB std , 4GB max ⁸ , PC2-5300 667MHz 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 3100 (GMA 3100) , integrated graphics in G31, uses main memory (up to 256MB), one analog VGA DB-15 connector, 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 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>																																																									
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																																																											
EIDE controller	Enhanced IDE, ATA-100, integrated in ICH7, one EIDE connector																																																											
Diskette drive	None																																																											
Media reader	None																																																											
Chipset	Intel G31 Express Chipset ; I/O Controller Hub 7 (ICH7) for SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI 2.3, USB, LPC bus / ITE Tech® IT8718 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, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)																																																											
Internal connector	Two USB 2.0 planar connectors (one used; one open for media reader)																																																											
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																																																											
Ethernet	Gigabit ethernet on planar, Marvell® 88E8056, PCIe x1, 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, 80% PSU																																																											
<div><div><div>Preloaded operating system²⁰<ul style="list-style-type: none">- Microsoft® Windows® Vista® Business Edition (32-bit)✧ Vista Basic logo</div><div>Preloaded applications⁵<ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• System Migration Assistant• Norton Internet Security™ (90 days of virus definitions)• Diskeeper® Home• PC-Doctor™ (diagnostics)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Picasa from Google• Microsoft Office 2007 Trial (60-day)• Sonic RecordNow and Drive Letter Access (DVD±RW)• Corel® WinDVD® (DVD±RW)</div></div><div><div>Accessories</div><div><table><tr><td>1GB PC2-5300 CL5 NP DDR2 UDIMM</td><td>73P4984</td></tr><tr><td>2GB PC2-5300 CL5 NP DDR2 UDIMM</td><td>73P4985</td></tr><tr><td>1GB PC2-6400 NP DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 NP 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>USB Portable Diskette Drive</td><td>05K9276</td></tr><tr><td>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Essential Memory Key 32GB</td><td>45K1258</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 4GB</td><td>45J5917</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable 160GB Hard Disk</td><td>43R1784</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>ThinkVision® L1940p Wide 19" Monitor</td><td>4424HB6</td></tr><tr><td>ThinkVision L2240p Wide 22" Monitor</td><td>4422HB6</td></tr><tr><td>ThinkVision L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>ADD2 DVI-I PCIe Connection Adapter</td><td>73P2516</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI™ Radeon™ HD 2400 Pro 128MB</td><td>43R1961</td></tr><tr><td>ATI Radeon HD 2400 XT 256MB</td><td>43R1962</td></tr><tr><td>ATI Radeon HD 2600 XT 512MB</td><td>43R1963</td></tr><tr><td>NVIDIA® Quadro® 256MB NVS 290</td><td>43R1765</td></tr><tr><td>NVIDIA Quadro 256MB FX 370</td><td>43R1766</td></tr><tr><td>NVIDIA Quadro 512MB FX 1700</td><td>43R1767</td></tr></table><div>Acc Guide in pdf lenovo.com/accessoriesguide</div><div>Other accessories at lenovo.com/accessories</div></div></div></div>			1GB PC2-5300 CL5 NP DDR2 UDIMM	73P4984	2GB PC2-5300 CL5 NP DDR2 UDIMM	73P4985	1GB PC2-6400 NP DDR2 UDIMM	41U2977	2GB PC2-6400 NP DDR2 UDIMM	41U2978	250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	USB Portable Diskette Drive	05K9276	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Lenovo Webcam	40Y8519	USB 2.0 Essential Memory Key 32GB	45K1258	USB 2.0 Ultra Secure Memory Key 4GB	45J5917	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable 160GB Hard Disk	43R1784	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ThinkVision® L1940p Wide 19" Monitor	4424HB6	ThinkVision L2240p Wide 22" Monitor	4422HB6	ThinkVision L2440p Wide 24" Monitor	4420HB2	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Kensington Cable Lock from Lenovo	73P2582	ADD2 DVI-I PCIe Connection Adapter	73P2516	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI™ Radeon™ HD 2400 Pro 128MB	43R1961	ATI Radeon HD 2400 XT 256MB	43R1962	ATI Radeon HD 2600 XT 512MB	43R1963	NVIDIA® Quadro® 256MB NVS 290	43R1765	NVIDIA Quadro 256MB FX 370	43R1766	NVIDIA Quadro 512MB FX 1700	43R1767
1GB PC2-5300 CL5 NP DDR2 UDIMM	73P4984																																																											
2GB PC2-5300 CL5 NP DDR2 UDIMM	73P4985																																																											
1GB PC2-6400 NP DDR2 UDIMM	41U2977																																																											
2GB PC2-6400 NP DDR2 UDIMM	41U2978																																																											
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015																																																											
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																																																											
USB Portable Diskette Drive	05K9276																																																											
USB 2.0 Lenovo Multimedia Headset	40Y8518																																																											
USB 2.0 Lenovo Webcam	40Y8519																																																											
USB 2.0 Essential Memory Key 32GB	45K1258																																																											
USB 2.0 Ultra Secure Memory Key 4GB	45J5917																																																											
USB 2.0 Ultra Secure Memory Key 8GB	45J5918																																																											
USB 2.0 Portable 160GB Hard Disk	43R1784																																																											
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																																											
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																																																											
ThinkVision® L1940p Wide 19" Monitor	4424HB6																																																											
ThinkVision L2240p Wide 22" Monitor	4422HB6																																																											
ThinkVision L2440p Wide 24" Monitor	4420HB2																																																											
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067																																																											
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074																																																											
Kensington Cable Lock from Lenovo	73P2582																																																											
ADD2 DVI-I PCIe Connection Adapter	73P2516																																																											
ADD2 DVI-D Monitor Connection (HDCP)	43R1985																																																											
ATI™ Radeon™ HD 2400 Pro 128MB	43R1961																																																											
ATI Radeon HD 2400 XT 256MB	43R1962																																																											
ATI Radeon HD 2600 XT 512MB	43R1963																																																											
NVIDIA® Quadro® 256MB NVS 290	43R1765																																																											
NVIDIA Quadro 256MB FX 370	43R1766																																																											
NVIDIA Quadro 512MB FX 1700	43R1767																																																											
Supports ThinkVantage® technologies																																																												
EPEAT™ Gold rating ENERGY STAR 4.0-compliant RoHS-compliant																																																												
<div><div><div>Limited Warranty¹<ul style="list-style-type: none">✧ 3-year parts and labor✧ International Warranty Service⁹✧ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)✧ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 4-year LOR 9x5, Next Business Day (ThinkPlus™ part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)✧ ThinkPlus services at lenovo.com/thinkplus/warranty✧ Post warranty maintenance services available✧ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378</div></div></div>																																																												

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Core	Memory ^a	SATA disk	2nd Disk Bay	SATA optical	Graphics	Vista preload	Limited warranty ¹	Global (G) GMP (P)	Avail date
M57e	7064-AAU	4x4	Pentium E2200	2.20	1MB	Dual	1GB	160GB ²	None	Combo	GMA	Business32	3-yr	G P	Apr 08

- **This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty**

Positioning Processor	Mainstream enterprise stability and manageability Intel® Pentium® Dual-Core Processor E2200 with dual-core , Intel 64 Technology, Execute Disable Bit, EIST, and 800MHz system bus with 1MB shared L2 cache Processor in FC-LGA6 package in LGA775 socket		Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.2 lb (11.0 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention <div><div>optical</div><div>②</div><div>③</div><div>disk</div><div>Bay ①</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, 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>																																																					
Implementation																																																								
Memory	1GB std , 4GB max ^a , PC2-5300 667MHz 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 3100 (GMA 3100) , integrated graphics in G31, uses main memory (up to 256MB), one analog VGA DB-15 connector, 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 Combo	CD-RW/DVD-ROM Combo SATA 1.5Gb/s Drive																																																							
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors																																																							
eSATA port	None																																																							
EIDE controller	Enhanced IDE, ATA-100, integrated in ICH7, one EIDE connector																																																							
Diskette drive	None																																																							
Media reader	None																																																							
Chipset	Intel G31 Express Chipset ; I/O Controller Hub 7 (ICH7) for SATA 3.0Gb/s, ATA-100 EIDE, PCI Express ^a x1, PCI 2.3, USB, LPC bus / ITE Tech [®] IT8718 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, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)																																																							
Internal connector	Two USB 2.0 planar connectors (one used; one open for media reader)																																																							
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																																																							
Ethernet	Gigabit ethernet on planar, Marvell [®] 88E8056, PCIe x1, 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																																																							
<table><tr><td>Preloaded operating system²⁰<ul style="list-style-type: none">- Microsoft[®] Windows[®] Vista[®] Business Edition (32-bit)✦ Vista Basic logoPreloaded applications⁵<ul style="list-style-type: none">• Rescue and Recovery[™]• Client Security Solution[™]• ThinkVantage Productivity Center• System Migration Assistant• Norton Internet Security[™] (90 days of virus definitions)• Diskkeeper[®] Home• PC-Doctor[™] (diagnostics)• Adobe[®] Reader• Windows Live[™] Toolbar• Windows Live Search• Picasa from Google• Microsoft Office 2007 Trial (60-day)• Sonic RecordNow and Drive Letter Access (combo)• Corel[®] WinDVD[®] (combo)</td><td>Accessories<table><tr><td>1GB PC2-5300 CL5 NP DDR2 UDIMM</td><td>73P4984</td></tr><tr><td>2GB PC2-5300 CL5 NP DDR2 UDIMM</td><td>73P4985</td></tr><tr><td>1GB PC2-6400 NP DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 NP 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>USB Portable Diskette Drive</td><td>05K9276</td></tr><tr><td>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Essential Memory Key 32GB</td><td>45K1258</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>ThinkVision[®] L2240p Wide 22" Monitor</td><td>4422HB6</td></tr><tr><td>ThinkVision L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>ADD2 DVI-I PCIe Connection Adapter</td><td>73P2516</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI[™] Radeon[™] HD 2400 Pro 128MB</td><td>43R1961</td></tr><tr><td>ATI Radeon HD 2400 XT 256MB</td><td>43R1962</td></tr><tr><td>ATI Radeon HD 2600 XT 512MB</td><td>43R1963</td></tr><tr><td>NVIDIA[®] Quadro[®] 256MB NVS 290</td><td>43R1765</td></tr><tr><td>NVIDIA Quadro 256MB FX 370</td><td>43R1766</td></tr><tr><td>NVIDIA Quadro 512MB FX 1700</td><td>43R1767</td></tr></table>Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories</td></tr></table>			Preloaded operating system²⁰ <ul style="list-style-type: none">- Microsoft[®] Windows[®] Vista[®] Business Edition (32-bit)✦ Vista Basic logo Preloaded applications⁵ <ul style="list-style-type: none">• Rescue and Recovery[™]• Client Security Solution[™]• ThinkVantage Productivity Center• System Migration Assistant• Norton Internet Security[™] (90 days of virus definitions)• Diskkeeper[®] Home• PC-Doctor[™] (diagnostics)• Adobe[®] Reader• Windows Live[™] Toolbar• Windows Live Search• Picasa from Google• Microsoft Office 2007 Trial (60-day)• Sonic RecordNow and Drive Letter Access (combo)• Corel[®] WinDVD[®] (combo)	Accessories <table><tr><td>1GB PC2-5300 CL5 NP DDR2 UDIMM</td><td>73P4984</td></tr><tr><td>2GB PC2-5300 CL5 NP DDR2 UDIMM</td><td>73P4985</td></tr><tr><td>1GB PC2-6400 NP DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 NP 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>USB Portable Diskette Drive</td><td>05K9276</td></tr><tr><td>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Essential Memory Key 32GB</td><td>45K1258</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>ThinkVision[®] L2240p Wide 22" Monitor</td><td>4422HB6</td></tr><tr><td>ThinkVision L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>ADD2 DVI-I PCIe Connection Adapter</td><td>73P2516</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI[™] Radeon[™] HD 2400 Pro 128MB</td><td>43R1961</td></tr><tr><td>ATI Radeon HD 2400 XT 256MB</td><td>43R1962</td></tr><tr><td>ATI Radeon HD 2600 XT 512MB</td><td>43R1963</td></tr><tr><td>NVIDIA[®] Quadro[®] 256MB NVS 290</td><td>43R1765</td></tr><tr><td>NVIDIA Quadro 256MB FX 370</td><td>43R1766</td></tr><tr><td>NVIDIA Quadro 512MB FX 1700</td><td>43R1767</td></tr></table> Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories	1GB PC2-5300 CL5 NP DDR2 UDIMM	73P4984	2GB PC2-5300 CL5 NP DDR2 UDIMM	73P4985	1GB PC2-6400 NP DDR2 UDIMM	41U2977	2GB PC2-6400 NP DDR2 UDIMM	41U2978	250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	USB Portable Diskette Drive	05K9276	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Lenovo Webcam	40Y8519	USB 2.0 Essential Memory Key 32GB	45K1258	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ThinkVision [®] L2240p Wide 22" Monitor	4422HB6	ThinkVision L2440p Wide 24" Monitor	4420HB2	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Kensington Cable Lock from Lenovo	73P2582	ADD2 DVI-I PCIe Connection Adapter	73P2516	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI [™] Radeon [™] HD 2400 Pro 128MB	43R1961	ATI Radeon HD 2400 XT 256MB	43R1962	ATI Radeon HD 2600 XT 512MB	43R1963	NVIDIA [®] Quadro [®] 256MB NVS 290	43R1765	NVIDIA Quadro 256MB FX 370	43R1766	NVIDIA Quadro 512MB FX 1700	43R1767
Preloaded operating system²⁰ <ul style="list-style-type: none">- Microsoft[®] Windows[®] Vista[®] Business Edition (32-bit)✦ Vista Basic logo Preloaded applications⁵ <ul style="list-style-type: none">• Rescue and Recovery[™]• Client Security Solution[™]• ThinkVantage Productivity Center• System Migration Assistant• Norton Internet Security[™] (90 days of virus definitions)• Diskkeeper[®] Home• PC-Doctor[™] (diagnostics)• Adobe[®] Reader• Windows Live[™] Toolbar• Windows Live Search• Picasa from Google• Microsoft Office 2007 Trial (60-day)• Sonic RecordNow and Drive Letter Access (combo)• Corel[®] WinDVD[®] (combo)	Accessories <table><tr><td>1GB PC2-5300 CL5 NP DDR2 UDIMM</td><td>73P4984</td></tr><tr><td>2GB PC2-5300 CL5 NP DDR2 UDIMM</td><td>73P4985</td></tr><tr><td>1GB PC2-6400 NP DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 NP 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>USB Portable Diskette Drive</td><td>05K9276</td></tr><tr><td>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Essential Memory Key 32GB</td><td>45K1258</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>ThinkVision[®] L2240p Wide 22" Monitor</td><td>4422HB6</td></tr><tr><td>ThinkVision L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>ADD2 DVI-I PCIe Connection Adapter</td><td>73P2516</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI[™] Radeon[™] HD 2400 Pro 128MB</td><td>43R1961</td></tr><tr><td>ATI Radeon HD 2400 XT 256MB</td><td>43R1962</td></tr><tr><td>ATI Radeon HD 2600 XT 512MB</td><td>43R1963</td></tr><tr><td>NVIDIA[®] Quadro[®] 256MB NVS 290</td><td>43R1765</td></tr><tr><td>NVIDIA Quadro 256MB FX 370</td><td>43R1766</td></tr><tr><td>NVIDIA Quadro 512MB FX 1700</td><td>43R1767</td></tr></table> Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories	1GB PC2-5300 CL5 NP DDR2 UDIMM	73P4984	2GB PC2-5300 CL5 NP DDR2 UDIMM	73P4985	1GB PC2-6400 NP DDR2 UDIMM	41U2977	2GB PC2-6400 NP DDR2 UDIMM	41U2978	250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	USB Portable Diskette Drive	05K9276	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Lenovo Webcam	40Y8519	USB 2.0 Essential Memory Key 32GB	45K1258	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ThinkVision [®] L2240p Wide 22" Monitor	4422HB6	ThinkVision L2440p Wide 24" Monitor	4420HB2	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Kensington Cable Lock from Lenovo	73P2582	ADD2 DVI-I PCIe Connection Adapter	73P2516	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI [™] Radeon [™] HD 2400 Pro 128MB	43R1961	ATI Radeon HD 2400 XT 256MB	43R1962	ATI Radeon HD 2600 XT 512MB	43R1963	NVIDIA [®] Quadro [®] 256MB NVS 290	43R1765	NVIDIA Quadro 256MB FX 370	43R1766	NVIDIA Quadro 512MB FX 1700	43R1767			
1GB PC2-5300 CL5 NP DDR2 UDIMM	73P4984																																																							
2GB PC2-5300 CL5 NP DDR2 UDIMM	73P4985																																																							
1GB PC2-6400 NP DDR2 UDIMM	41U2977																																																							
2GB PC2-6400 NP DDR2 UDIMM	41U2978																																																							
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015																																																							
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																																																							
USB Portable Diskette Drive	05K9276																																																							
USB 2.0 Lenovo Multimedia Headset	40Y8518																																																							
USB 2.0 Lenovo Webcam	40Y8519																																																							
USB 2.0 Essential Memory Key 32GB	45K1258																																																							
USB 2.0 Ultra Secure Memory Key 8GB	45J5918																																																							
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																																							
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																																																							
ThinkVision [®] L2240p Wide 22" Monitor	4422HB6																																																							
ThinkVision L2440p Wide 24" Monitor	4420HB2																																																							
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067																																																							
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074																																																							
Kensington Cable Lock from Lenovo	73P2582																																																							
ADD2 DVI-I PCIe Connection Adapter	73P2516																																																							
ADD2 DVI-D Monitor Connection (HDCP)	43R1985																																																							
ATI [™] Radeon [™] HD 2400 Pro 128MB	43R1961																																																							
ATI Radeon HD 2400 XT 256MB	43R1962																																																							
ATI Radeon HD 2600 XT 512MB	43R1963																																																							
NVIDIA [®] Quadro [®] 256MB NVS 290	43R1765																																																							
NVIDIA Quadro 256MB FX 370	43R1766																																																							
NVIDIA Quadro 512MB FX 1700	43R1767																																																							
Supports ThinkVantage [®] technologies																																																								
RoHS-compliant																																																								
Limited Warranty¹ <ul style="list-style-type: none">➤ 3-year parts and labor➤ International Warranty Service[®]➤ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)➤ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 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 M57e

Memory

1GB PC2-5300 CL5 NP DDR2 UDIMM	73P4984	ann 06/28/05
2GB PC2-5300 CL5 NP DDR2 UDIMM	73P4985	ann 09/26/06
512MB PC2-6400 NP DDR2 UDIMM ⁴⁸	41U2976	ann 09/26/06
1GB PC2-6400 NP DDR2 UDIMM ⁴⁸	41U2977	ann 09/26/06
2GB PC2-6400 NP DDR2 UDIMM ⁴⁸	41U2978	ann 01/08/08

⁴⁸ When PC2-6400 is installed with systems that have PC2-5300 memory, PC2-6400 will operate at the PC2-5300 memory speed.

Optical

DVD-ROM DL SATA 1.5Gb/s 16X-48X Max ⁴	41N5618	ann 09/26/06
Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ann 09/26/06

Storage and removable storage

160GB SATA 3.0Gb/s Disk (7200 rpm)	09N4254	ann 05/19/03
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	ann 01/24/06
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	ann 11/06/07
USB Portable Diskette Drive	05K9276	ann 06/05/00
USB 2.0 Essential Memory Key 2GB	41U4944	ann 01/23/07
USB 2.0 Essential Memory Key 4GB	45J7904	ann 06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann 07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann 10/28/08
USB 2.0 Security Memory Key 4GB	41U5120	ann 07/17/07
USB 2.0 Ultra Secure Memory Key 1GB	45J5915	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann 08/26/08
USB 2.0 Portable 160GB Hard Disk	43R1784	ann 09/23/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
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
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann 01/05/06
USB 2.0 Super Multi-Burner Drive	41N5565	ann 01/23/07

Graphics

Small 6305/9482/9487/6178/7066 support Low Profile 35 watts max:

ADD2 DVI-I PCIe Connection Adapter	73P2516	ann 06/28/05
ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ann 11/06/07
ATI™ Radeon™ HD 2400 Pro 128MB	43R1961	ann 11/06/07
ATI Radeon HD 2400 XT 256MB	43R1962	ann 11/06/07

Desktop 9481/9438/6177/7065 support Low Profile 35 watts max:

ADD2 DVI-I PCIe Connection Adapter	73P2516	ann 06/28/05
ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ann 11/06/07
ATI Radeon HD 2400 Pro 128MB	43R1961	ann 11/06/07
ATI Radeon HD 2400 XT 256MB	43R1962	ann 11/06/07
NVIDIA® Quadro® 256MB NVS 290	43R1765	ann 12/18/07

Tower 6179/9439/9356/6176/7064 support 75 watts max:

ADD2 DVI-I PCIe Connection Adapter	73P2516	ann 06/28/05
ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ann 11/06/07
ATI Radeon HD 2400 Pro 128MB	43R1961	ann 11/06/07
ATI Radeon HD 2400 XT 256MB	43R1962	ann 11/06/07
ATI Radeon HD 2600 XT 512MB	43R1963	ann 11/06/07
NVIDIA Quadro 256MB NVS 290	43R1765	ann 12/18/07
NVIDIA Quadro 256MB FX 370	43R1766	ann 12/18/07
NVIDIA Quadro 512MB FX 1700	43R1767	ann 12/18/07

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
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	ann 12/07/04
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

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

Mouse

Optical Wheel Mouse (USB)	06P4069	ann 05/21/03
Optical ScrollPoint® Mouse (USB, PS/2)	31P7405	ann 08/27/02
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	ann 01/23/07
Lenovo Wireless Laser Mouse (blk, via USB)	45K1696	ann 11/25/08
Lenovo Wireless Laser Mouse (red, via USB)	51J0198	ann 11/25/08

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

Multimedia

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann 06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann 08/29/06

Security

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

Monitors

ThinkVision® L174 17" Monitor	9227AE1	ann 04/15/08
ThinkVision L1700p 17" Monitor	9417HE2	ann 09/17/08
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1940p Wide 19" Monitor	4424HB6	ann 09/17/08
ThinkVision L200p Wide 20.1" Monitor	4438HB6	ann 04/15/08
ThinkVision L2240p Wide 22" Monitor	4422HB6	ann 09/17/08
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann 09/17/08
ThinkVision L2440x Wide 24" Monitor	4421HB2	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 Cable Lock from Lenovo	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Radial Arm	19K4464	ann 05/05/00

⁴⁶Compatible on selected Lenovo and ThinkVision monitors.

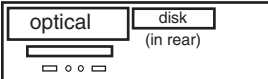
More information at www.lenovo.com/support/monitoraccessories

Medialess License Key (MLK)

Microsoft® Office 2007 Basic, English	43R1528	ann 01/31/07
Microsoft Office 2007 Small Business, Engl	43R1534	ann 01/31/07
Microsoft Office 2007 Professional, English	43R1531	ann 01/31/07

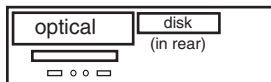
Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁶	SATA disk	SATA optical	Graphics	Preload	Vista logo	Global Educ	Avail date
M58e	7259-A2U	2x3	Core 2 Quad Q9400	2.66	6MB	4	2GB	160GB ²	DVD±RW	GMA	XP Pro	Basic	None	Apr 09
<ul style="list-style-type: none">• This small and medium business (SMB) model is part of the US TopSeller™ Program• This model has a 1-year limited warranty¹														
Positioning	Stability and manageability for small and medium businesses								Small					
Processor	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													
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								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 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								Slot 1: Low Profile, PCI Express x16 (35w max) Slot 2: Low Profile, 32-bit PCI 2.3					
SATA disk	160GB, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts								<ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless systemboard retention• System floor stand for vertical orientation					
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7													
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive													
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors													
eSATA port	None													
Diskette drive	None													
Media reader	None													
Chipset	Intel G41 Express Chipset (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)										Security			
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)										<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			
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)													
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)													
Audio	High Definition (HD) Audio, Realtek® ALC662 codec													
Speaker	One internal speaker for business audio													
IEEE 1394	None													
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®													
Intel AMT	None													
Modem	None													
Security chip	None													
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo										Supports ThinkVantage® technologies			
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo													
Power supply	280 watts with variable speed fan, autosensing										GREENGUARD® certified RoHS-compliant			
Preloaded operating system ²⁰				Accessories										
- Microsoft® Windows® XP Professional with Vista® COA				1GB PC2-6400 NP DDR2 UDIMM				41U2977						
✧ Disk-to-Disk Recovery (in hidden protected area)				2GB PC2-6400 NP DDR2 UDIMM				41U2978						
				160GB SATA 3.0Gb/s Disk (7200 rpm)				09N4254						
				250GB SATA 3.0Gb/s Disk (7200 rpm)				41N3015						
				500GB SATA 3.0Gb/s Disk (7200 rpm)				43R1990						
				1TB SATA 3.0Gb/s Disk (7200 rpm)				45J7918						
				USB Portable Diskette Drive				05K9276						
				USB 2.0 Lenovo Multimedia Headset				40Y8518						
				USB 2.0 Lenovo Webcam				40Y8519						
				USB 2.0 Essential Memory Key 32GB				45K1258						
				USB 2.0 Ultra Secure Memory Key 8GB				45J5918						
				USB 2.0 Portable 320GB Hard Disk				45K1689						
				USB 2.0 Portable Secure 320GB Hard Disk				43R2019						
				Super Multi-Burner DL DVD±RW SATA Drive				41N5620						
				ThinkVision® L1940p Wide 19" Monitor				4424HB6						
				ThinkVision L2240p Wide 22" Monitor				4422HB6						
				ThinkVision L2440p Wide 24" Monitor				4420HB2						
				Wireless Kbd & Opt Wheel Mouse (via USB)				73P4067						
				Laser Tilt Wheel Mouse (USB, PS/2)				41U3074						
				Kensington Cable Lock from Lenovo				73P2582						
				DisplayPort to Single-link DVI-D Cable				45J7915						
				ADD2 DVI-D Monitor Connection (HDCP)				43R1985						
				ATI™ Radeon™ HD 3470 256MB (DP, VGA)				45K1636						
				Acc Guide in pdf lenovo.com/accessoriesguide										
				Other accessories at lenovo.com/accessories										
GREENGUARD® certified RoHS-compliant														
Limited Warranty ¹														
➤ 1-year parts and labor														
➤ International Warranty Service ⁹														
➤ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts ³ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)														
➤ Onsite service upgrade options (in eligible locations): ⁷														
• 1-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9189)														
• 2-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9187)														
• 2-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9190)														
• 3-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9188)														
• 3-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9191)														
➤ ThinkPlus services at lenovo.com/thinkplus/warranty														
➤ Post warranty maintenance services available														
➤ 24 hour x 7 day ¹⁴ toll-free support during the warranty period ¹ via 800-426-7378														

ThinkCentre® M58e Small (7269) - TopSeller

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁶	SATA disk	SATA optical	Graphics	Preload	Vista logo	Global Educ	Avail date
M58e	7269-B6U	2x3	Pentium E5200	2.50	2MB	2	1GB	160GB ²	DVD	GMA	XP Pro	Basic	None	Apr 09
M58e	7269-B7U	2x3	Pentium E5200	2.50	2MB	2	2GB	160GB	DVD±RW	GMA	XP Pro	Basic	None	Apr 09
M58e	7269-A9U	2x3	Core 2 Duo E7400	2.80	3MB	2	1GB	160GB	DVD	GMA	XP Pro	Basic	None	Apr 09
M58e	7269-B1U	2x3	Core 2 Duo E7400	2.80	3MB	2	2GB	160GB	DVD±RW	GMA	XP Pro	Basic	None	Apr 09
M58e	7269-C2U	2x3	Core 2 Duo E7400	2.80	3MB	2	3GB	250GB	DVD±RW	GMA	XP Pro	Basic	None	Apr 09
M58e	7269-C4U	2x3	Core 2 Duo E7500	2.93	3MB	2	3GB	320GB	DVD±RW	GMA	XP Pro	Basic	None	Apr 09
M58e	7269-C3U	2x3	Core 2 Duo E8400	3.00	6MB	2	3GB	250GB	DVD±RW	GMA	XP Pro	Basic	None	Apr 09
M58e	7269-B2U	2x3	Core 2 Quad Q8200	2.33	4MB	4	2GB	160GB	DVD±RW	GMA	XP Pro	Basic	None	Apr 09
<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	Stability and manageability for small and medium businesses Intel® Pentium® Processor E5200 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 with dual-core , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache 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					
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket								Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader) Slot 1: Low Profile, PCI Express x16 (35w max) Slot 2: Low Profile, 32-bit PCI 2.3					
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								<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					
SATA disk	160GB, 250GB, or 320GB, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts								<ul style="list-style-type: none">• Security slot (in rear for attachment of optional Kensington® Microsaver® cable)<ul style="list-style-type: none">- optional cable also locks the cover by deactivating the cover release buttons• Power-on password• Administrator password• Hard disk password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement					
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7													
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive													
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive													
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar													
eSATA port	None													
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										
<ul style="list-style-type: none">- Microsoft® Windows® XP Professional with Vista® COA✧ Disk-to-Disk Recovery (in hidden protected area)Preloaded applications⁵<ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• McAfee® VirusScan® Plus (30 days of virus definitions)• Lenovo System Toolbox• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Microsoft Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD, DVD±RW)				1GB PC2-6400 NP DDR2 UDIMM				41U2977						
				2GB PC2-6400 NP DDR2 UDIMM				41U2978						
				500GB SATA 3.0Gb/s Disk (7200 rpm)				43R1990						
				1TB SATA 3.0Gb/s Disk (7200 rpm)				45J7918						
				USB Portable Diskette Drive				05K9276						
				USB 2.0 Lenovo Multimedia Headset				40Y8518						
				USB 2.0 Lenovo Webcam				40Y8519						
				USB 2.0 Essential Memory Key 32GB				45K1258						
				USB 2.0 Ultra Secure Memory Key 8GB				45J5918						
				USB 2.0 Portable 320GB Hard Disk				45K1689						
Super Multi-Burner DL DVD±RW SATA Drive				41N5620										
ThinkVision® L2240p Wide 22" Monitor				4422HB6										
ThinkVision L2440p Wide 24" Monitor				4420HB2										
Wireless Kbd & Opt Wheel Mouse (via USB)				73P4067										
Laser Tilt Wheel Mouse (USB, PS/2)				41U3074										
DisplayPort to Single-link DVI-D Cable				45J7915										
ADD2 DVI-D Monitor Connection (HDCP)				43R1985										
ATI™ Radeon™ HD 3470 256MB (DP, VGA)				45K1636										
Acc Guide in pdf lenovo.com/accessoriesguide														
Other accessories at lenovo.com/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														

See footnotes for important warranty information

US models announced April 7, 2009; previous models on March 10, 2009

© Lenovo
(MIAM1-1) April 2009

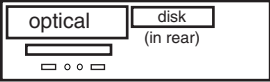
Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ^a	SATA disk	SATA optical	Graphics	Vista preload	Vista logo	Global Educ	Avail date
M58e	7279-B1U	2x3	Pentium E2220	2.40	1MB	2	2GB	160GB ²	DVD±RW	GMA	Business32	Basic	None	Apr 09
M58e	7279-A9U	2x3	Core 2 Duo E7300	2.66	3MB	2	2GB	160GB	DVD±RW	GMA	Business32	Basic	None	Apr 09
M58e	7279-A8U	2x3	Core 2 Duo E8400	3.00	6MB	2	2GB	160GB	DVD±RW	GMA	Business32	Basic	None	Apr 09

- **These models have a 1-year limited warranty¹**

Positioning Processor	Mainstream enterprise stability and manageability Intel® Pentium® Processor E2220 with dual-core, 800MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo Processor E7300 with dual-core, 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Duo Processor E8400 with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket		Small <div><div>optical</div><div>disk (in rear)</div></div>																																													
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader) Slot 1: Low Profile, PCI Express x16 (35w max) Slot 2: Low Profile, 32-bit PCI 2.3																																													
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		<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		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>Supports ThinkVantage® technologies</div>																																													
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)																																															
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																																															
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)																																															
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)																																															
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																																															
Speaker	One internal speaker for business audio																																															
IEEE 1394	None																																															
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®																																															
Intel AMT	None																																															
Modem	None																																															
Security chip	None																																															
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																																															
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																																															
Power supply	280 watts with variable speed fan, autosensing																																															
Preloaded operating system²⁰ <ul style="list-style-type: none">- Microsoft® Windows® Vista® Business Edition (32-bit) Preloaded applications⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage Power Manager• McAfee® VirusScan® Plus (30 days of virus definitions)• Lenovo System Toolbox• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Microsoft Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW) Accessories <table><tr><td>1GB PC2-6400 NP DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 NP DDR2 UDIMM</td><td>41U2978</td></tr><tr><td>160GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>09N4254</td></tr><tr><td>250GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>41N3015</td></tr><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>USB Portable Diskette Drive</td><td>05K9276</td></tr><tr><td>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Essential Memory Key 32GB</td><td>45K1258</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable 320GB Hard Disk</td><td>45K1689</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>ThinkVision® L1940p Wide 19" Monitor</td><td>4424HB6</td></tr><tr><td>ThinkVision L2240p Wide 22" Monitor</td><td>4422HB6</td></tr><tr><td>ThinkVision L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr></table> Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories			1GB PC2-6400 NP DDR2 UDIMM	41U2977	2GB PC2-6400 NP DDR2 UDIMM	41U2978	160GB SATA 3.0Gb/s Disk (7200 rpm)	09N4254	250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	USB Portable Diskette Drive	05K9276	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Lenovo Webcam	40Y8519	USB 2.0 Essential Memory Key 32GB	45K1258	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable 320GB Hard Disk	45K1689	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ThinkVision® L1940p Wide 19" Monitor	4424HB6	ThinkVision L2240p Wide 22" Monitor	4422HB6	ThinkVision L2440p Wide 24" Monitor	4420HB2	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Kensington Cable Lock from Lenovo	73P2582	DisplayPort to Single-link DVI-D Cable	45J7915	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636
1GB PC2-6400 NP DDR2 UDIMM	41U2977																																															
2GB PC2-6400 NP DDR2 UDIMM	41U2978																																															
160GB SATA 3.0Gb/s Disk (7200 rpm)	09N4254																																															
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015																																															
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																																															
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918																																															
USB Portable Diskette Drive	05K9276																																															
USB 2.0 Lenovo Multimedia Headset	40Y8518																																															
USB 2.0 Lenovo Webcam	40Y8519																																															
USB 2.0 Essential Memory Key 32GB	45K1258																																															
USB 2.0 Ultra Secure Memory Key 8GB	45J5918																																															
USB 2.0 Portable 320GB Hard Disk	45K1689																																															
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																															
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																																															
ThinkVision® L1940p Wide 19" Monitor	4424HB6																																															
ThinkVision L2240p Wide 22" Monitor	4422HB6																																															
ThinkVision L2440p Wide 24" Monitor	4420HB2																																															
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067																																															
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074																																															
Kensington Cable Lock from Lenovo	73P2582																																															
DisplayPort to Single-link DVI-D Cable	45J7915																																															
ADD2 DVI-D Monitor Connection (HDCP)	43R1985																																															
ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636																																															
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 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																																																

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁶	SATA disk	SATA optical	Graphics	Floor stand	Preload	Vista logo	Global Educ	Avail date
M58e	7303-F9U	2x3	Pentium E5200	2.50	2MB	2	1GB	160GB ²	DVD	GMA	Stand	XP Pro	Basic		Apr 09
M58e	7303-C6U	2x3	Pentium E5300	2.60	2MB	2	1GB	160GB	DVD	GMA	Stand	XP Pro	Basic		Apr 09
M58e	7303-G8U	2x3	Pentium E5300	2.60	2MB	2	1GB	160GB	DVD±RW	GMA		XP Pro	Basic	Educ	Apr 09
M58e	7303-C7U	2x3	Pentium E5300	2.60	2MB	2	2GB	250GB	DVD±RW	GMA	Stand	XP Pro	Basic		Apr 09
M58e	7303-C8U	2x3	Core 2 Duo E7400	2.80	3MB	2	1GB	160GB	DVD	GMA	Stand	XP Pro	Basic		Apr 09
M58e	7303-D1U	2x3	Core 2 Duo E7400	2.80	3MB	2	2GB	160GB	DVD±RW	GMA	Stand	XP Pro	Basic		Apr 09
M58e	7303-C9U	2x3	Core 2 Duo E7500	2.93	3MB	2	1GB	160GB	DVD	GMA	Stand	XP Pro	Basic		Apr 09
M58e	7303-D2U	2x3	Core 2 Duo E7500	2.93	3MB	2	2GB	160GB	DVD±RW	GMA	Stand	XP Pro	Basic		Apr 09
M58e	7303-D3U	2x3	Core 2 Duo E8400	3.00	6MB	2	1GB	160GB	DVD±RW	GMA	Stand	XP Pro	Basic		Apr 09
M58e	7303-D5U	2x3	Core 2 Duo E8400	3.00	6MB	2	2GB	160GB	DVD±RW	GMA	Stand	XP Pro	Basic		Apr 09
M58e	7303-G7U	2x3	Core 2 Duo E8400	3.00	6MB	2	2GB	160GB	DVD±RW	GMA		XP Pro	Basic	Educ	Apr 09
M58e	7303-D4U	2x3	Core 2 Duo E8500	3.16	6MB	2	1GB	250GB	DVD±RW	GMA	Stand	XP Pro	Basic		Apr 09
M58e	7303-D6U	2x3	Core 2 Duo E8500	3.16	6MB	2	2GB	250GB	DVD±RW	GMA	Stand	XP Pro	Basic		Apr 09
M58e	7303-G9U	2x3	Core 2 Quad Q8200	2.33	4MB	4	2GB	250GB	DVD±RW	GMA	Stand	XP Pro	Basic		Apr 09

• These models have a 3-year limited warranty¹

Positioning Processor	Mainstream enterprise stability and manageability Intel® Pentium® Processor E5200 or E5300 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7400 or E7500 with dual-core, 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Duo Processor E8400 or E8500 with dual-core, 1333MHz system bus, and 6MB L2 cache or Intel Core 2 Quad Processor Q8200 with quad-core, 1333MHz system bus, and 4MB L2 cache	Small	
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket	Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader) 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 • <i>Some:</i> 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 models]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter		
SATA disk	160GB or 250GB, SATA 3.0Gb/s 7200 rpm, vibration dampening		
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7		
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max4 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	
- Microsoft® Windows® XP Professional with Vista® COA	1GB PC2-6400 NP DDR2 UDIMM	41U2977
	2GB PC2-6400 NP DDR2 UDIMM	41U2978
	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990
Preloaded applications⁵ (only some listed)	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918
• <i>Some:</i> Education software	USB 2.0 Lenovo Multimedia Headset	40Y8518
- VitalSource Library School Edition	USB 2.0 Lenovo Webcam	40Y8519
- Adobe® Elements	USB 2.0 Essential Memory Key 32GB	45K1258
- Photoshop Elements 7	USB 2.0 Portable Secure 320GB Hard Disk	43R2019
- Premiere Elements 7	Super Multi-Burner DL DVD±RW SATA Drive	41N5620
• Rescue and Recovery™	ThinkVision® L2440p Wide 24" Monitor	4420HB2
• Client Security Solution™	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067
• ThinkVantage Productivity Center	Kensington Cable Lock from Lenovo	73P2582
• Microsoft Office 2007 Trial (60-day)	DisplayPort to Single-link DVI-D Cable	45J7915
• Roxio® Creator® Business Edition (DVD±RW)	ADD2 DVI-D Monitor Connection (HDCP)	43R1985
• Roxio MyDVD® (DVD±RW)	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636
• Corel® WinDVD® (DVD, DVD±RW)	Acc Guide in pdf lenovo.com/accessoriesguide	
	Other accessories at lenovo.com/accessories	

Security	<ul style="list-style-type: none"> • Security slot (in rear for attachment of optional Kensington® Microsaver® cable) - optional cable also locks the cover by deactivating the cover release buttons • Power-on password • Administrator password • Hard disk password • Boot sequence control • Boot without keyboard, mouse, diskette • Serial port I/O control • Parallel port I/O control • USB port disablement
	Supports ThinkVantage® technologies
	GREENGUARD® certified RoHS-compliant
	Limited Warranty¹
	<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

See footnotes for important warranty information

US models announced March 24, 2009; previous models on March 10, 2009

© Lenovo
(MIAM1-3) April 2009

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Vista preload	Vista logo	Global Educ	Avail date
M58e	7303-D8U	2x3	Pentium E5300	2.60	2MB	2	1GB	160GB ²	DVD	GMA	Business32	Basic	None	Apr 09
M58e	7303-D9U	2x3	Pentium E5300	2.60	2MB	2	2GB	250GB	DVD±RW	GMA	Business32	Basic	None	Apr 09
M58e	7303-E1U	2x3	Core 2 Duo E7400	2.80	3MB	2	1GB	160GB	DVD	GMA	Business32	Basic	None	Apr 09
M58e	7303-E3U	2x3	Core 2 Duo E7400	2.80	3MB	2	2GB	160GB	DVD±RW	GMA	Business32	Basic	None	Apr 09
M58e	7303-E2U	2x3	Core 2 Duo E7500	2.93	3MB	2	1GB	160GB	DVD	GMA	Business32	Basic	None	Apr 09
M58e	7303-E4U	2x3	Core 2 Duo E7500	2.93	3MB	2	2GB	160GB	DVD±RW	GMA	Business32	Basic	None	Apr 09
M58e	7303-E5U	2x3	Core 2 Duo E8400	3.00	6MB	2	1GB	160GB	DVD±RW	GMA	Business32	Basic	None	Apr 09
M58e	7303-E7U	2x3	Core 2 Duo E8400	3.00	6MB	2	2GB	160GB	DVD±RW	GMA	Business32	Basic	None	Apr 09
M58e	7303-E6U	2x3	Core 2 Duo E8500	3.16	6MB	2	1GB	250GB	DVD±RW	GMA	Business32	Basic	None	Apr 09
M58e	7303-E8U	2x3	Core 2 Duo E8500	3.16	6MB	2	2GB	250GB	DVD±RW	GMA	Business32	Basic	None	Apr 09

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

Positioning Processor	Mainstream enterprise stability and manageability Intel® Pentium® Processor E5300 with dual-core , 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7400 or E7500 with dual-core , 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Duo Processor E8400 or E8500 with dual-core , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache		Small <div><div>opticaldisk (in rear)</div></div>	
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)	
Memory	1GB or 2GB std, 4GB max ⁸ , PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available		Slot 1: Low Profile, PCI Express x16 (35w max) Slot 2: Low Profile, 32-bit PCI 2.3	
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500) , integrated graphics in G41, uses main memory (up to 253MB [<i>1GB models</i>], 765MB [<i>2GB models</i>]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter		<ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless systemboard retention• System floor stand for vertical orientation	
SATA disk	160GB or 250GB , SATA 3.0Gb/s 7200 rpm, vibration dampening		Security <ul style="list-style-type: none">• Security slot (in rear for attachment of optional Kensington® Microsaver® cable) - 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		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 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			
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		
- Microsoft® Windows® Vista Business Edition (32-bit)		1GB PC2-6400 NP DDR2 UDIMM 41U2977		
Preloaded applications⁵ (only some listed)		2GB PC2-6400 NP 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		USB Portable Diskette Drive 05K9276		
• ThinkVantage Power Manager		USB 2.0 Lenovo Multimedia Headset 40Y8518		
• McAfee® VirusScan® Plus (30 days of virus definitions)		USB 2.0 Lenovo Webcam 40Y8519		
• Lenovo System Toolbox		USB 2.0 Essential Memory Key 32GB 45K1258		
• Adobe® Reader		USB 2.0 Portable Secure 320GB Hard Disk 43R2019		
• Windows Live™ Toolbar		DVD-ROM DL SATA 1.5Gb/s 16-48X Max 41N5618		
• Windows Live Search		Super Multi-Burner DL DVD±RW SATA Drive 41N5620		
• Microsoft Office 2007 Trial (60-day)		ThinkVision® L2240p Wide 22" Monitor 4422HB6		
• Roxio® Creator® Business Edition (DVD±RW)		ThinkVision L2440p Wide 24" Monitor 4420HB2		
• Roxio MyDVD® (DVD±RW)		Wireless Kbd & Opt Wheel Mouse (via USB) 73P4067		
• Corel® WinDVD® (DVD, DVD±RW)		Laser Tilt Wheel Mouse (USB, PS/2) 41U3074		
		Kensington Cable Lock from Lenovo 73P2582		
		DisplayPort to Single-link DVI-D Cable 45J7915		
		ADD2 DVI-D Monitor Connection (HDCP) 43R1985		
		ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636		
		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 4.0	Preload	Vista logo	Global Educ	Avail date
M58e	7506-C7U	2x3	Pentium E5200	2.50	2MB	2	1GB	160GB ²	DVD	GMA	ES40	XP Pro	Basic		Apr 09
M58e	7506-B9U	2x3	Pentium E5300	2.60	2MB	2	1GB	160GB	DVD	GMA	ES40	XP Pro	Basic		Apr 09
M58e	7506-C1U	2x3	Core 2 Duo E7400	2.80	3MB	2	2GB	160GB	DVD±RW	GMA	ES40	XP Pro	Basic		Apr 09
M58e	7506-C2U	2x3	Core 2 Duo E8400	3.00	6MB	2	2GB	160GB	DVD±RW	GMA	ES40	XP Pro	Basic		Apr 09
M58e	7506-C9U	2x3	Core 2 Duo E8400	3.00	6MB	2	2GB	160GB	DVD±RW	GMA	ES40	XP Pro	Basic	Educ	Apr 09

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

Positioning Processor	Mainstream enterprise stability and manageability Intel® Pentium® Processor E5200 or E5300 with dual-core , 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7400 with dual-core , 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Duo Processor E8400 with dual-core , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket		Small <div><div>optical</div><div>disk</div><div>(in rear)</div></div> <div>Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)</div> <div>Slot 1: Low Profile, PCI Express x16 (35w max) Slot 2: Low Profile, 32-bit PCI 2.3</div> <div><ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless systemboard retention• System floor stand for vertical orientation</div>																																									
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>Climate Savers®-compliant EPEAT™ Gold rating ENERGY STAR 4.0-compliant GREENGUARD® certified RoHS-compliant</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>																																									
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 , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts																																											
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7																																											
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive																																											
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																																											
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar																																											
eSATA port	None																																											
Diskette drive	None																																											
Media reader	None																																											
Chipset	Intel G41 Express Chipset (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)																																											
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																																											
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)																																											
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)																																											
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																																											
Speaker	One internal speaker for business audio																																											
IEEE 1394	None																																											
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®																																											
Intel AMT	None																																											
Modem	None																																											
Security chip	None																																											
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																																											
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																																											
Power supply	280 watts with variable speed fan, autosensing, 85% PSU																																											
<div><div>Preloaded operating system²⁰<ul style="list-style-type: none">- Microsoft® Windows® XP Professional with Vista® COA✧ Disk-to-Disk Recovery (in hidden protected area)Preloaded applications⁵<ul style="list-style-type: none">• <i>Some:</i> Education software- VitalSource Library School Edition- Adobe® Elements<ul style="list-style-type: none">- Photoshop Elements 7- Premiere Elements 7• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• McAfee® VirusScan® Plus (30 days of virus definitions)• Lenovo System Toolbox• Adobe Reader• Windows Live™ Toolbar• Windows Live Search• 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 NP DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 NP 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>USB Portable Diskette Drive</td><td>05K9276</td></tr><tr><td>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Essential Memory Key 32GB</td><td>45K1258</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</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>ThinkVision® L2240p Wide 22" Monitor</td><td>4422HB6</td></tr><tr><td>ThinkVision L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td>Preferred Pro Full Size PS/2 Keyboard</td><td>31P7415</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr></table><div>Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories</div></div></div>			1GB PC2-6400 NP DDR2 UDIMM	41U2977	2GB PC2-6400 NP 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	USB Portable Diskette Drive	05K9276	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Lenovo Webcam	40Y8519	USB 2.0 Essential Memory Key 32GB	45K1258	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	DVD-ROM DL SATA 1.5Gb/s 16X-48X Max	41N5618	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ThinkVision® L2240p Wide 22" Monitor	4422HB6	ThinkVision L2440p Wide 24" Monitor	4420HB2	Preferred Pro Full Size PS/2 Keyboard	31P7415	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Kensington Cable Lock from Lenovo	73P2582	DisplayPort to Single-link DVI-D Cable	45J7915	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636
1GB PC2-6400 NP DDR2 UDIMM	41U2977																																											
2GB PC2-6400 NP 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																																											
USB Portable Diskette Drive	05K9276																																											
USB 2.0 Lenovo Multimedia Headset	40Y8518																																											
USB 2.0 Lenovo Webcam	40Y8519																																											
USB 2.0 Essential Memory Key 32GB	45K1258																																											
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																											
DVD-ROM DL SATA 1.5Gb/s 16X-48X Max	41N5618																																											
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																																											
ThinkVision® L2240p Wide 22" Monitor	4422HB6																																											
ThinkVision L2440p Wide 24" Monitor	4420HB2																																											
Preferred Pro Full Size PS/2 Keyboard	31P7415																																											
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067																																											
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074																																											
Kensington Cable Lock from Lenovo	73P2582																																											
DisplayPort to Single-link DVI-D Cable	45J7915																																											
ADD2 DVI-D Monitor Connection (HDCP)	43R1985																																											
ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636																																											

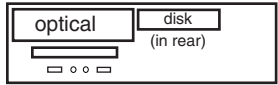
See footnotes for important warranty information

Ⓜ US model announced March 24, 2009; previous models on March 10, 2009

© Lenovo
(MIAM1-5) April 2009


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

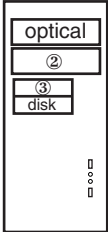
- **This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty**

Positioning Processor	Mainstream enterprise stability and manageability Intel® Core™ 2 Duo Processor E8400 with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache		Small 																																											
Implementation	Processor in FC-LGA8 package in LGA775 socket																																													
Memory	2GB std , 4GB max ⁸ , PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available																																													
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500) , integrated graphics in G41, uses main memory (up to 765MB), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter																																													
SATA disk	160GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader) Slot 1: Low Profile, PCI Express x16 (35w max) Slot 2: Low Profile, 32-bit PCI 2.3 <ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless systemboard retention																																											
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7																																													
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																																													
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors																																													
eSATA port	None																																													
Diskette drive	None																																													
Media reader	None																																													
Chipset	Intel G41 Express Chipset (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)																																													
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																																													
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)																																													
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)																																													
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																																													
Speaker	One internal speaker for business audio																																													
IEEE 1394	None																																													
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®																																													
Intel AMT	None																																													
Modem	None																																													
Security chip	None																																													
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																																													
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																																													
Power supply	280 watts with variable speed fan, autosensing																																													
Preloaded operating system²⁰ <ul style="list-style-type: none">- Microsoft® Windows® Vista® Business Edition (32-bit) Preloaded applications⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage Power Manager• McAfee® VirusScan® Plus (30 days of virus definitions)• Lenovo System Toolbox• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Microsoft Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW) Accessories <table><tr><td>1GB PC2-6400 NP DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 NP 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>USB Portable Diskette Drive</td><td>05K9276</td></tr><tr><td>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Essential Memory Key 32GB</td><td>45K1258</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable 320GB Hard Disk</td><td>45K1689</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>ThinkVision® L2240p Wide 22" Monitor</td><td>4422HB6</td></tr><tr><td>ThinkVision L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td>Preferred Pro Full Size PS/2 Keyboard</td><td>31P7415</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr></table> Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories			1GB PC2-6400 NP DDR2 UDIMM	41U2977	2GB PC2-6400 NP 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	USB Portable Diskette Drive	05K9276	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Lenovo Webcam	40Y8519	USB 2.0 Essential Memory Key 32GB	45K1258	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable 320GB Hard Disk	45K1689	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ThinkVision® L2240p Wide 22" Monitor	4422HB6	ThinkVision L2440p Wide 24" Monitor	4420HB2	Preferred Pro Full Size PS/2 Keyboard	31P7415	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Kensington Cable Lock from Lenovo	73P2582	DisplayPort to Single-link DVI-D Cable	45J7915	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636
1GB PC2-6400 NP DDR2 UDIMM	41U2977																																													
2GB PC2-6400 NP 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																																													
USB Portable Diskette Drive	05K9276																																													
USB 2.0 Lenovo Multimedia Headset	40Y8518																																													
USB 2.0 Lenovo Webcam	40Y8519																																													
USB 2.0 Essential Memory Key 32GB	45K1258																																													
USB 2.0 Ultra Secure Memory Key 8GB	45J5918																																													
USB 2.0 Portable 320GB Hard Disk	45K1689																																													
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																													
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																																													
ThinkVision® L2240p Wide 22" Monitor	4422HB6																																													
ThinkVision L2440p Wide 24" Monitor	4420HB2																																													
Preferred Pro Full Size PS/2 Keyboard	31P7415																																													
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067																																													
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074																																													
Kensington Cable Lock from Lenovo	73P2582																																													
DisplayPort to Single-link DVI-D Cable	45J7915																																													
ADD2 DVI-D Monitor Connection (HDCP)	43R1985																																													
ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636																																													
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">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 4-year LOR 9x5, Next Business Day (ThinkPlus™ part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																																														

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	ENERGY STAR 4.0	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	ES40	Bus32	Basic	G P	Apr 09

- **This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty**

Positioning Processor	Mainstream enterprise stability and manageability Intel® Core™ 2 Duo Processor E8400 with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache		Small 																																																
Implementation	Processor in FC-LGA8 package in LGA775 socket																																																		
Memory	2GB std , 4GB max ⁸ , PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; one socket available																																																		
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500) , integrated graphics in G41, uses main memory (up to 765MB), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter																																																		
SATA disk	160GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader) Slot 1: Low Profile, PCI Express x16 (35w max) Slot 2: Low Profile, 32-bit PCI 2.3 <ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless systemboard retention																																																
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7																																																		
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																																																		
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors																																																		
eSATA port	None																																																		
Diskette drive	None																																																		
Media reader	None																																																		
Chipset	Intel G41 Express Chipset (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)																																																		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																																																		
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)																																																		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)																																																		
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																																																		
Speaker	One internal speaker for business audio																																																		
IEEE 1394	None																																																		
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®																																																		
Intel AMT	None																																																		
Modem	None																																																		
Security chip	None																																																		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																																																		
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																																																		
Power supply	280 watts with variable speed fan, autosensing, 85% PSU																																																		
Preloaded operating system²⁰ <ul style="list-style-type: none">- Microsoft® Windows® Vista® Business Edition (32-bit) Preloaded applications⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage Power Manager• McAfee® VirusScan® Plus (30 days of virus definitions)• Lenovo System Toolbox• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Microsoft Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)			Accessories <table><tr><td>1GB PC2-6400 NP DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 NP 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>USB Portable Diskette Drive</td><td>05K9276</td></tr><tr><td>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Essential Memory Key 32GB</td><td>45K1258</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable 320GB Hard Disk</td><td>45K1689</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>ThinkVision® L2240p Wide 22" Monitor</td><td>4422HB6</td></tr><tr><td>ThinkVision L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td>Preferred Pro Full Size PS/2 Keyboard</td><td>31P7415</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr><tr><td 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 NP DDR2 UDIMM	41U2977	2GB PC2-6400 NP 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	USB Portable Diskette Drive	05K9276	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Lenovo Webcam	40Y8519	USB 2.0 Essential Memory Key 32GB	45K1258	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable 320GB Hard Disk	45K1689	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ThinkVision® L2240p Wide 22" Monitor	4422HB6	ThinkVision L2440p Wide 24" Monitor	4420HB2	Preferred Pro Full Size PS/2 Keyboard	31P7415	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Kensington Cable Lock from Lenovo	73P2582	DisplayPort to Single-link DVI-D Cable	45J7915	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	Acc Guide in pdf lenovo.com/accessoriesguide		Other accessories at lenovo.com/accessories	
1GB PC2-6400 NP DDR2 UDIMM	41U2977																																																		
2GB PC2-6400 NP 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																																																		
USB Portable Diskette Drive	05K9276																																																		
USB 2.0 Lenovo Multimedia Headset	40Y8518																																																		
USB 2.0 Lenovo Webcam	40Y8519																																																		
USB 2.0 Essential Memory Key 32GB	45K1258																																																		
USB 2.0 Ultra Secure Memory Key 8GB	45J5918																																																		
USB 2.0 Portable 320GB Hard Disk	45K1689																																																		
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																																		
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																																																		
ThinkVision® L2240p Wide 22" Monitor	4422HB6																																																		
ThinkVision L2440p Wide 24" Monitor	4420HB2																																																		
Preferred Pro Full Size PS/2 Keyboard	31P7415																																																		
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067																																																		
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074																																																		
Kensington Cable Lock from Lenovo	73P2582																																																		
DisplayPort to Single-link DVI-D Cable	45J7915																																																		
ADD2 DVI-D Monitor Connection (HDCP)	43R1985																																																		
ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636																																																		
Acc Guide in pdf lenovo.com/accessoriesguide																																																			
Other accessories at lenovo.com/accessories																																																			
			Security <ul style="list-style-type: none">• Security slot (in rear for attachment of optional Kensington® Microsaver® cable)<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																																																
			Climate Savers®-compliant EPEAT™ Gold rating ENERGY STAR 4.0-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																																																

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	SATA disk	2nd Disk Bay	SATA optical	Graphics	Preload	Vista logo	Global Educ	Avail date						
M58e	7268-A8U	4x4	Pentium E5200	2.50	2MB	2	1GB	160GB ²	None	DVD	GMA	XP Pro	Basic	None	Apr 09						
M58e	7268-A9U	4x4	Pentium E5200	2.50	2MB	2	2GB	160GB	None	DVD±RW	GMA	XP Pro	Basic	None	Apr 09						
M58e	7268-A3U	4x4	Core 2 Duo E7400	2.80	3MB	2	1GB	160GB	None	DVD	GMA	XP Pro	Basic	None	Apr 09						
M58e	7268-A4U	4x4	Core 2 Duo E7400	2.80	3MB	2	2GB	160GB	None	DVD±RW	GMA	XP Pro	Basic	None	Apr 09						
M58e	7268-B3U	4x4	Core 2 Duo E7400	2.80	3MB	2	3GB	320GB	None	DVD±RW	GMA	XP Pro	Basic	None	Apr 09						
M58e	7268-B4U	4x4	Core 2 Duo E8400	3.00	6MB	2	2GB	160GB	None	DVD±RW	GMA	XP Pro	Basic	None	Apr 09						
M58e	7268-B2U	4x4	Core 2 Duo E8400	3.00	6MB	2	3GB	320GB	None	DVD±RW	GMA	XP Pro	Basic	None	Apr 09						
<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	Stability and manageability for small and medium businesses Intel® Pentium® Processor E5200 with dual-core , 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7400 with dual-core , 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Duo Processor E8400 with dual-core , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache 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	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket									Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk											
Memory	1GB, 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									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																				
SATA disk	160GB or 320GB , SATA 3.0Gb/s 7200 rpm, vibration dampening									Security <ul style="list-style-type: none">• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® Microsaver® cable)• Power-on password• Administrator password• Hard disk password• Boot sequence control• Boot without keyboard, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement											
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®									Supports ThinkVantage® technologies											
Intel AMT	None																				
Modem	None									GREENGUARD® certified											
Security chip	None									RoHS-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	280 watts with variable speed fan, manual switch																				
Preloaded operating system²⁰				Accessories																	
- Microsoft® Windows® XP Professional with Vista® COA				1GB PC2-6400 NP DDR2 UDIMM				41U2977													
◇ Disk-to-Disk Recovery (in hidden protected area)				2GB PC2-6400 NP DDR2 UDIMM				41U2978													
				500GB SATA 3.0Gb/s Disk (7200 rpm)				43R1990													
				1TB SATA 3.0Gb/s Disk (7200 rpm)				45J7918													
				USB Portable Diskette Drive				05K9276													
				USB 2.0 Lenovo Multimedia Headset				40Y8518													
				USB 2.0 Lenovo Webcam				40Y8519													
				USB 2.0 Essential Memory Key 32GB				45K1258													
				USB 2.0 Portable Secure 320GB Hard Disk				43R2019													
				Super Multi-Burner DL DVD±RW SATA Drive				41N5620													
				Blu-ray™ Burner SATA 1.5Gb/s Drive				45K1675													
				ThinkVision® L2240p Wide 22" Monitor				4422HB6													
				ThinkVision L2440p Wide 24" Monitor				4420HB2													
				Preferred Pro Full Size PS/2 Keyboard				31P7415													
				Wireless Kbd & Opt Wheel Mouse (via USB)				73P4067													
				Laser Tilt Wheel Mouse (USB, PS/2)				41U3074													
				Kensington Twin Head Cable Lock				45K1620													
				DisplayPort to Single-link DVI-D Cable				45J7915													
				ADD2 DVI-D Monitor Connection (HDCP)				43R1985													
				ATI™ Radeon™ HD 3470 256MB (DP, VGA)				45K1636													
				NVIDIA® GeForce® 9500GT 512MB (DP, DVI)				45K1635													
				Acc Guide in pdf lenovo.com/accessoriesguide																	
				Other accessories at lenovo.com/accessories																	

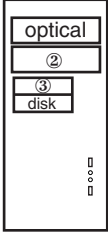
See footnotes for important warranty information

US models announced April 7, 2009; previous models on March 10, 2009

© Lenovo
(MIAM1-8) April 2009

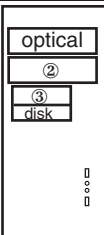
Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ^a	Media reader	SATA disk	2nd Disk Bay	SATA optical	Graphics	FireWire adapter	Vista preload	Global Educ	Avail date
M58e	7270-A3U	4x4	Pentium E2220	2.40	1MB	2	2GB		160GB ²	No	DVD±RW	GMA		Bus32	No	Apr 09
M58e	7270-A2U	4x4	Core 2 Duo E7300	2.66	3MB	2	2GB		160GB	No	DVD±RW	GMA		Bus32	No	Apr 09
M58e	7270-A1U	4x4	Core 2 Duo E8400	3.00	6MB	2	2GB		160GB	No	DVD±RW	GMA		Bus32	No	Apr 09
M58e	7270-A4U	4x4	Core 2 Duo E8400	3.00	6MB	2	2GB	25-in-1	160GB	No	DVD±RW	GMA	1394	Bus32	No	Apr 09

• **These models have a 1-year limited warranty¹**

Positioning Processor	Mainstream enterprise stability and manageability Intel® Pentium® Processor E2220 with dual-core, 800MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo Processor E7300 with dual-core, 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Duo Processor E8400 with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache		Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.7 lb (11.2 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention																																																								
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket		Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, opt reader/diskette* Bay ④ 3.5", 1" high, no access, std disk * occupied by media reader in some models Slot 1: half-length,full-height, PCI Express x16 (75w max) Slot 2: half-length,full-height, PCI Express x1 Slot 3: half-length,full-height, 32-bit PCI 2.3** Slot 4: half-length,full-height, 32-bit PCI 2.3 ** occupied by FireWire adapter in some models																																																								
Memory	2GB std , 4GB max ^a , PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; one socket available																																																										
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500) , integrated graphics in G41, uses main memory (up to 765MB), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter																																																										
SATA disk	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	<i>Some</i> : 25-in-1 media reader, internal USB 2.0																																																										
Chipset	Intel G41 Express Chipset (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)		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)		Supports ThinkVantage® technologies																																																								
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		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																																																								
IEEE 1394	<i>Some</i> : FireWire PCI adapter / IEEE 1394 FireWire 400 (dual 6-pin ports on rear; 1394-1995 standard)																																																										
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®																																																										
Intel AMT	None																																																										
Modem	None																																																										
Security chip	None																																																										
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																																																										
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																																																										
Power supply	280 watts with variable speed fan, manual switch																																																										
Preloaded operating system²⁰ <ul style="list-style-type: none">- Microsoft® Windows® Vista® Business Edition (32-bit)◇ Vista Basic logo Preloaded applications⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage Power Manager• McAfee® VirusScan® Plus (30 days of virus definitions)• Lenovo System Toolbox• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Microsoft Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)		Accessories <table><tr><td>1GB PC2-6400 NP DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 NP 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>USB Portable Diskette Drive</td><td>05K9276</td></tr><tr><td>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Essential Memory Key 32GB</td><td>45K1258</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable 320GB Hard Disk</td><td>45K1689</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</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>ThinkVision® L2240p Wide 22" Monitor</td><td>4422HB6</td></tr><tr><td>ThinkVision L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td>Preferred Pro Full Size PS/2 Keyboard</td><td>31P7415</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>Kensington Twin Head Cable Lock</td><td>45K1620</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr><tr><td>NVIDIA® GeForce® 9500GT 512MB (DP, DVI)</td><td>45K1635</td></tr><tr><td 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 NP DDR2 UDIMM	41U2977	2GB PC2-6400 NP 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	USB Portable Diskette Drive	05K9276	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Lenovo Webcam	40Y8519	USB 2.0 Essential Memory Key 32GB	45K1258	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable 320GB Hard Disk	45K1689	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	Blu-ray™ Burner SATA 1.5Gb/s Drive	45K1675	ThinkVision® L2240p Wide 22" Monitor	4422HB6	ThinkVision L2440p Wide 24" Monitor	4420HB2	Preferred Pro Full Size PS/2 Keyboard	31P7415	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Kensington Cable Lock from Lenovo	73P2582	Kensington Twin Head Cable Lock	45K1620	DisplayPort to Single-link DVI-D Cable	45J7915	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635	Acc Guide in pdf lenovo.com/accessoriesguide		Other accessories at lenovo.com/accessories	
1GB PC2-6400 NP DDR2 UDIMM	41U2977																																																										
2GB PC2-6400 NP 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																																																										
USB Portable Diskette Drive	05K9276																																																										
USB 2.0 Lenovo Multimedia Headset	40Y8518																																																										
USB 2.0 Lenovo Webcam	40Y8519																																																										
USB 2.0 Essential Memory Key 32GB	45K1258																																																										
USB 2.0 Ultra Secure Memory Key 8GB	45J5918																																																										
USB 2.0 Portable 320GB Hard Disk	45K1689																																																										
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																																										
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																																																										
Blu-ray™ Burner SATA 1.5Gb/s Drive	45K1675																																																										
ThinkVision® L2240p Wide 22" Monitor	4422HB6																																																										
ThinkVision L2440p Wide 24" Monitor	4420HB2																																																										
Preferred Pro Full Size PS/2 Keyboard	31P7415																																																										
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067																																																										
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074																																																										
Kensington Cable Lock from Lenovo	73P2582																																																										
Kensington Twin Head Cable Lock	45K1620																																																										
DisplayPort to Single-link DVI-D Cable	45J7915																																																										
ADD2 DVI-D Monitor Connection (HDCP)	43R1985																																																										
ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636																																																										
NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635																																																										
Acc Guide in pdf lenovo.com/accessoriesguide																																																											
Other accessories at lenovo.com/accessories																																																											

See footnotes for important warranty information
US models announced March 10, 2009

© Lenovo
(MIAM1-9) March 2009

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	SATA disk	2nd Disk Bay	SATA optical	Graphics	Preload	Vista logo	Global Educ	Avail date			
M58e	7298-F2U	4x4	Pentium E5200	2.50	2MB	2	1GB	160GB ²	None	DVD	GMA	XP Pro	Basic		Apr 09			
M58e	7298-C3U	4x4	Pentium E5300	2.60	2MB	2	1GB	160GB	None	DVD	GMA	XP Pro	Basic		Apr 09			
M58e	7298-C4U	4x4	Pentium E5300	2.60	2MB	2	2GB	250GB	None	DVD±RW	GMA	XP Pro	Basic		Apr 09			
M58e	7298-C5U	4x4	Core 2 Duo E7400	2.80	3MB	2	1GB	160GB	None	DVD	GMA	XP Pro	Basic		Apr 09			
M58e	7298-C6U	4x4	Core 2 Duo E7400	2.80	3MB	2	2GB	160GB	None	DVD±RW	GMA	XP Pro	Basic		Apr 09			
M58e	7298-C7U	4x4	Core 2 Duo E7500	2.93	3MB	2	2GB	160GB	None	DVD±RW	GMA	XP Pro	Basic		Apr 09			
M58e	7298-C8U	4x4	Core 2 Duo E8400	3.00	6MB	2	1GB	160GB	None	DVD±RW	GMA	XP Pro	Basic		Apr 09			
M58e	7298-D1U	4x4	Core 2 Duo E8400	3.00	6MB	2	2GB	160GB	None	DVD±RW	GMA	XP Pro	Basic		Apr 09			
M58e	7298-F8U	4x4	Core 2 Duo E8400	3.00	6MB	2	2GB	160GB	None	DVD±RW	GMA	XP Pro	Basic	Educ	Apr 09			
M58e	7298-C9U	4x4	Core 2 Duo E8500	3.16	6MB	2	1GB	250GB	None	DVD±RW	GMA	XP Pro	Basic		Apr 09			
M58e	7298-D2U	4x4	Core 2 Duo E8500	3.16	6MB	2	2GB	250GB	None	DVD±RW	GMA	XP Pro	Basic		Apr 09			
M58e	7298-F9U	4x4	Core 2 Quad Q8200	2.33	4MB	4	2GB	250GB	None	DVD±RW	GMA	XP Pro	Basic		Apr 09			
M58e	7298-G1U	4x4	Core 2 Quad Q9400	2.66	6MB	4	2GB	250GB	None	DVD±RW	GMA	XP Pro	Basic		Apr 09			
• These models have a 3-year limited warranty ¹																		
Positioning	Mainstream enterprise stability and manageability									Tower								
Processor	Intel® Pentium® Processor E5200 or E5300 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7400 or E7500 with dual-core, 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Duo Processor E8400 or E8500 with dual-core, 1333MHz system bus, and 6MB L2 cache or Intel Core 2 Quad Processor Q8200 with quad-core, 1333MHz system bus, and 4MB L2 cache or Intel Core 2 Quad Processor Q9400 with quad-core, 1333MHz system bus, and 6MB L2 cache									• Business black color; metal case • 6.9" W X 17.3" D X 15.8" H • 175mm W X 440mm D X 402mm H • 24.7 lb (11.2 kg) in max configuration • Handle on top front • Toolless cover removal • Toolless disk, diskette drive, optical drive removal • Toolless adapter retention								
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket									Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk								
Memory	1GB or 2GB std, 4GB max ⁸ , PC2-6400 800MHz DDR2, non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; one socket available																	
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500), integrated graphics in G41, uses main memory (up to 512MB [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 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 passwordAdministrator passwordHard disk passwordBoot sequence controlBoot without keyboard, mouse, disketteSerial port I/O controlParallel port I/O controlUSB port disablement			Supports ThinkVantage® technologies					
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									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)									Limited Warranty ¹ <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)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/warrantyPost warranty maintenance services available24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378								
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)																	
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																	
Speaker	One internal speaker for business audio																	
IEEE 1394	None																	
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®									Other accessories at lenovo.com/accessories								
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									Other accessories at lenovo.com/accessories								
Power supply	280 watts with variable speed fan, manual switch																	
Preloaded operating system ²⁰				Accessories														
- Microsoft® Windows® XP Professional with Vista® COA				1GB PC2-6400 NP DDR2 UDIMM 41U2977														
				2GB PC2-6400 NP DDR2 UDIMM 41U2978														
Preloaded applications ⁵ (only some listed)				500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990														
• Some: Education software				1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918														
- VitalSource Library School Edition				USB 2.0 Lenovo Multimedia Headset 40Y8518														
- Adobe® Elements				USB 2.0 Essential Memory Key 32GB 45K1258														
- Photoshop Elements 7				USB 2.0 Portable Secure 320GB Hard Disk 43R2019														
- Premiere Elements 7				Super Multi-Burner DL DVD±RW SATA Drive 41N5620														
• Rescue and Recovery™				Blu-ray™ Burner SATA 1.5Gb/s Drive 45K1675														
• Client Security Solution™				ThinkVision® L2440p Wide 24" Monitor 4420HB2														
• McAfee® VirusScan® Plus				DisplayPort to Single-link DVI-D Cable 45J7915														
• Microsoft Office 2007 Trial (60-day)				ADD2 DVI-D Monitor Connection (HDCP) 43R1985														
• Roxio® Creator® Business Edition (DVD±RW)				ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636														
• Roxio MyDVD® (DVD±RW)				NVIDIA® GeForce® 9500GT 512MB (DP, DVI) 45K1635														
• Corel® WinDVD® (DVD, DVD±RW)				Acc Guide in pdf lenovo.com/accessoriesguide														
				Other accessories at lenovo.com/accessories														

See footnotes for important warranty information

US models announced March 24, 2009; previous models on March 10, 2009

© Lenovo
(MIAM1-10) April 2009

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	SATA disk	2nd Disk Bay	SATA optical	Graphics	Monitor connectors	Vista preload	Global Educ	Avail date
M58e	7298-G2U	4x4	Core 2 Quad Q9400	2.66	6MB	4	4GB	500GB ²	None	BD burner	3470	VGA, DP	Bus64	None	Apr 09

- *This model has a 3-year limited warranty¹*

Positioning Processor	Mainstream enterprise stability and manageability 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 case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.7 lb (11.2 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention <div><div>optical</div><div>②</div><div>③</div><div>disk</div><div></div><div></div><div></div><div></div></div>																																								
Implementation	Processor in FC-LGA8 package in LGA775 socket																																										
Memory	4GB std , 4GB max ⁹ , PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available																																										
Graphics	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																																										
SATA disk	500GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts		Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, optional reader 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 * graphics adapter occupies slot																																								
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7																																										
SATA BD burner	Blu-ray™ Burner 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	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)																																										
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, DisplayPort)																																										
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">- Microsoft® Windows® Vista Business Edition (64-bit)✦ Vista Premium logo Preloaded applications ⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage Power Manager• McAfee® VirusScan® Plus (30 days of virus definitions)• Lenovo System Toolbox• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Microsoft Office 2007 Trial (60-day)• Corel® WinDVD® (Blu-ray)• Ulead® DVD MovieFactory (Blu-ray)			Accessories <table><tr><td>1GB PC2-6400 NP DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 NP 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>USB Portable Diskette Drive</td><td>05K9276</td></tr><tr><td>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Essential Memory Key 32GB</td><td>45K1258</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</td></tr><tr><td>Blu-ray Burner SATA 1.5Gb/s Drive</td><td>45K1675</td></tr><tr><td>ThinkVision® L2240p Wide 22" Monitor</td><td>4422HB6</td></tr><tr><td>ThinkVision L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>Kensington Twin Head Cable Lock</td><td>45K1620</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI Radeon HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr><tr><td>NVIDIA® GeForce® 9500GT 512MB (DP, DVI)</td><td>45K1635</td></tr></table> Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories	1GB PC2-6400 NP DDR2 UDIMM	41U2977	2GB PC2-6400 NP DDR2 UDIMM	41U2978	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	USB Portable Diskette Drive	05K9276	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Lenovo Webcam	40Y8519	USB 2.0 Essential Memory Key 32GB	45K1258	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	Blu-ray Burner SATA 1.5Gb/s Drive	45K1675	ThinkVision® L2240p Wide 22" Monitor	4422HB6	ThinkVision L2440p Wide 24" Monitor	4420HB2	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Kensington Cable Lock from Lenovo	73P2582	Kensington Twin Head Cable Lock	45K1620	DisplayPort to Single-link DVI-D Cable	45J7915	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI Radeon HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635
1GB PC2-6400 NP DDR2 UDIMM	41U2977																																										
2GB PC2-6400 NP DDR2 UDIMM	41U2978																																										
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																																										
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918																																										
USB Portable Diskette Drive	05K9276																																										
USB 2.0 Lenovo Multimedia Headset	40Y8518																																										
USB 2.0 Lenovo Webcam	40Y8519																																										
USB 2.0 Essential Memory Key 32GB	45K1258																																										
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																										
Blu-ray Burner SATA 1.5Gb/s Drive	45K1675																																										
ThinkVision® L2240p Wide 22" Monitor	4422HB6																																										
ThinkVision L2440p Wide 24" Monitor	4420HB2																																										
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067																																										
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074																																										
Kensington Cable Lock from Lenovo	73P2582																																										
Kensington Twin Head Cable Lock	45K1620																																										
DisplayPort to Single-link DVI-D Cable	45J7915																																										
ADD2 DVI-D Monitor Connection (HDCP)	43R1985																																										
ATI Radeon HD 3470 256MB (DP, VGA)	45K1636																																										
NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635																																										
			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 ^a	SATA disk	2nd Disk Bay	SATA optical	Graphics	ENERGY STAR 4.0	Preload	Global Educ	Avail date
M58e	7491-B6U	4x4	Pentium E5300	2.60	2MB	2	1GB	160GB ²	None	DVD	GMA	ES40	XP Pro		Apr 09
M58e	7491-B7U	4x4	Core 2 Duo E7400	2.80	3MB	2	2GB	160GB	None	DVD±RW	GMA	ES40	XP Pro		Apr 09
M58e	7491-B8U	4x4	Core 2 Duo E8400	3.00	6MB	2	2GB	160GB	None	DVD±RW	GMA	ES40	XP Pro		Apr 09
M58e	7491-C4U	4x4	Core 2 Duo E8400	3.00	6MB	2	2GB	160GB	None	DVD±RW	GMA	ES40	XP Pro	Educ	Apr 09

See footnotes for important warranty information

US model announced March 24, 2009; previous models on March 10, 2009

© Lenovo
(MIAM1-11) April 2009

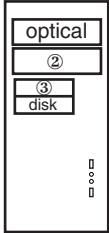
- *This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty*

See footnotes for important warranty information
US model announced March 10, 2009

© Lenovo
(MIAM1-12) March 2009

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁶	SATA disk	2nd Disk Bay	SATA optical	Graphics	ENERGY STAR 4.0	Vista preload	Global (G) GMP (P)	Avail date
M58e	7508-A2U	4x4	Core 2 Duo E8400	3.00	6MB	2	2GB	160GB ²	None	DVD±RW	GMA	ES40	Bus32	G P	Apr 09

- **This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty**

Positioning Processor	Mainstream enterprise stability and manageability Intel® Core™ 2 Duo Processor E8400 with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache		Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.7 lb (11.2 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention 																																																						
Implementation	Processor in FC-LGA8 package in LGA775 socket																																																								
Memory	2GB std , 4GB max ⁸ , PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available																																																								
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500) , integrated graphics in G41, uses main memory (up to 765MB), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter																																																								
SATA disk	160GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts		Bay ① 5.25", 1.6" high, access, std optical																																																						
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7		Bay ② 5.25", 1.6" high, access, open																																																						
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		Bay ③ 3.5", 1" high, access, open (reader/diskette)																																																						
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors		Bay ④ 3.5", 1" high, no access, std disk																																																						
eSATA port	None		Slot 1: half-length, full-height, PCI Express x16 (75w max)																																																						
Diskette drive	None		Slot 2: half-length, full-height, PCI Express x1																																																						
Media reader	None		Slot 3: half-length, full-height, 32-bit PCI 2.3																																																						
			Slot 4: half-length, full-height, 32-bit PCI 2.3																																																						
Chipset	Intel G41 Express Chipset (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)		Security <ul style="list-style-type: none">• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® Microsaver® cable)• Power-on password• Administrator password• Hard disk password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement																																																						
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																																																								
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)																																																								
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)																																																								
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																																																								
Speaker	One internal speaker for business audio																																																								
IEEE 1394	None																																																								
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®																																																								
Intel AMT	None																																																								
Modem	None																																																								
Security chip	None																																																								
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		Supports ThinkVantage® technologies																																																						
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																																																								
Power supply	280 watts with variable speed fan, autosensing, 80% PSU																																																								
Preloaded operating system²⁰ <ul style="list-style-type: none">- Microsoft® Windows® Vista® Business Edition (32-bit)♦ Vista Basic logo Preloaded applications⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage Power Manager• McAfee® VirusScan® Plus (30 days of virus definitions)• Lenovo System Toolbox• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Microsoft Office 2007 Trial (60-day)• Roxio® Creator® Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD±RW)		Accessories <table><tr><td>1GB PC2-6400 NP DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 NP 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>USB Portable Diskette Drive</td><td>05K9276</td></tr><tr><td>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Essential Memory Key 32GB</td><td>45K1258</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable 320GB Hard Disk</td><td>45K1689</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</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>ThinkVision® L2240p Wide 22" Monitor</td><td>4422HB6</td></tr><tr><td>ThinkVision L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td>Preferred Pro Full Size PS/2 Keyboard</td><td>31P7415</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>Kensington Twin Head Cable Lock</td><td>45K1620</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr><tr><td>NVIDIA® GeForce® 9500GT 512MB (DP, DVI)</td><td>45K1635</td></tr><tr><td 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 NP DDR2 UDIMM	41U2977	2GB PC2-6400 NP 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	USB Portable Diskette Drive	05K9276	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Lenovo Webcam	40Y8519	USB 2.0 Essential Memory Key 32GB	45K1258	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable 320GB Hard Disk	45K1689	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	Blu-ray™ Burner SATA 1.5Gb/s Drive	45K1675	ThinkVision® L2240p Wide 22" Monitor	4422HB6	ThinkVision L2440p Wide 24" Monitor	4420HB2	Preferred Pro Full Size PS/2 Keyboard	31P7415	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Kensington Cable Lock from Lenovo	73P2582	Kensington Twin Head Cable Lock	45K1620	DisplayPort to Single-link DVI-D Cable	45J7915	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635	Acc Guide in pdf lenovo.com/accessoriesguide		Other accessories at lenovo.com/accessories	
1GB PC2-6400 NP DDR2 UDIMM	41U2977																																																								
2GB PC2-6400 NP 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																																																								
USB Portable Diskette Drive	05K9276																																																								
USB 2.0 Lenovo Multimedia Headset	40Y8518																																																								
USB 2.0 Lenovo Webcam	40Y8519																																																								
USB 2.0 Essential Memory Key 32GB	45K1258																																																								
USB 2.0 Ultra Secure Memory Key 8GB	45J5918																																																								
USB 2.0 Portable 320GB Hard Disk	45K1689																																																								
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																																								
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																																																								
Blu-ray™ Burner SATA 1.5Gb/s Drive	45K1675																																																								
ThinkVision® L2240p Wide 22" Monitor	4422HB6																																																								
ThinkVision L2440p Wide 24" Monitor	4420HB2																																																								
Preferred Pro Full Size PS/2 Keyboard	31P7415																																																								
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067																																																								
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074																																																								
Kensington Cable Lock from Lenovo	73P2582																																																								
Kensington Twin Head Cable Lock	45K1620																																																								
DisplayPort to Single-link DVI-D Cable	45J7915																																																								
ADD2 DVI-D Monitor Connection (HDCP)	43R1985																																																								
ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636																																																								
NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635																																																								
Acc Guide in pdf lenovo.com/accessoriesguide																																																									
Other accessories at lenovo.com/accessories																																																									
		EPEAT™ Gold rating ENERGY STAR 4.0-compliant GREENGUARD® certified RoHS-compliant																																																							
		Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 4-year LOR 9x5, Next Business Day (ThinkPlus™ part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																																																							

Partial list of accessories supported on ThinkCentre M58e

Memory

1GB PC2-6400 NP DDR2 UDIMM	41U2977	ann 09/26/06
2GB PC2-6400 NP DDR2 UDIMM	41U2978	ann 01/08/08

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 support:

Blu-ray™ Burner SATA 1.5Gb/s Drive	45K1675	ann 03/31/09
------------------------------------	---------	--------------

Storage and removable storage

160GB SATA 3.0Gb/s Disk (7200 rpm)	09N4254	ann 05/19/03
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	ann 01/24/06
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	ann 11/06/07
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	ann 08/19/08

USB Portable Diskette Drive	05K9276	ann 06/05/00
USB 2.0 Essential Memory Key 2GB	41U4944	ann 01/23/07
USB 2.0 Essential Memory Key 4GB	45J7904	ann 06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann 07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann 10/28/08
USB 2.0 Security Memory Key 4GB	41U5120	ann 07/17/07
USB 2.0 Ultra Secure Memory Key 1GB	45J5915	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann 08/26/08
USB 2.0 Portable 160GB Hard Disk	43R1784	ann 09/23/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
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
USB 2.0 Super Multi-Burner Drive	41N5565	ann 01/23/07

Graphics*Small 7269/7279/7303/7506/7408/7514 support Low Profile 35 watts max:*

DisplayPort to Single-link DVI-D Cable	45J7915	ann 08/05/08
ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ann 11/06/07
ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	ann 11/18/08

Tower 7268/7270/7298/7491/7307/7508 support 75 watts max:

DisplayPort to Single-link DVI-D Cable	45J7915	ann 08/05/08
ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ann 11/06/07
ATI Radeon HD 3470 256MB (DP, VGA)	45K1636	ann 11/18/08
NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635	ann 11/18/08

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
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	ann 12/07/04
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

More information at www.lenovo.com/support/keyboards**Mouse**

Optical Wheel Mouse (USB)	06P4069	ann 05/21/03
Optical ScrollPoint® Mouse (USB, PS/2)	31P7405	ann 08/27/02
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	ann 01/23/07
Lenovo Wireless Laser Mouse (blk, via USB)	45K1696	ann 11/25/08
Lenovo Wireless Laser Mouse (red, via USB)	51J0198	ann 11/25/08

More information at www.lenovo.com/support/mice**Multimedia**

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann 06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann 08/29/06

Security

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

Monitors

ThinkVision® L174 17" Monitor	9227AE1	ann 04/15/08
ThinkVision L1700p 17" Monitor	9417HE2	ann 09/17/08
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1940p Wide 19" Monitor	4424HB6	ann 09/17/08
ThinkVision L200p Wide 20.1" Monitor	4438HB6	ann 04/15/08
ThinkVision L2240p Wide 22" Monitor	4422HB6	ann 09/17/08
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann 09/17/08
ThinkVision L2440x Wide 24" Monitor	4421HB2	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 Cable Lock from Lenovo	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Radial Arm	19K4464	ann 05/05/00

⁴⁶Compatible on selected Lenovo and ThinkVision monitors.More information at www.lenovo.com/support/monitoraccessories**Medialess License Key (MLK)**

Microsoft® Office 2007 Basic, English	43R1528	ann 01/31/07
Microsoft Office 2007 Small Business, Engl	43R1534	ann 01/31/07
Microsoft Office 2007 Professional, English	43R1531	ann 01/31/07

Other accessories at www.lenovo.com/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 connectors	DisplayPort dongle	ENERGY STAR 4.0	Intel vPro	Global Preload	Global Educ	Avail date
M58	8820-A3U	1x2	Celeron E1200	1.60	2	1GB	160GB ²	DVD	GMA	VGA, DP	None	ES40	No	XP Pro	No	Dec 08
M58	8820-A4U	1x2	Pentium E5200	2.50	2	1GB	160GB	DVD±RW	GMA	VGA, DP	None	ES40	No	XP Pro	No	Dec 08

- **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 stability for small and medium businesses Intel® Celeron® Dual-Core Processor E1200 with dual-core , 800MHz system bus, and 512KB L2 cache or Intel Pentium® Dual-Core Processor E5200 with dual-core , 800MHz system bus, and 2MB L2 cache Processor in FC-LGA6 package in LGA775 socket		Eco Ultra Small <div><div>optical</div><div>disk</div></div>																																																				
Implementation	Processor in FC-LGA6 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 std , 4GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SODIMM sockets (notebook); <i>Non-italics</i> : standard memory in one socket; one socket available		<ul style="list-style-type: none">• Business black color; metal case• 10.8" W X 9.4" D X 3.1" H• 275mm W X 238mm D X 80mm H• 9.2 lb (4.2 kg) in maximum configuration• Hinged toolless cover for easy serviceability• Toolless disk and optical drive removal• Toolless systemboard retention• System floor stand for vertical orientation																																																				
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in Q45, uses main memory (up to 512MB), one analog VGA DB-15 connector, one DisplayPort™ connector (supports single-link DVI-D via cable 45J7915), HDCP, DirectX® 10, 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)<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® 4.0-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>																																																				
SATA disk	160GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts																																																						
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1																																																						
SATA DVD	<i>Some</i> : DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive																																																						
SATA DVD±RW	<i>Some</i> : Super Multi-Burner DL DVD±RW SATA 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 <ul style="list-style-type: none">- Microsoft® Windows® XP Professional with Vista® COA♦ Disk-to-Disk Recovery (in hidden protected area)♦ Vista Basic logo Preloaded applications⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• Norton Internet Security™ (90 days of virus definitions)• Diskkeeper® Home• PC-Doctor™ (diagnostics)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Picasa from Google• Microsoft Office 2007 Trial (60-day)• Multimedia Center for Think Offerings (DVD, DVD±RW)• Sonic RecordNow and Drive Letter Access (DVD±RW)• Corel® WinDVD® (DVD, DVD±RW)• Corel WinDVD Creator (DVD±RW)		Accessories <table><tr><td>1GB PC3-8500 DDR3 SODIMM (notebook)</td><td>43R1987</td></tr><tr><td>2GB PC3-8500 DDR3 SODIMM (notebook)</td><td>43R1988</td></tr><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>USB Portable Diskette Drive</td><td>05K9276</td></tr><tr><td>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Essential Memory Key 32GB</td><td>45K1258</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 2GB</td><td>45J5916</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 4GB</td><td>45J5917</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable 160GB Hard Disk</td><td>43R1784</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</td></tr><tr><td>USB 2.0 Super Multi-Burner Drive</td><td>41N5565</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>ThinkVision® L2440x Wide 24" Monitor</td><td>4421HB2</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>ThinkCentre Ultra Small Under Desk Mount</td><td>40Y8625</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Lenovo USB Fingerprint Keyboard</td><td>73P4730</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>Kensington Twin Head Cable Lock</td><td>45K1620</td></tr><tr><td colspan="2">Acc Guide in pdf lenovo.com/accessoriesguide</td></tr><tr><td colspan="2">Other accessories at lenovo.com/accessories</td></tr></table>		1GB PC3-8500 DDR3 SODIMM (notebook)	43R1987	2GB PC3-8500 DDR3 SODIMM (notebook)	43R1988	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	USB Portable Diskette Drive	05K9276	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Lenovo Webcam	40Y8519	USB 2.0 Essential Memory Key 32GB	45K1258	USB 2.0 Ultra Secure Memory Key 2GB	45J5916	USB 2.0 Ultra Secure Memory Key 4GB	45J5917	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable 160GB Hard Disk	43R1784	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	USB 2.0 Super Multi-Burner Drive	41N5565	DVD-ROM DL SATA 1.5Gb/s 16-48X Max	41N5618	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ThinkVision® L2440x Wide 24" Monitor	4421HB2	DisplayPort to Single-link DVI-D Cable	45J7915	ThinkCentre Ultra Small Under Desk Mount	40Y8625	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Lenovo USB Fingerprint Keyboard	73P4730	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Kensington Cable Lock from Lenovo	73P2582	Kensington Twin Head Cable Lock	45K1620	Acc Guide in pdf lenovo.com/accessoriesguide		Other accessories at lenovo.com/accessories	
1GB PC3-8500 DDR3 SODIMM (notebook)	43R1987																																																						
2GB PC3-8500 DDR3 SODIMM (notebook)	43R1988																																																						
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																																																						
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918																																																						
USB Portable Diskette Drive	05K9276																																																						
USB 2.0 Lenovo Multimedia Headset	40Y8518																																																						
USB 2.0 Lenovo Webcam	40Y8519																																																						
USB 2.0 Essential Memory Key 32GB	45K1258																																																						
USB 2.0 Ultra Secure Memory Key 2GB	45J5916																																																						
USB 2.0 Ultra Secure Memory Key 4GB	45J5917																																																						
USB 2.0 Ultra Secure Memory Key 8GB	45J5918																																																						
USB 2.0 Portable 160GB Hard Disk	43R1784																																																						
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																																						
USB 2.0 Super Multi-Burner Drive	41N5565																																																						
DVD-ROM DL SATA 1.5Gb/s 16-48X Max	41N5618																																																						
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																																																						
ThinkVision® L2440x Wide 24" Monitor	4421HB2																																																						
DisplayPort to Single-link DVI-D Cable	45J7915																																																						
ThinkCentre Ultra Small Under Desk Mount	40Y8625																																																						
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067																																																						
Lenovo USB Fingerprint Keyboard	73P4730																																																						
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074																																																						
Kensington Cable Lock from Lenovo	73P2582																																																						
Kensington Twin Head Cable Lock	45K1620																																																						
Acc Guide in pdf lenovo.com/accessoriesguide																																																							
Other accessories at lenovo.com/accessories																																																							

See footnotes for important warranty information
 US models announced November 11, 2008

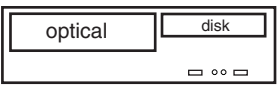
© Lenovo
 (MLAN1-17) November 2008

ThinkCentre® M58 Eco Ultra Small (8820) - TopSeller (January 2009)

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 4.0	Intel vPro	Global Preload	Educ	Avail date
M58	8820-A8U	1x2	Pentium E5300	2.60	2	1GB	160GB ²	DVD±RW	GMA	VGA, DP	None	ES40	No	XP Pro	No	Feb 09
M58	8820-A9U	1x2	Core 2 Duo E7500	2.93	2	1GB	160GB	DVD±RW	GMA	VGA, DP	None	ES40	No	XP Pro	No	Feb 09
M58	8820-A11	1x2	Core 2 Duo E7400	2.80	2	2GB	320GB	DVD±RW	GMA	VGA, DP	None	ES40	No	Bus32	No	Feb 09
M58	8820-ADU	1x2	Core 2 Duo E7400	2.80	2	2GB	320GB	DVD±RW	GMA	VGA, DP	None	ES40	No	Bus32	No	Apr 09
M58	8820-AEU	1x2	Core 2 Duo E7500	2.93	2	2GB	160GB	DVD±RW	GMA	VGA, DP	None	ES40	No	Bus32	No	Apr 09

• 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 stability for small and medium businesses Intel® Pentium® Processor E5300 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7400 or E7500 with dual-core, 1066MHz system bus, and 3MB L2 cache	Eco Ultra Small	
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket	Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Slot 1: Low Profile, 32-bit PCI 2.3	
Memory	1GB or 2GB std, 4GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SODIMM sockets (notebook); <i>Non-italics:</i> standard memory in one socket; one socket available	<ul style="list-style-type: none"> • Business black color; metal case • 10.8" W X 9.4" D X 3.1" H • 275mm W X 238mm D X 80mm H • 9.2 lb (4.2 kg) in maximum configuration • Hinged toolless cover for easy serviceability • Toolless disk and optical drive removal • Toolless systemboard retention • System floor stand for vertical orientation 	
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in Q45, uses main memory (<i>XP Pro models:</i> up to 512MB [<i>1GB models:</i>]; <i>Vista models:</i> up to 765MB [<i>2GB models:</i>]), 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 or 320GB , SATA 3.0Gb/s 7200 rpm, vibration dampening		
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support		
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors and one eSATA connector on planar		
eSATA port	None		
Diskette drive	None		
Media reader	None		
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		
Rear ports	Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)		
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)		
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec		
Speaker	One internal speaker for business audio		
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0		
Intel AMT	None		
Modem	None		
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo		
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU		
Preloaded operating system ²⁰		Accessories	
<ul style="list-style-type: none"> - <i>Some:</i> Microsoft® Windows® XP Professional with Vista® COA - <i>Some:</i> Microsoft Windows Vista Business Edition (32-bit) ✧ Vista Premium logo 		<ul style="list-style-type: none"> 1GB PC3-8500 DDR3 SODIMM (notebook) 43R1987 2GB PC3-8500 DDR3 SODIMM (notebook) 43R1988 500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 USB Portable Diskette Drive 05K9276 USB 2.0 Lenovo Multimedia Headset 40Y8518 USB 2.0 Lenovo Webcam 40Y8519 USB 2.0 Essential Memory Key 32GB 45K1258 USB 2.0 Ultra Secure Memory Key 2GB 45J5916 USB 2.0 Ultra Secure Memory Key 4GB 45J5917 USB 2.0 Ultra Secure Memory Key 8GB 45J5918 USB 2.0 Portable 160GB Hard Disk 43R1784 USB 2.0 Portable Secure 320GB Hard Disk 43R2019 USB 2.0 Super Multi-Burner Drive 41N5565 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 ThinkVision® L2440x Wide 24" Monitor 4421HB2 DisplayPort to Single-link DVI-D Cable 45J7915 Lenovo Vertical PC and Monitor Stand II 41R4474 ThinkCentre Ultra Small Under Desk Mount 40Y8625 Wireless Kbd & Opt Wheel Mouse (via USB) 73P4067 Lenovo USB Fingerprint Keyboard 73P4730 Laser Tilt Wheel Mouse (USB, PS/2) 41U3074 Kensington Cable Lock from Lenovo 73P2582 Kensington Twin Head Cable Lock 45K1620 Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories 	
Preloaded applications ⁵ (all OSes)		Limited Warranty ¹	
<ul style="list-style-type: none"> • Rescue and Recovery™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • ThinkVantage Power Manager • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Microsoft Office 2007 Trial (60-day) • Multimedia Center for Think Offerings (DVD±RW) (XP) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW) • Corel WinDVD Creator (DVD±RW) (XP) 		<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 April 7, 2009; previous models on January 20 or February 12, 2009

US model withdrawn effective April 2009

© Lenovo
(MLAN2-1) April 2009


ThinkCentre® M58 Eco Ultra Small (7359)

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 4.0	Intel vPro	Vista preload	Global Educ	Avail date
M58	7359-A6U	1x2	Pentium E2200	2.20	2	1GB	160GB ²	DVD	GMA	VGA, DP		ES40	No	Bus32	No	Dec 08
M58	7359-AGU	1x2	Pentium E2200	2.20	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES40	No	Bus32	No	Dec 08
M58	7359-ABU	1x2	Pentium E2220	2.40	2	1GB	160GB	DVD±RW	GMA	VGA, DP		ES40	No	Bus32	No	Dec 08
M58	7359-ADU	1x2	Pentium E5200	2.50	2	2GB	160GB	DVD	GMA	VGA, DP	DP-to-DVI-D	ES40	No	Bus32	No	Dec 08
M58	7359-AEU	1x2	Core 2 Duo E7300	2.66	2	1GB	160GB	DVD	GMA	VGA, DP	DP-to-DVI-D	ES40	No	Bus32	No	Dec 08
M58	7359-AFU	1x2	Core 2 Duo E7300	2.66	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES40	No	Bus32	No	Dec 08

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

Positioning Processor	Ultimate stability for small and medium businesses Intel® Pentium® Dual-Core Processor E2200 or E2220 with dual-core , 800MHz system bus, and 1MB L2 cache or Intel Pentium Dual-Core Processor E5200 with dual-core , 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7300 with dual-core , 1066MHz system bus, and 3MB L2 cache Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket		Eco Ultra Small <div><div>optical</div><div>disk</div></div>		
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Slot 1: Low Profile, 32-bit PCI 2.3		
Memory	1GB or 2GB std , 4GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SODIMM sockets (notebook); <i>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• 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 253MB [<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 <i>Some:</i> 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">- 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		
DP dongle					
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 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		Supports ThinkVantage® technologies		
Diskette drive	None				
Media reader	None				
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O				
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)				
Rear ports	Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)				
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)		EPEAT™ Gold rating ENERGY STAR® 4.0-compliant GREENGUARD® certified RoHS-compliant		
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec				
Speaker	One internal speaker for business audio				
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0				
Intel AMT	None				
Modem	None				
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant				
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		Limited Warranty¹ <ul style="list-style-type: none">↪ 3-year parts and labor↪ International Warranty Service⁹↪ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)↪ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)↪ ThinkPlus services at lenovo.com/thinkplus/warranty↪ Post warranty maintenance services available↪ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ 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			
- Microsoft® Windows® Vista® Business Edition (32-bit)		1GB PC3-8500 DDR3 SODIMM (notebook) 43R1987			
↪ Vista Premium logo		2GB PC3-8500 DDR3 SODIMM (notebook) 43R1988			
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™		USB Portable Diskette Drive 05K9276			
• ThinkVantage Productivity Center		USB 2.0 Lenovo Multimedia Headset 40Y8518			
• ThinkVantage Power Manager		USB 2.0 Lenovo Webcam 40Y8519			
• Norton Internet Security™ (90 days of virus definitions)		USB 2.0 Essential Memory Key 32GB 45K1258			
• Diskeeper® Home		USB 2.0 Ultra Secure Memory Key 8GB 45J5918			
• PC-Doctor™ (diagnostics)		USB 2.0 Portable Secure 320GB Hard Disk 43R2019			
• Adobe® Reader		DVD-ROM DL SATA 1.5Gb/s 16-48X Max 41N5618			
• Windows Live™ Toolbar		Super Multi-Burner DL DVD±RW SATA Drive 41N5620			
• Windows Live Search		ThinkVision® L2440x Wide 24" Monitor 4421HB2			
• Picasa from Google		DisplayPort to Single-link DVI-D Cable 45J7915			
• Microsoft Office 2007 Trial (60-day)		ThinkCentre Ultra Small Under Desk Mount 40Y8625			
• Sonic RecordNow and Drive Letter Access (DVD±RW)		Wireless Kbd & Opt Wheel Mouse (via USB) 73P4067			
• Corel® WinDVD® (DVD, DVD±RW)		Lenovo USB Fingerprint Keyboard 73P4730			
		Laser Tilt Wheel Mouse (USB, PS/2) 41U3074			
		Kensington Cable Lock from Lenovo 73P2582			
		Kensington Twin Head Cable Lock 45K1620			
		Acc Guide in pdf lenovo.com/accessoriesguide			
		Other accessories at lenovo.com/accessories			


See footnotes for important warranty information
 US model announced April 7, 2009; previous models on January 20, 2009

ThinkCentre® M58 Eco Ultra Small (7637) - GMP

Personal Systems Reference (PSREF)

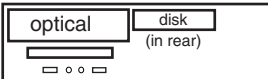
Name	Type	Slot x model	bay	Processor	GHz	Cores	Memory ³	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 4.0	Intel vPro	Vista preload	Global (G) GMP (P)	Avail date
M58	7637	A1U	1x2	Core 2 Duo E7400	2.80	2	2GB	160GB ²	DVD+RW	GMA	VGA, DP	DP-to-DVI-D	ES40	No	Bus32	G P	Feb 09

- *This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty*

Positioning Processor	Ultimate stability for small and medium businesses Intel® Core™ 2 Duo Processor E7400 with dual-core, 1066MHz system bus, and 3MB L2 cache		<div>Eco Ultra Small</div> 	
Implementation	Processor in FC-LGA8 package in LGA775 socket			
Memory	2GB std, 4GB max⁸, PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SODIMM sockets (notebook); <i>Non-Italics</i> : standard memory in one socket; one socket available		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Slot 1: Low Profile, 32-bit PCI 2.3	
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in Q45, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display DisplayPort to Single-link DVI-D Cable		<ul style="list-style-type: none"> • Business black color; metal case • 10.8" W X 9.4" D X 3.1" H • 275mm W X 238mm D X 80mm H • 9.2 lb (4.2 kg) in maximum configuration • Hinged toolless cover for easy serviceability • Toolless disk and optical drive removal • Toolless systemboard retention • System floor stand for vertical orientation 	
DP dongle				
SATA disk	160GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts			
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1			
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive			
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors 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), SMC® SCH5617 Super I/O		<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) <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		Supports ThinkVantage® technologies	
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo			
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU			
Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ✧ Vista Premium logo		Accessories 1GB PC3-8500 DDR3 SODIMM (notebook) 43R1987 2GB PC3-8500 DDR3 SODIMM (notebook) 43R1988 500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 USB Portable Diskette Drive 05K9276 USB 2.0 Lenovo Multimedia Headset 40Y8518 USB 2.0 Lenovo Webcam 40Y8519 USB 2.0 Essential Memory Key 32GB 45K1258 USB 2.0 Ultra Secure Memory Key 2GB 45J5916 USB 2.0 Ultra Secure Memory Key 4GB 45J5917 USB 2.0 Ultra Secure Memory Key 8GB 45J5918 USB 2.0 Portable 160GB Hard Disk 43R1784 USB 2.0 Portable Secure 320GB Hard Disk 43R2019 USB 2.0 Super Multi-Burner Drive 41N5565 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 ThinkVision® L2440x Wide 24" Monitor 4421HB2 DisplayPort to Single-link DVI-D Cable 45J7915 Lenovo Vertical PC and Monitor Stand II 41R4474 ThinkCentre Ultra Small Under Desk Mount 40Y8625 Wireless Kbd & Opt Wheel Mouse (via USB) 73P4067 Lenovo USB Fingerprint Keyboard 73P4730 Laser Tilt Wheel Mouse (USB, PS/2) 41U3074 Kensington Cable Lock from Lenovo 73P2582 Kensington Twin Head Cable Lock 45K1620 Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories		
Preloaded applications⁵ • Rescue and Recovery™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage Power Manager • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (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 <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		

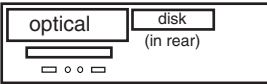
See footnotes for important warranty information
US model announced January 20, 2009

© Lenovo
(MLAN2-3) January 2009

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	8910-A8U	2x3	Pentium E5200	2.50	2	1GB	160GB ²	DVD	GMA	VGA, DP	None	None	XP Pro	None	Nov 08	
M58	8910-A9U	2x3	Core 2 Duo E7300	2.66	2	1GB	160GB	DVD±RW	GMA	VGA, DP	None	None	XP Pro	None	Nov 08	
M58	8910-ABU	2x3	Core 2 Quad Q8200	2.33	4	2GB	250GB	DVD±RW	GMA	VGA, DP	None	None	XP Pro	None	Nov 08	
<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	Ultimate stability for small and medium businesses Intel® Pentium® Dual-Core Processor E5200 with dual-core , 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7300 with dual-core , 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Quad Processor Q8200 with quad-core , 1333MHz system bus, and 4MB L2 cache Implementation 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 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				
Memory	1GB or 2GB std , 8GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; 3 sockets available									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						
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™ conn (supports single-link DVI-D via cable 45J7915), HDCP, DirectX® 10, supports dual independent display															
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 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									Supports ThinkVantage® technologies						
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									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	280 watts with variable speed fan, autosensing, two diagnostic LEDs															
Preloaded operating system²⁰				Accessories												
- Microsoft® Windows® XP Professional with Vista® COA				1GB PC3-8500 DDR3 UDIMM 45J5434												
⇨ Disk-to-Disk Recovery (in hidden protected area)				2GB PC3-8500 DDR3 UDIMM 45J5435												
⇨ Vista Basic logo				500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990												
Preloaded applications⁵				1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918												
• Rescue and Recovery™				USB Portable Diskette Drive 05K9276												
• Client Security Solution™				USB 2.0 Lenovo Multimedia Headset 40Y8518												
• ThinkVantage Productivity Center				USB 2.0 Lenovo Webcam 40Y8519												
• Norton Internet Security™ (90 days of virus definitions)				USB 2.0 Essential Memory Key 32GB 45K1258												
• Diskkeeper® Home				USB 2.0 Ultra Secure Memory Key 2GB 45J5916												
• PC-Doctor™ (diagnostics)				USB 2.0 Ultra Secure Memory Key 4GB 45J5917												
• Adobe® Reader				USB 2.0 Ultra Secure Memory Key 8GB 45J5918												
• Windows Live™ Toolbar				USB 2.0 Portable 160GB Hard Disk 43R1784												
• Windows Live Search				USB 2.0 Portable Secure 320GB Hard Disk 43R2019												
• Picasa from Google				USB 2.0 Super Multi-Burner Drive 41N5565												
• Microsoft Office 2007 Trial (60-day)				DVD-ROM DL SATA 1.5Gb/s 16-48X Max 41N5618												
• Multimedia Center for Think Offerings (DVD, DVD±RW)				Super Multi-Burner DL DVD±RW SATA Drive 41N5620												
• Sonic RecordNow and Drive Letter Access (DVD±RW)				ThinkVision® L2440x Wide 24" Monitor 4421HB2												
• Corel® WinDVD® (DVD, DVD±RW)				DisplayPort to Single-link DVI-D Cable 45J7915												
• Corel WinDVD Creator (DVD±RW)				Wireless Kbd & Opt Wheel Mouse (via USB) 73P4067												
				Lenovo USB Fingerprint Keyboard 73P4730												
				Laser Tilt Wheel Mouse (USB, PS/2) 41U3074												
				Kensington Cable Lock from Lenovo 73P2582												
				Kensington Twin Head Cable Lock 45K1620												
				ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636												
				Acc Guide in pdf lenovo.com/accessoriesguide												
				Other accessories at lenovo.com/accessories												

See footnotes for important warranty information
 US models announced October 21, 2008

© Lenovo
 (MLAN1-3) October 2008

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	8910-AFU	2x3	Pentium E5300	2.60	2	1GB	160GB ²	DVD	GMA	VGA, DP	None	None	XP Pro	None	Jan 09	
M58	8910-AEU	2x3	Core 2 Duo E7500	2.93	2	1GB	160GB	DVD±RW	GMA	VGA, DP	None	None	XP Pro	None	Jan 09	
M58	8910-A12	2x3	Pentium E5300	2.60	2	2GB	160GB	DVD±RW	GMA	VGA, DP	None	None	Bus32	None	Feb 09	
M58	8910-A11	2x3	Core 2 Duo E7400	2.80	2	2GB	160GB	DVD±RW	GMA	VGA, DP	None	None	Bus32	None	Feb 09	
M58	8910-AGU	2x3	Pentium E5300	2.60	2	2GB	160GB	DVD±RW	GMA	VGA, DP	None	None	Bus32	None	Apr 09	
M58	8910-AHU	2x3	Core 2 Duo E7400	2.80	2	2GB	160GB	DVD±RW	GMA	VGA, DP	None	None	Bus32	None	Apr 09	
<ul style="list-style-type: none">These small and medium business (SMB) models are part of the US TopSeller™ ProgramThese models have a 3-year limited warranty¹																
Positioning	Ultimate stability for small and medium businesses									Small						
Processor	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															
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket									Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)						
Memory	1GB or 2GB std, 8GB max ⁸ , PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, four 240-pin DIMM sockets; 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						
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500), integrated graphics in Q45, uses main memory (XP Pro models: up to 512MB [1GB models]; Vista models: up to 765MB [2GB 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 case12.5" W X 14.0" D X 3.9" H317mm W X 355mm D X 99mm H16.5 lb (7.5 kg) in maximum configurationToolless cover flips up and tilts backward on rear hingesToolless disk, optical drive removalToolless adapter retentionToolless systemboard retentionSystem floor stand for vertical orientation						
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 buttonsPower-on passwordAdministrator passwordHard disk password (user and master)Boot sequence controlBoot without diskette, keyboardSerial port I/O controlIndividual USB port disablement						
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1															
SATA DVD	Some: DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive															
SATA DVD±RW	Some: Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive															
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar															
eSATA port	One external SATA (eSATA) port									Supports ThinkVantage® technologies						
Diskette drive	None															
Media reader	None															
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O															
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)															
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort), eSATA									GREENGUARD® certified RoHS-compliant						
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)															
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)															
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec															
Speaker	One internal speaker for business audio															
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0									Limited Warranty¹ <ul style="list-style-type: none">3-year parts and laborInternational Warranty Service⁹Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)ThinkPlus services at lenovo.com/thinkplus/warrantyPost warranty maintenance services available24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378						
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													
- Some: Microsoft® Windows® XP Professional with Vista® COA			1GB PC3-8500 DDR3 UDIMM			45J5434										
- Some: Microsoft Windows Vista Business Edition (32-bit)			2GB PC3-8500 DDR3 UDIMM			45J5435										
◇ Vista Premium logo			500GB SATA 3.0Gb/s Disk (7200 rpm)			43R1990										
Preloaded applications⁵ (all OSes)			1TB SATA 3.0Gb/s Disk (7200 rpm)			45J7918										
• Rescue and Recovery™			USB Portable Diskette Drive			05K9276										
• Client Security Solution™			USB 2.0 Lenovo Multimedia Headset			40Y8518										
• ThinkVantage Productivity Center			USB 2.0 Lenovo Webcam			40Y8519										
• ThinkVantage System Update			USB 2.0 Essential Memory Key 32GB			45K1258										
• ThinkVantage Power Manager			USB 2.0 Security Memory Key 4GB			41U5120										
• Norton Internet Security™			USB 2.0 Ultra Secure Memory Key 8GB			45J5918										
• Diskeeper® Home			USB 2.0 Portable 160GB Hard Disk			43R1784										
• PC-Doctor™ (diagnostics)			USB 2.0 Portable Secure 320GB Hard Disk			43R2019										
• Adobe® Reader			USB 2.0 Super Multi-Burner Drive			41N5565										
• Windows Live™ Toolbar			DVD-ROM DL SATA 1.5Gb/s 16X-48X Max			41N5618										
• Windows Live Search			Super Multi-Burner DL DVD±RW SATA Drive			41N5620										
• Picasa from Google			ThinkVision® L2440x Wide 24" Monitor			4421HB2										
• Microsoft Office 2007 Trial (60-day)			DisplayPort to Single-link DVI-D Cable			45J7915										
• Multimedia Center for Think Offerings (DVD, DVD±RW) (XP)			Wireless Kbd & Opt Wheel Mouse (via USB)			73P4067										
• Sonic RecordNow and Drive Letter Access (DVD±RW)			Lenovo USB Fingerprint Keyboard			73P4730										
• Corel® WinDVD® (DVD, DVD±RW)			Laser Tilt Wheel Mouse (USB, PS/2)			41U3074										
• Corel WinDVD Creator (DVD±RW) (XP)			Kensington Cable Lock from Lenovo			73P2582										
			Kensington Twin Head Cable Lock			45K1620										
			DisplayPort to Single-link DVI-D Cable			45J7915										
			ATI™ Radeon™ HD 3470 256MB (DP, VGA)			45K1636										
			Acc Guide in pdf lenovo.com/accessoriesguide													
			Other accessories at lenovo.com/accessories													


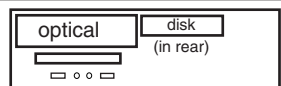
See footnotes for important warranty information

US models announced April 7, 2009; previous models on January 20 or February 12, 2009

US models withdrawn effective April 2009

© Lenovo
(MLAN2-4) April 2009

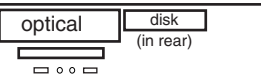
Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor connectors	DisplayPort dongle	Intel vPro	Vista preload	Global Educ	Avail date	
M58	7360-AJU	2x3	Pentium E2200	2.20	2	1GB	160GB ²	DVD	GMA	VGA, DP		No	Bus32	No	Nov 08	
M58	7360-ADU	2x3	Pentium E2220	2.40	2	2GB	250GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	No	Bus32	No	Nov 08	
M58	7360-AKU	2x3	Pentium E5200	2.50	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	No	Bus32	No	Nov 08	
M58	7360-ALU	2x3	Core 2 Duo E7300	2.66	2	1GB	160GB	DVD	GMA	VGA, DP		No	Bus32	No	Nov 08	
M58	7360-APU	2x3	Core 2 Duo E7300	2.66	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	No	Bus32	No	Nov 08	
M58	7360-AQU	2x3	Core 2 Duo E7300	2.66	2	2GB	250GB	DVD±RW	3470	VGA, DP	DP-to-DVI-D	No	Bus32	No	Nov 08	
M58	7360-ARU	2x3	Core 2 Quad Q8200	2.33	4	2GB	250GB	DVD±RW	3470	VGA, DP	DP-to-DVI-D	No	Bus32	No	Nov 08	
• These models have a 3-year limited warranty¹																
Positioning	Ultimate stability for small and medium businesses									Small						
Processor	Intel® Pentium® Dual-Core Processor E2200 or E2220 with dual-core, 800MHz system bus, and 1MB L2 cache or Intel Pentium Dual-Core Processor E5200 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7300 with dual-core, 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Quad Processor Q8200 with quad-core, 1333MHz system bus, and 4MB L2 cache									 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	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket									* used in some models						
Memory	1GB or 2GB std, 8GB max ⁸ , PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, four 240-pin DIMM sockets; Italics: standard memory in two sockets; two sockets available; Non-italics: standard memory in one socket; 3 sockets available									<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	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 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						
DP dongle																
SATA disk	160GB or 250GB, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts															
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support															
SATA DVD	Some: DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive															
SATA DVD±RW	Some: Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive															
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar															
eSATA port	One external SATA (eSATA) port															
Diskette drive	None															
Media reader	None															
Chipset	Intel Q45 Express Chipset (PCI Express 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O															
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)															
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort), eSATA															
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)															
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)															
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec															
Speaker	One internal speaker for business audio															
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0															
Intel AMT	None															
Modem	None															
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant															
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo															
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo															
Power supply	280 watts with variable speed fan, autosensing, two diagnostic LEDs															
Preloaded operating system²⁰			Accessories													
- Microsoft® Windows® Vista® Business Edition (32-bit)			1GB PC3-8500 DDR3 UDIMM 45J5434													
◇ Vista Premium logo			2GB PC3-8500 DDR3 UDIMM 45J5435													
Preloaded applications⁵ (only some listed)			500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990													
• Rescue and Recovery™			1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918													
• Client Security Solution™			USB 2.0 Lenovo Multimedia Headset 40Y8518													
• ThinkVantage Productivity Center			USB 2.0 Lenovo Webcam 40Y8519													
• ThinkVantage Power Manager			USB 2.0 Essential Memory Key 32GB 45K1258													
• Norton Internet Security™			USB 2.0 Portable Secure 320GB Hard Disk 43R2019													
• Diskeeper® Home			DVD-ROM DL SATA 1.5Gb/s 16-48X Max 41N5618													
• PC-Doctor™ (diagnostics)			Super Multi-Burner DL DVD±RW SATA Drive 41N5620													
• Adobe® Reader			ThinkVision® L2440x Wide 24" Monitor 4421HB2													
• Picasa from Google			DisplayPort to Single-link DVI-D Cable 45J7915													
• Microsoft Office 2007 Trial (60-day)			Wireless Kbd & Opt Wheel Mouse (via USB) 73P4067													
• Sonic RecordNow and Drive Letter Access (DVD±RW)			Laser Tilt Wheel Mouse (USB, PS/2) 41U3074													
• Corel® WinDVD® (DVD, DVD±RW)			Kensington Cable Lock from Lenovo 73P2582													
			Kensington Twin Head Cable Lock 45K1620													
			ATI Radeon HD 3470 256MB (DP, VGA) 45K1636													
			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)<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																
Limited Warranty¹																
<ul style="list-style-type: none">⇨ 3-year parts and labor⇨ International Warranty Service⁹⇨ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇨ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇨ ThinkPlus services at lenovo.com/thinkplus/warranty⇨ Post warranty maintenance services available⇨ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																

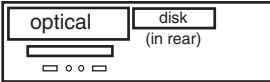
Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor connectors	DisplayPort dongle	Intel vPro	Preload	Global Educ	Avail date	
	M58	7360-D8U	2x3	Pentium E5300	2.60	2	1GB	160GB ²	DVD	GMA	VGA, DP	DP-to-DVI-D	No	XP Pro	Apr 09	
	M58	7360-BVU	2x3	Pentium E5300	2.60	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	<i>Ultimate stability for small and medium businesses</i>									Small						
Processor	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															
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket									Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)						
Memory	1GB or 2GB std, 8GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; 3 sockets available									Slot 1: Low Profile, PCI Express 2.0 x16* Slot 2: Low Profile, 32-bit PCI 2.3 * used in some models						
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in Q45, uses main memory <i>(XP Pro:</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									<ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless systemboard retention• System floor stand for vertical orientation						
DP dongle	<i>Some:</i> DisplayPort to Single-link DVI-D Cable															
SATA disk	160GB or 250GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts															
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> Microsoft® Windows® XP Professional with Vista® COA				1GB PC3-8500 DDR3 UDIMM 45J5434												
				2GB PC3-8500 DDR3 UDIMM 45J5435												
- <i>Some:</i> Microsoft Windows Vista Business Edition (32-bit)				500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990												
◇ Vista Premium logo				1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918												
Preloaded applications⁵ (all OSes; only some listed)				USB Portable Diskette Drive 05K9276												
• Rescue and Recovery™				USB 2.0 Lenovo Multimedia Headset 40Y8518												
• Client Security Solution™				USB 2.0 Lenovo Webcam 40Y8519												
• Norton Internet Security™				USB 2.0 Essential Memory Key 32GB 45K1258												
• Diskeeper® Home				USB 2.0 Ultra Secure Memory Key 8GB 45J5918												
• Microsoft Office 2007 Trial (60-day)				USB 2.0 Portable Secure 320GB Hard Disk 43R2019												
• Multimedia Center for Think Offerings (DVD, DVD±RW) (XP)				DVD-ROM DL SATA 1.5Gb/s 16X-48X Max 41N5618												
• Sonic RecordNow and Drive Letter Access (DVD±RW)				Super Multi-Burner DL DVD±RW SATA Drive 41N5620												
• Corel® WinDVD® (DVD, DVD±RW)				ThinkVision® L2440x Wide 24" Monitor 4421HB2												
• Corel WinDVD Creator (DVD±RW) (XP)				Wireless Kbd & Opt Wheel Mouse (via USB) 73P4067												
				Laser Tilt Wheel Mouse (USB, PS/2) 41U3074												
				Kensington Twin Head Cable Lock 45K1620												
				DisplayPort to Single-link DVI-D Cable 45J7915												
				ATI Radeon HD 3470 256MB (DP, VGA) 45K1636												
				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) - optional cable also locks the cover by deactivating the cover release buttons• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Serial port I/O control• Individual USB port disablement																
Supports ThinkVantage® technologies																
GREENGUARD® certified RoHS-compliant																
Limited 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 model announced April 7, 2009; previous models on January 20, 2009

© Lenovo
(MLAN2-5) April 2009

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 4.0	Intel vPro	Vista preload	Global Educ	Avail date
M58	6258-A7U	2x3	Celeron E1200	1.60	2	1GB	160GB ²	DVD	GMA	VGA, DP		ES40	No	Bus32	No	Nov 08
M58	6258-A8U	2x3	Pentium E2200	2.20	2	1GB	160GB	DVD	GMA	VGA, DP		ES40	No	Bus32	No	Nov 08
M58	6258-A9U	2x3	Pentium E5200	2.50	2	1GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES40	No	Bus32	No	Nov 08
M58	6258-ABU	2x3	Core 2 Duo E7300	2.66	2	1GB	160GB	DVD	GMA	VGA, DP		ES40	No	Bus32	No	Nov 08
M58	6258-ACU	2x3	Core 2 Duo E7300	2.66	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES40	No	Bus32	No	Nov 08
M58	6258-ADU	2x3	Core 2 Duo E7300	2.66	2	2GB	250GB	DVD±RW	3470	VGA, DP	DP-to-DVI-D	ES40	No	Bus32	No	Nov 08
M58	6258-AEU	2x3	Core 2 Quad Q8200	2.33	4	2GB	250GB	DVD±RW	3470	VGA, DP	DP-to-DVI-D	ES40	No	Bus32	No	Nov 08
• These models have a 3-year limited warranty ¹																
Positioning Processor	Ultimate stability for small and medium businesses Intel® Celeron® Dual-Core Processor E1200 with dual-core, 800MHz system bus, and 512KB L2 cache or Intel Pentium® Dual-Core Processor E2200 with dual-core, 800MHz system bus, and 1MB L2 cache or Intel Pentium Dual-Core Processor E5200 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7300 with dual-core, 1066MHz system bus, and 3MB 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						
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket									Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader) Slot 1: Low Profile, PCI Express 2.0 x16* Slot 2: Low Profile, 32-bit PCI 2.3 * used in some models		• Business black color; metal case • 12.5" W X 14.0" D X 3.9" H • 317mm W X 355mm D X 99mm H • 16.5 lb (7.5 kg) in maximum configuration • Toolless cover flips up and tilts backward on rear hinges • Toolless disk, optical drive removal • Toolless adapter retention • Toolless systemboard retention • System floor stand for vertical orientation				
Memory	1GB or 2GB std, 8GB max ⁸ , PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, four 240-pin DIMM sockets; Italics: standard memory in two sockets; two sockets available; Non-italics: standard memory in one socket; 3 sockets available											Security				
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 Some: DisplayPort to Single-link DVI-D Cable											• Security chip (see information on left) • Security slot (in rear for attachment of optional Kensington® Microsaver® cable) - optional cable also locks the cover by deactivating the cover release buttons • Power-on password • Administrator password • Hard disk password (user and master) • Boot sequence control • Boot without diskette, keyboard • Serial port I/O control • Individual USB port disablement				
DP dongle												Supports ThinkVantage® technologies				
SATA disk	160GB or 250GB, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts											Climate Savers®-compliant				
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support											EPEAT™ Gold rating				
SATA DVD	Some: DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive											ENERGY STAR 4.0-compliant				
SATA DVD±RW	Some: Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive											GREENGUARD® certified				
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar											RoHS-compliant				
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											Limited Warranty ¹				
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo											⇒ 3-year parts and labor				
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo											⇒ International Warranty Service ⁹				
Power supply	280 watts with variable speed fan, autosensing, 85% PSU											⇒ 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)				
Preloaded operating system ²⁰				Accessories												
- Microsoft® Windows® Vista® Business Edition (32-bit)				1GB PC3-8500 DDR3 UDIMM 45J5434												
- Vista Premium logo				2GB PC3-8500 DDR3 UDIMM 45J5435												
				500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990												
				1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918												
				USB 2.0 Lenovo Multimedia Headset 40Y8518												
				USB 2.0 Essential Memory Key 32GB 45K1258												
				USB 2.0 Portable Secure 320GB Hard Disk 43R2019												
				DVD-ROM DL SATA 1.5Gb/s 16-48X Max 41N5618												
				Super Multi-Burner DL DVD±RW SATA Drive 41N5620												
				ThinkVision® L2440x Wide 24" Monitor 4421HB2												
				DisplayPort to Single-link DVI-D Cable 45J7915												
				Wireless Kbd & Opt Wheel Mouse (via USB) 73P4067												
				Laser Tilt Wheel Mouse (USB, PS/2) 41U3074												
				Kensington Cable Lock from Lenovo 73P2582												
				ATI Radeon HD 3470 256MB (DP, VGA) 45K1636												
				Acc Guide in pdf lenovo.com/accessoriesguide												
				Other accessories at lenovo.com/accessories												
⇒ ThinkPlus services at lenovo.com/thinkplus/warranty																
⇒ Post warranty maintenance services available																
⇒ 24 hour x 7 day ¹⁴ toll-free support during the warranty period ¹ via 800-426-7378																

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ^a	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort	ENERGY STAR 4.0	Intel vPro	Global Preload Educ	Avail date
M58	6258-AJU	2x3	Pentium E5300	2.60	2	2GB	160GB ²	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES40	No	XP Pro	Feb 09
M58	6258-AKU	2x3	Core 2 Duo E7400	2.80	2	1GB	160GB	DVD	GMA	VGA, DP		ES40	No	XP Pro	Feb 09
M58	6258-AMU	2x3	Core 2 Duo E7400	2.80	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES40	No	XP Pro	Feb 09
M58	6258-APU	2x3	Core 2 Duo E7400	2.80	2	2GB	250GB	DVD±RW	3470	VGA, DP	DP-to-DVI-D	ES40	No	XP Pro	Feb 09
M58	6258-ALU	2x3	Core 2 Duo E7500	2.93	2	1GB	160GB	DVD	GMA	VGA, DP		ES40	No	XP Pro	Feb 09
M58	6258-ANU	2x3	Core 2 Duo E7500	2.93	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES40	No	XP Pro	Feb 09
M58	6258-AQU	2x3	Core 2 Duo E7500	2.93	2	2GB	250GB	DVD±RW	3470	VGA, DP	DP-to-DVI-D	ES40	No	XP Pro	Feb 09
M58	6258-ASU	2x3	Pentium E5300	2.60	2	1GB	160GB	DVD	GMA	VGA, DP	DP-to-DVI-D	ES40	No	Bus32	Apr 09
M58	6258-ARU	2x3	Core 2 Duo E7400	2.80	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES40	No	Bus32	Gbl Feb 09
• These models have a 3-year limited warranty ¹															
Positioning Processor	Ultimate stability for small and medium businesses Intel® Pentium® Processor E5300 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7400 or E7500 with dual-core, 1066MHz system bus, and 3MB L2 cache									Small					
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket									Bay ① 5.25", 1.6" high, access, std optical		Bay ② 3.5", 1" high, no access, std disk			
Memory	1GB or 2GB std, 8GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; 3 sockets available									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	<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 253MB [<i>1GB model</i>], 765MB [<i>2GB model</i>]), one analog VGA DB-15 connector, one DisplayPort™ conn, HDCP, DirectX® 10, supports dual independent display <i>Some:</i> ATI™ Radeon™ HD 3470 , PCI Express® 2.0 x16 adapter, 256MB, one analog VGA DB-15 connector, one DisplayPort connector, HDCP, DirectX 10.1, ATI Avivo™, 25 watts									<i>Some:</i> DisplayPort to Single-link DVI-D Cable		* used in some models • Business black color; metal case • 12.5" W X 14.0" D X 3.9" H • 317mm W X 355mm D X 99mm H • 16.5 lb (7.5 kg) in maximum configuration • Toolless cover flips up and tilts backward on rear hinges • Toolless disk, optical drive removal • Toolless adapter retention • Toolless systemboard retention • System floor stand for vertical orientation			
DP dongle	<i>Some:</i> DisplayPort to Single-link DVI-D Cable											Security • Security chip (see information on left) • Security slot (in rear for attachment of optional Kensington® Microsaver® cable) - optional cable also locks the cover by deactivating the cover release buttons • Power-on password • Administrator password • Hard disk password (user and master) • Boot sequence control • Boot without diskette, keyboard • Serial port I/O control • Individual USB port disablement			
SATA disk	160GB or 250GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts											Supports ThinkVantage® technologies			
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support											Climate Savers®-compliant			
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive											EPEAT™ Gold rating			
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive											ENERGY STAR 4.0-compliant			
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar											GREENGUARD® certified			
eSATA port	One external SATA (eSATA) port											RoHS-compliant			
Diskette drive	None														
Media reader	None														
Chipset	Intel Q45 Express Chipset (PCI Express 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O											Limited Warranty¹			
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)											⇒ 3-year parts and labor			
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort), eSATA											⇒ International Warranty Service ⁹			
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)											⇒ 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)			
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)											⇒ Onsite service upgrade options (in eligible locations): ⁷			
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec											• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)			
Speaker	One internal speaker for business audio											• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)			
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0											• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)			
Intel AMT	None											• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)			
Modem	None											• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)			
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant											⇒ ThinkPlus services at lenovo.com/thinkplus/warranty			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo											⇒ Post warranty maintenance services available			
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo											⇒ 24 hour x 7 day ¹⁴ toll-free support during the warranty period ¹			
Power supply	280 watts with variable speed fan, autosensing, 85% PSU														
Preloaded operating system²⁰							Accessories								
- <i>Some:</i> Microsoft® Windows® XP Professional with Vista® COA							1GB PC3-8500 DDR3 UDIMM 45J5434								
- <i>Some:</i> Microsoft Windows Vista Business Edition (32-bit)							2GB PC3-8500 DDR3 UDIMM 45J5435								
◇ Vista Premium logo							500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990								
Preloaded applications⁵ (all OSes; only some listed)							1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918								
• Rescue and Recovery™							USB 2.0 Lenovo Multimedia Headset 40Y8518								
• Client Security Solution™							USB 2.0 Lenovo Webcam 40Y8519								
• ThinkVantage Power Manager							USB 2.0 Essential Memory Key 32GB 45K1258								
• Norton Internet Security™							USB 2.0 Ultra Secure Memory Key 8GB 45J5918								
• Diskeeper® Home							USB 2.0 Portable 160GB Hard Disk 43R1784								
• Microsoft Office 2007 Trial (60-day)							USB 2.0 Portable Secure 320GB Hard Disk 43R2019								
• Multimedia Center for Think Offerings (DVD, DVD±RW) (XP)							DVD-ROM DL SATA 1.5Gb/s 16X-48X Max 41N5618								
• Sonic RecordNow and Drive Letter Access (DVD±RW)							Super Multi-Burner DL DVD±RW SATA Drive 41N5620								
• Corel® WinDVD® (DVD, DVD±RW)							ThinkVision® L2440x Wide 24" Monitor 4421HB2								
• Corel WinDVD Creator (DVD±RW) (XP)							Wireless Kbd & Opt Wheel Mouse (via USB) 73P4067								
							Laser Tilt Wheel Mouse (USB, PS/2) 41U3074								
							Kensington Twin Head Cable Lock 45K1620								
							DisplayPort to Single-link DVI-D Cable 45J7915								
							ATI Radeon HD 3470 256MB (DP, VGA) 45K1636								
							Acc Guide in pdf lenovo.com/accessoriesguide								
							Other accessories at lenovo.com/accessories								

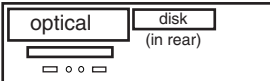
See footnotes for important warranty information

US model announced April 7, 2009; previous models on January 20, 2009

© Lenovo
(MLAN2-6) April 2009

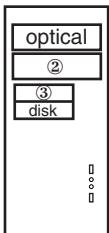
Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ^a	SATA disk	SATA optical	Graphics	Monitor connectors	DisplayPort dongle	Intel vPro	Vista preload	Global (G) GMP (P)	Avail date
M58	7638-A1U	2x3	Core 2 Duo E7300	2.66	2	1GB	160GB ²	DVD	GMA	VGA, DP	None	None	Bus32	G P	Jan 09

- **This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty**

Positioning Processor	Ultimate stability for small and medium businesses Intel® Core™ 2 Duo Processor E7300 with dual-core, 1066MHz system bus, and 3MB L2 cache Processor in FC-LGA8 package in LGA775 socket		Small 															
Implementation																		
Memory	1GB std , 8GB max ⁶ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in one socket; 3 sockets available																	
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																	
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 <ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless systemboard retention• System floor stand for vertical orientation															
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in 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																	
<table><tr><td>Preloaded operating system²⁰<ul style="list-style-type: none">- Microsoft® Windows® Vista® Business Edition (32-bit)◇ Vista Premium logoPreloaded applications⁵<ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage Power Manager• Norton Internet Security™ (90 days of virus definitions)• Diskkeeper® Home• PC-Doctor™ (diagnostics)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Picasa from Google• Microsoft Office 2007 Trial (60-day)• Corel® WinDVD® (DVD)</td><td>Accessories<ul style="list-style-type: none">1GB PC3-8500 DDR3 UDIMM 45J54342GB PC3-8500 DDR3 UDIMM 45J5435500GB SATA 3.0Gb/s Disk (7200 rpm) 43R19901TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918USB Portable Diskette Drive 05K9276USB 2.0 Lenovo Multimedia Headset 40Y8518USB 2.0 Lenovo Webcam 40Y8519USB 2.0 Essential Memory Key 32GB 45K1258USB 2.0 Security Memory Key 4GB 41U5120USB 2.0 Ultra Secure Memory Key 2GB 45J5916USB 2.0 Ultra Secure Memory Key 4GB 45J5917USB 2.0 Ultra Secure Memory Key 8GB 45J5918USB 2.0 Portable 160GB Hard Disk 43R1784USB 2.0 Portable Secure 320GB Hard Disk 43R2019USB 2.0 Super Multi-Burner Drive 41N5565DVD-ROM DL SATA 1.5Gb/s 16-48X Max 41N5618ThinkVision® L2440x Wide 24" Monitor 4421HB2DisplayPort to Single-link DVI-D Cable 45J7915Wireless Kbd & Opt Wheel Mouse (via USB) 73P4067Laser Tilt Wheel Mouse (USB, PS/2) 41U3074Kensington Cable Lock from Lenovo 73P2582Kensington Twin Head Cable Lock 45K1620ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636Acc Guide in pdf lenovo.com/accessoriesguideOther accessories at lenovo.com/accessories</td><td></td></tr><tr><td colspan="4">Supports ThinkVantage® technologies</td></tr><tr><td colspan="4">GREENGUARD® certified RoHS-compliant</td></tr><tr><td colspan="4">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</td></tr></table>				Preloaded operating system²⁰ <ul style="list-style-type: none">- Microsoft® Windows® Vista® Business Edition (32-bit)◇ Vista Premium logo Preloaded applications⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage Power Manager• Norton Internet Security™ (90 days of virus definitions)• Diskkeeper® Home• PC-Doctor™ (diagnostics)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Picasa from Google• Microsoft Office 2007 Trial (60-day)• Corel® WinDVD® (DVD)	Accessories <ul style="list-style-type: none">1GB PC3-8500 DDR3 UDIMM 45J54342GB PC3-8500 DDR3 UDIMM 45J5435500GB SATA 3.0Gb/s Disk (7200 rpm) 43R19901TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918USB Portable Diskette Drive 05K9276USB 2.0 Lenovo Multimedia Headset 40Y8518USB 2.0 Lenovo Webcam 40Y8519USB 2.0 Essential Memory Key 32GB 45K1258USB 2.0 Security Memory Key 4GB 41U5120USB 2.0 Ultra Secure Memory Key 2GB 45J5916USB 2.0 Ultra Secure Memory Key 4GB 45J5917USB 2.0 Ultra Secure Memory Key 8GB 45J5918USB 2.0 Portable 160GB Hard Disk 43R1784USB 2.0 Portable Secure 320GB Hard Disk 43R2019USB 2.0 Super Multi-Burner Drive 41N5565DVD-ROM DL SATA 1.5Gb/s 16-48X Max 41N5618ThinkVision® L2440x Wide 24" Monitor 4421HB2DisplayPort to Single-link DVI-D Cable 45J7915Wireless Kbd & Opt Wheel Mouse (via USB) 73P4067Laser Tilt Wheel Mouse (USB, PS/2) 41U3074Kensington Cable Lock from Lenovo 73P2582Kensington Twin Head Cable Lock 45K1620ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636Acc Guide in pdf lenovo.com/accessoriesguideOther accessories at lenovo.com/accessories		Supports ThinkVantage® technologies				GREENGUARD® certified RoHS-compliant				Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 4-year LOR 9x5, Next Business Day (ThinkPlus™ part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378			
Preloaded operating system²⁰ <ul style="list-style-type: none">- Microsoft® Windows® Vista® Business Edition (32-bit)◇ Vista Premium logo Preloaded applications⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage Power Manager• Norton Internet Security™ (90 days of virus definitions)• Diskkeeper® Home• PC-Doctor™ (diagnostics)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Picasa from Google• Microsoft Office 2007 Trial (60-day)• Corel® WinDVD® (DVD)	Accessories <ul style="list-style-type: none">1GB PC3-8500 DDR3 UDIMM 45J54342GB PC3-8500 DDR3 UDIMM 45J5435500GB SATA 3.0Gb/s Disk (7200 rpm) 43R19901TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918USB Portable Diskette Drive 05K9276USB 2.0 Lenovo Multimedia Headset 40Y8518USB 2.0 Lenovo Webcam 40Y8519USB 2.0 Essential Memory Key 32GB 45K1258USB 2.0 Security Memory Key 4GB 41U5120USB 2.0 Ultra Secure Memory Key 2GB 45J5916USB 2.0 Ultra Secure Memory Key 4GB 45J5917USB 2.0 Ultra Secure Memory Key 8GB 45J5918USB 2.0 Portable 160GB Hard Disk 43R1784USB 2.0 Portable Secure 320GB Hard Disk 43R2019USB 2.0 Super Multi-Burner Drive 41N5565DVD-ROM DL SATA 1.5Gb/s 16-48X Max 41N5618ThinkVision® L2440x Wide 24" Monitor 4421HB2DisplayPort to Single-link DVI-D Cable 45J7915Wireless Kbd & Opt Wheel Mouse (via USB) 73P4067Laser Tilt Wheel Mouse (USB, PS/2) 41U3074Kensington Cable Lock from Lenovo 73P2582Kensington Twin Head Cable Lock 45K1620ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636Acc Guide in pdf lenovo.com/accessoriesguideOther accessories at lenovo.com/accessories																	
Supports ThinkVantage® technologies																		
GREENGUARD® certified RoHS-compliant																		
Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 4-year LOR 9x5, Next Business Day (ThinkPlus™ part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ Post warranty maintenance services available⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																		

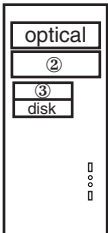
Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor connectors	DisplayPort dongle	Intel vPro	Preload	Global Educ	Avail date
M58	9960-A8U	4x4	Pentium E5200	2.50	2	1GB	160GB ²	DVD	GMA	VGA, DP	None	None	XP Pro	None	Nov 08
M58	9960-A9U	4x4	Core 2 Duo E7300	2.66	2	1GB	160GB	DVD±RW	GMA	VGA, DP	None	None	XP Pro	None	Nov 08

- 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 stability for small and medium businesses Intel® Pentium® Dual-Core Processor E5200 with dual-core , 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7300 with dual-core , 1066MHz system bus, and 3MB L2 cache																																																		
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket																																																		
Memory	1GB , 8GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; 3 sockets available																																																		
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in Q45, uses main memory (up to 512MB), 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		Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.2 lb (11.0 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3																																																
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1																																																		
SATA DVD	<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 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 <ul style="list-style-type: none">- Microsoft® Windows® XP Professional with Vista® COA◇ Disk-to-Disk Recovery (in hidden protected area)◇ Vista Basic logo Preloaded applications⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• Norton Internet Security™ (90 days of virus definitions)• Diskkeeper® Home• PC-Doctor™ (diagnostics)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Picasa from Google• Microsoft Office 2007 Trial (60-day)• Multimedia Center for Think Offerings (DVD, DVD±RW)• Sonic RecordNow and Drive Letter Access (DVD±RW)• Corel® WinDVD® (DVD, DVD±RW)• Corel WinDVD Creator (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																																																
			Supports ThinkVantage® technologies																																																
			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>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Essential Memory Key 32GB</td><td>45K1258</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 4GB</td><td>45J5917</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</td></tr><tr><td>DVD-ROM DL SATA 1.5Gb/s 16-48X Max</td><td>41N5618</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>Blu-ray™ Burner SATA 1.5Gb/s Drive</td><td>45K1675</td></tr><tr><td>ThinkVision® L2440x Wide 24" Monitor</td><td>4421HB2</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Lenovo USB Fingerprint Keyboard</td><td>73P4730</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>Kensington Twin Head Cable Lock</td><td>45K1620</td></tr><tr><td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr><tr><td>NVIDIA® GeForce® 9500GT 512MB (DP, DVI)</td><td>45K1635</td></tr><tr><td>NVIDIA Quadro® 256MB FX 370</td><td>43R1766</td></tr><tr><td>NVIDIA Quadro 512MB FX 1700</td><td>43R1767</td></tr></table> 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	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Lenovo Webcam	40Y8519	USB 2.0 Essential Memory Key 32GB	45K1258	USB 2.0 Ultra Secure Memory Key 4GB	45J5917	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	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	ThinkVision® L2440x Wide 24" Monitor	4421HB2	DisplayPort to Single-link DVI-D Cable	45J7915	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Lenovo USB Fingerprint Keyboard	73P4730	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Kensington Cable Lock from Lenovo	73P2582	Kensington Twin Head Cable Lock	45K1620	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635	NVIDIA Quadro® 256MB FX 370	43R1766	NVIDIA Quadro 512MB FX 1700	43R1767	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																																																		
2GB PC3-8500 DDR3 UDIMM	45J5435																																																		
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																																																		
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918																																																		
USB 2.0 Lenovo Multimedia Headset	40Y8518																																																		
USB 2.0 Lenovo Webcam	40Y8519																																																		
USB 2.0 Essential Memory Key 32GB	45K1258																																																		
USB 2.0 Ultra Secure Memory Key 4GB	45J5917																																																		
USB 2.0 Ultra Secure Memory Key 8GB	45J5918																																																		
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																																		
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																																																		
ThinkVision® L2440x Wide 24" Monitor	4421HB2																																																		
DisplayPort to Single-link DVI-D Cable	45J7915																																																		
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067																																																		
Lenovo USB Fingerprint Keyboard	73P4730																																																		
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074																																																		
Kensington Cable Lock from Lenovo	73P2582																																																		
Kensington Twin Head Cable Lock	45K1620																																																		
ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636																																																		
NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635																																																		
NVIDIA Quadro® 256MB FX 370	43R1766																																																		
NVIDIA Quadro 512MB FX 1700	43R1767																																																		

ThinkCentre® M58 Tower (9960) - TopSeller (January 2009)

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																																														
M58	9960-ADU	4x4	Pentium E5300	2.60	2	1GB	160GB ²	DVD	GMA	VGA, DP	None	None	XP Pro	None	Jan 09																																														
M58	9960-AEU	4x4	Pentium E5300	2.60	2	2GB	160GB	DVD±RW	GMA	VGA, DP	None	None	XP Pro	None	Jan 09																																														
M58	9960-AFU	4x4	Core 2 Duo E7400	2.80	2	1GB	160GB	DVD±RW	GMA	VGA, DP	None	None	XP Pro	None	Jan 09																																														
M58	9960-AGU	4x4	Core 2 Duo E7500	2.93	2	1GB	160GB	DVD±RW	GMA	VGA, DP	None	None	XP Pro	None	Jan 09																																														
M58	9960-A71	4x4	Core 2 Duo E7400	2.80	2	2GB	160GB	DVD±RW	GMA	VGA, DP	None	None	Bus32	None	Feb 09																																														
M58	9960-AHU	4x4	Core 2 Duo E7400	2.80	2	2GB	160GB	DVD±RW	GMA	VGA, DP	None	None	Bus32	None	Apr 09																																														
<ul style="list-style-type: none">These small and medium business (SMB) models are part of the US TopSeller™ ProgramThese models have a 3-year limited warranty¹																																																													
Positioning	Ultimate stability for small and medium businesses									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 																																																			
Processor	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																																																												
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket																																																												
Memory	1GB or 2GB, 8GB max ⁸ , PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, four 240-pin DIMM sockets; Non-italics: standard memory in one socket; 3 sockets available																																																												
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500), integrated graphics in Q45, uses main memory (XP Pro models: up to 512MB [1GB models], 1GB [2GB models]; Vista models: up to 765MB [2GB 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	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	Some: DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive																																																												
SATA DVD±RW	Some: Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																																																												
SATA cables	Two SATA cables (each 1-drop to device), three SATA connectors and one eSATA connector on planar																																																												
eSATA port	None																																																												
Diskette drive	None																																																												
Media reader	None																																																												
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O																																																												
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																																																												
Rear ports	Six USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)																																																												
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)																																																												
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)																																																												
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec																																																												
Speaker	One internal speaker for business audio																																																												
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0																																																												
Intel AMT	None																																																												
Modem	None																																																												
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant									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 disablement																																																			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo									Supports ThinkVantage® technologies																																																			
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo									GREENGUARD® certified RoHS-compliant																																																			
Power supply	280 watts with variable speed fan, manual switch, two diagnostic LEDs																																																												
Preloaded operating system²⁰ <ul style="list-style-type: none">Some: Microsoft® Windows® XP Professional with Vista® COASome: Microsoft Windows Vista Business Edition (32-bit)Vista Premium logo																																																													
Preloaded applications⁵ (all OSes) <ul style="list-style-type: none">Rescue and Recovery™Client Security Solution™ThinkVantage Productivity CenterThinkVantage Power ManagerNorton Internet Security™Diskeeper® HomePC-Doctor™ (diagnostics)Adobe® ReaderWindows Live™ ToolbarWindows Live SearchPicasa from GoogleMicrosoft Office 2007 Trial (60-day)Multimedia Center for Think Offerings (DVD, DVD±RW) (XP)Sonic RecordNow and Drive Letter Access (DVD±RW)Corel® WinDVD® (DVD, DVD±RW)Corel WinDVD Creator (DVD±RW) (XP)																																																													
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>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Essential Memory Key 32GB</td><td>45K1258</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable 160GB Hard Disk</td><td>43R1784</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</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>ThinkVision® L2440x Wide 24" Monitor</td><td>4421HB2</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Lenovo USB Fingerprint Keyboard</td><td>73P4730</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Twin Head Cable Lock</td><td>45K1620</td></tr><tr><td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr><tr><td>NVIDIA® GeForce® 9500GT 512MB (DP, DVI)</td><td>45K1635</td></tr><tr><td>NVIDIA Quadro® 256MB FX 370</td><td>43R1766</td></tr><tr><td>NVIDIA Quadro 512MB FX 1700</td><td>43R1767</td></tr></table> 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	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Lenovo Webcam	40Y8519	USB 2.0 Essential Memory Key 32GB	45K1258	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable 160GB Hard Disk	43R1784	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	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	ThinkVision® L2440x Wide 24" Monitor	4421HB2	DisplayPort to Single-link DVI-D Cable	45J7915	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Lenovo USB Fingerprint Keyboard	73P4730	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Kensington Twin Head Cable Lock	45K1620	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635	NVIDIA Quadro® 256MB FX 370	43R1766	NVIDIA Quadro 512MB FX 1700	43R1767
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																																																												
USB 2.0 Lenovo Multimedia Headset	40Y8518																																																												
USB 2.0 Lenovo Webcam	40Y8519																																																												
USB 2.0 Essential Memory Key 32GB	45K1258																																																												
USB 2.0 Ultra Secure Memory Key 8GB	45J5918																																																												
USB 2.0 Portable 160GB Hard Disk	43R1784																																																												
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																																												
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																																																												
ThinkVision® L2440x Wide 24" Monitor	4421HB2																																																												
DisplayPort to Single-link DVI-D Cable	45J7915																																																												
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067																																																												
Lenovo USB Fingerprint Keyboard	73P4730																																																												
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074																																																												
Kensington Twin Head Cable Lock	45K1620																																																												
ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636																																																												
NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635																																																												
NVIDIA Quadro® 256MB FX 370	43R1766																																																												
NVIDIA Quadro 512MB FX 1700	43R1767																																																												
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																																																													

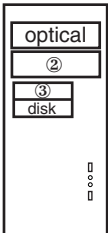
See footnotes for important warranty information

✂ US model announced April 7, 2009; previous models on January 20 or February 12, 2009

✂ US model withdrawn effective April 2009

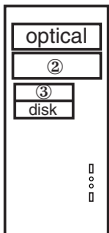
© Lenovo (MLAN2-7) April 2009

See footnotes for important warranty information
US models announced October 21, 2008

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	
ES	M58	7373-D3U	4x4	Pentium E5300	2.60	2	1GB	160GB ²	DVD	GMA	VGA, DP		None	XP Pro		Apr 09
	M58	7373-BTU	4x4	Pentium E5300	2.60	2	2GB	160GB	DVD±RW	GMA	VGA, DP		None	XP Pro		Feb 09
	M58	7373-BUU	4x4	Core 2 Duo E7400	2.80	2	1GB	160GB	DVD	GMA	VGA, DP		None	XP Pro		Feb 09
	M58	7373-BWU	4x4	Core 2 Duo E7400	2.80	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	None	XP Pro		Feb 09
	M58	7373-BVU	4x4	Core 2 Duo E7500	2.93	2	1GB	160GB	DVD	GMA	VGA, DP		None	XP Pro		Feb 09
	M58	7373-D1U	4x4	Core 2 Duo E7500	2.93	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	None	XP Pro		Feb 09
M58	7373-D2U	4x4	Core 2 Duo E7400	2.80	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	None	Bus32	Gbl		Feb 09
• These models have a 3-year limited warranty¹																
Positioning	Ultimate stability for small and medium businesses									Tower						
Processor	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									• Business black color; metal case • 6.9" W X 17.3" D X 15.8" H • 175mm W X 440mm D X 402mm H • 24.2 lb (11.0 kg) in max configuration • Handle on top front • Toolless cover removal • Toolless disk, diskette drive, optical drive removal • Toolless adapter retention						
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket															
Memory	1GB or 2GB std, 8GB max ⁸ , PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, four 240-pin DIMM sockets; Italics: standard memory in two sockets; two sockets available; Non-italics: standard memory in one socket; 3 sockets available															
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500), integrated graphics in Q45, uses main memory (XP Pro models: up to 512MB [1GB models], 1GB [2GB models]; Vista models: up to 765MB [2GB models]), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display Some: DisplayPort to Single-link DVI-D Cable									Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk						
DP dongle	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	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				
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1															
SATA DVD	Some: DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive															
SATA DVD±RW	Some: Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive															
SATA cables	Two SATA cables (each 1-drop to device), 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						
- Some: Microsoft® Windows® XP Professional with Vista® COA										1GB PC3-8500 DDR3 UDIMM 45J5434						
- Some: Microsoft Windows Vista Business Edition (32-bit)										2GB PC3-8500 DDR3 UDIMM 45J5435						
◇ Vista Premium logo										500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990						
Preloaded applications⁵ (all OSeS)										1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918						
• Rescue and Recovery™										USB 2.0 Lenovo Multimedia Headset 40Y8518						
• Client Security Solution™										USB 2.0 Lenovo Webcam 40Y8519						
• ThinkVantage Productivity Center										USB 2.0 Essential Memory Key 32GB 45K1258						
• ThinkVantage Power Manager										USB 2.0 Ultra Secure Memory Key 8GB 45J5918						
• Norton Internet Security™										USB 2.0 Portable Secure 320GB Hard Disk 43R2019						
• Diskeeper® Home										DVD-ROM DL SATA 1.5Gb/s 16X-48X Max 41N5618						
• PC-Doctor™ (diagnostics)										Super Multi-Burner DL DVD±RW SATA Drive 41N5620						
• Adobe® Reader										Blu-ray™ Burner SATA 1.5Gb/s Drive 45K1675						
• Windows Live™ Toolbar										ThinkVision® L2440x Wide 24" Monitor 4421HB2						
• Windows Live Search										Wireless Kbd & Opt Wheel Mouse (via USB) 73P4067						
• Picasa from Google										Lenovo USB Fingerprint Keyboard 73P4730						
• Microsoft Office 2007 Trial (60-day)										Laser Tilt Wheel Mouse (USB, PS/2) 41U3074						
• Multimedia Center for Think Offerings (DVD, DVD±RW) (XP)										Kensington Twin Head Cable Lock 45K1620						
• Sonic RecordNow and Drive Letter Access (DVD±RW)										DisplayPort to Single-link DVI-D Cable 45J7915						
• Corel® WinDVD® (DVD, DVD±RW)										ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636						
• Corel WinDVD Creator (DVD±RW) (XP)										NVIDIA® GeForce® 9500GT 512MB (DP, DVI) 45K1635						
										NVIDIA Quadro® 256MB FX 370 43R1766						
										NVIDIA Quadro 512MB FX 1700 43R1767						
										Acc Guide in pdf lenovo.com/accessoriesguide						
										Other accessories at lenovo.com/accessories						
										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						
										• 24.2 lb (11.0 kg) in max configuration						
										• Handle on top front						
										• Toolless cover removal						
										• Toolless disk, diskette drive, optical drive removal						
										• Toolless adapter retention						
										Bay ① 5.25", 1.6" high, access, std optical						
										Bay ② 5.25", 1.6" high, access, open						
										Bay ③ 3.5", 1" high, access, open (reader/diskette)						
										Bay ④ 3.5", 1" high, no access, std disk						
										Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max)						
										Slot 2: half-length, full-height, PCIe x1						
										Slot 3: half-length, full-height, 32-bit PCI 2.3						
										Slot 4: half-length, full-height, 32-bit PCI 2.3						
										Security						
										• 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						
										⇒ 3-year parts and labor						
										⇒ International Warranty Service ⁹						
										⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts ³ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)						
										⇒ Onsite service upgrade options (in eligible locations): ⁷						
										• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)						
										• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)						
										• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)						
										• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)						
										• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)						
										⇒ ThinkPlus services at lenovo.com/thinkplus/warranty						
										⇒ Post warranty maintenance services available						
										⇒ 24 hour x 7 day ¹⁴ toll-free support during the warranty period ¹ via 800-426-7378						

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ^a	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 4.0	Intel vPro	Vista preload	Global Educ	Avail date
M58	6239-ACU	4x4	Celeron E1400	2.00	2	1GB	160GB ²	DVD	GMA	VGA, DP		ES40	No	Bus32	No	Nov 08
M58	6239-ADU	4x4	Pentium E2200	2.20	2	1GB	160GB	DVD±RW	GMA	VGA, DP		ES40	No	Bus32	No	Nov 08
M58	6239-AEU	4x4	Pentium E5200	2.50	2	1GB	160GB	DVD±RW	GMA	VGA, DP		ES40	No	Bus32	No	Nov 08
M58	6239-AFU	4x4	Core 2 Duo E7300	2.66	2	1GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES40	No	Bus32	No	Nov 08

• These models have a 3-year limited warranty¹

Positioning Processor	Ultimate stability for small and medium businesses Intel® Celeron® Dual-Core Processor E1400 with dual-core, 800MHz system bus, and 512KB L2 cache or Intel Pentium® Dual-Core Processor E2200 with dual-core, 800MHz system bus, and 1MB L2 cache or Intel Pentium Dual-Core Processor E5200 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7300 with dual-core, 1066MHz system bus, and 3MB L2 cache Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket	Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.2 lb (11.0 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention 																																													
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket																																														
Memory	1GB std, 8GB max⁸, PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in one socket; 3 sockets available																																														
Graphics	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, HDCP, DirectX® 10, supports dual independent display <i>Some:</i> DisplayPort to Single-link DVI-D Cable																																														
DP dongle		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	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 Supports ThinkVantage® technologies EPEAT™ Gold rating ENERGY STAR 4.0-compliant GREENGUARD® certified RoHS-compliant																																													
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), three SATA connectors and one eSATA connector on planar																																														
eSATA port	None																																														
Diskette drive	None																																														
Media reader	None																																														
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O																																														
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																																														
Rear ports	Six USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)																																														
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)																																														
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)																																														
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec																																														
Speaker	One internal speaker for business audio																																														
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0																																														
Intel AMT	None																																														
Modem	None																																														
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant																																														
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																																														
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo																																														
Power supply	280 watts with variable speed fan, autosensing, two diagnostic LEDs, 80% PSU																																														
Preloaded operating system²⁰ <ul style="list-style-type: none">- Microsoft® Windows® Vista® Business Edition (32-bit)◇ Vista Premium logo Preloaded applications⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage Power Manager• Norton Internet Security™ (90 days of virus definitions)• Diskeeper® Home• PC-Doctor™ (diagnostics)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Picasa from Google• Microsoft Office 2007 Trial (60-day)• Sonic RecordNow and Drive Letter Access (DVD±RW)• Corel® WinDVD® (DVD, DVD±RW)		Accessories <table><tr><td>1GB PC3-8500 DDR3 UDIMM</td><td>45J5434</td></tr><tr><td>2GB PC3-8500 DDR3 UDIMM</td><td>45J5435</td></tr><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Essential Memory Key 32GB</td><td>45K1258</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</td></tr><tr><td>DVD-ROM DL SATA 1.5Gb/s 16-48X Max</td><td>41N5618</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>Blu-ray™ Burner SATA 1.5Gb/s Drive</td><td>45K1675</td></tr><tr><td>ThinkVision® L2440x Wide 24" Monitor</td><td>4421HB2</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Lenovo USB Fingerprint Keyboard</td><td>73P4730</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Twin Head Cable Lock</td><td>45K1620</td></tr><tr><td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr><tr><td>NVIDIA® GeForce® 9500GT 512MB (DP, DVI)</td><td>45K1635</td></tr><tr><td>NVIDIA Quadro® 256MB FX 370</td><td>43R1766</td></tr><tr><td>NVIDIA Quadro 512MB FX 1700</td><td>43R1767</td></tr></table> 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	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Lenovo Webcam	40Y8519	USB 2.0 Essential Memory Key 32GB	45K1258	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	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	ThinkVision® L2440x Wide 24" Monitor	4421HB2	DisplayPort to Single-link DVI-D Cable	45J7915	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Lenovo USB Fingerprint Keyboard	73P4730	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Kensington Twin Head Cable Lock	45K1620	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635	NVIDIA Quadro® 256MB FX 370	43R1766	NVIDIA Quadro 512MB FX 1700	43R1767
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																																														
USB 2.0 Lenovo Multimedia Headset	40Y8518																																														
USB 2.0 Lenovo Webcam	40Y8519																																														
USB 2.0 Essential Memory Key 32GB	45K1258																																														
USB 2.0 Ultra Secure Memory Key 8GB	45J5918																																														
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																														
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																																														
ThinkVision® L2440x Wide 24" Monitor	4421HB2																																														
DisplayPort to Single-link DVI-D Cable	45J7915																																														
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067																																														
Lenovo USB Fingerprint Keyboard	73P4730																																														
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074																																														
Kensington Twin Head Cable Lock	45K1620																																														
ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636																																														
NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635																																														
NVIDIA Quadro® 256MB FX 370	43R1766																																														
NVIDIA Quadro 512MB FX 1700	43R1767																																														
		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

© Lenovo
 (MLAN1-10) November 2008

Personal Systems Reference (PSREF)

See footnotes for important warranty information
 US models announced April 7, 2009; previous models on January 20, 2009

ThinkCentre® M58p Eco Ultra Small (9961) - TopSeller

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 4.0	Intel vPro Preload	Global Educ	Avail date
M58p	9961-A1U	1x2	Core 2 Duo E8400	3.00	2	2GB	160GB ²	DVD±RW	GMA	VGA, DP	None	ES40	vPro XP Pro	No	Dec 08

- **Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)**
- **This small and medium business (SMB) model is part of the US TopSeller™ Program**
- **This model has a 3-year limited warranty¹**

Positioning Processor	Ultimate stability/manageability for small and medium businesses 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 FC-LGA8 package in LGA775 socket																																																					
Memory	2GB std , 4GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SODIMM sockets (notebook); <i>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 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		• Business black color; metal case • 10.8" W X 9.4" D X 3.1" H • 275mm W X 238mm D X 80mm H • 9.2 lb (4.2 kg) in maximum configuration • Hinged toolless cover for easy serviceability • Toolless disk and optical drive removal • Toolless systemboard retention • System floor stand for vertical orientation																																																			
SATA disk	160GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts		Security <ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® Microsaver® cable) - security slot and cover release button are combined into one latch for improved chassis security• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Individual USB port disablement																																																			
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® 4.0-compliant GREENGUARD® certified RoHS-compliant																																																			
Rear ports	Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)																																																					
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)																																																					
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)																																																					
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec																																																					
Speaker	One internal speaker for business audio																																																					
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0																																																					
Intel AMT	Intel Active Management Technology (iAMT)		Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 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">- Microsoft® Windows® XP Professional with Vista® COA◇ Disk-to-Disk Recovery (in hidden protected area)◇ Vista Basic logo Preloaded applications⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• Norton Internet Security™ (90 days of virus definitions)• Diskkeeper® Home• PC-Doctor™ (diagnostics)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Picasa from Google• Microsoft Office 2007 Trial (60-day)• Multimedia Center for Think Offerings (DVD±RW)• Sonic RecordNow and Drive Letter Access (DVD±RW)• Corel® WinDVD® (DVD±RW)• Corel WinDVD Creator (DVD±RW)			Accessories <table><tr><td>1GB PC3-8500 DDR3 SODIMM (notebook)</td><td>43R1987</td></tr><tr><td>2GB PC3-8500 DDR3 SODIMM (notebook)</td><td>43R1988</td></tr><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>USB Portable Diskette Drive</td><td>05K9276</td></tr><tr><td>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Essential Memory Key 32GB</td><td>45K1258</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 2GB</td><td>45J5916</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 4GB</td><td>45J5917</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable 160GB Hard Disk</td><td>43R1784</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</td></tr><tr><td>USB 2.0 Super Multi-Burner Drive</td><td>41N5565</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>ThinkVision® L2440x Wide 24" Monitor</td><td>4421HB2</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>ThinkCentre Ultra Small Under Desk Mount</td><td>40Y8625</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Lenovo USB Fingerprint Keyboard</td><td>73P4730</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>Kensington Twin Head Cable Lock</td><td>45K1620</td></tr><tr><td colspan="2">Acc Guide in pdf lenovo.com/accessoriesguide</td></tr><tr><td colspan="2">Other accessories at lenovo.com/accessories</td></tr></table>		1GB PC3-8500 DDR3 SODIMM (notebook)	43R1987	2GB PC3-8500 DDR3 SODIMM (notebook)	43R1988	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	USB Portable Diskette Drive	05K9276	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Lenovo Webcam	40Y8519	USB 2.0 Essential Memory Key 32GB	45K1258	USB 2.0 Ultra Secure Memory Key 2GB	45J5916	USB 2.0 Ultra Secure Memory Key 4GB	45J5917	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable 160GB Hard Disk	43R1784	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	USB 2.0 Super Multi-Burner Drive	41N5565	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ThinkVision® L2440x Wide 24" Monitor	4421HB2	DisplayPort to Single-link DVI-D Cable	45J7915	ThinkCentre Ultra Small Under Desk Mount	40Y8625	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Lenovo USB Fingerprint Keyboard	73P4730	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Kensington Cable Lock from Lenovo	73P2582	Kensington Twin Head Cable Lock	45K1620	Acc Guide in pdf lenovo.com/accessoriesguide		Other accessories at lenovo.com/accessories	
1GB PC3-8500 DDR3 SODIMM (notebook)	43R1987																																																					
2GB PC3-8500 DDR3 SODIMM (notebook)	43R1988																																																					
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																																																					
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918																																																					
USB Portable Diskette Drive	05K9276																																																					
USB 2.0 Lenovo Multimedia Headset	40Y8518																																																					
USB 2.0 Lenovo Webcam	40Y8519																																																					
USB 2.0 Essential Memory Key 32GB	45K1258																																																					
USB 2.0 Ultra Secure Memory Key 2GB	45J5916																																																					
USB 2.0 Ultra Secure Memory Key 4GB	45J5917																																																					
USB 2.0 Ultra Secure Memory Key 8GB	45J5918																																																					
USB 2.0 Portable 160GB Hard Disk	43R1784																																																					
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																																					
USB 2.0 Super Multi-Burner Drive	41N5565																																																					
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																																																					
ThinkVision® L2440x Wide 24" Monitor	4421HB2																																																					
DisplayPort to Single-link DVI-D Cable	45J7915																																																					
ThinkCentre Ultra Small Under Desk Mount	40Y8625																																																					
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067																																																					
Lenovo USB Fingerprint Keyboard	73P4730																																																					
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074																																																					
Kensington Cable Lock from Lenovo	73P2582																																																					
Kensington Twin Head Cable Lock	45K1620																																																					
Acc Guide in pdf lenovo.com/accessoriesguide																																																						
Other accessories at lenovo.com/accessories																																																						

See footnotes for important warranty information
US model announced November 11, 2008

© Lenovo
(MLAN1-19) November 2008

- **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**

See footnotes for important warranty information
US model announced April 7, 2009

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

© Lenovo
(MLAN1-20) November 2008

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 4.0	Intel vPro	Vista preload	Global 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	ES40	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	ES40	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	Ultimate stability/manageability for large enterprise and mid-market 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></div></div>																																																
Implementation	Processor in FC-LGA8 package in LGA775 socket																																																				
Memory	2GB std , 4GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SODIMM sockets (notebook); <i>Non-italics</i> : standard memory in one socket; one socket available		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Slot 1: Low Profile, 32-bit PCI 2.3																																																		
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in Q45, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display DisplayPort to Single-link DVI-D Cable		<ul style="list-style-type: none">• Business black color; metal case• 10.8" W X 9.4" D X 3.1" H• 275mm W X 238mm D X 80mm H• 9.2 lb (4.2 kg) in maximum configuration• Hinged toolless cover for easy serviceability• Toolless disk and optical drive removal• Toolless systemboard retention• System floor stand for vertical orientation																																																		
DP dongle																																																					
SATA disk	160GB , 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 <ul style="list-style-type: none">- Microsoft® Windows® XP Professional with Vista® COA✦ Disk-to-Disk Recovery (in hidden protected area)✦ Vista Premium logo Preloaded applications⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage Power Manager• Norton Internet Security™ (90 days of virus definitions)• Diskkeeper® Home• PC-Doctor™ (diagnostics)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Picasa from Google• Microsoft Office 2007 Trial (60-day)• Multimedia Center for Think Offerings (DVD±RW)• Sonic RecordNow and Drive Letter Access (DVD±RW)• Corel® WinDVD® (DVD±RW)• Corel WinDVD Creator (DVD±RW)			Accessories <table><tr><td>1GB PC3-8500 DDR3 SODIMM (notebook)</td><td>43R1987</td></tr><tr><td>2GB PC3-8500 DDR3 SODIMM (notebook)</td><td>43R1988</td></tr><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>USB Portable Diskette Drive</td><td>05K9276</td></tr><tr><td>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Essential Memory Key 32GB</td><td>45K1258</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 2GB</td><td>45J5916</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 4GB</td><td>45J5917</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable 160GB Hard Disk</td><td>43R1784</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</td></tr><tr><td>USB 2.0 Super Multi-Burner Drive</td><td>41N5565</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>ThinkVision® L2440x Wide 24" Monitor</td><td>4421HB2</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>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Lenovo USB Fingerprint Keyboard</td><td>73P4730</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>Kensington Twin Head Cable Lock</td><td>45K1620</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr></table> Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories			1GB PC3-8500 DDR3 SODIMM (notebook)	43R1987	2GB PC3-8500 DDR3 SODIMM (notebook)	43R1988	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	USB Portable Diskette Drive	05K9276	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Lenovo Webcam	40Y8519	USB 2.0 Essential Memory Key 32GB	45K1258	USB 2.0 Ultra Secure Memory Key 2GB	45J5916	USB 2.0 Ultra Secure Memory Key 4GB	45J5917	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable 160GB Hard Disk	43R1784	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	USB 2.0 Super Multi-Burner Drive	41N5565	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ThinkVision® L2440x Wide 24" Monitor	4421HB2	Lenovo Vertical PC and Monitor Stand II	41R4474	ThinkCentre Ultra Small Under Desk Mount	40Y8625	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Lenovo USB Fingerprint Keyboard	73P4730	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Kensington Cable Lock from Lenovo	73P2582	Kensington Twin Head Cable Lock	45K1620	DisplayPort to Single-link DVI-D Cable	45J7915
1GB PC3-8500 DDR3 SODIMM (notebook)	43R1987																																																				
2GB PC3-8500 DDR3 SODIMM (notebook)	43R1988																																																				
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																																																				
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918																																																				
USB Portable Diskette Drive	05K9276																																																				
USB 2.0 Lenovo Multimedia Headset	40Y8518																																																				
USB 2.0 Lenovo Webcam	40Y8519																																																				
USB 2.0 Essential Memory Key 32GB	45K1258																																																				
USB 2.0 Ultra Secure Memory Key 2GB	45J5916																																																				
USB 2.0 Ultra Secure Memory Key 4GB	45J5917																																																				
USB 2.0 Ultra Secure Memory Key 8GB	45J5918																																																				
USB 2.0 Portable 160GB Hard Disk	43R1784																																																				
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																																				
USB 2.0 Super Multi-Burner Drive	41N5565																																																				
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																																																				
ThinkVision® L2440x Wide 24" Monitor	4421HB2																																																				
Lenovo Vertical PC and Monitor Stand II	41R4474																																																				
ThinkCentre Ultra Small Under Desk Mount	40Y8625																																																				
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067																																																				
Lenovo USB Fingerprint Keyboard	73P4730																																																				
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074																																																				
Kensington Cable Lock from Lenovo	73P2582																																																				
Kensington Twin Head Cable Lock	45K1620																																																				
DisplayPort to Single-link DVI-D Cable	45J7915																																																				
			Security <ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® Microsaver® cable) - security slot and cover release button are combined into one latch for improved chassis security• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Individual USB port disablement																																																		
			Supports ThinkVantage® technologies																																																		
			EPEAT™ Gold rating ENERGY STAR® 4.0-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																																																		

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

© Lenovo
(MLAN2-11) April 2009

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 4.0	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	ES40	vPro	Bus32	G P	Dec 08

- **Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)**
- **This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty**

Positioning Processor	Ultimate stability/manageability for large enterprise and mid-market Intel® Core™ 2 Duo Processor E8400 with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache		Eco Ultra Small <div><div>optical</div><div>disk</div><div></div></div>	
Implementation	Processor in FC-LGA8 package in LGA775 socket			
Memory	2GB std , 4GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SODIMM sockets (notebook); <i>Non-italics</i> : standard memory in one socket; one socket available		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Slot 1: Low Profile, 32-bit PCI 2.3	
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in Q45, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector (supports single-link DVI-D via cable 45J7915), HDCP, DirectX® 10, supports dual independent display		<ul style="list-style-type: none">• Business black color; metal case• 10.8" W X 9.4" D X 3.1" H• 275mm W X 238mm D X 80mm H• 9.2 lb (4.2 kg) in maximum configuration• Hinged toolless cover for easy serviceability• Toolless disk and optical drive removal• Toolless systemboard retention• System floor stand for vertical orientation	
SATA disk	160GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts		Security <ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® Microsaver® cable)<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® 4.0-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		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	
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		Accessories		
- Microsoft® Windows® Vista® Business Edition (32-bit)		1GB PC3-8500 DDR3 SODIMM (notebook) 43R1987		
◇ Vista Premium logo		2GB PC3-8500 DDR3 SODIMM (notebook) 43R1988		
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™		USB Portable Diskette Drive 05K9276		
• ThinkVantage Productivity Center		USB 2.0 Lenovo Multimedia Headset 40Y8518		
• ThinkVantage Power Manager		USB 2.0 Lenovo Webcam 40Y8519		
• Norton Internet Security™ (90 days of virus definitions)		USB 2.0 Essential Memory Key 32GB 45K1258		
• Diskkeeper® Home		USB 2.0 Ultra Secure Memory Key 2GB 45J5916		
• PC-Doctor™ (diagnostics)		USB 2.0 Ultra Secure Memory Key 4GB 45J5917		
• Adobe® Reader		USB 2.0 Ultra Secure Memory Key 8GB 45J5918		
• Windows Live™ Toolbar		USB 2.0 Portable 160GB Hard Disk 43R1784		
• Windows Live Search		USB 2.0 Portable Secure 320GB Hard Disk 43R2019		
• Picasa from Google		USB 2.0 Super Multi-Burner Drive 41N5565		
• Microsoft Office 2007 Trial (60-day)		Super Multi-Burner DL DVD±RW SATA Drive 41N5620		
• Sonic RecordNow and Drive Letter Access (DVD±RW)		ThinkVision® L2440x Wide 24" Monitor 4421HB2		
• Corel® WinDVD® (DVD±RW)		DisplayPort to Single-link DVI-D Cable 45J7915		
		ThinkCentre Ultra Small Under Desk Mount 40Y8625		
		Wireless Kbd & Opt Wheel Mouse (via USB) 73P4067		
		Lenovo USB Fingerprint Keyboard 73P4730		
		Laser Tilt Wheel Mouse (USB, PS/2) 41U3074		
		Kensington Cable Lock from Lenovo 73P2582		
		Kensington Twin Head Cable Lock 45K1620		
		Acc Guide in pdf lenovo.com/accessoriesguide		
		Other accessories at lenovo.com/accessories		

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor connectors	DisplayPort dongle	Intel vPro	Preload	Global Educ	Avail date
M58p	9964-A1U	2x3	Core 2 Duo E8400	3.00	2	2GB	160GB ²	DVD±RW	GMA	VGA, DP	None	vPro	XP Pro	None	Nov 08
M58p	9964-A2U	2x3	Core 2 Quad Q9400	2.66	4	2GB	250GB	DVD±RW	GMA	VGA, DP	None	vPro	XP Pro	None	Nov 08

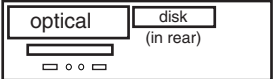
- **Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)**
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a 3-year limited warranty¹**

Positioning Processor	Ultimate stability/manageability for small and medium businesses 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 FC-LGA8 package in LGA775 socket										Small <div><div>optical</div><div>disk (in rear)</div></div> <div>Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader) Slot 1: Low Profile, PCI Express 2.0 x16 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</div>				
Implementation	Processor in FC-LGA8 package in LGA775 socket														
Memory	2GB std, 8GB max⁸, PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available														
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	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±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										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				
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				
Power supply	280 watts with variable speed fan, autosensing, two diagnostic LEDs										RoHS-compliant				
Preloaded operating system²⁰ <ul style="list-style-type: none">- Microsoft® Windows® XP Professional with Vista® COA⇨ Disk-to-Disk Recovery (in hidden protected area)⇨ Vista Basic logo Preloaded applications⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• Norton Internet Security™ (90 days of virus definitions)• Diskeeper® Home• PC-Doctor™ (diagnostics)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Picasa from Google• Microsoft Office 2007 Trial (60-day)• Multimedia Center for Think Offerings (DVD±RW)• Sonic RecordNow and Drive Letter Access (DVD±RW)• Corel® WinDVD® (DVD±RW)• Corel WinDVD Creator (DVD±RW)							Accessories <div>1GB PC3-8500 DDR3 UDIMM 45J5434</div> <div>2GB PC3-8500 DDR3 UDIMM 45J5435</div> <div>500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990</div> <div>1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918</div> <div>USB Portable Diskette Drive 05K9276</div> <div>USB 2.0 Lenovo Multimedia Headset 40Y8518</div> <div>USB 2.0 Lenovo Webcam 40Y8519</div> <div>USB 2.0 Essential Memory Key 32GB 45K1258</div> <div>USB 2.0 Security Memory Key 4GB 41U5120</div> <div>USB 2.0 Ultra Secure Memory Key 2GB 45J5916</div> <div>USB 2.0 Ultra Secure Memory Key 4GB 45J5917</div> <div>USB 2.0 Ultra Secure Memory Key 8GB 45J5918</div> <div>USB 2.0 Portable 160GB Hard Disk 43R1784</div> <div>USB 2.0 Portable Secure 320GB Hard Disk 43R2019</div> <div>USB 2.0 Super Multi-Burner Drive 41N5565</div> <div>Super Multi-Burner DL DVD±RW SATA Drive 41N5620</div> <div>ThinkVision® L2440x Wide 24" Monitor 4421HB2</div> <div>DisplayPort to Single-link DVI-D Cable 45J7915</div> <div>Wireless Kbd & Opt Wheel Mouse (via USB) 73P4067</div> <div>Lenovo USB Fingerprint Keyboard 73P4730</div> <div>Laser Tilt Wheel Mouse (USB, PS/2) 41U3074</div> <div>Kensington Cable Lock from Lenovo 73P2582</div> <div>Kensington Twin Head Cable Lock 45K1620</div> <div>ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636</div> <div>Acc Guide in pdf lenovo.com/accessoriesguide</div> <div>Other accessories at lenovo.com/accessories</div>								

See footnotes for important warranty information
 US models announced October 21, 2008

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

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

Positioning Processor	Ultimate stability/manageability for large enterprise and mid-market Intel® Core™ 2 Duo Processor E8400 or E8500 with dual-core , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache or Intel Core 2 Quad Processor Q9400 with quad-core , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache Processor in FC-LGA8 package in LGA775 socket		Small 	
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, 8GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; 3 sockets available		<ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless systemboard retention• System floor stand for vertical orientation	
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in Q45, uses main memory (up to 253MB [<i>1GB models</i>], 765MB [<i>2GB models</i>]), one analog VGA DB-15 connector, one DisplayPort™ conn, HDCP, DirectX® 10, supports dual independent display <i>Some:</i> ATI™ Radeon™ HD 3470 , PCI Express® 2.0 x16 adapter, 256MB, one analog VGA DB-15 connector, one DisplayPort connector, HDCP, DirectX 10.1, ATI Avivo™, 25 watts			
DP dongle	<i>Some:</i> DisplayPort to Single-link DVI-D Cable			
SATA disk	160GB or 250GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts		Security <ul style="list-style-type: none">• Security chip (see information on left)• Security slot (in rear for attachment of optional Kensington® Microsaver® cable)<ul style="list-style-type: none">- optional cable also locks the cover by deactivating the cover release buttons• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Serial port I/O control• Individual USB port disablement• <i>Some:</i> Chassis intrusion switch	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support			
SATA DVD	<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)		Supports ThinkVantage® technologies	
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)		GREENGUARD® certified RoHS-compliant	
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec			
Speaker	One internal speaker for business audio		Limited Warranty¹ <ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378	
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		
- Microsoft® Windows® Vista® Business Edition (32-bit)		1GB PC3-8500 DDR3 UDIMM		45J5434
◇ Vista Premium logo		2GB PC3-8500 DDR3 UDIMM	45J5435	
Preloaded applications⁵ (only some listed)		500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	
• <i>Some:</i> Education software		1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	
- VitalSource Library College Edition		USB 2.0 Lenovo Multimedia Headset	40Y8518	
- Adobe® Instructor Resource Center		USB 2.0 Portable Secure 320GB Hard Disk	43R2019	
- Adobe Digital School Collection		DVD-ROM DL SATA 1.5Gb/s 16-48X Max	41N5618	
- Photoshop Elements 6 (and CD)		Super Multi-Burner DL DVD±RW SATA Drive	41N5620	
- Premier Elements 4 (and DVD)		ThinkVision® L2440x Wide 24" Monitor	4421HB2	
- Acrobat 8 Professional (and CD)		DisplayPort to Single-link DVI-D Cable	45J7915	
- Contribute 4 (and CD)		Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	
• Rescue and Recovery™		Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	
• Client Security Solution™		Kensington Cable Lock from Lenovo	73P2582	
• ThinkVantage Productivity Center		ATI Radeon HD 3470 256MB (DP, VGA)	45K1636	
		Acc Guide in pdf lenovo.com/accessoriesguide		
		Other accessories at lenovo.com/accessories		

See footnotes for important warranty information
 US models announced October 21, 2008

© Lenovo
 (MLAN1-4) October 2008

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	Intel vPro	Vista preload	Global Educ	Avail date
M58p	7483-B1U	2x3	Core 2 Duo E8400	3.00	2	2GB	160GB ²	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	vPro	XP Pro	None	Apr 09
M58p	7483-B2U	2x3	Core 2 Duo E8500	3.16	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	vPro	XP Pro	None	Apr 09

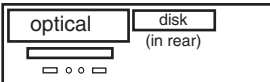
- **Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)**
- **These models have a 3-year limited warranty¹**

Positioning Processor	Ultimate stability/manageability for large enterprise and mid-market Intel® Core™ 2 Duo Processor E8400 or E8500 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 , 8GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; 3 sockets available	
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in Q45, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display	
DP dongle	DisplayPort to Single-link DVI-D Cable	
SATA disk	160GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts	Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader) Slot 1: Low Profile, PCI Express 2.0 x16 Slot 2: Low Profile, 32-bit PCI 2.3 <ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless systemboard retention• System floor stand for vertical orientation
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	

Security

- Security chip (see information on left)
- Security slot (in rear for attachment of optional Kensington® Microsaver® cable) - optional cable also locks the cover by deactivating the cover release buttons
- Power-on password
- Administrator password
- Hard disk password (user and master)
- Boot sequence control
- Boot without diskette, keyboard
- Serial port I/O control
- Individual USB port disablement

Preloaded operating system²⁰ <ul style="list-style-type: none">- Microsoft® Windows® XP Professional with Vista® COA◇ Disk-to-Disk Recovery (in hidden protected area)◇ Vista Premium logo Preloaded applications⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage Power Manager• Norton Internet Security™ (90 days of virus definitions)• Diskeeper® Home• PC-Doctor™ (diagnostics)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Picasa from Google• Microsoft Office 2007 Trial (60-day)• Multimedia Center for Think Offerings (DVD±RW)• Sonic RecordNow and Drive Letter Access (DVD±RW)• Corel® WinDVD® (DVD±RW)• Corel WinDVD Creator (DVD±RW)	Accessories <ul style="list-style-type: none">1GB PC3-8500 DDR3 UDIMM 45J54342GB PC3-8500 DDR3 UDIMM 45J5435500GB SATA 3.0Gb/s Disk (7200 rpm) 43R19901TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918USB Portable Diskette Drive 05K9276USB 2.0 Lenovo Multimedia Headset 40Y8518USB 2.0 Lenovo Webcam 40Y8519USB 2.0 Essential Memory Key 32GB 45K1258USB 2.0 Ultra Secure Memory Key 2GB 45J5916USB 2.0 Ultra Secure Memory Key 4GB 45J5917USB 2.0 Ultra Secure Memory Key 8GB 45J5918USB 2.0 Portable Secure 320GB Hard Disk 43R2019Super Multi-Burner DL DVD±RW SATA Drive 41N5620ThinkVision® L2440x Wide 24" Monitor 4421HB2Wireless Kbd & Opt Wheel Mouse (via USB) 73P4067Laser Tilt Wheel Mouse (USB, PS/2) 41U3074Kensington Cable Lock from Lenovo 73P2582DisplayPort to Single-link DVI-D Cable 45J7915ATI™ Radeon HD 3470 256MB (DP, VGA) 45K1636Acc Guide in pdf lenovo.com/accessoriesguideOther accessories at lenovo.com/accessories	45J5434 45J5435 43R1990 45J7918 05K9276 40Y8518 40Y8519 45K1258 45J5916 45J5917 45J5918 43R2019 41N5620 4421HB2 73P4067 41U3074 73P2582 45J7915 45K1636
		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⇨ 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 4.0	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		ES40	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	ES40	vPro	Bus32	No	Nov 08						
M58p	7220-A8U	2x3	Core 2 Duo E8500	3.16	2	1GB	250GB	DVD	GMA	VGA, DP		ES40	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	ES40	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	ES40	vPro	Bus32	No	Nov 08						
<ul style="list-style-type: none">Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)These models have a 3-year limited warranty¹																						
Positioning	Ultimate stability/manageability for large enterprise and mid-market										Small											
Processor	Intel® Core™ 2 Duo Processor E8400 or E8500 with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache																					
Implementation	Processor in FC-LGA8 package in LGA775 socket											Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)										
Memory	1GB or 2GB std, 8GB max ⁸ , PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; 3 sockets available											Slot 1: Low Profile, PCI Express 2.0 x16* Slot 2: Low Profile, 32-bit PCI 2.3										
Graphics	<i>Some:</i> 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 <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											* used in some models <ul style="list-style-type: none">Business black color; metal case12.5" W X 14.0" D X 3.9" H317mm W X 355mm D X 99mm H16.5 lb (7.5 kg) in maximum configurationToolless cover flips up and tilts backward on rear hingesToolless disk, optical drive removalToolless adapter retentionToolless systemboard retentionSystem floor stand for vertical orientation										
DP dongle	<i>Some:</i> 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 buttonsPower-on passwordAdministrator passwordHard disk password (user and master)Boot sequence controlBoot without diskette, keyboardSerial port I/O controlIndividual USB port disablement Supports ThinkVantage® technologies Climate Savers®-compliant EPEAT™ Gold rating ENERGY STAR 4.0-compliant GREENGUARD® certified RoHS-compliant Limited Warranty¹ <ul style="list-style-type: none">3-year parts and laborInternational Warranty Service⁹Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)ThinkPlus services at lenovo.com/thinkplus/warrantyPost warranty maintenance services available24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378										
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																					
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																					
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort), eSATA																					
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)																					
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)																					
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec																					
Speaker	One internal speaker for business audio																					
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0																					
Intel AMT	Intel Active Management Technology (iAMT)																					
Modem	None																					
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant																					
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																					
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																					
Power supply	280 watts with variable speed fan, autosensing, 85% PSU																					
Preloaded operating system²⁰			Accessories																			
- Microsoft® Windows® Vista® Business Edition (32-bit)			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™			USB Portable Diskette Drive 05K9276																			
• ThinkVantage Productivity Center			USB 2.0 Lenovo Multimedia Headset 40Y8518																			
• ThinkVantage Power Manager			USB 2.0 Lenovo Webcam 40Y8519																			
• Norton Internet Security™ (90 days of virus definitions)			USB 2.0 Essential Memory Key 32GB 45K1258																			
• Diskeeper® Home			USB 2.0 Ultra Secure Memory Key 2GB 45J5916																			
• PC-Doctor™ (diagnostics)			USB 2.0 Ultra Secure Memory Key 4GB 45J5917																			
• Adobe® Reader			USB 2.0 Ultra Secure Memory Key 8GB 45J5918																			
• Windows Live™ Toolbar			USB 2.0 Portable Secure 320GB Hard Disk 43R2019																			
• Windows Live Search			USB 2.0 Super Multi-Burner Drive 41N5565																			
• Picasa from Google			DVD-ROM DL SATA 1.5Gb/s 16-48X Max 41N5618																			
• Microsoft Office 2007 Trial (60-day)			Super Multi-Burner DL DVD±RW SATA Drive 41N5620																			
• Sonic RecordNow and Drive Letter Access (DVD±RW)			ThinkVision® L2440x Wide 24" Monitor 4421HB2																			
• Corel® WinDVD® (DVD, DVD±RW)			DisplayPort to Single-link DVI-D Cable 45J7915																			
			Wireless Kbd & Opt Wheel Mouse (via USB) 73P4067																			
			Laser Tilt Wheel Mouse (USB, PS/2) 41U3074																			
			Kensington Cable Lock from Lenovo 73P2582																			
			ATI Radeon HD 3470 256MB (DP, VGA) 45K1636																			
			Acc Guide in pdf lenovo.com/accessoriesguide																			
			Other accessories at lenovo.com/accessories																			

See footnotes for important warranty information
 US models announced October 21, 2008

See footnotes for important warranty information
US model announced April 7, 2009

ThinkCentre® M58p Small (6137) - GMP

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ^a	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dangle	Chassis intr switch	Intel vPro	Vista preload	Global (G) GMP (P)	Avail date
M58p	6137-A2U	2x3	Core 2 Duo E8400	3.00	2	2GB	160GB ²	DVD	GMA	VGA, DP	None		vPro	Bus32	G P	Jan 09
M58p	6137-A1U	2x3	Core 2 Duo E8400	3.00	2	2GB	160GB	DVD±RW	GMA	VGA, DP	None	Switch	vPro	Bus32	G P	Nov 08
M58p	6137-A3U	2x3	Core 2 Duo E8400	3.00	2	3GB	160GB	DVD	GMA	VGA, DP	None	Switch	vPro	Bus32	G P	Mar 09

- Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)
- These models are part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty

Positioning Processor	Ultimate stability/manageability for large enterprise and mid-market Intel® Core™ 2 Duo Processor E8400 with dual-core , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache		<div><div>optical</div><div>disk (in rear)</div></div> <div>Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)</div> <div>Slot 1: Low Profile, PCI Express 2.0 x16 Slot 2: Low Profile, 32-bit PCI 2.3</div> <div><ul style="list-style-type: none">• Business black color; metal case• 12.5" W X 14.0" D X 3.9" H• 317mm W X 355mm D X 99mm H• 16.5 lb (7.5 kg) in maximum configuration• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, optical drive removal• Toolless adapter retention• Toolless systemboard retention• System floor stand for vertical orientation</div>
Implementation	Processor in FC-LGA8 package in LGA775 socket		
Memory	2GB or 3GB std, 8GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available		
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		
SATA disk	160GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts		
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1		
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive		
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA Drive		
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors		
eSATA port	One external SATA (eSATA) port		
Diskette drive	None		
Media reader	None		
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort), eSATA		
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)		
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec		
Speaker	One internal speaker for business audio		
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0		
Intel AMT	Intel Active Management Technology (iAMT)		
Modem	None		
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo		
Power supply	280 watts with variable speed fan, autosenosing, two diagnostic LEDs		
<div><div><div>Preloaded operating system²⁰<ul style="list-style-type: none">- Microsoft® Windows® Vista® Business Edition (32-bit)⇨ Vista Premium logo</div><div>Preloaded applications⁵<ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage Power Manager• Norton Internet Security™ (90 days of virus definitions)• Diskeeper® Home• PC-Doctor™ (diagnostics)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Picasa from Google• Microsoft Office 2007 Trial (60-day)• Sonic RecordNow and Drive Letter Access (DVD±RW)• Corel® WinDVD® (DVD, DVD±RW)</div></div><div><div>Accessories<ul style="list-style-type: none">1GB PC3-8500 DDR3 UDIMM 45J54342GB PC3-8500 DDR3 UDIMM 45J5435500GB SATA 3.0Gb/s Disk (7200 rpm) 43R19901TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918USB Portable Diskette Drive 05K9276USB 2.0 Lenovo Multimedia Headset 40Y8518USB 2.0 Lenovo Webcam 40Y8519USB 2.0 Essential Memory Key 32GB 45K1258USB 2.0 Security Memory Key 4GB 41U5120USB 2.0 Ultra Secure Memory Key 2GB 45J5916USB 2.0 Ultra Secure Memory Key 4GB 45J5917USB 2.0 Ultra Secure Memory Key 8GB 45J5918USB 2.0 Portable 160GB Hard Disk 43R1784USB 2.0 Portable Secure 320GB Hard Disk 43R2019USB 2.0 Super Multi-Burner Drive 41N5565DVD-ROM DL SATA 1.5Gb/s 16-48X Max 41N5618Super Multi-Burner DL DVD±RW SATA Drive 41N5620ThinkVision® L2440x Wide 24" Monitor 4421HB2DisplayPort to Single-link DVI-D Cable 45J7915Wireless Kbd & Opt Wheel Mouse (via USB) 73P4067Lenovo USB Fingerprint Keyboard 73P4730Laser Tilt Wheel Mouse (USB, PS/2) 41U3074Kensington Cable Lock from Lenovo 73P2582Kensington Twin Head Cable Lock 45K1620ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636Acc Guide in pdf lenovo.com/accessoriesguideOther accessories at lenovo.com/accessories</div></div></div>			
Supports ThinkVantage® technologies			
GREENGUARD® certified RoHS-compliant			
<div><div>Limited Warranty¹<ul style="list-style-type: none">⇨ 3-year parts and labor⇨ International Warranty Service®⇨ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇨ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 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>			

See footnotes for important warranty information

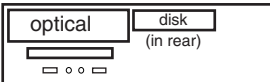
 US model announced February 17, 2009; previous models on October 21 or December 9, 2008

© Lenovo

(MLAN1-7) February 2009

ThinkCentre® M58p Small (6234) - ENERGY STAR® 4.0 (GMP)

Personal Systems Reference (PSREF)

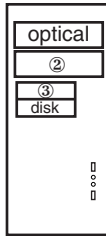
Name	Type-model	Slot x bay	Processor	GHz Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 4.0	Intel vPro	Vista preload	Global (G) GMP (P)	Avail date	
M58p	6234-A1U	2x3	Core 2 Duo E8400	3.00	2	2GB	160GB ²	DVD±RW	GMA	VGA, DP	None	ES40	vPro	Bus32	G P	Nov 08
<ul style="list-style-type: none">• Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)• This model is part of the Global Models Plus (GMP) program with limited onsite service³; 3-year limited warranty																
Positioning Processor	Ultimate stability/manageability for large enterprise and mid-market 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						
Implementation	Processor in FC-LGA8 package in LGA775 socket									Bay ① 5.25", 1.6" high, access,		std optical				
Memory	2GB std , 8GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available									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									Bay ③ 3.5", .5" high, access,		open (reader)				
SATA disk	160GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts									Slot 1: Low Profile, PCI Express 2.0 x16		Slot 2: Low Profile, 32-bit PCI 2.3				
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1									• Business black color; metal case		• 12.5" W X 14.0" D X 3.9" H				
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive									• 317mm W X 355mm D X 99mm H		• 16.5 lb (7.5 kg) in maximum configuration				
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors									• Toolless cover flips up and tilts backward on rear hinges		• Toolless disk, optical drive removal				
eSATA port	One external SATA (eSATA) port									• Toolless adapter retention		• Toolless systemboard retention				
Diskette drive	None									• System floor stand for vertical orientation						
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				
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)											• Security chip (see information on left)				
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort), eSATA											• Security slot (in rear for attachment of optional Kensington® Microsaver® cable) - optional cable also locks the cover by deactivating the cover release buttons				
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)											• Power-on password				
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)											• Administrator password				
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec											• Hard disk password (user and master)				
Speaker	One internal speaker for business audio											• Boot sequence control				
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0											• Boot without diskette, keyboard				
Intel AMT	Intel Active Management Technology (iAMT)											• Serial port I/O control				
Modem	None											• Individual USB port disablement				
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant											• Chassis intrusion switch				
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						Supports ThinkVantage® technologies				
- Microsoft® Windows® Vista® Business Edition (32-bit)						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™						USB Portable Diskette Drive						05K9276				
• ThinkVantage Productivity Center						USB 2.0 Lenovo Multimedia Headset						40Y8518				
• ThinkVantage Power Manager						USB 2.0 Lenovo Webcam						40Y8519				
• Norton Internet Security™ (90 days of virus definitions)						USB 2.0 Essential Memory Key 32GB						45K1258				
• Diskkeeper® Home						USB 2.0 Security Memory Key 4GB						41U5120				
• PC-Doctor™ (diagnostics)						USB 2.0 Ultra Secure Memory Key 2GB						45J5916				
• Adobe® Reader						USB 2.0 Ultra Secure Memory Key 4GB						45J5917				
• Windows Live™ Toolbar						USB 2.0 Ultra Secure Memory Key 8GB						45J5918				
• Windows Live Search						USB 2.0 Portable 160GB Hard Disk						43R1784				
• Picasa from Google						USB 2.0 Portable Secure 320GB Hard Disk						43R2019				
• Microsoft Office 2007 Trial (60-day)						USB 2.0 Super Multi-Burner Drive						41N5565				
• Sonic RecordNow and Drive Letter Access (DVD±RW)						Super Multi-Burner DL DVD±RW SATA Drive						41N5620				
• Corel® WinDVD® (DVD±RW)						ThinkVision® L2440x Wide 24" Monitor						4421HB2				
						DisplayPort to Single-link DVI-D Cable						45J7915				
						Wireless Kbd & Opt Wheel Mouse (via USB)						73P4067				
						Lenovo USB Fingerprint Keyboard						73P4730				
						Laser Tilt Wheel Mouse (USB, PS/2)						41U3074				
						Kensington Cable Lock from Lenovo						73P2582				
						Kensington Twin Head Cable Lock						45K1620				
						ATI™ Radeon™ HD 3470 256MB (DP, VGA)						45K1636				
						Acc Guide in pdf lenovo.com/accessoriesguide										
						Other accessories at lenovo.com/accessories										
Climate Savers®-compliant																
EPEAT™ Gold rating																
ENERGY STAR 4.0-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																
• 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																

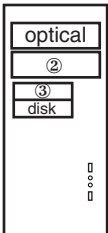
See footnotes for important warranty information
US model announced October 21, 2008

© Lenovo
(MLAN1-8) October 2008

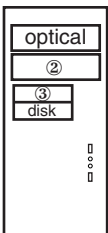
ThinkCentre® M58p Tower (9965) - TopSeller

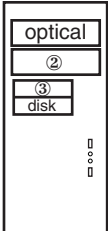
Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ^a	SATA disk	SATA optical	Graphics	Monitor connectors	DisplayPort dongle	Int'l vPro	Preload	Global Educ	Avail date
M58p	9965-A1U	4x4	Core 2 Duo E8400	3.00	2	2GB	160GB ²	DVD±RW	GMA	VGA, DP	None	vPro	XP Pro	None	Nov 08
M58p	9965-A2U	4x4	Core 2 Quad Q9400	2.66	4	2GB	250GB	DVD±RW	GMA	VGA, DP	None	vPro	XP Pro	None	Nov 08
<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 Processor	Ultimate stability/manageability for small and medium businesses 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 FC-LGA8 package in LGA775 socket									Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.2 lb (11.0 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention					
Implementation										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 std , 8GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available														
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in Q45, uses main memory (up to 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	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±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive														
SATA cables	Two SATA cables (each 1-drop to device), three SATA connectors and one eSATA connector on planar														
eSATA port	None														
Diskette drive	None														
Media reader	None														
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O														
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)														
Rear ports	Six USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)														
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)														
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)														
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec														
Speaker	One internal speaker for business audio														
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0														
Intel AMT	Intel Active Management Technology (iAMT)														
Modem	None														
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant														
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo														
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo														
Power supply	280 watts with variable speed fan, manual switch, two diagnostic LEDs														
Preloaded operating system²⁰			Accessories			Limited Warranty¹									
- Microsoft® Windows® XP Professional with Vista® COA			1GB PC3-8500 DDR3 UDIMM			⇒ 3-year parts and labor									
⇒ Disk-to-Disk Recovery (in hidden protected area)			2GB PC3-8500 DDR3 UDIMM			⇒ International Warranty Service⁹									
⇒ Vista Basic logo			500GB SATA 3.0Gb/s Disk (7200 rpm)			⇒ 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)									
Preloaded applications⁵			1TB SATA 3.0Gb/s Disk (7200 rpm)			⇒ Onsite service upgrade options (in eligible locations):⁷									
• Rescue and Recovery™			USB Portable Diskette Drive			• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)									
• Client Security Solution™			USB 2.0 Lenovo Multimedia Headset			• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)									
• ThinkVantage Productivity Center			USB 2.0 Lenovo Webcam			• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)									
• Norton Internet Security™ (90 days of virus definitions)			USB 2.0 Essential Memory Key 32GB			• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)									
• Diskeeper® Home			USB 2.0 Ultra Secure Memory Key 4GB			• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)									
• PC-Doctor™ (diagnostics)			USB 2.0 Ultra Secure Memory Key 8GB			⇒ ThinkPlus services at lenovo.com/thinkplus/warranty									
• Adobe® Reader			USB 2.0 Portable Secure 320GB Hard Disk			⇒ Post warranty maintenance services available									
• Windows Live™ Toolbar			Super Multi-Burner DL DVD±RW SATA Drive			⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378									
• Windows Live Search			Blu-ray™ Burner SATA 1.5Gb/s Drive												
• Picasa from Google			ThinkVision® L2440x Wide 24" Monitor												
• Microsoft Office 2007 Trial (60-day)			DisplayPort to Single-link DVI-D Cable												
• Multimedia Center for Think Offerings (DVD±RW)			Wireless Kbd & Opt Wheel Mouse (via USB)												
• Sonic RecordNow and Drive Letter Access (DVD±RW)			Lenovo USB Fingerprint Keyboard												
• Corel® WinDVD® (DVD±RW)			Laser Tilt Wheel Mouse (USB, PS/2)												
• Corel WinDVD Creator (DVD±RW)			Kensington Cable Lock from Lenovo												
			Kensington Twin Head Cable Lock												
			ATI™ Radeon™ HD 3470 256MB (DP, VGA)												
			NVIDIA® GeForce® 9500GT 512MB (DP, DVI)												
			NVIDIA Quadro® 256MB FX 370												
			NVIDIA Quadro 512MB FX 1700												
			Acc Guide in pdf lenovo.com/accessoriesguide												
			Other accessories at lenovo.com/accessories												

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁶	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	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 warranty¹																
Positioning Processor	Ultimate stability/manageability for large enterprise and mid-market										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					
	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															
Memory	1GB or 2GB std, 8GB max ⁸ , PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, four 240-pin DIMM sockets; Italics: standard memory in two sockets; two sockets available; Non-italics: standard memory in one socket; 3 sockets available															
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										Bay ① 5.25", 1.6" high, access, std optical					
	Some: DisplayPort to Single-link DVI-D Cable										Bay ② 5.25", 1.6" high, access, open					
											Bay ③ 3.5", 1" high, access, open (reader/diskette)					
											Bay ④ 3.5", 1" high, no access, std disk					
											Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max)*					
											Slot 2: half-length, full-height, PCIe x1					
											Slot 3: half-length, full-height, 32-bit PCI 2.3					
											Slot 4: half-length, full-height, 32-bit PCI 2.3					
											* used in some models					
DP dongle																
SATA disk	160GB or 250GB, 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• 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), 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										Supports ThinkVantage® technologies					
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)										GREENGUARD® certified					
Modem	None										RoHS-compliant					
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, 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⇒ 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									
- Microsoft® Windows® Vista® Business Edition (32-bit)							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							USB 2.0 Portable Secure 320GB Hard Disk			43R2019						
- VitalSource Library College Edition							DVD-ROM DL SATA 1.5Gb/s 16-48X Max			41N5618						
- Adobe® Instructor Resource Center							Super Multi-Burner DL DVD±RW SATA Drive			41N5620						
- Adobe Digital School Collection							Blu-ray™ Burner SATA 1.5Gb/s Drive			45K1675						
- Photoshop Elements 6 (and CD)							ThinkVision® L2440x Wide 24" Monitor			4421HB2						
- Premier Elements 4 (and DVD)							DisplayPort to Single-link DVI-D Cable			45J7915						
- Acrobat 8 Professional (and CD)							Wireless Kbd & Opt Wheel Mouse (via USB)			73P4067						
- Contribute 4 (and CD)							Kensington Cable Lock from Lenovo			73P2582						
• Rescue and Recovery™							ATI Radeon HD 3470 256MB (DP, VGA)			45K1636						
• Client Security Solution™							NVIDIA® GeForce® 9500GT 512MB (DP, DVI)			45K1635						
• ThinkVantage Productivity Center							NVIDIA Quadro® 256MB FX 370			43R1766						
							NVIDIA Quadro 512MB FX 1700			43R1767						
							Other accessories at lenovo.com/accessories									

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	Intel vPro	Vista 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
<ul style="list-style-type: none">• Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)• This model has a 3-year limited warranty¹															
Positioning	Ultimate stability/manageability for large enterprise and mid-market									<div><div>Tower</div><ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.2 lb (11.0 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention<div><div>optical</div><div>②</div><div>③</div><div>disk</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 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>					
Processor	Intel® Core™ 2 Duo Processor E8400 with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache														
Implementation	Processor in FC-LGA8 package in LGA775 socket														
Memory	2GB std, 8GB max ⁸ , PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, four 240-pin DIMM sockets; Non-italics: standard memory in one socket; 3 sockets available														
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500), integrated graphics in Q45, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display														
DP dongle	DisplayPort to Single-link DVI-D Cable														
SATA disk	160GB, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts														
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1														
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive														
SATA cables	Two SATA cables (each 1-drop to device), 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 system ²⁰										Accessories			GREENGUARD® certified RoHS-compliant		
- Microsoft® Windows® XP Professional with Vista® COA										1GB PC3-8500 DDR3 UDIMM			45J5434		
✧ Disk-to-Disk Recovery (in hidden protected area)										2GB PC3-8500 DDR3 UDIMM			45J5435		
✧ Vista Premium logo										500GB SATA 3.0Gb/s Disk (7200 rpm)			43R1990		
										1TB SATA 3.0Gb/s Disk (7200 rpm)			45J7918		
										USB Portable Diskette Drive			05K9276		
										USB 2.0 Lenovo Multimedia Headset			40Y8518		
										USB 2.0 Lenovo Webcam			40Y8519		
										USB 2.0 Essential Memory Key 32GB			45K1258		
										USB 2.0 Ultra Secure Memory Key 2GB			45J5916		
										USB 2.0 Ultra Secure Memory Key 4GB			45J5917		
										USB 2.0 Ultra Secure Memory Key 8GB			45J5918		
										USB 2.0 Portable 160GB Hard Disk			43R1784		
										USB 2.0 Portable Secure 320GB Hard Disk			43R2019		
										Super Multi-Burner DL DVD±RW SATA Drive			41N5620		
										Blu-ray™ Burner SATA 1.5Gb/s Drive			45K1675		
										ThinkVision® L2440x Wide 24" Monitor			4421HB2		
										Wireless Kbd & Opt Wheel Mouse (via USB)			73P4067		
										Kensington Cable Lock from Lenovo			73P2582		
										DisplayPort to Single-link DVI-D Cable			45J7915		
										ATI™ Radeon HD 3470 256MB (DP, VGA)			45K1636		
										NVIDIA® GeForce® 9500GT 512MB (DP, DVI)			45K1635		
										NVIDIA Quadro® 256MB FX 370			43R1766		
										NVIDIA Quadro 512MB FX 1700			43R1767		
										Acc Guide in pdf lenovo.com/accessoriesguide					
										Other accessories at lenovo.com/accessories					
Preloaded applications ⁵															
• Rescue and Recovery™															
• Client Security Solution™															
• ThinkVantage Productivity Center															
• ThinkVantage Power Manager															
• Norton Internet Security™ (90 days of virus definitions)															
• Diskeeper® Home															
• PC-Doctor™ (diagnostics)															
• Adobe® Reader															
• Windows Live™ Toolbar															
• Windows Live Search															
• Picasa from Google															
• Microsoft Office 2007 Trial (60-day)															
• Multimedia Center for Think Offerings (DVD±RW)															
• Sonic RecordNow and Drive Letter Access (DVD±RW)															
• Corel® WinDVD® (DVD±RW)															
• Corel WinDVD Creator (DVD±RW)															
</															

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 4.0	Intel vPro	Vista preload	Global Educ	Avail date	
M58p	7188-A8U	4x4	Core 2 Duo E8400	3.00	2	1GB	160GB ²	DVD	GMA	VGA, DP		ES40	vPro	Bus32	No	Nov 08	
M58p	7188-ABU	4x4	Core 2 Duo E8400	3.00	2	1GB	160GB	DVD±RW	GMA	VGA, DP		ES40	vPro	Bus32	No	Nov 08	
M58p	7188-A9U	4x4	Core 2 Duo E8400	3.00	2	2GB	250GB	DVD	3470	VGA, DP	DP-to-DVI-D	ES40	vPro	Bus32	No	Nov 08	
M58p	7188-ACU	4x4	Core 2 Duo E8500	3.16	2	1GB	160GB	DVD	GMA	VGA, DP		ES40	vPro	Bus32	No	Nov 08	
M58p	7188-AEU	4x4	Core 2 Duo E8500	3.16	2	1GB	250GB	DVD±RW	3470	VGA, DP	DP-to-DVI-D	ES40	vPro	Bus32	No	Nov 08	
M58p	7188-ADU	4x4	Core 2 Duo E8500	3.16	2	2GB	250GB	DVD	3470	VGA, DP		ES40	vPro	Bus32	No	Nov 08	
<ul style="list-style-type: none">Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)These models have a 3-year limited warranty¹																	
Positioning	Ultimate stability/manageability for large enterprise and mid-market										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						
Processor	Intel® Core™ 2 Duo Processor E8400 or E8500 with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache																
Implementation	Processor in FC-LGA8 package in LGA775 socket																
Memory	1GB or 2GB std, 8GB max ⁸ , PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; 3 sockets available																
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 4500 (GMA 4500), integrated graphics in Q45, uses main memory (up to 253MB [1GB models], 765MB [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	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), 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, two diagnostic LEDs, 80% PSU																
Preloaded operating system²⁰			Accessories														
- Microsoft® Windows® Vista® Business Edition (32-bit)			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™			USB 2.0 Lenovo Multimedia Headset 40Y8518														
• ThinkVantage Productivity Center			USB 2.0 Essential Memory Key 32GB 45K1258														
• ThinkVantage Power Manager			USB 2.0 Portable Secure 320GB Hard Disk 43R2019														
• Norton Internet Security™ (90 days of virus definitions)			DVD-ROM DL SATA 1.5Gb/s 16-48X Max 41N5618														
• Diskeeper® Home			Super Multi-Burner DL DVD±RW SATA Drive 41N5620														
• PC-Doctor™ (diagnostics)			Blu-ray™ Burner SATA 1.5Gb/s Drive 45K1675														
• Adobe® Reader			ThinkVision® L2440x Wide 24" Monitor 4421HB2														
• Windows Live™ Toolbar			DisplayPort to Single-link DVI-D Cable 45J7915														
• Windows Live Search			Wireless Kbd & Opt Wheel Mouse (via USB) 73P4067														
• Picasa from Google			Lenovo USB Fingerprint Keyboard 73P4730														
• Microsoft Office 2007 Trial (60-day)			Laser Tilt Wheel Mouse (USB, PS/2) 41U3074														
• Sonic RecordNow and Drive Letter Access (DVD±RW)			Kensington Cable Lock from Lenovo 73P2582														
• Corel® WinDVD® (DVD, DVD±RW)			Kensington Twin Head Cable Lock 45K1620														
			ATI Radeon HD 3470 256MB (DP, VGA) 45K1636														
			NVIDIA® GeForce® 9500GT 512MB (DP, DVI) 45K1635														
			NVIDIA Quadro® 256MB FX 370 43R1766														
			NVIDIA Quadro 512MB FX 1700 43R1767														
			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 passwordAdministrator passwordHard disk password (user and master)Boot sequence controlBoot without diskette, keyboardSerial port I/O controlIndividual USB port disablement																	
Supports ThinkVantage® technologies																	
EPEAT™ Gold rating ENERGY STAR 4.0-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																	

Name	Type-model	Slot x bay	Processor	GHz	Cores	Mem-ory	Media-reader	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	Intel vPro	Vista preload	Global Educ	Avail date	
M58p	7188-AHU	4x4	Core 2 Duo E8400	3.00	2	2GB		160GB ²	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	vPro	XP Pro	No	Apr 09	
M58p	7188-AJU	4x4	Core 2 Quad Q9400	2.66	4	4GB	25-in-1	320GB	DVD±RW	9500GT	DP, DVI-I		vPro	Bus64	No	Apr 09	
<ul style="list-style-type: none">• Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)• These models have a 3-year limited warranty¹																	
Positioning	Processor										Tower						
Implementation	Processor										• Business black color; metal case • 6.9" W X 17.3" D X 15.8" H • 175mm W X 440mm D X 402mm H • 24.2 lb (11.0 kg) in max configuration • Handle on top front • Toolless cover removal • Toolless disk, diskette drive, optical drive removal • Toolless adapter retention						
Memory	2GB or 4GB std, 8GB max ⁸ , PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, four 240-pin DIMM sockets; Italics: standard memory in two sockets; two sockets available; Non-italics: standard memory in one socket; 3 sockets available										Bay ① 5.25", 1.6" high, access, std optical Bay ② 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 1GB), one analog VGA DB-15 connector, one DisplayPort™ conn, HDCP, DirectX® 10, supports dual independent display Some: NVIDIA® GeForce® 9500 GT, PCI Express® 2.0 x16 adapter, 512MB, one DisplayPort connector, one dual-link DVI-I connector, HDCP, DirectX 10.1, PureVideo® HD technology, 45 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	160GB or 320GB, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts													Security			
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 chip (see information on left) • One lock to secure both cover and entire system to fixed object: - Padlock loop (in rear for opt padlock) - Security slot (in rear for optional Kensington® Microsaver® cable) • Power-on password • Administrator password • Hard disk password (user and master) • Boot sequence control • Boot without diskette, keyboard • Serial port I/O control • Individual USB port disablement			
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	Some: 25-in-1 media reader, internal USB 2.0													EPEAT™ Gold rating ENERGY STAR 4.0-compliant 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)													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			
Rear ports	Six USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), AJU: monitor (DisplayPort, DVI-I) Others: 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, two diagnostic LEDs, 80% PSU																
Preloaded operating system ²⁰				Accessories													
- Some: Microsoft® Windows® XP Professional with Vista® COA				1GB PC3-8500 DDR3 UDIMM						45J5434							
- Some: Microsoft Windows Vista Business Edition (64-bit)				2GB PC3-8500 DDR3 UDIMM						45J5435							
⇧ Vista Premium logo				500GB SATA 3.0Gb/s Disk (7200 rpm)						43R1990							
Preloaded applications ⁵ (all OSEs; only some listed)				1TB SATA 3.0Gb/s Disk (7200 rpm)						45J7918							
• Rescue and Recovery™				USB 2.0 Lenovo Multimedia Headset						40Y8518							
• Client Security Solution™				USB 2.0 Lenovo Webcam						40Y8519							
• ThinkVantage Productivity Center				USB 2.0 Essential Memory Key 32GB						45K1258							
• ThinkVantage Power Manager				USB 2.0 Ultra Secure Memory Key 8GB						45J5918							
• Norton Internet Security™				USB 2.0 Portable Secure 320GB Hard Disk						43R2019							
• Diskkeeper® Home				USB 2.0 Super Multi-Burner Drive						41N5565							
• PC-Doctor™ (diagnostics)				Super Multi-Burner DL DVD±RW SATA Drive						41N5620							
• Windows Live™ Toolbar				Blu-ray™ Burner SATA 1.5Gb/s Drive						45K1675							
• Windows Live Search				ThinkVision® L2440x Wide 24" Monitor						4421HB2							
• Microsoft Office 2007 Trial (60-day)				Wireless Kbd & Opt Wheel Mouse (via USB)						73P4067							
• Multimedia Center for Think Offerings (DVD, DVD±RW) (XP)				Lenovo USB Fingerprint Keyboard						73P4730							
• Sonic RecordNow and Drive Letter Access (DVD±RW)				Kensington Twin Head Cable Lock						45K1620							
• Corel® WinDVD® (DVD, DVD±RW)				DisplayPort to Single-link DVI-D Cable						45J7915							
• Corel WinDVD Creator (DVD±RW) (XP)				ATI™ Radeon HD 3470 256MB (DP, VGA)						45K1636							
				NVIDIA GeForce 9500GT 512MB (DP, DVI)						45K1635							
				NVIDIA Quadro® 256MB FX 370						43R1766							
				NVIDIA Quadro 512MB FX 1700						43R1767							
				Other accessories at lenovo.com/accessories													

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

© Lenovo
 (MLAN2-15) April 2009

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ^a	SATA disk	SATA optical	Graphics	Monitor connectors	DisplayPort dongle	Intel vPro	Vista preload	Global (G) GMP (P)	Avail date
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

- **Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)**
- **This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty**

Positioning Processor	Ultimate stability/manageability for large enterprise and mid-market 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			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> <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 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 FC-LGA8 package in LGA775 socket																																																								
Memory	2GB std , 8GB max ^a , 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																																																								
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1																																																								
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																																																								
SATA cables	Two SATA cables (each 1-drop to device), three SATA connectors and one eSATA connector on planar																																																								
eSATA port	None																																																								
Diskette drive	None																																																								
Media reader	None																																																								
Chipset	Intel Q45 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O			Security <ul style="list-style-type: none">• Security chip (see information on left)• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® Microsaver® cable)• Power-on password• Administrator password• Hard disk password (user and master)• Boot sequence control• Boot without diskette, keyboard• Serial port I/O control• Individual USB port disablement• Chassis intrusion switch																																																					
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																																																								
Rear ports	Six USB 2.0, serial (9-pin), 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">- Microsoft® Windows® Vista® Business Edition (32-bit)♦ Vista Premium logo Preloaded applications⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage Power Manager• Norton Internet Security™ (90 days of virus definitions)• Diskeeper® Home• PC-Doctor™ (diagnostics)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Picasa from Google• Microsoft Office 2007 Trial (60-day)• Sonic RecordNow and Drive Letter Access (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>USB Portable Diskette Drive</td><td>05K9276</td></tr><tr><td>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Essential Memory Key 32GB</td><td>45K1258</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 4GB</td><td>45J5917</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable 160GB Hard Disk</td><td>43R1784</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</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>ThinkVision® L2440x Wide 24" Monitor</td><td>4421HB2</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Lenovo USB Fingerprint Keyboard</td><td>73P4730</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>Kensington Twin Head Cable Lock</td><td>45K1620</td></tr><tr><td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr><tr><td>NVIDIA® GeForce® 9500GT 512MB (DP, DVI)</td><td>45K1635</td></tr><tr><td>NVIDIA Quadro® 256MB FX 370</td><td>43R1766</td></tr><tr><td>NVIDIA Quadro 512MB FX 1700</td><td>43R1767</td></tr></table> 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	USB Portable Diskette Drive	05K9276	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Lenovo Webcam	40Y8519	USB 2.0 Essential Memory Key 32GB	45K1258	USB 2.0 Ultra Secure Memory Key 4GB	45J5917	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable 160GB Hard Disk	43R1784	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	Blu-ray™ Burner SATA 1.5Gb/s Drive	45K1675	ThinkVision® L2440x Wide 24" Monitor	4421HB2	DisplayPort to Single-link DVI-D Cable	45J7915	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Lenovo USB Fingerprint Keyboard	73P4730	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Kensington Cable Lock from Lenovo	73P2582	Kensington Twin Head Cable Lock	45K1620	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635	NVIDIA Quadro® 256MB FX 370	43R1766	NVIDIA Quadro 512MB FX 1700	43R1767
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																																																								
USB Portable Diskette Drive	05K9276																																																								
USB 2.0 Lenovo Multimedia Headset	40Y8518																																																								
USB 2.0 Lenovo Webcam	40Y8519																																																								
USB 2.0 Essential Memory Key 32GB	45K1258																																																								
USB 2.0 Ultra Secure Memory Key 4GB	45J5917																																																								
USB 2.0 Ultra Secure Memory Key 8GB	45J5918																																																								
USB 2.0 Portable 160GB Hard Disk	43R1784																																																								
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																																								
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																																																								
Blu-ray™ Burner SATA 1.5Gb/s Drive	45K1675																																																								
ThinkVision® L2440x Wide 24" Monitor	4421HB2																																																								
DisplayPort to Single-link DVI-D Cable	45J7915																																																								
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067																																																								
Lenovo USB Fingerprint Keyboard	73P4730																																																								
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074																																																								
Kensington Cable Lock from Lenovo	73P2582																																																								
Kensington Twin Head Cable Lock	45K1620																																																								
ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636																																																								
NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635																																																								
NVIDIA Quadro® 256MB FX 370	43R1766																																																								
NVIDIA Quadro 512MB FX 1700	43R1767																																																								
				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 ^a	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 4.0	Intel vPro	Vista preload	Global (G) GMP (P)	Avail date
M58p	6209-A1U	4x4	Core 2 Duo E8400	3.00	2	2GB	160GB ²	DVD±RW	GMA	VGA, DP	None	ES40	vPro	Bus32	G P	Nov 08

- **Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)**
- **This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty**

Positioning Processor	Ultimate stability/manageability for large enterprise and mid-market 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 , 8GB max ^a , 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			Bay ① 5.25", 1.6" high, access, std optical																																																							
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1			Bay ② 5.25", 1.6" high, access, open																																																							
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive			Bay ③ 3.5", 1" high, access, open (reader/diskette)																																																							
SATA cables	Two SATA cables (each 1-drop to device), three SATA connectors and one eSATA connector on planar			Bay ④ 3.5", 1" high, no access, std disk																																																							
eSATA port	None			Slot 1: half-length,full-height, PCIe 2.0 x16 (75w max)																																																							
Diskette drive	None			Slot 2: half-length,full-height, PCIe x1																																																							
Media reader	None			Slot 3: half-length,full-height, 32-bit PCI 2.3																																																							
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			Slot 4: 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">• 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																																																							
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			Supports ThinkVantage® technologies																																																							
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo																																																										
Power supply	280 watts with variable speed fan, autosensing, two diagnostic LEDs, 80% PSU			EPEAT™ Gold rating ENERGY STAR 4.0-compliant GREENGUARD® certified RoHS-compliant																																																							
Preloaded operating system²⁰ <ul style="list-style-type: none">- Microsoft® Windows® Vista® Business Edition (32-bit)♦ Vista Premium logo Preloaded applications⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage Power Manager• Norton Internet Security™ (90 days of virus definitions)• Diskeeper® Home• PC-Doctor™ (diagnostics)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Picasa from Google• Microsoft Office 2007 Trial (60-day)• Sonic RecordNow and Drive Letter Access (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>USB Portable Diskette Drive</td><td>05K9276</td></tr><tr><td>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Essential Memory Key 32GB</td><td>45K1258</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 4GB</td><td>45J5917</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable 160GB Hard Disk</td><td>43R1784</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</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>ThinkVision® L2440x Wide 24" Monitor</td><td>4421HB2</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Lenovo USB Fingerprint Keyboard</td><td>73P4730</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>Kensington Twin Head Cable Lock</td><td>45K1620</td></tr><tr><td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr><tr><td>NVIDIA® GeForce® 9500GT 512MB (DP, DVI)</td><td>45K1635</td></tr><tr><td>NVIDIA Quadro® 256MB FX 370</td><td>43R1766</td></tr><tr><td>NVIDIA Quadro 512MB FX 1700</td><td>43R1767</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>		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	USB Portable Diskette Drive	05K9276	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Lenovo Webcam	40Y8519	USB 2.0 Essential Memory Key 32GB	45K1258	USB 2.0 Ultra Secure Memory Key 4GB	45J5917	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable 160GB Hard Disk	43R1784	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	Blu-ray™ Burner SATA 1.5Gb/s Drive	45K1675	ThinkVision® L2440x Wide 24" Monitor	4421HB2	DisplayPort to Single-link DVI-D Cable	45J7915	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Lenovo USB Fingerprint Keyboard	73P4730	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Kensington Cable Lock from Lenovo	73P2582	Kensington Twin Head Cable Lock	45K1620	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635	NVIDIA Quadro® 256MB FX 370	43R1766	NVIDIA Quadro 512MB FX 1700	43R1767	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">• 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																																																										
2GB PC3-8500 DDR3 UDIMM	45J5435																																																										
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																																																										
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918																																																										
USB Portable Diskette Drive	05K9276																																																										
USB 2.0 Lenovo Multimedia Headset	40Y8518																																																										
USB 2.0 Lenovo Webcam	40Y8519																																																										
USB 2.0 Essential Memory Key 32GB	45K1258																																																										
USB 2.0 Ultra Secure Memory Key 4GB	45J5917																																																										
USB 2.0 Ultra Secure Memory Key 8GB	45J5918																																																										
USB 2.0 Portable 160GB Hard Disk	43R1784																																																										
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																																										
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																																																										
Blu-ray™ Burner SATA 1.5Gb/s Drive	45K1675																																																										
ThinkVision® L2440x Wide 24" Monitor	4421HB2																																																										
DisplayPort to Single-link DVI-D Cable	45J7915																																																										
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067																																																										
Lenovo USB Fingerprint Keyboard	73P4730																																																										
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074																																																										
Kensington Cable Lock from Lenovo	73P2582																																																										
Kensington Twin Head Cable Lock	45K1620																																																										
ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636																																																										
NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635																																																										
NVIDIA Quadro® 256MB FX 370	43R1766																																																										
NVIDIA Quadro 512MB FX 1700	43R1767																																																										
Acc Guide in pdf lenovo.com/accessoriesguide																																																											
Other accessories at lenovo.com/accessories																																																											

Partial list of accessories supported on ThinkCentre M58 and M58p**Memory**

Eco Ultra Small 8820/7359/7637/9961/7479/6136 use notebook memory:

1GB PC3-8500 DDR3 SODIMM (notebook)	43R1987	ann 08/05/08
2GB PC3-8500 DDR3 SODIMM (notebook)	43R1988	ann 08/05/08

Small 8910/7360/6258/9964/7483/7220/6137/6234, and Tower 9960/7373/6239/9965/7484/7188/6138/6209 use desktop memory:

1GB PC3-8500 DDR3 UDIMM	45J5434	ann 11/18/08
2GB PC3-8500 DDR3 UDIMM	45J5435	ann 11/18/08

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 support:

Blu-ray™ Burner SATA 1.5Gb/s Drive	45K1675	ann 03/31/09
------------------------------------	---------	--------------

Storage and removable storage

160GB SATA 3.0Gb/s Disk (7200 rpm)	09N4254	ann 05/19/03
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	ann 01/24/06
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	ann 11/06/07
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	ann 08/19/08

USB Portable Diskette Drive	05K9276	ann 06/05/00
USB 2.0 Essential Memory Key 2GB	41U4944	ann 01/23/07
USB 2.0 Essential Memory Key 4GB	45J7904	ann 06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann 07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann 10/28/08
USB 2.0 Security Memory Key 4GB	41U5120	ann 07/17/07
USB 2.0 Ultra Secure Memory Key 1GB	45J5915	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann 08/26/08
USB 2.0 Portable 160GB Hard Disk	43R1784	ann 09/23/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
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
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann 01/05/06
USB 2.0 Super Multi-Burner Drive	41N5565	ann 01/23/07

Graphics

Small 8910/7360/6258/7638/9964/7483/7220/6137/6234 support Low Profile:

ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	ann 11/18/08
--------------------------------------	---------	--------------

Tower 9960/7373/6239/9965/7484/7188/6138/6209 support 75 watts max:

ATI Radeon HD 3470 256MB (DP, VGA)	45K1636	ann 11/18/08
NVIDIA® GeForce® 9500 GT 512MB (DP, DVI)	45K1635	ann 11/18/08
NVIDIA Quadro® 256MB FX 370	43R1766	ann 12/18/07
NVIDIA Quadro 512MB FX 1700	43R1767	ann 12/18/07

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
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	ann 12/07/04
USB Travel Keyboard with UltraNav™	31P9490	ann 04/27/04
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

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

Mouse

Optical Wheel Mouse (USB)	06P4069	ann 05/21/03
Optical ScrollPoint® Mouse (USB, PS/2)	31P7405	ann 08/27/02
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	ann 01/23/07
Lenovo Wireless Laser Mouse (blk, via USB)	45K1696	ann 11/25/08
Lenovo Wireless Laser Mouse (red, via USB)	51J0198	ann 11/25/08

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

Multimedia

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann 06/27/06
-----------------------------------	---------	--------------

USB 2.0 Lenovo Webcam	40Y8519	ann 08/29/06
-----------------------	---------	--------------

Security

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

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
--	---------	--------------

Monitors

ThinkVision® L174 17" Monitor	9227AE1	ann 04/15/08
ThinkVision L1700p 17" Monitor	9417HE2	ann 09/17/08
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1940p Wide 19" Monitor	4424HB6	ann 09/17/08
ThinkVision L200p Wide 20.1" Monitor	4438HB6	ann 04/15/08
ThinkVision L2240p Wide 22" Monitor	4422HB6	ann 09/17/08
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann 09/17/08
ThinkVision L2440x Wide 24" Monitor	4421HB2	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
---	---------	--------------

All:

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 Cable Lock from Lenovo	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Radial Arm	19K4464	ann 05/05/00

⁴⁶Compatible on selected Lenovo and ThinkVision monitors.

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

Medialess License Key (MLK)

Microsoft® Office 2007 Basic, English	43R1528	ann 01/31/07
Microsoft Office 2007 Small Business, Engl	43R1534	ann 01/31/07
Microsoft Office 2007 Professional, English	43R1531	ann 01/31/07

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide



Lenovo ThinkCentre A57 Small



Lenovo ThinkCentre A57 Small



Lenovo ThinkCentre A57 Small



Lenovo ThinkCentre A57 Small
with dual Lenovo ThinkVision monitors



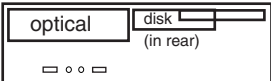
Lenovo ThinkCentre A57 Tower



Lenovo ThinkCentre A57 Tower

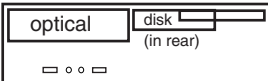
Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Core	Memory ^a	SATA disk	SATA optical	Graphics	Preload	Limited warranty ¹	Global Educ	Avail date
A57	9704-ALU	2x3	Pentium E2180	2.00	1MB	Dual	512MB	80GB ²	DVD	GMA	XP Pro	1-yr	None	Mar 08
A57	9704-AMU	2x3	Pentium E2180	2.00	1MB	Dual	512MB	160GB	Combo	GMA	XP Pro	1-yr	None	Mar 08
A57	9704-ANU	2x3	Pentium E2180	2.00	1MB	Dual	1GB	160GB	DVD±RW	GMA	XP Pro	1-yr	None	Mar 08
A57	9704-APU	2x3	Pentium E2200	2.20	1MB	Dual	1GB	160GB	Combo	GMA	XP Pro	1-yr	None	Mar 08
A57	9704-BDU	2x3	Pentium E2200	2.20	1MB	Dual	2GB	160GB	DVD±RW	GMA	XP Pro	1-yr	None	Mar 08

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

Positioning Processor	Quality, reliability, and security for small/medium businesses Intel® Pentium® Dual-Core Processor E2180 or E2200 with dual-core , Intel 64 Technology, Execute Disable Bit, EIST, and 800MHz system bus with 1MB shared L2 cache		Small 																																																						
Implementation	Processor in FC-LGA6 package in LGA775 socket																																																								
Memory	512MB, 1GB, or 2GB 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 avail; <i>Non-italics:</i> standard memory in one socket; one socket available																																																								
Graphics	Intel Graphics Media Accelerator 3100 (GMA 3100) , integrated graphics in G31, uses main memory (up to 256MB), one analog VGA DB-15 connector, supports dual independent display with optional ADD2 adapter		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/diskette) 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• 16.1 lb (7.3 kg) in maximum configuration• Bays 1, 2, 3 flip up (latched and pivoting)• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention• Toolless systemboard retention• Steel chassis supports 100 lb (45kg) monitor on top• System floor stand for vertical orientation																																																						
SATA disk	80GB or 160GB , 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 Combo	<i>Some:</i> CD-RW/DVD-ROM Combo SATA 1.5Gb/s 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																																																								
EIDE controller	Enhanced IDE, ATA-100, integrated in ICH7, one EIDE connector on planar																																																								
Diskette drive	None																																																								
Media reader	None																																																								
Chipset	Intel G31 Express Chipset ; I/O Controller Hub 7 (ICH7) for SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI 2.3, USB, LPC bus / ITE Tech® IT8718 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, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)																																																								
Internal connector	Two USB 2.0 planar connectors (one used; one open for media reader)																																																								
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																																																								
Ethernet	Gigabit ethernet on planar, Marvell® 88E8056, PCIe x1, 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 - Microsoft® Windows® XP Professional with Vista® COA ♦ Disk-to-Disk Recovery (in hidden protected area) Preloaded applications⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• System Migration Assistant• Norton Internet Security™ (90 days of virus definitions)• Diskkeeper® Home• PC-Doctor™ (diagnostics)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Picasa from Google• Microsoft Office 2007 Trial (60-day)• Multimedia Center for Think Offerings (combo, DVD, DVD±RW)• Sonic RecordNow and Drive Letter Access (combo, DVD±RW)• Corel® WinDVD® (combo, DVD, DVD±RW)• Corel WinDVD Creator (DVD±RW)			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																																																						
			RoHS-compliant																																																						
Accessories <table><tr><td>1GB PC2-5300 DDR2 UDIMM (TopSeller)</td><td>43R2001</td></tr><tr><td>2GB PC2-5300 DDR2 UDIMM (TopSeller)</td><td>43R2002</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>USB Portable Diskette Drive</td><td>05K9276</td></tr><tr><td>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Essential Memory Key 32GB</td><td>45K1258</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 2GB</td><td>45J5916</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 4GB</td><td>45J5917</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable 160GB Hard Disk</td><td>43R1784</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</td></tr><tr><td>USB 2.0 Super Multi-Burner Drive</td><td>41N5565</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>ThinkVision® L2240p Wide 22" Monitor</td><td>4422HB6</td></tr><tr><td>ThinkVision L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>ADD2 DVI-I PCIe Connection Adapter</td><td>73P2516</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI™ Radeon™ HD 2400 Pro 128MB</td><td>43R1961</td></tr><tr><td>ATI Radeon HD 2400 XT 256MB</td><td>43R1962</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>			1GB PC2-5300 DDR2 UDIMM (TopSeller)	43R2001	2GB PC2-5300 DDR2 UDIMM (TopSeller)	43R2002	250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	USB Portable Diskette Drive	05K9276	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Lenovo Webcam	40Y8519	USB 2.0 Essential Memory Key 32GB	45K1258	USB 2.0 Ultra Secure Memory Key 2GB	45J5916	USB 2.0 Ultra Secure Memory Key 4GB	45J5917	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable 160GB Hard Disk	43R1784	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	USB 2.0 Super Multi-Burner Drive	41N5565	DVD-ROM DL SATA 1.5Gb/s 16-48X Max	41N5618	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ThinkVision® L2240p Wide 22" Monitor	4422HB6	ThinkVision L2440p Wide 24" Monitor	4420HB2	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Kensington Cable Lock from Lenovo	73P2582	ADD2 DVI-I PCIe Connection Adapter	73P2516	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI™ Radeon™ HD 2400 Pro 128MB	43R1961	ATI Radeon HD 2400 XT 256MB	43R1962	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 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
1GB PC2-5300 DDR2 UDIMM (TopSeller)	43R2001																																																								
2GB PC2-5300 DDR2 UDIMM (TopSeller)	43R2002																																																								
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015																																																								
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																																																								
USB Portable Diskette Drive	05K9276																																																								
USB 2.0 Lenovo Multimedia Headset	40Y8518																																																								
USB 2.0 Lenovo Webcam	40Y8519																																																								
USB 2.0 Essential Memory Key 32GB	45K1258																																																								
USB 2.0 Ultra Secure Memory Key 2GB	45J5916																																																								
USB 2.0 Ultra Secure Memory Key 4GB	45J5917																																																								
USB 2.0 Ultra Secure Memory Key 8GB	45J5918																																																								
USB 2.0 Portable 160GB Hard Disk	43R1784																																																								
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																																								
USB 2.0 Super Multi-Burner Drive	41N5565																																																								
DVD-ROM DL SATA 1.5Gb/s 16-48X Max	41N5618																																																								
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																																																								
ThinkVision® L2240p Wide 22" Monitor	4422HB6																																																								
ThinkVision L2440p Wide 24" Monitor	4420HB2																																																								
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067																																																								
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074																																																								
Kensington Cable Lock from Lenovo	73P2582																																																								
ADD2 DVI-I PCIe Connection Adapter	73P2516																																																								
ADD2 DVI-D Monitor Connection (HDCP)	43R1985																																																								
ATI™ Radeon™ HD 2400 Pro 128MB	43R1961																																																								
ATI Radeon HD 2400 XT 256MB	43R1962																																																								
Acc Guide in pdf lenovo.com/accessoriesguide																																																									
Other accessories at lenovo.com/accessories																																																									

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Core	Memory ⁶	SATA disk	SATA optical	Graphics	Chassis intr switch	Vista preload	Vista logo	Global Educ	Avail date
ES	A57	9704-BRU	2x3 Pentium E2180	2.00	1MB	Dual	512MB	80GB ²	DVD	GMA		Bus32	Basic	None	Apr 08
ES	A57	9704-BSU	2x3 Pentium E2180	2.00	1MB	Dual	1GB	160GB	Combo	GMA		Bus32	Basic	None	Apr 08
ES	A57	9704-BFU	2x3 Pentium E2180	2.00	1MB	Dual	2GB	160GB	DVD±RW	GMA		Bus32	Prem	None	Apr 08
	A57	9704-AKU	2x3 Core 2 Duo E4600	2.40	2MB	Dual	2GB	160GB	Combo	GMA	Switch	Bus32	Prem	None	Mar 08

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 1-year limited warranty¹

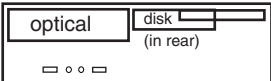
Positioning Processor	Quality, reliability, and security for small/medium businesses Intel® Pentium® Dual-Core Processor E2180 with dual-core, Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 1MB shared L2 cache or Intel Core™ 2 Duo Processor E4600 with dual-core, Intel 64 Technology, Execute Disable Bit, EIST, and 800MHz system bus with 2MB shared L2 cache Processor in FC-LGA6 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/diskette) 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 • 16.1 lb (7.3 kg) in maximum configuration • Bays 1, 2, 3 flip up (latched and pivoting) • Toolless cover flips up and tilts backward on rear hinges • Toolless disk, diskette drive, optical drive removal • Toolless adapter retention • Toolless systemboard retention • Steel chassis supports 100 lb (45kg) monitor on top • System floor stand for vertical orientation																																																													
Implementation																																																																
Memory	512MB, 1GB, or 2GB 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 avail; <i>Non-italics:</i> standard memory in one socket; one socket available																																																															
Graphics	Intel Graphics Media Accelerator 3100 (GMA 3100) , integrated graphics in G31, uses main memory (up to 256MB), one analog VGA DB-15 connector, supports dual independent display with optional ADD2 adapter																																																															
SATA disk	80GB or 160GB , 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 16X-48X Max ⁴ Drive																																																															
SATA Combo	<i>Some:</i> CD-RW/DVD-ROM Combo SATA 1.5Gb/s Drive																																																															
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																																																															
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar																																																															
eSATA port	None																																																															
EIDE controller	Enhanced IDE, ATA-100, integrated in ICH7, one EIDE connector on planar																																																															
Diskette drive	None																																																															
Media reader	None																																																															
Chipset	Intel G31 Express Chipset ; I/O Controller Hub 7 (ICH7) for SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI 2.3, USB, LPC bus / ITE Tech® IT8718 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, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)																																																															
Internal connector	Two USB 2.0 planar connectors (one used; one open for media reader)																																																															
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																																																															
Ethernet	Gigabit ethernet on planar, Marvell® 88E8056, PCIe x1, 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, autotensing																																																															
<table><tr><td>Preloaded operating system²⁰ - Microsoft® Windows® Vista Business Edition (32-bit) Preloaded applications⁵<ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• System Migration Assistant• Norton Internet Security™ (90 days of virus definitions)• Diskkeeper® Home• PC-Doctor™ (diagnostics)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Picasa from Google• Microsoft Office 2007 Trial (60-day)• Sonic RecordNow and Drive Letter Access (combo, DVD±RW)• Corel® WinDVD® (combo, DVD, DVD±RW)</td><td>Accessories<table><tr><td>1GB PC2-5300 DDR2 UDIMM (TopSeller)</td><td>43R2001</td></tr><tr><td>2GB PC2-5300 DDR2 UDIMM (TopSeller)</td><td>43R2002</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>USB Portable Diskette Drive</td><td>05K9276</td></tr><tr><td>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Essential Memory Key 32GB</td><td>45K1258</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable 160GB Hard Disk</td><td>43R1784</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</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>ThinkVision® L2240p Wide 22" Monitor</td><td>4422HB6</td></tr><tr><td>ThinkVision L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>ADD2 DVI-I PCIe Connection Adapter</td><td>73P2516</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI™ Radeon™ HD 2400 Pro 128MB</td><td>43R1961</td></tr><tr><td>ATI Radeon HD 2400 XT 256MB</td><td>43R1962</td></tr></table>Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories</td><td></td></tr><tr><td colspan="3"><table><tr><td colspan="3">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• <i>Some:</i> Chassis intrusion switch</td></tr><tr><td colspan="3">Supports ThinkVantage® technologies</td></tr><tr><td colspan="3">RoHS-compliant</td></tr><tr><td colspan="3">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</td></tr></table></td></tr></table>			Preloaded operating system²⁰ - Microsoft® Windows® Vista Business Edition (32-bit) Preloaded applications⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• System Migration Assistant• Norton Internet Security™ (90 days of virus definitions)• Diskkeeper® Home• PC-Doctor™ (diagnostics)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Picasa from Google• Microsoft Office 2007 Trial (60-day)• Sonic RecordNow and Drive Letter Access (combo, DVD±RW)• Corel® WinDVD® (combo, DVD, DVD±RW)	Accessories <table><tr><td>1GB PC2-5300 DDR2 UDIMM (TopSeller)</td><td>43R2001</td></tr><tr><td>2GB PC2-5300 DDR2 UDIMM (TopSeller)</td><td>43R2002</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>USB Portable Diskette Drive</td><td>05K9276</td></tr><tr><td>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Essential Memory Key 32GB</td><td>45K1258</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable 160GB Hard Disk</td><td>43R1784</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</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>ThinkVision® L2240p Wide 22" Monitor</td><td>4422HB6</td></tr><tr><td>ThinkVision L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>ADD2 DVI-I PCIe Connection Adapter</td><td>73P2516</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI™ Radeon™ HD 2400 Pro 128MB</td><td>43R1961</td></tr><tr><td>ATI Radeon HD 2400 XT 256MB</td><td>43R1962</td></tr></table> Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories	1GB PC2-5300 DDR2 UDIMM (TopSeller)	43R2001	2GB PC2-5300 DDR2 UDIMM (TopSeller)	43R2002	250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	USB Portable Diskette Drive	05K9276	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Lenovo Webcam	40Y8519	USB 2.0 Essential Memory Key 32GB	45K1258	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable 160GB Hard Disk	43R1784	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	DVD-ROM DL SATA 1.5Gb/s 16-48X Max	41N5618	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ThinkVision® L2240p Wide 22" Monitor	4422HB6	ThinkVision L2440p Wide 24" Monitor	4420HB2	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Kensington Cable Lock from Lenovo	73P2582	ADD2 DVI-I PCIe Connection Adapter	73P2516	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI™ Radeon™ HD 2400 Pro 128MB	43R1961	ATI Radeon HD 2400 XT 256MB	43R1962		<table><tr><td colspan="3">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• <i>Some:</i> Chassis intrusion switch</td></tr><tr><td colspan="3">Supports ThinkVantage® technologies</td></tr><tr><td colspan="3">RoHS-compliant</td></tr><tr><td colspan="3">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</td></tr></table>			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• <i>Some:</i> Chassis intrusion switch			Supports ThinkVantage® technologies			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		
Preloaded operating system²⁰ - Microsoft® Windows® Vista Business Edition (32-bit) Preloaded applications⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• System Migration Assistant• Norton Internet Security™ (90 days of virus definitions)• Diskkeeper® Home• PC-Doctor™ (diagnostics)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Picasa from Google• Microsoft Office 2007 Trial (60-day)• Sonic RecordNow and Drive Letter Access (combo, DVD±RW)• Corel® WinDVD® (combo, DVD, DVD±RW)	Accessories <table><tr><td>1GB PC2-5300 DDR2 UDIMM (TopSeller)</td><td>43R2001</td></tr><tr><td>2GB PC2-5300 DDR2 UDIMM (TopSeller)</td><td>43R2002</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>USB Portable Diskette Drive</td><td>05K9276</td></tr><tr><td>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Essential Memory Key 32GB</td><td>45K1258</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable 160GB Hard Disk</td><td>43R1784</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</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>ThinkVision® L2240p Wide 22" Monitor</td><td>4422HB6</td></tr><tr><td>ThinkVision L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>ADD2 DVI-I PCIe Connection Adapter</td><td>73P2516</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI™ Radeon™ HD 2400 Pro 128MB</td><td>43R1961</td></tr><tr><td>ATI Radeon HD 2400 XT 256MB</td><td>43R1962</td></tr></table> Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories	1GB PC2-5300 DDR2 UDIMM (TopSeller)	43R2001	2GB PC2-5300 DDR2 UDIMM (TopSeller)	43R2002	250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	USB Portable Diskette Drive	05K9276	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Lenovo Webcam	40Y8519	USB 2.0 Essential Memory Key 32GB	45K1258	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable 160GB Hard Disk	43R1784	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	DVD-ROM DL SATA 1.5Gb/s 16-48X Max	41N5618	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ThinkVision® L2240p Wide 22" Monitor	4422HB6	ThinkVision L2440p Wide 24" Monitor	4420HB2	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Kensington Cable Lock from Lenovo	73P2582	ADD2 DVI-I PCIe Connection Adapter	73P2516	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI™ Radeon™ HD 2400 Pro 128MB	43R1961	ATI Radeon HD 2400 XT 256MB	43R1962																			
1GB PC2-5300 DDR2 UDIMM (TopSeller)	43R2001																																																															
2GB PC2-5300 DDR2 UDIMM (TopSeller)	43R2002																																																															
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015																																																															
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																																																															
USB Portable Diskette Drive	05K9276																																																															
USB 2.0 Lenovo Multimedia Headset	40Y8518																																																															
USB 2.0 Lenovo Webcam	40Y8519																																																															
USB 2.0 Essential Memory Key 32GB	45K1258																																																															
USB 2.0 Ultra Secure Memory Key 8GB	45J5918																																																															
USB 2.0 Portable 160GB Hard Disk	43R1784																																																															
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																																															
DVD-ROM DL SATA 1.5Gb/s 16-48X Max	41N5618																																																															
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																																																															
ThinkVision® L2240p Wide 22" Monitor	4422HB6																																																															
ThinkVision L2440p Wide 24" Monitor	4420HB2																																																															
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067																																																															
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074																																																															
Kensington Cable Lock from Lenovo	73P2582																																																															
ADD2 DVI-I PCIe Connection Adapter	73P2516																																																															
ADD2 DVI-D Monitor Connection (HDCP)	43R1985																																																															
ATI™ Radeon™ HD 2400 Pro 128MB	43R1961																																																															
ATI Radeon HD 2400 XT 256MB	43R1962																																																															
<table><tr><td colspan="3">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• <i>Some:</i> Chassis intrusion switch</td></tr><tr><td colspan="3">Supports ThinkVantage® technologies</td></tr><tr><td colspan="3">RoHS-compliant</td></tr><tr><td colspan="3">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</td></tr></table>			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• <i>Some:</i> Chassis intrusion switch			Supports ThinkVantage® technologies			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																																																				
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• <i>Some:</i> Chassis intrusion switch																																																																
Supports ThinkVantage® technologies																																																																
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																																																																

See footnotes for important warranty information

ES US models announced April 8, 2008; previous model on February 26, 2008

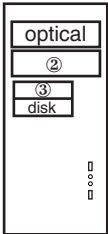
Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Preload	Vista logo	Limited warranty ¹	Global Educ	Avail date
A57	9704-B5U	2x3	Pentium E2200	2.20	2	512MB	160GB ²	DVD	GMA	XP Pro	Basic	1-yr	None	Nov 08
A57	9704-B6U	2x3	Pentium E2200	2.20	2	1GB	160GB	DVD±RW	GMA	XP Pro	Premium	1-yr	None	Nov 08
A57	9704-A53	2x3	Core 2 Duo E8400	3.00	2	2GB	250GB	DVD±RW	GMA	Bus32	Premium	1-yr	None	Feb 09

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

Positioning Processor	Quality, reliability, and security for small/medium businesses Intel® Pentium® Processor E2200 with dual-core, 800MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo Processor E8400 with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache		Small 	
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket			
Memory	512MB, 1GB, or 2GB std , 4GB max ⁸ , PC2-5300 667MHz 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/diskette)	
Graphics	Intel Graphics Media Accelerator 3100 (GMA 3100) , integrated graphics in G31, uses main memory (up to 256MB), one analog VGA DB-15 connector, supports dual independent display with optional ADD2 adapter		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• 16.1 lb (7.3 kg) in maximum configuration• Bays 1, 2, 3 flip up (latched and pivoting)• Toolless cover flips up and tilts backward on rear hinges• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention• Toolless systemboard retention• Steel chassis supports 100 lb (45kg) monitor on top• System floor stand for vertical orientation	
SATA disk	160GB or 250GB , SATA 3.0Gb/s 7200 rpm, vibration dampening		Security <ul style="list-style-type: none">• Security slot (in rear for attachment of optional Kensington® Microsaver® cable)<ul style="list-style-type: none">- optional cable also locks the cover by deactivating the cover release buttons• Power-on password• Administrator password• Hard disk password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7			
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive			
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive			
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors			
eSATA port	None			
EIDE controller	Enhanced IDE, ATA-100, integrated in ICH7, one EIDE connector			
Diskette drive	None			
Media reader	None			
Chipset	Intel G31 Express Chipset ; I/O Controller Hub 7 (ICH7) for SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI 2.3, USB, LPC bus / ITE Tech® IT8718 Super I/O for serial, parallel, keyboard, mouse functions			
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		Supports ThinkVantage® technologies	
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)			
Internal connector	Two USB 2.0 planar connectors (one used; one open for media reader)			
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			
Ethernet	Gigabit ethernet on planar, Marvell® 88E8056, PCIe x1, Wake on LAN®			
Intel AMT	None			
Modem	None			
Security chip	None			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		RoHS-compliant	
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo			
Power supply	280 watts with variable speed fan, autosensing			
Preloaded operating system²⁰		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		
Accessories				
- <i>Some:</i> Microsoft® Windows® XP Professional with Vista® COA	1GB PC2-5300 DDR2 UDIMM (TopSeller)			43R2001
- <i>Some:</i> Microsoft Windows Vista Business Edition (32-bit)	2GB PC2-5300 DDR2 UDIMM (TopSeller)			43R2002
Preloaded applications⁵ (all OSes)	250GB SATA 3.0Gb/s Disk (7200 rpm)			41N3015
• Rescue and Recovery™	500GB SATA 3.0Gb/s Disk (7200 rpm)			43R1990
• Client Security Solution™	USB Portable Diskette Drive			05K9276
• ThinkVantage Productivity Center	USB 2.0 Lenovo Multimedia Headset		40Y8518	
• System Migration Assistant	USB 2.0 Lenovo Webcam		40Y8519	
• Norton Internet Security™ (90 days of virus definitions)	USB 2.0 Essential Memory Key 32GB		45K1258	
• Diskkeeper® Home	USB 2.0 Ultra Secure Memory Key 2GB	45J5916		
• PC-Doctor™ (diagnostics)	USB 2.0 Ultra Secure Memory Key 4GB	45J5917		
• Adobe® Reader	USB 2.0 Ultra Secure Memory Key 8GB	45J5918		
• Windows Live™ Toolbar	USB 2.0 Portable 160GB Hard Disk	43R1784		
• Windows Live Search	USB 2.0 Portable Secure 320GB Hard Disk	43R2019		
• Picasa from Google	DVD-ROM DL SATA 1.5Gb/s 16-48X Max	41N5618		
• Microsoft Office 2007 Trial (60-day)	Super Multi-Burner DL DVD±RW SATA Drive	41N5620		
• Multimedia Center for Think Offerings (DVD, DVD±RW) (XP)	ThinkVision® L1700p 17" Monitor	9417HE2		
• Sonic RecordNow and Drive Letter Access (DVD±RW)	ThinkVision L1940p Wide 19" Monitor	4424HB6		
• Corel® WinDVD® (DVD, DVD±RW)	ThinkVision L2240p Wide 22" Monitor	4422HB6		
• Corel WinDVD Creator (DVD±RW) (XP)	ThinkVision L2440p Wide 24" Monitor	4420HB2		
	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067		
	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074		
	Kensington Cable Lock from Lenovo	73P2582		
	ADD2 DVI-I PCIe Connection Adapter	73P2516		
	ADD2 DVI-D Monitor Connection (HDCP)	43R1985		
	ATI™ Radeon™ HD 2400 Pro 128MB	43R1961		
	ATI Radeon HD 2400 XT 256MB	43R1962		
	Acc Guide in pdf lenovo.com/accessoriesguide			
	Other accessories at lenovo.com/accessories			

ThinkCentre® A57 Tower (9702) - TopSeller

Personal Systems Reference (PSREF)

		Slot x bay	Processor	GHz	L2 cache	Core	Memory ^a	SATA disk	2nd Disk Bay	SATA optical	Graphics	Preload	Limited warranty ¹	Global Educ	Avail date
CPU	A57	9702-B3U	4x4 Celeron 430	1.80	512KB	Single	512MB	80GB ²	None	DVD	GMA	XP Pro	1-yr	None	Mar 08
	A57	9702-B7U	4x4 Pentium E2160	1.80	1MB	Dual	1GB	160GB	None	DVD±RW	GMA	XP Pro	1-yr	None	Mar 08
	A57	9702-B5U	4x4 Pentium E2180	2.00	1MB	Dual	512MB	80GB	None	DVD	GMA	XP Pro	1-yr	None	Mar 08
	A57	9702-B6U	4x4 Pentium E2180	2.00	1MB	Dual	512MB	160GB	None	Combo	GMA	XP Pro	1-yr	None	Mar 08
	A57	9702-D9U	4x4 Pentium E2180	2.00	1MB	Dual	1GB	160GB	None	DVD±RW	GMA	XP Pro	1-yr	None	Apr 08
CPU	A57	9702-A4U	4x4 Pentium E2200	2.20	1MB	Dual	1GB	160GB	None	Combo	GMA	XP Pro	1-yr	None	Mar 08
	A57	9702-A5U	4x4 Pentium E2200	2.20	1MB	Dual	2GB	160GB	None	DVD±RW	GMA	XP Pro	1-yr	None	Mar 08
• These small and medium business (SMB) models are part of the US TopSeller™ Program															
Positioning Processor		Quality, reliability, and security for small/medium businesses Intel® Celeron® Processor 430 with single-core, Intel 64 Tech, Execute Disable Bit, 800MHz system bus, and 512KB L2 cache or Intel Pentium® Dual-Core Processor E2160, E2180, or E2200 with dual-core, Intel 64 Technology, Execute Disable Bit, EIST, and 800MHz system bus with 1MB shared L2 cache Processor in FC-LGA6 package in LGA775 socket								Tower					
Implementation										• Business black color; metal case • 6.9" W X 17.3" D X 15.8" H • 175mm W X 440mm D X 402mm H • 24.2 lb (11.0 kg) in max configuration • Handle on top front • Toolless cover removal • Toolless disk, diskette drive, optical drive removal • Toolless adapter retention					
Memory		512MB, 1GB, or 2GB std, 4GB max ^a , PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 240-pin DIMM sockets; Italics: standard memory in both sockets; no sockets avail; Non-italics: standard memory in one socket; one socket available								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 3100 (GMA 3100), integrated graphics in G31, uses main memory (up to 256MB), one analog VGA DB-15 connector, 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		80GB or 160GB, 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 Supports ThinkVantage® technologies			
SATA controller		Serial ATA, SATA 3.0Gb/s, integrated in ICH7													
SATA DVD		Some: DVD-ROM DL SATA 1.5Gb/s 16X-48X Max ⁴ Drive													
SATA Combo		Some: CD-RW/DVD-ROM Combo SATA 1.5Gb/s 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													
EIDE controller		Enhanced IDE, ATA-100, integrated in ICH7, one EIDE connector on planar													
Diskette drive		None													
Media reader		None													
Chipset		Intel G31 Express Chipset; I/O Controller Hub 7 (ICH7) for SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI 2.3, USB, LPC bus / ITE Tech® IT8718 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, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)													
Internal connector		Two USB 2.0 planar connectors (one used; one open for media reader)													
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													
Ethernet		Gigabit ethernet on planar, Marvell® 88E8056, PCIe x1, 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">1-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">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/warrantyPost warranty maintenance services available24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378			
- Microsoft® Windows® XP Professional with Vista® COA		1GB PC2-5300 DDR2 UDIMM (TopSeller)								43R2001					
◆ Disk-to-Disk Recovery (in hidden protected area)		2GB PC2-5300 DDR2 UDIMM (TopSeller)								43R2002					
Preloaded applications ⁵		250GB SATA 3.0Gb/s Disk (7200 rpm)								41N3015					
• Rescue and Recovery™		500GB SATA 3.0Gb/s Disk (7200 rpm)								43R1990					
• Client Security Solution™		USB 2.0 Lenovo Multimedia Headset								40Y8518					
• ThinkVantage Productivity Center		USB 2.0 Lenovo Webcam								40Y8519					
• System Migration Assistant		USB 2.0 Essential Memory Key 32GB								45K1258					
• Norton Internet Security™		USB 2.0 Ultra Secure Memory Key 8GB								45J5918					
• Diskkeeper® Home		USB 2.0 Portable 160GB Hard Disk								43R1784					
• PC-Doctor™ (diagnostics)		USB 2.0 Portable Secure 320GB Hard Disk								43R2019					
• Adobe® Reader		DVD-ROM DL SATA 1.5Gb/s 16-48X Max								41N5618					
• Windows Live™ Toolbar		Super Multi-Burner DL DVD±RW SATA Drive								41N5620					
• Windows Live Search		ThinkVision® L2240p Wide 22" Monitor								4422HB6					
• Picasa from Google		ThinkVision L2440p Wide 24" Monitor								4420HB2					
• Microsoft Office 2007 Trial (60-day)		Wireless Kbd & Opt Wheel Mouse (via USB)								73P4067					
• Multimedia Center for Think Offerings (combo, DVD, DVD±RW)		Laser Tilt Wheel Mouse (USB, PS/2)								41U3074					
• Sonic RecordNow and Drive Letter Access (combo, DVD±RW)		Kensington Cable Lock from Lenovo								73P2582					
• Corel® WinDVD® (combo, DVD, DVD±RW)		ADD2 DVI-I PCIe Connection Adapter								73P2516					
• Corel WinDVD Creator (DVD±RW)		ADD2 DVI-D Monitor Connection (HDCP)								43R1985					
		ATI™ Radeon™ HD 2400 Pro 128MB								43R1961					
		ATI Radeon HD 2400 XT 256MB								43R1962					
		ATI Radeon HD 2600 XT 512MB								43R1963					
		Acc Guide in pdf lenovo.com/accessoriesguide													
		Other accessories at lenovo.com/accessories													

See footnotes for important warranty information

US model announced April 8, 2008; previous models on February 26, 2008

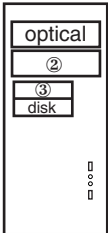
US model withdrawn effective January 2009

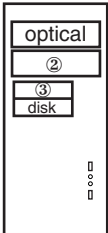
- ***These small and medium business (SMB) models are part of the US TopSeller™ Program***

See footnotes for important warranty information
US models announced October 21, 2008

ThinkCentre® A57 Tower (9702) - TopSeller (Vista®)

Personal Systems Reference (PSREF)

Slot x			L2		SATA		2nd Disk		SATA		Chassis		Vista		Global		Avail		
Name	Type-model	bay	Processor	GHz	cache	Core	Memory ^a	disk	Bay	optical	Graphics	intr switch	preload	logo	Educ			date	
A57	9702-B4U	4x4	Celeron 430	1.80	512KB	Single	512MB	80GB ²	No	DVD	GMA		Home Basic	Basic	No	Mar	08		
A57	9702-DAU	4x4	Pentium E2180	2.00	1MB	Dual	512MB	80GB	No	DVD	GMA		Business32	Basic	No	Apr	08		
A57	9702-D3U	4x4	Pentium E2180	2.00	1MB	Dual	1GB	160GB	No	Combo	GMA		Business32	Basic	No	May	08		
A57	9702-D1U	4x4	Pentium E2180	2.00	1MB	Dual	2GB	160GB	No	DVD±RW	GMA		Business32	Prem	No	Apr	08		
A57	9702-AMU	4x4	Core 2 Duo E4600	2.40	2MB	Dual	2GB	160GB	No	Combo	GMA	Switch	Business32	Prem	No	Mar	08		
<ul style="list-style-type: none">• These small and medium business (SMB) models are part of the US TopSeller™ Program• These models have a 1-year limited warranty¹																			
Positioning	Quality, reliability, and security for small/medium businesses Intel® Celeron® Processor 430 with single-core, Intel 64 Tech, Execute Disable Bit, 800MHz system bus, and 512KB L2 cache or Intel Pentium® Dual-Core Processor E2180 with dual-core, Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 1MB shared L2 cache or Intel Core™ 2 Duo Processor E4600 with dual-core, Intel 64 Technology, Execute Disable Bit, EIST, and 800MHz system bus with 2MB shared L2 cache Processor in FC-LGA6 package in LGA775 socket										Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.2 lb (11.0 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention								
Implementation											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	512MB, 1GB, or 2GB std, 4GB max⁸, PC2-5300 667MHz 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 3100 (GMA 3100) , integrated graphics in G31, uses main memory (up to 256MB), one analog VGA DB-15 connector, supports dual independent display with optional ADD2 adapter																		
SATA disk	80GB or 160GB , 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 Combo	<i>Some:</i> CD-RW/DVD-ROM Combo SATA 1.5Gb/s 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																		
EIDE controller	Enhanced IDE, ATA-100, integrated in ICH7, one EIDE connector on planar																		
Diskette drive	None																		
Media reader	None																		
Chipset	Intel G31 Express Chipset ; I/O Controller Hub 7 (ICH7) for SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI 2.3, USB, LPC bus / ITE Tech® IT8718 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, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)																		
Internal connector	Two USB 2.0 planar connectors (one used; one open for media reader)																		
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																		
Ethernet	Gigabit ethernet on planar, Marvell® 88E8056, PCIe x1, Wake on LAN®																		
Intel AMT	None																		
Modem	None																		
Security chip	None																		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																		
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																		
Power supply	280 watts with variable speed fan, manual switch																		
Preloaded operating system²⁰			Accessories																
- <i>Some:</i> Microsoft® Windows® Vista Home Basic Edition (32-bit)			1GB PC2-5300 DDR2 UDIMM (TopSeller) 43R2001																
- <i>Some:</i> Microsoft Windows Vista Business Edition (32-bit)			2GB PC2-5300 DDR2 UDIMM (TopSeller) 43R2002																
			250GB SATA 3.0Gb/s Disk (7200 rpm) 41N3015																
			500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990																
			USB 2.0 Lenovo Multimedia Headset 40Y8518																
			USB 2.0 Lenovo Webcam 40Y8519																
			USB 2.0 Essential Memory Key 32GB 45K1258																
			USB 2.0 Ultra Secure Memory Key 8GB 45J5918																
			USB 2.0 Portable 160GB Hard Disk 43R1784																
			USB 2.0 Portable Secure 320GB Hard Disk 43R2019																
			DVD-ROM DL SATA 1.5Gb/s 16-48X Max 41N5618																
			Super Multi-Burner DL DVD±RW SATA Drive 41N5620																
			ThinkVision® L2240p Wide 22" Monitor 4422HB6																
			ThinkVision L2240p Wide 24" Monitor 4420HB2																
			Wireless Kbd & Opt Wheel Mouse (via USB) 73P4067																
			Kensington Cable Lock from Lenovo 73P2582																
			ADD2 DVI-I PCIe Connection Adapter 73P2516																
			ADD2 DVI-D Monitor Connection (HDCP) 43R1985																
			ATI™ Radeon™ HD 2400 Pro 128MB 43R1961																
			ATI Radeon HD 2400 XT 256MB 43R1962																
			ATI Radeon HD 2600 XT 512MB 43R1963																
			Acc Guide in pdf lenovo.com/accessoriesguide																
			Other accessories at lenovo.com/accessories																
Preloaded applications⁵ (all OSes)																			
• Rescue and Recovery™																			
• Client Security Solution™																			
• ThinkVantage Productivity Center																			
• System Migration Assistant																			
• Norton Internet Security™ (90 days of virus definitions)																			
• Diskeeper® Home																			
• PC-Doctor™ (diagnostics)																			
• Adobe® Reader																			
• Windows Live™ Toolbar																			
• Windows Live Search																			
• Picasa from Google																			
• Microsoft Office 2007 Trial (60-day)																			
• EarthLink Trial (Vista Home Basic)																			
• Sonic RecordNow and Drive Letter Access (combo, DVD±RW)																			
• Corel® WinDVD® (combo, DVD, DVD±RW)																			

	Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Core	Memory ^a	SATA disk	2nd Disk Bay	SATA optical	Graphics	Vista preload	Vista logo	Global Educ	Avail date																																										
US TopSeller™	A57	9702-H8U	4x4	Celeron E1200	1.60	512KB	Dual	1GB	160GB ²	No	DVD±RW	GMA	Home Basic	Basic	No	Dec 08																																										
	A57	9702-H9U	4x4	Pentium E2160	1.80	1MB	Dual	2GB	160GB	No	DVD±RW	GMA	Home Basic	Basic	No	Dec 08																																										
	A57	9702-HBU	4x4	Pentium E2160	1.80	1MB	Dual	2GB	320GB	No	DVD±RW	GMA	Home Premium	Basic	No	Dec 08																																										
	A57	9702-HCU	4x4	Pentium E5200	2.50	2MB	Dual	2GB	160GB	No	DVD±RW	GMA	Home Basic	Basic	No	Dec 08																																										
<ul style="list-style-type: none">• These small and medium business (SMB) models are part of the US TopSeller™ Program• These models have a 1-year limited warranty¹																																																										
Positioning	Quality, reliability, and security for small/medium businesses 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 E2160 with dual-core, Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 1MB L2 cache or Intel Pentium Dual-Core Processor E5200 with dual-core, Intel 64 Technology, Execute Disable Bit, EIST, and 800MHz system bus with 2MB L2 cache Processor in FC-LGA6 package in LGA775 socket										Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.2 lb (11.0 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention																																															
Implementation											Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk																																															
Memory	1GB or 2GB std, 4GB max^a, PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available																																																									
Graphics	Intel Graphics Media Accelerator 3100 (GMA 3100) , integrated graphics in G31, uses main memory (up to 256MB), one analog VGA DB-15 connector, 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 320GB , SATA 3.0Gb/s 7200 rpm, vibration dampening										Security <ul style="list-style-type: none">• One lock to secure both cover and entire system to fixed object:<ul style="list-style-type: none">- Padlock loop (in rear for opt padlock)- Security slot (in rear for optional Kensington® Microsaver® cable)• Power-on password• Administrator password• Hard disk password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel port I/O control• USB port disablement			Supports ThinkVantage® technologies																																												
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7																																																									
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																																																									
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors on planar																																																									
eSATA port	None																																																									
EIDE controller	Enhanced IDE, ATA-100, integrated in ICH7, one EIDE connector on planar										RoHS-compliant																																															
Diskette drive	None																																																									
Media reader	None																																																									
Chipset	Intel G31 Express Chipset ; I/O Controller Hub 7 (ICH7) for SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI 2.3, USB, LPC bus / ITE Tech® IT8718 Super I/O for serial, parallel, keyboard, mouse functions																																																									
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⇒ 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																																												
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)																																																									
Internal connector	Two USB 2.0 planar connectors (one used; one open for media reader)																																																									
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										Other accessories at lenovo.com/accessories																																															
Ethernet	Gigabit ethernet on planar, Marvell® 88E8056, PCIe x1, Wake on LAN®																																																									
Intel AMT	None																																																									
Modem	None																																																									
Security chip	None																																																									
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo										Other accessories at lenovo.com/accessories																																															
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">- Some: Microsoft® Windows® Vista Home Basic Edition (32-bit)- Some: Microsoft Windows Vista Home Premium Edition (32-bit)						Accessories <table><tr><td>1GB PC2-6400 NP DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 NP 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>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Essential Memory Key 32GB</td><td>45K1258</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 4GB</td><td>45J5917</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable 160GB Hard Disk</td><td>43R1784</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>ThinkVision® L1940p Wide 19" Monitor</td><td>4424HB6</td></tr><tr><td>ThinkVision L2240p Wide 22" Monitor</td><td>4422HB6</td></tr><tr><td>ThinkVision L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>ADD2 DVI-I PCIe Connection Adapter</td><td>73P2516</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI™ Radeon™ HD 2400 Pro 128MB</td><td>43R1961</td></tr><tr><td>ATI Radeon HD 2400 XT 256MB</td><td>43R1962</td></tr><tr><td>ATI Radeon HD 2600 XT 512MB</td><td>43R1963</td></tr></table>				1GB PC2-6400 NP DDR2 UDIMM				41U2977	2GB PC2-6400 NP DDR2 UDIMM	41U2978	250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Lenovo Webcam	40Y8519	USB 2.0 Essential Memory Key 32GB	45K1258	USB 2.0 Ultra Secure Memory Key 4GB	45J5917	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable 160GB Hard Disk	43R1784	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ThinkVision® L1940p Wide 19" Monitor	4424HB6	ThinkVision L2240p Wide 22" Monitor	4422HB6	ThinkVision L2440p Wide 24" Monitor	4420HB2	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Kensington Cable Lock from Lenovo	73P2582	ADD2 DVI-I PCIe Connection Adapter	73P2516	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI™ Radeon™ HD 2400 Pro 128MB	43R1961	ATI Radeon HD 2400 XT 256MB	43R1962	ATI Radeon HD 2600 XT 512MB	43R1963
1GB PC2-6400 NP DDR2 UDIMM	41U2977																																																									
2GB PC2-6400 NP DDR2 UDIMM	41U2978																																																									
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015																																																									
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																																																									
USB 2.0 Lenovo Multimedia Headset	40Y8518																																																									
USB 2.0 Lenovo Webcam	40Y8519																																																									
USB 2.0 Essential Memory Key 32GB	45K1258																																																									
USB 2.0 Ultra Secure Memory Key 4GB	45J5917																																																									
USB 2.0 Ultra Secure Memory Key 8GB	45J5918																																																									
USB 2.0 Portable 160GB Hard Disk	43R1784																																																									
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																																									
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																																																									
ThinkVision® L1940p Wide 19" Monitor	4424HB6																																																									
ThinkVision L2240p Wide 22" Monitor	4422HB6																																																									
ThinkVision L2440p Wide 24" Monitor	4420HB2																																																									
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067																																																									
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074																																																									
Kensington Cable Lock from Lenovo	73P2582																																																									
ADD2 DVI-I PCIe Connection Adapter	73P2516																																																									
ADD2 DVI-D Monitor Connection (HDCP)	43R1985																																																									
ATI™ Radeon™ HD 2400 Pro 128MB	43R1961																																																									
ATI Radeon HD 2400 XT 256MB	43R1962																																																									
ATI Radeon HD 2600 XT 512MB	43R1963																																																									
Preloaded applications⁵ (all OSes) <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• System Migration Assistant• Norton Internet Security™ (90 days of virus definitions)• Diskeeper® Home• PC-Doctor™ (diagnostics)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Picasa from Google• Microsoft Office 2007 Trial (60-day)• EarthLink Trial• Sonic RecordNow and Drive Letter Access (DVD±RW)• Corel® WinDVD® (DVD±RW)																																																										

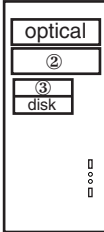
See footnotes for important warranty information
 US models announced November 25, 2008

⚠ US models withdrawn effective January 2009

© Lenovo
 (TUNS2-1) December 2008

ThinkCentre® A57 Tower (9851) - TopSeller

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Core	Memory ⁶	SATA disk	2nd Disk Bay	SATA optical	Graphics	Preload	Limited warranty ¹	Global Educ	Avail date
A57	9851-B1U	4x4	Pentium E2180	2.00	1MB	Dual	512MB	80GB ²	None	DVD	GMA	XP Pro	3-yr	None	Mar 08
A57	9851-B2U	4x4	Pentium E2180	2.00	1MB	Dual	512MB	160GB	None	Combo	GMA	XP Pro	3-yr	None	Mar 08
A57	9851-B3U	4x4	Pentium E2180	2.00	1MB	Dual	1GB	160GB	None	DVD±RW	GMA	XP Pro	3-yr	None	Mar 08
A57	9851-A6U	4x4	Pentium E2200	2.20	1MB	Dual	1GB	160GB	None	Combo	GMA	XP Pro	3-yr	None	Mar 08
A57	9851-BSU	4x4	Pentium E2200	2.20	1MB	Dual	2GB	160GB	None	DVD±RW	GMA	XP Pro	3-yr	None	Apr 08
A57	9851-B4U	4x4	Core 2 Duo E4600	2.40	2MB	Dual	1GB	160GB	None	Combo	GMA	XP Pro	3-yr	None	Mar 08
A57	9851-B5U	4x4	Core 2 Duo E4600	2.40	2MB	Dual	2GB	160GB	None	DVD±RW	GMA	XP Pro	3-yr	None	Mar 08
A57	9851-A7U	4x4	Core 2 Duo E8200	2.66	6MB	Dual	1GB	160GB	None	DVD±RW	GMA	XP Pro	3-yr	None	Apr 08
• These small and medium business (SMB) models are part of the US TopSeller™ Program															
Positioning Processor	Quality, reliability, and security for small/medium businesses Intel® Pentium® Dual-Core Processor E2180 or E2200 with dual-core, Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 1MB shared L2 cache or Intel Core™ 2 Duo Processor E4600 with dual-core, Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 2MB shared L2 cache or Intel Core 2 Duo Processor E8200 with dual-core, Intel 64 Technology, Virtualization Technology, Execute Disable Bit, EIST, TXT, and 1333MHz system bus with 6MB shared L2 cache Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket									Tower					
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	512MB, 1GB, or 2GB std, 4GB max ⁸ , PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 240-pin DIMM sockets; Italics: standard memory in both sockets; no sockets avail; Non-italics: standard memory in one socket; one socket available														
Graphics	Intel Graphics Media Accelerator 3100 (GMA 3100), integrated graphics in G31, uses main memory (up to 256MB), one analog VGA DB-15 connector, 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	80GB or 160GB, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts												Security		
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7														
SATA DVD	Some: DVD-ROM DL SATA 1.5Gb/s 16X-48X Max ⁴ Drive												• 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)		
SATA Combo	Some: CD-RW/DVD-ROM Combo SATA 1.5Gb/s Drive														
SATA DVD±RW	Some: Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive												• 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 cables	Two SATA cables (each 1-drop to device), four SATA connectors on planar														
eSATA port	None												Supports ThinkVantage® technologies		
EIDE controller	Enhanced IDE, ATA-100, integrated in ICH7, one EIDE connector on planar														
Diskette drive	None												RoHS-compliant		
Media reader	None														
Chipset	Intel G31 Express Chipset; I/O Controller Hub 7 (ICH7) for SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI 2.3, USB, LPC bus / ITE Tech® IT8718 Super I/O for serial, parallel, keyboard, mouse functions												Limited Warranty ¹		
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)												➤ 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 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 day ¹⁴ toll-free support during the warranty period ¹ via 800-426-7378		
Internal connector	Two USB 2.0 planar connectors (one used; one open for media reader)														
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														
Ethernet	Gigabit ethernet on planar, Marvell® 88E8056, PCIe x1, 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											
- Microsoft® Windows® XP Professional with Vista® COA				1GB PC2-5300 DDR2 UDIMM (TopSeller)				43R2001							
◆ Disk-to-Disk Recovery (in hidden protected area)				2GB PC2-5300 DDR2 UDIMM (TopSeller)				43R2002							
				500GB SATA 3.0Gb/s (7200 rpm)				43R1990							
				USB 2.0 Lenovo Multimedia Headset				40Y8518							
				USB 2.0 Essential Memory Key 32GB				45K1258							
				USB 2.0 Portable Secure 320GB Hard Disk				43R2019							
				DVD-ROM DL SATA 1.5Gb/s 16-48X Max				41N5618							
				Super Multi-Burner DL DVD±RW SATA Drive				41N5620							
				ThinkVision® L2240p Wide 22" Monitor				4422HB6							
				ThinkVision L2440p Wide 24" Monitor				4420HB2							
				Wireless Kbd & Opt Wheel Mouse (via USB)				73P4067							
				Laser Tilt Wheel Mouse (USB, PS/2)				41U3074							
				Kensington Cable Lock from Lenovo				73P2582							
				ADD2 DVI-I PCIe Connection Adapter				73P2516							
				ADD2 DVI-D Monitor Connection (HDCP)				43R1985							
				ATI™ Radeon™ HD 2400 Pro 128MB				43R1961							
				ATI Radeon HD 2400 XT 256MB				43R1962							
				ATI Radeon HD 2600 XT 512MB				43R1963							
				Acc Guide in pdf lenovo.com/accessoriesguide											
				Other accessories at lenovo.com/accessories											

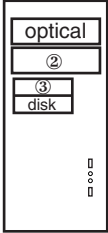
See footnotes for important warranty information

US models announced March 18, 2008; previous models on February 26, 2008

© Lenovo
(TUNS1-5) April 2008

ThinkCentre® A57 Tower (9851) - TopSeller (Vista®)

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Core	Memory ^a	SATA disk	2nd Disk Bay	SATA optical	Graphics	Vista preload	Vista logo	Global Educ	Avail date																																												
☞	A57	9851-C4U	4x4	Pentium E2180	2.00	1MB	Dual 1GB	160GB ²	None	Combo	GMA	Business32	Basic	None	May 08																																												
	A57	9851-BYU	4x4	Pentium E2180	2.00	1MB	Dual 2GB	160GB	None	DVD±RW	GMA	Business32	Premium	None	Apr 08																																												
☞	A57	9851-C9U	4x4	Core 2 Duo E4600	2.40	2MB	Dual 1GB	160GB	None	Combo	GMA	Business32	Basic	None	May 08																																												
	A57	9851-CCU	4x4	Core 2 Duo E4600	2.40	2MB	Dual 2GB	160GB	None	DVD±RW	GMA	Business32	Premium	None	Apr 08																																												
	A57	9851-CDU	4x4	Core 2 Duo E8200	2.66	6MB	Dual 1GB	160GB	None	DVD±RW	GMA	Business32	Basic	None	Apr 08																																												
<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	Quality, reliability, and security for small/medium businesses Intel® Pentium® Dual-Core Processor E2180 with dual-core, Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 1MB shared L2 cache or Intel Core™ 2 Duo Processor E4600 with dual-core, Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 2MB shared L2 cache or Intel Core 2 Duo Processor E8200 with dual-core, Intel 64 Technology, Virtualization Technology, Execute Disable Bit, EIST, TXT, and 1333MHz system bus with 6MB shared L2 cache Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket									Tower <ul style="list-style-type: none">• Business black color; metal case• 6.9" W X 17.3" D X 15.8" H• 175mm W X 440mm D X 402mm H• 24.2 lb (11.0 kg) in max configuration• Handle on top front• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention																																																	
Implementation Memory	1GB or 2GB std, 4GB max^a, PC2-5300 667MHz 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 3100 (GMA 3100) , integrated graphics in G31, uses main memory (up to 256MB), one analog VGA DB-15 connector, 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 , 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 Combo	<i>Some:</i> CD-RW/DVD-ROM Combo SATA 1.5Gb/s Drive																																																										
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																																																										
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors on planar																																																										
eSATA port	None									Supports ThinkVantage® technologies																																																	
EIDE controller	Enhanced IDE, ATA-100, integrated in ICH7, one EIDE connector on planar																																																										
Diskette drive	None																																																										
Media reader	None																																																										
Chipset	Intel G31 Express Chipset ; I/O Controller Hub 7 (ICH7) for SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI 2.3, USB, LPC bus / ITE Tech® IT8718 Super I/O for serial, parallel, keyboard, mouse functions																																																										
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)									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)																																																										
Internal connector	Two USB 2.0 planar connectors (one used; one open for media reader)																																																										
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									RoHS-compliant																																																	
Ethernet	Gigabit ethernet on planar, Marvell® 88E8056, PCIe x1, Wake on LAN®																																																										
Intel AMT	None																																																										
Modem	None																																																										
Security chip	None																																																										
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^a☞ 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																																																	
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">- Microsoft® Windows® Vista Business Edition (32-bit)					Accessories <table><tr><td>1GB PC2-5300 DDR2 UDIMM (TopSeller)</td><td>43R2001</td></tr><tr><td>2GB PC2-5300 DDR2 UDIMM (TopSeller)</td><td>43R2002</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>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Essential Memory Key 32GB</td><td>45K1258</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>ThinkVision® L1940p Wide 19" Monitor</td><td>4424HB6</td></tr><tr><td>ThinkVision L2240p Wide 22" Monitor</td><td>4422HB6</td></tr><tr><td>ThinkVision L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>ADD2 DVI-I PCIe Connection Adapter</td><td>73P2516</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI™ Radeon™ HD 2400 Pro 128MB</td><td>43R1961</td></tr><tr><td>ATI Radeon HD 2400 XT 256MB</td><td>43R1962</td></tr><tr><td>ATI Radeon HD 2600 XT 512MB</td><td>43R1963</td></tr></table>								1GB PC2-5300 DDR2 UDIMM (TopSeller)	43R2001	2GB PC2-5300 DDR2 UDIMM (TopSeller)	43R2002	250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Lenovo Webcam	40Y8519	USB 2.0 Essential Memory Key 32GB	45K1258	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ThinkVision® L1940p Wide 19" Monitor	4424HB6	ThinkVision L2240p Wide 22" Monitor	4422HB6	ThinkVision L2440p Wide 24" Monitor	4420HB2	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Kensington Cable Lock from Lenovo	73P2582	ADD2 DVI-I PCIe Connection Adapter	73P2516	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI™ Radeon™ HD 2400 Pro 128MB	43R1961	ATI Radeon HD 2400 XT 256MB	43R1962	ATI Radeon HD 2600 XT 512MB	43R1963	Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories				
1GB PC2-5300 DDR2 UDIMM (TopSeller)	43R2001																																																										
2GB PC2-5300 DDR2 UDIMM (TopSeller)	43R2002																																																										
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015																																																										
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																																																										
USB 2.0 Lenovo Multimedia Headset	40Y8518																																																										
USB 2.0 Lenovo Webcam	40Y8519																																																										
USB 2.0 Essential Memory Key 32GB	45K1258																																																										
USB 2.0 Ultra Secure Memory Key 8GB	45J5918																																																										
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																																										
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																																																										
ThinkVision® L1940p Wide 19" Monitor	4424HB6																																																										
ThinkVision L2240p Wide 22" Monitor	4422HB6																																																										
ThinkVision L2440p Wide 24" Monitor	4420HB2																																																										
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067																																																										
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074																																																										
Kensington Cable Lock from Lenovo	73P2582																																																										
ADD2 DVI-I PCIe Connection Adapter	73P2516																																																										
ADD2 DVI-D Monitor Connection (HDCP)	43R1985																																																										
ATI™ Radeon™ HD 2400 Pro 128MB	43R1961																																																										
ATI Radeon HD 2400 XT 256MB	43R1962																																																										
ATI Radeon HD 2600 XT 512MB	43R1963																																																										
Preloaded applications⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• System Migration Assistant• Norton Internet Security™ (90 days of virus definitions)• Diskkeeper® Home• PC-Doctor™ (diagnostics)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Picasa from Google• Microsoft Office 2007 Trial (60-day)• Sonic RecordNow and Drive Letter Access (combo, DVD±RW)• Corel® WinDVD® (combo, DVD±RW)																																																											

See footnotes for important warranty information

☞ US models announced April 29, 2008; previous models on April 8, 2008

© Lenovo

(TUNS1-6) May 2008

Partial list of accessories supported on ThinkCentre A57

Memory

1GB PC2-5300 DDR2 UDIMM (TopSeller)	43R2001	ann 03/25/08
1GB PC2-5300 CL5 NP DDR2 UDIMM	73P4984	ann 06/28/05
2GB PC2-5300 DDR2 UDIMM (TopSeller)	43R2002	ann 03/25/08
2GB PC2-5300 CL5 NP DDR2 UDIMM	73P4985	ann 09/26/06
512MB PC2-6400 NP DDR2 UDIMM ⁴⁸	41U2976	ann 09/26/06
1GB PC2-6400 NP DDR2 UDIMM ⁴⁸	41U2977	ann 09/26/06
2GB PC2-6400 NP DDR2 UDIMM ⁴⁸	41U2978	ann 01/08/08

⁴⁸ When PC2-6400 is installed with systems that have PC2-5300 memory, PC2-6400 will operate at the PC2-5300 memory speed.

Optical

DVD-ROM DL SATA 1.5Gb/s 16X-48X Max ⁴	41N5618	ann 09/26/06
Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ann 09/26/06

Storage and removable storage

160GB SATA 3.0Gb/s Disk (7200 rpm)	09N4254	ann 05/19/03
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	ann 01/24/06
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	ann 11/06/07
USB Portable Diskette Drive	05K9276	ann 06/05/00
USB 2.0 Essential Memory Key 2GB	41U4944	ann 01/23/07
USB 2.0 Essential Memory Key 4GB	45J7904	ann 06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann 07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann 10/28/08
USB 2.0 Security Memory Key 4GB	41U5120	ann 07/17/07
USB 2.0 Ultra Secure Memory Key 1GB	45J5915	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann 08/26/08
USB 2.0 Portable 160GB Hard Disk	43R1784	ann 09/23/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
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
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann 01/05/06
USB 2.0 Super Multi-Burner Drive	41N5565	ann 01/23/07

Graphics

Small 9704 supports Low Profile 35 watts max:

ADD2 DVI-I PCIe Connection Adapter	73P2516	ann 06/28/05
ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ann 11/06/07
ATI™ Radeon™ HD 2400 Pro 128MB	43R1961	ann 11/06/07
ATI Radeon HD 2400 XT 256MB	43R1962	ann 11/06/07

Tower 9702/9851 support 75 watts max:

ADD2 DVI-I PCIe Connection Adapter	73P2516	ann 06/28/05
ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ann 11/06/07
ATI Radeon HD 2400 Pro 128MB	43R1961	ann 11/06/07
ATI Radeon HD 2400 XT 256MB	43R1962	ann 11/06/07
ATI Radeon HD 2600 XT 512MB	43R1963	ann 11/06/07

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
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	ann 12/07/04
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

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

Mouse

Optical Wheel Mouse (USB)	06P4069	ann 05/21/03
Optical ScrollPoint® Mouse (USB, PS/2)	31P7405	ann 08/27/02
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	ann 01/23/07
Lenovo Wireless Laser Mouse (blk, via USB)	45K1696	ann 11/25/08
Lenovo Wireless Laser Mouse (red, via USB)	51J0198	ann 11/25/08

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

Multimedia

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann 06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann 08/29/06

Security

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

Monitors

ThinkVision® L174 17" Monitor	9227AE1	ann 04/15/08
ThinkVision L1700p 17" Monitor	9417HE2	ann 09/17/08
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1940p Wide 19" Monitor	4424HB6	ann 09/17/08
ThinkVision L200p Wide 20.1" Monitor	4438HB6	ann 04/15/08
ThinkVision L2240p Wide 22" Monitor	4422HB6	ann 09/17/08
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann 09/17/08
ThinkVision L2440x Wide 24" Monitor	4421HB2	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 Cable Lock from Lenovo	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Radial Arm	19K4464	ann 05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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


Medialess License Key (MLK)

Microsoft® Office 2007 Basic, English	43R1528	ann 01/31/07
Microsoft Office 2007 Small Business, Engl	43R1534	ann 01/31/07
Microsoft Office 2007 Professional, English	43R1531	ann 01/31/07

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide

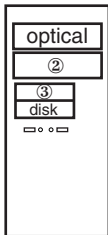
Personal Systems Reference (PSREF)

See footnotes for important warranty information
 US models announced April 7, 2009; previous models on March 10, 2009

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	SATA disk	SATA optical	Graphics	Preload	Vista logo	Global Educ	Avail date
A58	7705-A7U	2x3	Pentium E5200	2.50	2MB	2	2GB	160GB ²	DVD	GMA	Bus32	Basic	None	Apr 09
A58	7705-A8U	2x3	Core 2 Duo E7400	2.80	3MB	2	2GB	160GB	DVD±RW	GMA	Bus32	Basic	None	Apr 09
A58	7705-A9U	2x3	Core 2 Duo E8400	3.00	6MB	2	2GB	160GB	DVD±RW	GMA	Bus32	Basic	None	Apr 09

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a 3-year limited warranty¹**

Positioning Processor	Quality, reliability, and security for small/medium businesses Intel® Pentium® Processor E5200 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7400 with dual-core, 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Duo Processor E8400 with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket		Small <div><div>opticaldisk (in rear)</div><div>Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader) Slot 1: Low Profile, PCI Express 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</div></div>																																											
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket																																													
Memory	2GB std, 4GB max⁸, PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available		<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 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</div>																																											
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	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive																																													
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																																													
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar																																													
eSATA port	None																																													
Diskette drive	None																																													
Media reader	None																																													
Chipset	Intel G41 Express Chipset (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)																																													
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																																													
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)																																													
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)																																													
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																																													
Speaker	One internal speaker for business audio																																													
IEEE 1394	None																																													
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®																																													
Intel AMT	None																																													
Modem	None																																													
Security chip	None																																													
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																																													
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																																													
Power supply	280 watts with variable speed fan, autosensing																																													
<div><div>Preloaded operating system²⁰<ul style="list-style-type: none">- Microsoft® Windows® Vista® Business Edition (32-bit)Preloaded applications⁵<ul style="list-style-type: none">• Rescue and Recovery™• Password Manager• Lenovo Care™• ThinkVantage Power Manager• McAfee® VirusScan® Plus (30 days of virus definitions)• Lenovo System Toolbox• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Microsoft Office 2007 Trial (60-day)• Roxio® Creator® Small Business Edition (DVD±RW)• Roxio MyDVD® (DVD±RW)• Corel® WinDVD® (DVD, DVD±RW)</div><div>Accessories<table><tr><td>1GB PC2-6400 NP DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 NP 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>USB Portable Diskette Drive</td><td>05K9276</td></tr><tr><td>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Essential Memory Key 32GB</td><td>45K1258</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</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>ThinkVision® L1940p Wide 19" Monitor</td><td>4424HB6</td></tr><tr><td>ThinkVision L2240p Wide 22" Monitor</td><td>4422HB6</td></tr><tr><td>ThinkVision L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr><tr><td>ADD2 DVI-D Monitor Connection (HDCP)</td><td>43R1985</td></tr><tr><td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr></table>Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories</div></div>			1GB PC2-6400 NP DDR2 UDIMM	41U2977	2GB PC2-6400 NP 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	USB Portable Diskette Drive	05K9276	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Lenovo Webcam	40Y8519	USB 2.0 Essential Memory Key 32GB	45K1258	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	DVD-ROM DL SATA 1.5Gb/s 16X-48X Max	41N5618	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ThinkVision® L1940p Wide 19" Monitor	4424HB6	ThinkVision L2240p Wide 22" Monitor	4422HB6	ThinkVision L2440p Wide 24" Monitor	4420HB2	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Kensington Cable Lock from Lenovo	73P2582	DisplayPort to Single-link DVI-D Cable	45J7915	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636
1GB PC2-6400 NP DDR2 UDIMM	41U2977																																													
2GB PC2-6400 NP 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																																													
USB Portable Diskette Drive	05K9276																																													
USB 2.0 Lenovo Multimedia Headset	40Y8518																																													
USB 2.0 Lenovo Webcam	40Y8519																																													
USB 2.0 Essential Memory Key 32GB	45K1258																																													
USB 2.0 Ultra Secure Memory Key 8GB	45J5918																																													
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																													
DVD-ROM DL SATA 1.5Gb/s 16X-48X Max	41N5618																																													
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																																													
ThinkVision® L1940p Wide 19" Monitor	4424HB6																																													
ThinkVision L2240p Wide 22" Monitor	4422HB6																																													
ThinkVision L2440p Wide 24" Monitor	4420HB2																																													
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067																																													
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074																																													
Kensington Cable Lock from Lenovo	73P2582																																													
DisplayPort to Single-link DVI-D Cable	45J7915																																													
ADD2 DVI-D Monitor Connection (HDCP)	43R1985																																													
ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636																																													

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁶	SATA disk	2nd Disk Bay	SATA optical	Graphics	Preload	Vista logo	Global Educ	Avail date
A58	7515-H4U	4x4	Pentium E5200	2.50	2MB	2	512MB	160GB ²	None	DVD	GMA	XP Pro	Basic	None	Apr 09
A58	7515-H5U	4x4	Pentium E5200	2.50	2MB	2	1GB	160GB	None	DVD±RW	GMA	XP Pro	Basic	None	Apr 09
A58	7515-D9U	4x4	Pentium E5200	2.50	2MB	2	2GB	160GB	None	DVD±RW	GMA	XP Pro	Basic	None	Apr 09
A58	7515-A4U	4x4	Core 2 Duo E7300	2.66	3MB	2	2GB	160GB	None	DVD±RW	GMA	XP Pro	Basic	None	Apr 09
A58	7515-J3U	4x4	Celeron E1400	2.00	512KB	2	1GB	160GB	None	DVD±RW	GMA	Bus32	Basic	None	Apr 09
A58	7515-J4U	4x4	Pentium E5200	2.50	2MB	2	2GB	160GB	None	DVD±RW	GMA	Bus32	Basic	None	Apr 09
A58	7515-J2U	4x4	Pentium E5200	2.50	2MB	2	3GB	160GB	None	DVD	GMA	Bus32	Basic	None	Apr 09
A58	7515-J5U	4x4	Pentium E5200	2.50	2MB	2	3GB	250GB	None	DVD±RW	GMA	Bus32	Basic	None	Apr 09
• These small and medium business (SMB) models are part of the US TopSeller™ Program • These models have a 1-year limited warranty ¹															
Positioning	Quality, reliability, and security for small/medium businesses									Tower • Business black color; metal case • 6.9" W X 17.4" D X 16.2" H • 175mm W X 442mm D X 412mm H • 24.7 lb (11.2 kg) in max 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 					
Processor	Intel® Celeron® Processor E1400 with dual-core, 800MHz system bus, and 512KB L2 cache or Intel Pentium® Processor E5200 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7300 with dual-core, 1066MHz system bus, and 3MB L2 cache														
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket														
Memory	512MB, 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 <i>(XP Pro models: up to 128MB [512MB models], 512MB [1GB models], 1GB [2GB models]; Vista models: up to 253MB [1GB models], 765MB [2GB models], 1277MB [3GB models]),</i> one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter									Slot 1: half-length, full-height, PCI Express x16 (75w max) Slot 2: half-length, full-height, PCI Express x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3					
SATA disk	160GB or 250GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts									Security • 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, diskette • Serial port I/O control • Parallel port I/O control • USB port disablement					
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7														
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max ⁴ Drive														
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive														
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors on planar									Supports ThinkVantage® technologies					
eSATA port	None														
Diskette drive	None									GREENGUARD® certified RoHS-compliant					
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 ⇒ 1-year parts and labor ⇒ International Warranty Service ⁹ ⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts ³ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time) ⇒ Onsite service upgrade options (in eligible locations): ⁷ • 1-year LOR 9x5, 4 hour response (ThinkPlus™ part number 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 day ¹⁴ toll-free support during the warranty period ¹					
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)														
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)														
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)														
Audio	High Definition (HD) Audio, Realtek® ALC662 codec														
Speaker	One internal speaker for business audio														
IEEE 1394	None														
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®														
Intel AMT	None														
Modem	None														
Security chip	None														
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo														
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo														
Power supply	280 watts with variable speed fan, manual switch														
Preloaded operating system²⁰			Accessories												
- <i>Some:</i> Microsoft® Windows® XP Professional with Vista® COA			1GB PC2-6400 NP DDR2 UDIMM 41U2977												
- <i>Some:</i> Microsoft Windows Vista Business Edition (32-bit)			2GB PC2-6400 NP DDR2 UDIMM 41U2978												
			500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990												
			1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918												
			USB 2.0 Lenovo Multimedia Headset 40Y8518												
			USB 2.0 Essential Memory Key 32GB 45K1258												
			USB 2.0 Portable Secure 320GB Hard Disk 43R2019												
			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												
			ThinkVision® L2440p Wide 24" Monitor 4420HB2												
			Wireless Kbd & Opt Wheel Mouse (via USB) 73P4067												
			Kensington Twin Head Cable Lock 45K1620												
			DisplayPort to Single-link DVI-D Cable 45J7915												
			ADD2 DVI-D Monitor Connection (HDCP) 43R1985												
			ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636												
			NVIDIA® GeForce® 9500GT 512MB (DP, DVI) 45K1635												
			Acc Guide in pdf lenovo.com/accessoriesguide												
			Other accessories at lenovo.com/accessories												

See footnotes for important warranty information

US models announced April 7, 2009; previous models on March 10, 2009

© Lenovo
(TAMP1-2) April 2009

Partial list of accessories supported on ThinkCentre A58

Memory

1GB PC2-6400 NP DDR2 UDIMM	41U2977	ann 09/26/06
2GB PC2-6400 NP DDR2 UDIMM	41U2978	ann 01/08/08

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 supports:

Blu-ray™ Burner SATA 1.5Gb/s Drive	45K1675	ann 03/31/09
------------------------------------	---------	--------------

Storage and removable storage

160GB SATA 3.0Gb/s Disk (7200 rpm)	09N4254	ann 05/19/03
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	ann 01/24/06
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	ann 11/06/07
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	ann 08/19/08

USB Portable Diskette Drive	05K9276	ann 06/05/00
USB 2.0 Essential Memory Key 2GB	41U4944	ann 01/23/07
USB 2.0 Essential Memory Key 4GB	45J7904	ann 06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann 07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann 10/28/08
USB 2.0 Security Memory Key 4GB	41U5120	ann 07/17/07
USB 2.0 Ultra Secure Memory Key 1GB	45J5915	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann 08/26/08
USB 2.0 Portable 160GB Hard Disk	43R1784	ann 09/23/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
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
USB 2.0 Super Multi-Burner Drive	41N5565	ann 01/23/07

Graphics*Small 7522/7705 support Low Profile 35 watts max:*

DisplayPort to Single-link DVI-D Cable	45J7915	ann 08/05/08
ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ann 11/06/07
ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	ann 11/18/08

Tower 7515 supports 75 watts max:

DisplayPort to Single-link DVI-D Cable	45J7915	ann 08/05/08
ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ann 11/06/07
ATI Radeon HD 3470 256MB (DP, VGA)	45K1636	ann 11/18/08
NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635	ann 11/18/08

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
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	ann 12/07/04
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

More information at www.lenovo.com/support/keyboards**Mouse**

Optical Wheel Mouse (USB)	06P4069	ann 05/21/03
Optical ScrollPoint® Mouse (USB, PS/2)	31P7405	ann 08/27/02
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	ann 01/23/07
Lenovo Wireless Laser Mouse (blk, via USB)	45K1696	ann 11/25/08
Lenovo Wireless Laser Mouse (red, via USB)	51J0198	ann 11/25/08

More information at www.lenovo.com/support/mice**Multimedia**

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann 06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann 08/29/06

Security

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

Monitors

ThinkVision® L174 17" Monitor	9227AE1	ann 04/15/08
ThinkVision L1700p 17" Monitor	9417HE2	ann 09/17/08
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1940p Wide 19" Monitor	4424HB6	ann 09/17/08
ThinkVision L200p Wide 20.1" Monitor	4438HB6	ann 04/15/08
ThinkVision L2240p Wide 22" Monitor	4422HB6	ann 09/17/08
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann 09/17/08
ThinkVision L2440x Wide 24" Monitor	4421HB2	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 Cable Lock from Lenovo	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Radial Arm	19K4464	ann 05/05/00

⁴⁶Compatible on selected Lenovo and ThinkVision monitors.More information at www.lenovo.com/support/monitoraccessories**Medialess License Key (MLK)**

Microsoft® Office 2007 Basic, English	43R1528	ann 01/31/07
Microsoft Office 2007 Small Business, Engl	43R1534	ann 01/31/07
Microsoft Office 2007 Professional, English	43R1531	ann 01/31/07

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



Lenovo ThinkCentre A62 Desktop
with four Lenovo ThinkVision monitors



Lenovo ThinkCentre A62 Tower



Lenovo ThinkCentre A62 Desktop



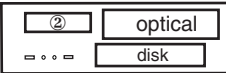
Lenovo ThinkCentre A62 Tower and
Lenovo ThinkCentre A62 Desktop



Lenovo ThinkCentre A62 Desktop
with Lenovo ThinkVision L193p monitor



Lenovo ThinkCentre A62 Tower
with Lenovo ThinkVision L193p monitor

Name	Type-model	Slot x bay	AMD processor	GHz	Core	Memory ⁸	SATA disk	SATA optical	Graphics	Monitor connectors	Preload	Global Educ	Avail date	
A62	9486-F1U	4x3	Athlon 1640B	2.7	Single	1GB	160GB ²	DVD	3100	VGA, DVI-D	XP Pro	None	Sep 08	
A62	9486-F2U	4x3	Athlon X2 5000B	2.6	Dual	1GB	160GB	DVD	3100	VGA, DVI-D	XP Pro	None	Sep 08	
A62	9486-F3U	4x3	Athlon X2 5000B	2.6	Dual	1GB	160GB	DVD±RW	3100	VGA, DVI-D	XP Pro	None	Sep 08	
A62	9486-F4U	4x3	Athlon X2 5000B	2.6	Dual	2GB	160GB	DVD±RW	3100	VGA, DVI-D	XP Pro	None	Sep 08	
A62	9486-F5U	4x3	Athlon X2 5000B	2.6	Dual	2GB	250GB	DVD±RW	9300GE	DVI-I	XP Pro	None	Sep 08	
A62	9486-F6U	4x3	Athlon X2 5400B	2.8	Dual	1GB	160GB	DVD	3100	VGA, DVI-D	XP Pro	None	Sep 08	
A62	9486-F7U	4x3	Athlon X2 5400B	2.8	Dual	2GB	250GB	DVD±RW	3100	VGA, DVI-D	XP Pro	None	Sep 08	
A62	9486-F8U	4x3	Phenom X3 8450	2.1	Triple	1GB	250GB	DVD	3100	VGA, DVI-D	XP Pro	None	Sep 08	
A62	9486-F9U	4x3	Phenom X3 8450	2.1	Triple	2GB	160GB	DVD±RW	9300GE	DVI-I	XP Pro	None	Sep 08	
• These models have a 3-year limited warranty¹														
Positioning Processor	Stability and manageability for large enterprise and mid-market AMD® Athlon™ Processor 1640B with single-core, virtualization technology, int DDR2 memory controller, and 512KB L2 cache or AMD Athlon X2 Dual-Core Processor 5000B or 5400B with dual-core, virtualization technology, integrated DDR2 memory controller, and 1MB dedicated L2 cache or AMD Phenom™ X3 Triple-Core Processor 8450 with triple-core, virtualization technology, integrated DDR2 memory controller, 1.5MB dedicated L2 cache and 2MB shared L3 cache Processor in Socket AM2 or AM2+								Desktop  <ul style="list-style-type: none">• Business black color• 13.0" W X 16.2" D X 4.1" H• 331mm W X 412mm D X 104mm H• 19.4lb (8.8kg) in typical configuration• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention					
Implementation														
Memory	1GB or 2GB std. , 8GB max ⁸ , 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; <i>F8U/F9U:</i> PC2-5300 667MHz DDR2 , non-parity, dual-channel; <i>Others:</i> PC2-6400 800MHz DDR2 , non-parity, dual-channel								Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, access, open* Bay ③ 3.5", 1" high, no access, std disk * supports reader/diskette/2nd disk					
Graphics	<i>Some:</i> ATI™ Radeon™ 3100 , int graphics in 780V, uses main memory (up to 512MB), one analog VGA DB-15 connector, one DVI-D conn, DirectX® 10, ATI Avivo™, SurroundView™, supports dual independent display; supports up to 4 monitors with optional dual-head ATI graphics adapter <i>Some:</i> NVIDIA® GeForce® 9300 GE , PCI Express® x16 adapter, 256MB, one DVI-I connector (includes DVI-to-VGA dongle), S-Video out for TV-out, HDCP, DirectX 10, 30 watts								Slot 1: Low Profile, PCI Express 2.0 x1 Slot 2: Low Profile, PCI Express 2.0 x16 (35w max)** Slot 3: Low Profile, 32-bit PCI 2.3 Slot 4: Low Profile, 32-bit PCI 2.3 ** used in some models					
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)• 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• Individual USB port disablement					
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in SB700, RAID 0/1 support													
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 cables	Two SATA cables (each 1-drop to device), four SATA connectors on planar													
eSATA port	None													
EIDE controller	None													
Diskette drive	None													
Media reader	None													
Chipset	AMD 780V Chipset with HyperTransport™ 3.0 and PCI Express 2.0 support; SB700 south bridge for SATA 3.0Gb/s with RAID 0/1 support, ATA-133 EIDE, PCI 2.3, USB, LPC bus / Winbond® W83627DHG 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), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), <i>F5U/F9U:</i> monitor (DVI-I), S-Video out; <i>Others:</i> monitor (VGA DB-15, DVI-D)													
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)								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, 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 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					
Speaker	One internal speaker for business audio													
Ethernet	Gigabit ethernet on planar, Marvell® 88E8070, Wake on LAN®, ASF 2.0													
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), 400dpi, black, Lenovo logo													
Power supply	220 watts with variable speed fan, manual switch													
Preloaded operating system²⁰ <ul style="list-style-type: none">- Microsoft® Windows® XP Professional with Vista® COA◇ Disk-to-Disk Recovery (in hidden protected area)◇ Vista Basic logo						Accessories								
						1GB PC2-5300 CL5 NP DDR2 UDIMM			73P4984					
						2GB PC2-5300 CL5 NP DDR2 UDIMM			73P4985					
						1GB PC2-6400 NP DDR2 UDIMM			41U2977					
						2GB PC2-6400 NP DDR2 UDIMM			41U2978					
						500GB SATA 3.0Gb/s Disk (7200 rpm)			43R1990					
						USB 2.0 Lenovo Multimedia Headset			40Y8518					
						USB 2.0 Ultra Secure Memory Key 8GB			45J5918					
						DVD-ROM DL SATA 1.5Gb/s 16-48X Max			41N5618					
						Super Multi-Burner DL DVD±RW SATA Drive			41N5620					
						ThinkVision® L2440p Wide 24" Monitor			4420HB2					
						Wireless Kbd & Opt Wheel Mouse (via USB)			73P4067					
						Kensington Cable Lock from Lenovo			73P2582					
						ATI Radeon HD 2400 XT 256MB			43R1962					
						ATI Radeon HD 3470 256MB (DP, VGA)			45K1636					
						Other accessories at lenovo.com/accessories								

See footnotes for important warranty information
 US models announced September 9, 2008

© Lenovo
 (ATHN1-7) September 2008

Name	Type-model	Slot x bay	AMD processor	GHz	Core	Memory ^a	SATA disk	SATA optical	Graphics	Monitor connectors	Vista preload	Global Educ	Avail date	
A62	9486-E6U	4x3	Sempron LE-1300	2.3	Single	1GB	160GB ²	DVD±RW	3100	VGA, DVI-D	Business32	Educ	Sep 08	
A62	9486-A4U	4x3	Athlon 1640B	2.7	Single	1GB	160GB	DVD	3100	VGA, DVI-D	Business32		Sep 08	
A62	9486-H9U	4x3	Athlon X2 4450B	2.3	Dual	1GB	160GB	DVD±RW	3100	VGA, DVI-D	Business32	Educ	Sep 08	
A62	9486-H8U	4x3	Athlon X2 4450B	2.3	Dual	2GB	160GB	DVD±RW	3100	VGA, DVI-D	Business32		Sep 08	
A62	9486-H7U	4x3	Athlon X2 4450B	2.3	Dual	1GB	160GB	DVD	3100	VGA, DVI-D	Business32		Sep 08	
A62	9486-H6U	4x3	Athlon X2 4450B	2.3	Dual	1GB	160GB	DVD±RW	9300GE	DVI-I	Business32		Sep 08	
A62	9486-A3U	4x3	Athlon X2 5000B	2.6	Dual	1GB	160GB	DVD±RW	3100	VGA, DVI-D	Business32		Sep 08	
A62	9486-A1U	4x3	Athlon X2 5400B	2.8	Dual	2GB	160GB	DVD±RW	3100	VGA, DVI-D	Business32		Sep 08	
A62	9486-A2U	4x3	Phenom X3 8600B	2.3	Triple	2GB	160GB	DVD±RW	3100	VGA, DVI-D	Business64		Sep 08	
• These models have a 3-year limited warranty ¹														
Positioning Processor	Stability and manageability for large enterprise and mid-market AMD® Sempron™ Processor LE-1300 with single-core, integrated DDR2 memory controller, and 512KB L2 cache or AMD Athlon™ Processor 1640B with single-core, virtualization technology, int DDR2 memory controller, and 512KB L2 cache or AMD Athlon X2 Dual-Core Processor 4450B, 5000B, or 5400B with dual-core , virtualization technology, integrated DDR2 memory controller, and 1MB dedicated L2 cache or AMD Phenom™ X3 Triple-Core Processor 8600B with triple-core , virtualization technology, integrated DDR2 memory controller, 1.5MB dedicated L2 cache and 2MB shared L3 cache Processor in Socket AM2 or AM2+								Desktop <div><div>②</div><div>optical</div><div>• • •</div><div>disk</div></div> <ul style="list-style-type: none">• Business black color• 13.0" W X 16.2" D X 4.1" H• 331mm W X 412mm D X 104mm H• 19.4lb (8.8kg) in typical configuration• 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 3.5", 1" high, access, open* Bay ③ 3.5", 1" high, no access, std disk * supports reader/diskette/2nd disk Slot 1: Low Profile, PCI Express 2.0 x1 Slot 2: Low Profile, PCI Express 2.0 x16 (35w max)** Slot 3: Low Profile, 32-bit PCI 2.3 Slot 4: Low Profile, 32-bit PCI 2.3 ** used in some models					
Implementation														
Memory	1GB or 2GB std, 8GB max ⁸ , four 240-pin DIMM sockets; Italics: standard memory in two sockets; two sockets available; Non-italics: standard memory in one socket; three sockets available; H8U/H9U: PC2-5300 667MHz DDR2, non-parity, dual-channel; Others: PC2-6400 800MHz DDR2, non-parity, dual-channel													
Graphics	Some: ATI™ Radeon™ 3100, integrated graphics in 780V, uses main memory (up to 512MB), 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 graphics adapter Some: NVIDIA® GeForce® 9300 GE, PCI Express® x16 adapter, 256MB, one DVI-I connector (includes DVI-to-VGA dongle), S-Video out for TV-out, HDCP, DirectX 10, 30 watts													
SATA disk	160GB, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts													
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in SB700, RAID 0/1 support													
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													
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors on planar													
eSATA port	None													
EIDE controller	None													
Diskette drive	None													
Media reader	None													
Chipset	AMD 780V Chipset with HyperTransport™ 3.0 and PCI Express 2.0 support; SB700 south bridge for SATA 3.0Gb/s with RAID 0/1 support, ATA-133 EIDE, PCI 2.3, USB, LPC bus / Winbond® W83627DHG 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), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), H6U: monitor (DVI-I), S-Video out; Others: monitor (VGA DB-15, DVI-D)													
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, Realtek® ALC662 codec													
Speaker	One internal speaker for business audio													
Ethernet	Gigabit ethernet on planar, Marvell® 88E8070, Wake on LAN®, ASF 2.0													
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), 400dpi, black, Lenovo logo													
Power supply	220 watts with variable speed fan, manual switch													
Preloaded operating system ²⁰							Accessories							
- Some: Microsoft® Windows® Vista Business Edition (32-bit)							1GB PC2-5300 CL5 NP DDR2 UDIMM	73P4984						
							2GB PC2-5300 CL5 NP DDR2 UDIMM	73P4985						
- Some: Microsoft Windows Vista Business Edition (64-bit)							1GB PC2-6400 NP DDR2 UDIMM	41U2977						
◇ Vista Premium logo							2GB PC2-6400 NP DDR2 UDIMM	41U2978						
Preloaded applications ⁵ (all OSes; only some listed)							USB 2.0 Lenovo Multimedia Headset	40Y8518						
• Rescue and Recovery™							DVD-ROM DL SATA 1.5Gb/s 16-48X Max	41N5618						
• Client Security Solution™							Super Multi-Burner DL DVD±RW SATA Drive	41N5620						
• ThinkVantage Productivity Center							ThinkVision® L2440p Wide 24" Monitor	4420HB2						
• Norton Internet Security™							Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067						
• Diskeeper® Home							Kensington Cable Lock from Lenovo	73P2582						
• Microsoft Office 2007 Trial (60-day)							ATI Radeon HD 2400 XT 256MB	43R1962						
							ATI Radeon HD 3470 256MB (DP, VGA)	45K1636						
							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• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel 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 45K5955)• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 45K5956)• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 45K5957)• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 45K5958)• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 45K5959)⇒ ThinkPlus services at lenovo.com/thinkplus/warranty⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378				

See footnotes for important warranty information

US models announced September 9, 2008; previous models on August 12, 2008

© Lenovo

(ATHN1-1) September 2008

ThinkCentre® A62 Desktop (7057) - ENERGY STAR® 4.0

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	AMD processor	GHz	Core	Memory ^a	SATA disk	SATA optical	Integrated graphics	Monitor connectors	ENERGY STAR 4.0	Preload	Global Educ	Avail date	
A62	7057-B5U	4x3	Athlon X2 5000B	2.6	Dual	1GB	160GB ²	DVD	3100	VGA, DVI-D	ES40	XP Pro	None	Sep 08	
A62	7057-B6U	4x3	Athlon X2 5000B	2.6	Dual	2GB	160GB	DVD±RW	3100	VGA, DVI-D	ES40	XP Pro	None	Sep 08	
A62	7057-B7U	4x3	Athlon X2 5400B	2.8	Dual	2GB	250GB	DVD±RW	3100	VGA, DVI-D	ES40	XP Pro	None	Sep 08	
A62	7057-B8U	4x3	Phenom X3 8450	2.1	Triple	1GB	160GB	DVD	3100	VGA, DVI-D	ES40	XP Pro	None	Dec 08	
A62	7057-A3U	4x3	Athlon 1640B	2.7	Single	1GB	160GB	DVD	3100	VGA, DVI-D	ES40	Bus32	None	Sep 08	
A62	7057-BBU	4x3	Athlon X2 4450B	2.3	Dual	1GB	160GB	DVD	3100	VGA, DVI-D	ES40	Bus32	None	Sep 08	
A62	7057-A2U	4x3	Athlon X2 5000B	2.6	Dual	1GB	160GB	DVD±RW	3100	VGA, DVI-D	ES40	Bus32	None	Sep 08	
A62	7057-A1U	4x3	Phenom X3 8600B	2.3	Triple	2GB	160GB	DVD±RW	3100	VGA, DVI-D	ES40	Bus64	None	Dec 08	
• These models have a 3-year limited warranty ¹															
Positioning Processor	Stability and manageability for large enterprise and mid-market AMD® Athlon™ Processor 1640B with single-core, virtualization technology, int DDR2 memory controller, and 512KB L2 cache or AMD Athlon X2 Dual-Core Processor 4450B, 5000B, or 5400B with dual-core, virtualization technology, integrated DDR2 memory controller, and 1MB dedicated L2 cache or AMD Phenom™ X3 Triple-Core Processor 8450 or 8600B with triple-core, virtualization technology, integrated DDR2 memory controller, 1.5MB dedicated L2 cache and 2MB shared L3 cache Processor in Socket AM2 or AM2+								Desktop <div><div>②</div><div>optical</div><div>• • •</div><div>disk</div></div> <ul style="list-style-type: none">• Business black color• 13.0" W X 16.2" D X 4.1" H• 331mm W X 412mm D X 104mm H• 19.4lb (8.8kg) in typical configuration• 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 3.5", 1" high, access, open* Bay ③ 3.5", 1" high, no access, std disk * supports reader/diskette/2nd disk						
Memory	1GB or 2GB std, 8GB max ⁸ , 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; <i>Others:</i> PC2-5300 667MHz DDR2 , non-parity, dual-channel capable; <i>Axx:</i> PC2-6400 800MHz DDR2 , non-parity, dual-channel capable								Slot 1: Low Profile, PCI Express 2.0 x1 Slot 2: Low Profile, PCI Express 2.0 x16 (35w max) Slot 3: Low Profile, 32-bit PCI 2.3 Slot 4: Low Profile, 32-bit PCI 2.3						
Graphics	ATI™ Radeon™ 3100 , integrated graphics in 780V, uses main memory (up to 512MB), one analog VGA DB-15 connector, one DVI-D connector, DirectX® 10, ATI Avivo™, SurroundView™, supports dual independent display; supports up to 4 independent monitors with optional dual-head ATI graphics adapter														
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)• 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• Individual USB port disablement						
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in SB700, RAID 0/1 support														
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16X-48X Max ⁴ Drive								Supports ThinkVantage® technologies						
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								EPEAT™ Gold rating ENERGY STAR 4.0-compliant GREENGUARD® certified RoHS-compliant						
eSATA port	None														
EIDE controller	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						
Diskette drive	None														
Media reader	None														
Chipset	AMD 780V Chipset with HyperTransport™ 3.0 and PCI Express® 2.0 support; SB700 south bridge for SATA 3.0Gb/s with RAID 0/1 support, ATA-133 EIDE, PCI 2.3, USB, LPC bus / Winbond® W83627DHG 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), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DVI-D)														
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, Realtek® ALC662 codec														
Speaker	One internal speaker for business audio														
Ethernet	Gigabit ethernet on planar, Marvell® 88E8070, Wake on LAN®, ASF 2.0														
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), 400dpi, black, Lenovo logo														
Power supply	220 watts with variable speed fan, autosensing, 80% PSU														
Preloaded operating system ²⁰				Accessories											
- <i>Some:</i> Microsoft® Windows® XP Professional with Vista® COA				1GB PC2-5300 CL5 NP DDR2 UDIMM 73P4984											
- <i>Some:</i> Microsoft Windows Vista Business Edition (32-bit)				2GB PC2-5300 CL5 NP DDR2 UDIMM 73P4985											
- <i>Some:</i> Microsoft Windows Vista Business Edition (64-bit)				1GB PC2-6400 NP DDR2 UDIMM 41U2977											
♦ <i>XP models:</i> Vista Basic logo				2GB PC2-6400 NP DDR2 UDIMM 41U2978											
♦ <i>Vista models:</i> Vista Premium logo				500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990											
Preloaded applications ⁵ (all OSes; only some listed)				USB Portable Diskette Drive 05K9276											
• Rescue and Recovery™				USB 2.0 Lenovo Multimedia Headset 40Y8518											
• Client Security Solution™				USB 2.0 Lenovo Webcam 40Y8519											
• ThinkVantage Productivity Center				USB 2.0 Essential Memory Key 32GB 45K1258											
• Microsoft Office 2007 Trial (60-day)				USB 2.0 Portable Secure 320GB Hard Disk 43R2019											
• Multimedia Center for Think Offerings (DVD, DVD±RW) (XP)				DVD-ROM DL SATA 1.5Gb/s 16-48X Max 41N5618											
• Sonic RecordNow and Drive Letter Access (DVD±RW)				Super Multi-Burner DL DVD±RW SATA Drive 41N5620											
• Corel® WinDVD® (DVD, DVD±RW)				ThinkVision® L2240p Wide 22" Monitor 4422HB6											
• Corel WinDVD Creator (DVD±RW) (XP)				ThinkVision L2440p Wide 24" Monitor 4420HB2											
				Wireless Kbd & Opt Wheel Mouse (via USB) 73P4067											
				Laser Tilt Wheel Mouse (USB, PS/2) 41U3074											
				Kensington Cable Lock from Lenovo 73P2582											
				ATI Radeon HD 2400 XT 256MB 43R1962											
				ATI Radeon HD 3470 256MB (DP, VGA) 45K1636											
				Acc Guide in pdf lenovo.com/accessoriesguide											
				Other accessories at lenovo.com/accessories											

See footnotes for important warranty information

US models announced December 9, 2008; previous models on August 12 or September 9, 2008

© Lenovo
(ATHN1-2) December 2008

Name	Type-model	Slot x bay	AMD processor	GHz	Core	Memory ⁸	SATA disk	SATA optical	Integrated graphics	Monitor connectors	Vista preload	Global (G) GMP (P)	Avail date
A62	7062-A1U	4x3	Athlon X2 5400B	2.8	Dual	2GB	160GB ²	DVD±RW	3100	VGA, DVI-D	Business32	G P	Sep 08

- This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty

Positioning Processor	Stability and manageability for large enterprise and mid-market AMD® Athlon™ X2 Dual-Core Processor 5400B with dual-core, virtualization technology, integrated DDR2 memory controller, and 1MB dedicated L2 cache Processor in Socket AM2		<div>Desktop</div> <div><div><div>②</div><div>optical</div></div><div><div>⏏</div><div>disk</div></div></div> <div><div>• Business black color</div><div>• 13.0" W X 16.2" D X 4.1" H</div><div>• 331mm W X 412mm D X 104mm H</div><div>• 19.4lb (8.8kg) in typical configuration</div><div>• Toolless cover removal</div><div>• Toolless disk, diskette drive, optical drive removal</div><div>• Toolless adapter retention</div><div>Bay ① 5.25", 1.6" high, access, std optical</div><div>Bay ② 3.5", 1" high, access, open*</div><div>Bay ③ 3.5", 1" high, no access, std disk</div><div>* supports reader/diskette/2nd disk</div><div>Slot 1: Low Profile, PCI Express 2.0 x1</div><div>Slot 2: Low Profile, PCI Express 2.0 x16 (35w max)</div><div>Slot 3: Low Profile, 32-bit PCI 2.3</div><div>Slot 4: Low Profile, 32-bit PCI 2.3</div></div>	
Implementation				
Memory	2GB std , 8GB max ⁸ , PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available			
Graphics	ATI™ Radeon™ 3100 , integrated graphics in 780V, uses main memory (up to 512MB), one analog VGA DB-15 connector, one DVI-D connector, DirectX® 10, ATI Avivo™, SurroundView™, supports dual independent display; supports up to 4 independent monitors with optional dual-head ATI graphics adapter			
SATA disk	160GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts			
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in SB700, 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), four SATA connectors			
eSATA port	None			
EIDE controller	None			
Diskette drive	None			
Media reader	None			
Chipset	AMD 780V Chipset with HyperTransport™ 3.0 and PCI Express® 2.0 support; SB700 south bridge for SATA 3.0Gb/s with RAID 0/1 support, ATA-133 EIDE, PCI 2.3, USB, LPC bus / Winbond® W83627DHG 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), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DVI-D)			
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, Realtek® ALC662 codec			
Speaker	One internal speaker for business audio			
Ethernet	Gigabit ethernet on planar, Marvell® 88E8070, Wake on LAN®, ASF 2.0			
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), 400dpi, black, Lenovo logo			
Power supply	220 watts with variable speed fan, manual switch			
Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ✧ Vista Premium logo				
Preloaded applications⁵ • Rescue and Recovery™ • Client Security Solution™ • ThinkVantage Productivity Center • Norton Internet Security™ (90 days of virus definitions) • Diskkeeper® Home • PC-Doctor™ (diagnostics) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW)				
Accessories				
1GB PC2-6400 NP DDR2 UDIMM			41U2977	
2GB PC2-6400 NP DDR2 UDIMM			41U2978	
250GB SATA 3.0Gb/s Disk (7200 rpm)			41N3015	
500GB SATA 3.0Gb/s Disk (7200 rpm)			43R1990	
USB Portable Diskette Drive			05K9276	
USB 2.0 Lenovo Multimedia Headset			40Y8518	
USB 2.0 Lenovo Webcam			40Y8519	
USB 2.0 Essential Memory Key 32GB			45K1258	
USB 2.0 Security Memory Key 4GB			41U5120	
USB 2.0 Ultra Secure Memory Key 2GB			45J5916	
USB 2.0 Ultra Secure Memory Key 4GB			45J5917	
USB 2.0 Ultra Secure Memory Key 8GB			45J5918	
USB 2.0 Portable 160GB Hard Disk			43R1784	
USB 2.0 Portable Secure 320GB Hard Disk			43R2019	
Super Multi-Burner DL DVD±RW SATA Drive			41N5620	
ThinkVision® L1700p 17" Monitor			9417HE2	
ThinkVision L1940p Wide 19" Monitor			4424HB6	
ThinkVision L2240p Wide 22" Monitor			4422HB6	
ThinkVision L2440p Wide 24" Monitor			4420HB2	
Wireless Kbd & Opt Wheel Mouse (via USB)			73P4067	
Laser Tilt Wheel Mouse (USB, PS/2)			41U3074	
Kensington Cable Lock from Lenovo			73P2582	
ATI Radeon HD 2400 XT 256MB			43R1962	
ATI Radeon HD 3470 256MB (DP, VGA)			45K1636	
Acc Guide in pdf lenovo.com/accessoriesguide				
Other accessories at lenovo.com/accessories				
<div>Security</div> <div><div>• Security chip (see information on left)</div><div>• One lock to secure both cover and entire system to fixed object:<div>- Padlock loop (in rear for opt padlock)</div><div>- Security slot (in rear for optional Kensington® Microsaver® cable)</div></div><div>• Power-on password</div><div>• Administrator password</div><div>• Hard disk password</div><div>• Boot sequence control</div><div>• Boot without keyboard, mouse, diskette</div><div>• Serial port I/O control</div><div>• Parallel port I/O control</div><div>• Individual USB port disablement</div></div>				
Supports ThinkVantage® technologies				
GREENGUARD® certified RoHS-compliant				
<div>Limited Warranty¹</div> <div><div>⇒ 3-year parts and labor</div><div>⇒ International Warranty Service⁹</div><div>⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</div><div>⇒ Onsite service upgrade options (in eligible locations):⁷<div>• 4-year LOR 9x5, Next Business Day (ThinkPlus™ part number 45K5957)</div><div>• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 45K5958)</div><div>• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 45K5959)</div></div><div>⇒ ThinkPlus services at lenovo.com/thinkplus/warranty</div><div>⇒ Post warranty maintenance services available</div><div>⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378</div></div>				

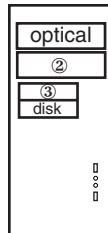
Name	Type-model	Slot x bay	AMD processor	GHz	Core	Memory ⁸	SATA disk	SATA optical	Integrated graphics	Monitor connectors	ENERGY STAR 4.0	Vista preload	Global (G) GMP (P)	Avail date
A62	3658-AAU	4x3	Athlon X2 5400B	2.8	Dual	2GB	160GB ²	DVD±RW	3100	VGA, DVI-D	ES40	Bus32	G P	Jan 09

- This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty

Positioning Processor	Stability and manageability for large enterprise and mid-market AMD® Athlon™ X2 Dual-Core Processor 5400B with dual-core, virtualization technology, integrated DDR2 memory controller, and 1MB dedicated L2 cache Processor in Socket AM2			<div>Desktop</div> <div><div><div>②</div><div>optical</div></div><div><div>• • •</div><div>disk</div></div></div> <div><ul style="list-style-type: none">• Business black color• 13.0" W X 16.2" D X 4.1" H• 331mm W X 412mm D X 104mm H• 19.4lb (8.8kg) in typical configuration• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention<div>Bay ① 5.25", 1.6" high, access, std optical</div><div>Bay ② 3.5", 1" high, access, open*</div><div>Bay ③ 3.5", 1" high, no access, std disk</div><div>* supports reader/diskette/2nd disk</div><div>Slot 1: Low Profile, PCI Express 2.0 x1</div><div>Slot 2: Low Profile, PCI Express 2.0 x16 (35w max)</div><div>Slot 3: Low Profile, 32-bit PCI 2.3</div><div>Slot 4: Low Profile, 32-bit PCI 2.3</div></div>																																																	
Implementation																																																					
Memory	2GB std , 8GB max ⁸ , PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available																																																				
Graphics	ATI™ Radeon™ 3100 , integrated graphics in 780V, uses main memory (up to 512MB), one analog VGA DB-15 connector, one DVI-D connector, DirectX® 10, ATI Avivo™, SurroundView™, supports dual independent display; supports up to 4 independent monitors with optional dual-head ATI graphics adapter																																																				
SATA disk	160GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts																																																				
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in SB700, 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), four SATA connectors																																																				
eSATA port	None																																																				
EIDE controller	None																																																				
Diskette drive	None																																																				
Media reader	None																																																				
Chipset	AMD 780V Chipset with HyperTransport™ 3.0 and PCI Express® 2.0 support; SB700 south bridge for SATA 3.0Gb/s with RAID 0/1 support, ATA-133 EIDE, PCI 2.3, USB, LPC bus / Winbond® W83627DHG 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), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DVI-D)																																																				
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, Realtek® ALC662 codec																																																				
Speaker	One internal speaker for business audio																																																				
Ethernet	Gigabit ethernet on planar, Marvell® 88E8070, Wake on LAN®, ASF 2.0																																																				
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), 400dpi, black, Lenovo logo																																																				
Power supply	220 watts with variable speed fan, autosensing, 80% PSU																																																				
Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ◇ Vista Premium logo Preloaded applications⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• Norton Internet Security™ (90 days of virus definitions)• Diskeeper® Home• PC-Doctor™ (diagnostics)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Picasa from Google• Microsoft Office 2007 Trial (60-day)• Sonic RecordNow and Drive Letter Access (DVD±RW)• Corel® WinDVD® (DVD±RW)				Accessories <table><tr><td>1GB PC2-6400 NP DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 NP 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>USB Portable Diskette Drive</td><td>05K9276</td></tr><tr><td>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Essential Memory Key 32GB</td><td>45K1258</td></tr><tr><td>USB 2.0 Security Memory Key 4GB</td><td>41U5120</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 2GB</td><td>45J5916</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 4GB</td><td>45J5917</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable 160GB Hard Disk</td><td>43R1784</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>ThinkVision® L1700p 17" Monitor</td><td>9417HE2</td></tr><tr><td>ThinkVision L1940p Wide 19" Monitor</td><td>4424HB6</td></tr><tr><td>ThinkVision L2240p Wide 22" Monitor</td><td>4422HB6</td></tr><tr><td>ThinkVision L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>ATI Radeon HD 2400 XT 256MB</td><td>43R1962</td></tr><tr><td>ATI Radeon HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr></table> <div>Acc Guide in pdf lenovo.com/accessoriesguide</div> <div>Other accessories at lenovo.com/accessories</div>		1GB PC2-6400 NP DDR2 UDIMM	41U2977	2GB PC2-6400 NP DDR2 UDIMM	41U2978	250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	USB Portable Diskette Drive	05K9276	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Lenovo Webcam	40Y8519	USB 2.0 Essential Memory Key 32GB	45K1258	USB 2.0 Security Memory Key 4GB	41U5120	USB 2.0 Ultra Secure Memory Key 2GB	45J5916	USB 2.0 Ultra Secure Memory Key 4GB	45J5917	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable 160GB Hard Disk	43R1784	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ThinkVision® L1700p 17" Monitor	9417HE2	ThinkVision L1940p Wide 19" Monitor	4424HB6	ThinkVision L2240p Wide 22" Monitor	4422HB6	ThinkVision L2440p Wide 24" Monitor	4420HB2	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Kensington Cable Lock from Lenovo	73P2582	ATI Radeon HD 2400 XT 256MB	43R1962	ATI Radeon HD 3470 256MB (DP, VGA)	45K1636
1GB PC2-6400 NP DDR2 UDIMM	41U2977																																																				
2GB PC2-6400 NP DDR2 UDIMM	41U2978																																																				
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015																																																				
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																																																				
USB Portable Diskette Drive	05K9276																																																				
USB 2.0 Lenovo Multimedia Headset	40Y8518																																																				
USB 2.0 Lenovo Webcam	40Y8519																																																				
USB 2.0 Essential Memory Key 32GB	45K1258																																																				
USB 2.0 Security Memory Key 4GB	41U5120																																																				
USB 2.0 Ultra Secure Memory Key 2GB	45J5916																																																				
USB 2.0 Ultra Secure Memory Key 4GB	45J5917																																																				
USB 2.0 Ultra Secure Memory Key 8GB	45J5918																																																				
USB 2.0 Portable 160GB Hard Disk	43R1784																																																				
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																																				
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																																																				
ThinkVision® L1700p 17" Monitor	9417HE2																																																				
ThinkVision L1940p Wide 19" Monitor	4424HB6																																																				
ThinkVision L2240p Wide 22" Monitor	4422HB6																																																				
ThinkVision L2440p Wide 24" Monitor	4420HB2																																																				
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067																																																				
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074																																																				
Kensington Cable Lock from Lenovo	73P2582																																																				
ATI Radeon HD 2400 XT 256MB	43R1962																																																				
ATI Radeon HD 3470 256MB (DP, VGA)	45K1636																																																				
Supports ThinkVantage® technologies				<div>EPEAT™ Gold rating</div> <div>ENERGY STAR 4.0-compliant</div> <div>GREENGUARD® certified</div> <div>RoHS-compliant</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">• 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)</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>																																																	

Name	Type-model	Slot x bay	AMD processor	GHz	Core	Memory ^a	SATA disk	2nd Disk Bay	SATA optical	Integrated graphics	Monitor connectors	Vista preload	Global Educ	Avail date
A62	9705-B5U	4x4	Athlon 1640B	2.7	Single	1GB	160GB ²	None	DVD±RW	3100	VGA, DVI-D	Home Basic	None	Dec 08
A62	9705-B6U	4x4	Athlon X2 4450B	2.3	Dual	2GB	160GB	None	DVD±RW	3100	VGA, DVI-D	Home Basic	None	Dec 08
A62	9705-B7U	4x4	Athlon X2 5000B	2.6	Dual	2GB	320GB	None	DVD±RW	3100	VGA, DVI-D	Home Premium	None	Dec 08

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 1-year limited warranty¹

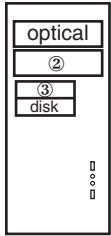
Positioning Processor	Quality, reliability, and manageability for small/medium businesses AMD® Athlon™ Processor 1640B with single-core, virtualization technology, int DDR2 memory controller, and 512KB L2 cache or AMD Athlon X2 Dual-Core Processor 4450B or 5000B with dual-core, virtualization technology, integrated DDR2 memory controller, and 1MB dedicated L2 cache Processor in Socket AM2			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• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention																																																					
Implementation																																																									
Memory	1GB or 2GB std , 8GB max ⁸ , PC2-6400 800MHz DDR2 , 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; three sockets available																																																								
Graphics	ATI™ Radeon™ 3100 , integrated graphics in 780V, uses main memory (up to 512MB), one analog VGA DB-15 connector, one DVI-D connector, DirectX® 10, ATI Avivo™, SurroundView™, supports dual independent display; supports up to 4 independent monitors with optional dual-head ATI graphics 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, PCIe 2.0 x1 Slot 2: half-length, full-height, PCIe 2.0 x16 (75w max) 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 320GB , SATA 3.0Gb/s 7200 rpm, vibration dampening																																																								
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in SB700, 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), four SATA connectors on planar																																																								
eSATA port	None																																																								
EIDE controller	None																																																								
Diskette drive	None																																																								
Media reader	None																																																								
Chipset	AMD 780V Chipset with HyperTransport™ 3.0 and PCI Express® 2.0 support; SB700 south bridge for SATA 3.0Gb/s with RAID 0/1 support, ATA-133 EIDE, PCI 2.3, USB, LPC bus / Winbond® W83627DHG 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• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel 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), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DVI-D)																																																								
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, Realtek® ALC662 codec																																																								
Speaker	One internal speaker for business audio																																																								
Ethernet	Gigabit ethernet on planar, Marvell® 88E8070, Wake on LAN®, ASF 2.0																																																								
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), 400dpi, black, Lenovo logo																																																								
Power supply	280 watts with variable speed fan, manual switch																																																								
Preloaded operating system²⁰ <ul style="list-style-type: none">- <i>Some:</i> Microsoft® Windows® Vista® Home Basic Edition (32-bit)- <i>Some:</i> Microsoft Windows Vista Home Premium Edition (32-bit) ◇ Vista Basic logo				Accessories <table><tr><td>1GB PC2-6400 NP DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 NP 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>USB Portable Diskette Drive</td><td>05K9276</td></tr><tr><td>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Essential Memory Key 32GB</td><td>45K1258</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 4GB</td><td>45J5917</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable 160GB Hard Disk</td><td>43R1784</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>ThinkVision® L1700p 17" Monitor</td><td>9417HE2</td></tr><tr><td>ThinkVision L1940p Wide 19" Monitor</td><td>4424HB6</td></tr><tr><td>ThinkVision L2240p Wide 22" Monitor</td><td>4422HB6</td></tr><tr><td>ThinkVision L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>ATI Radeon HD 2400 XT 256MB</td><td>43R1962</td></tr><tr><td>ATI Radeon HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr><tr><td>NVIDIA® GeForce® 9500GT 512MB (DP, DVI)</td><td>45K1635</td></tr></table> Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories				1GB PC2-6400 NP DDR2 UDIMM	41U2977	2GB PC2-6400 NP DDR2 UDIMM	41U2978	250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	USB Portable Diskette Drive	05K9276	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Lenovo Webcam	40Y8519	USB 2.0 Essential Memory Key 32GB	45K1258	USB 2.0 Ultra Secure Memory Key 4GB	45J5917	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable 160GB Hard Disk	43R1784	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ThinkVision® L1700p 17" Monitor	9417HE2	ThinkVision L1940p Wide 19" Monitor	4424HB6	ThinkVision L2240p Wide 22" Monitor	4422HB6	ThinkVision L2440p Wide 24" Monitor	4420HB2	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Kensington Cable Lock from Lenovo	73P2582	ATI Radeon HD 2400 XT 256MB	43R1962	ATI Radeon HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635	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			
1GB PC2-6400 NP DDR2 UDIMM	41U2977																																																								
2GB PC2-6400 NP DDR2 UDIMM	41U2978																																																								
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015																																																								
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																																																								
USB Portable Diskette Drive	05K9276																																																								
USB 2.0 Lenovo Multimedia Headset	40Y8518																																																								
USB 2.0 Lenovo Webcam	40Y8519																																																								
USB 2.0 Essential Memory Key 32GB	45K1258																																																								
USB 2.0 Ultra Secure Memory Key 4GB	45J5917																																																								
USB 2.0 Ultra Secure Memory Key 8GB	45J5918																																																								
USB 2.0 Portable 160GB Hard Disk	43R1784																																																								
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																																								
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																																																								
ThinkVision® L1700p 17" Monitor	9417HE2																																																								
ThinkVision L1940p Wide 19" Monitor	4424HB6																																																								
ThinkVision L2240p Wide 22" Monitor	4422HB6																																																								
ThinkVision L2440p Wide 24" Monitor	4420HB2																																																								
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067																																																								
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074																																																								
Kensington Cable Lock from Lenovo	73P2582																																																								
ATI Radeon HD 2400 XT 256MB	43R1962																																																								
ATI Radeon HD 3470 256MB (DP, VGA)	45K1636																																																								
NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635																																																								

See footnotes for important warranty information
US models announced November 25, 2008

© Lenovo
(ATHN1-10) December 2008

Personal Systems Reference (PSREF)

See footnotes for important warranty information
US model announced December 16, 2008

Name	Type-model	Slot x bay	AMD processor	GHz	Core	Memory ⁸	SATA disk	2nd Disk Bay	SATA optical	Integrated graphics	Monitor connectors	Preload	Global Educ	Avail date																																																																																																																																																																																																																																																																																																																																																									
A62	9935-B1U	4x4	Athlon 1640B	2.7	Single	1GB	160GB ²	None	DVD	3100	VGA, DVI-D	XP Pro	None	Sep 08																																																																																																																																																																																																																																																																																																																																																									
A62	9935-B6U	4x4	Athlon X2 4450B	2.3	Dual	1GB	160GB	None	DVD	3100	VGA, DVI-D	XP Pro	None	Sep 08																																																																																																																																																																																																																																																																																																																																																									
A62	9935-B7U	4x4	Athlon X2 4450B	2.3	Dual	2GB	160GB	None	DVD±RW	3100	VGA, DVI-D	XP Pro	None	Sep 08																																																																																																																																																																																																																																																																																																																																																									
A62	9935-B2U	4x4	Athlon X2 5000B	2.6	Dual	1GB	160GB	None	DVD	3100	VGA, DVI-D	XP Pro	None	Sep 08																																																																																																																																																																																																																																																																																																																																																									
A62	9935-B3U	4x4	Athlon X2 5000B	2.6	Dual	2GB	160GB	None	DVD±RW	3100	VGA, DVI-D	XP Pro	None	Sep 08																																																																																																																																																																																																																																																																																																																																																									
A62	9935-B4U	4x4	Phenom X3 8450	2.1	Triple	1GB	160GB	None	DVD±RW	3100	VGA, DVI-D	XP Pro	None	Sep 08																																																																																																																																																																																																																																																																																																																																																									
A62	9935-B5U	4x4	Phenom X3 8450	2.1	Triple	2GB	320GB	None	DVD±RW	3100	VGA, DVI-D	XP Pro	None	Sep 08																																																																																																																																																																																																																																																																																																																																																									
<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	Quality, reliability, and manageability for small/medium businesses AMD® Athlon™ Processor 1640B with single-core, virtualization technology, int DDR2 memory controller, and 512KB L2 cache or AMD Athlon X2 Dual-Core Processor 4450B or 5000B with dual-core, virtualization technology, integrated DDR2 memory controller, and 1MB dedicated L2 cache or AMD Phenom™ X3 Triple-Core Processor 8450 with triple-core, virtualization technology, integrated DDR2 memory controller, 1.5MB dedicated L2 cache and 2MB shared L3 cache Processor in Socket AM2 or AM2+								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• Toolless cover removal• Toolless disk, diskette drive, optical drive removal• Toolless adapter retention																																																																																																																																																																																																																																																																																																																																																														
Implementation																																																																																																																																																																																																																																																																																																																																																																							
Memory	1GB or 2GB std, 8GB max⁸, PC2-5300 667MHz DDR2 , 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; 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																																																																																																																																																																																																																																																																																																																																																														
Graphics	ATI™ Radeon™ 3100 , integrated graphics in 780V, uses main memory (up to 512MB), one analog VGA DB-15 connector, one DVI-D connector, DirectX® 10, ATI Avivo™, SurroundView™, supports dual independent display; supports up to 4 independent monitors with optional dual-head ATI graphics adapter								Slot 1: half-length, full-height, PCIe 2.0 x1 Slot 2: half-length, full-height, PCIe 2.0 x16 (75w max) 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 320GB , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts											Security																																																																																																																																																																																																																																																																																																																																																											
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in SB700, RAID 0/1 support											<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• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel port I/O control• Individual USB port disablement																																																																																																																																																																																																																																																																																																																																																											
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16X-48X Max ⁴ Drive																																																																																																																																																																																																																																																																																																																																																																						
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																																																																																																																																																																																																																																																																																																																																																																						
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors on planar																																																																																																																																																																																																																																																																																																																																																																						
eSATA port	None																																																																																																																																																																																																																																																																																																																																																																						
EIDE controller	None																																																																																																																																																																																																																																																																																																																																																																						
Diskette drive	None																																																																																																																																																																																																																																																																																																																																																																						
Media reader	None																																																																																																																																																																																																																																																																																																																																																																						
Chipset	AMD 780V Chipset with HyperTransport™ 3.0 and PCI Express® 2.0 support; SB700 south bridge for SATA 3.0Gb/s with RAID 0/1 support, ATA-133 EIDE, PCI 2.3, USB, LPC bus / Winbond® W83627DHG 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), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DVI-D)																																																																																																																																																																																																																																																																																																																																																																						
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, Realtek® ALC662 codec											Supports ThinkVantage® technologies																																																																																																																																																																																																																																																																																																																																																											
Speaker	One internal speaker for business audio																																																																																																																																																																																																																																																																																																																																																																						
Ethernet	Gigabit ethernet on planar, Marvell® 88E8070, Wake on LAN®, ASF 2.0																																																																																																																																																																																																																																																																																																																																																																						
Modem	None																																																																																																																																																																																																																																																																																																																																																																						
Security chip	Winbond WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant											GREENGUARD® certified RoHS-compliant																																																																																																																																																																																																																																																																																																																																																											
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo											Limited Warranty¹																																																																																																																																																																																																																																																																																																																																																											
Mouse	Optical Wheel Mouse (USB connector), 400dpi, black, Lenovo logo											<ul style="list-style-type: none">⇒ 3-year parts and labor⇒ International Warranty Service⁹⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ 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																																																																																																																																																																																																																																																																																																																																																											
Power supply	280 watts with variable speed fan, manual switch																																																																																																																																																																																																																																																																																																																																																																						
<table><tr><td colspan="5">Preloaded operating system²⁰</td><td colspan="5">Accessories</td><td colspan="5"></td></tr><tr><td colspan="5">- Microsoft® Windows® XP Professional with Vista® COA</td><td colspan="5">1GB PC2-5300 CL5 NP DDR2 UDIMM</td><td colspan="5">73P4984</td></tr><tr><td colspan="5">◆ Disk-to-Disk Recovery (in hidden protected area)</td><td colspan="5">2GB PC2-5300 CL5 NP DDR2 UDIMM</td><td colspan="5">73P4985</td></tr><tr><td colspan="5">◆ Vista Basic logo</td><td colspan="5">250GB SATA 3.0Gb/s Disk (7200 rpm)</td><td colspan="5">41N3015</td></tr><tr><td colspan="5"></td><td colspan="5">500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td colspan="5">43R1990</td></tr><tr><td colspan="5"></td><td colspan="5">USB Portable Diskette Drive</td><td colspan="5">05K9276</td></tr><tr><td colspan="5"></td><td colspan="5">USB 2.0 Lenovo Multimedia Headset</td><td colspan="5">40Y8518</td></tr><tr><td colspan="5"></td><td colspan="5">USB 2.0 Lenovo Webcam</td><td colspan="5">40Y8519</td></tr><tr><td colspan="5"></td><td colspan="5">USB 2.0 Essential Memory Key 32GB</td><td colspan="5">45K1258</td></tr><tr><td colspan="5"></td><td colspan="5">USB 2.0 Portable Secure 320GB Hard Disk</td><td colspan="5">43R2019</td></tr><tr><td colspan="5"></td><td colspan="5">DVD-ROM DL SATA 1.5Gb/s 16-48X Max</td><td colspan="5">41N5618</td></tr><tr><td colspan="5"></td><td colspan="5">Super Multi-Burner DL DVD±RW SATA Drive</td><td colspan="5">41N5620</td></tr><tr><td colspan="5"></td><td colspan="5">ThinkVision® L1940p Wide 19" Monitor</td><td colspan="5">4424HB6</td></tr><tr><td colspan="5"></td><td colspan="5">ThinkVision L2240p Wide 22" Monitor</td><td colspan="5">4422HB6</td></tr><tr><td colspan="5"></td><td colspan="5">ThinkVision L2440p Wide 24" Monitor</td><td colspan="5">4420HB2</td></tr><tr><td colspan="5"></td><td colspan="5">Wireless Kbd & Opt Wheel Mouse (via USB)</td><td colspan="5">73P4067</td></tr><tr><td colspan="5"></td><td colspan="5">Laser Tilt Wheel Mouse (USB, PS/2)</td><td colspan="5">41U3074</td></tr><tr><td colspan="5"></td><td colspan="5">Kensington Cable Lock from Lenovo</td><td colspan="5">73P2582</td></tr><tr><td colspan="5"></td><td colspan="5">ATI Radeon HD 2400 XT 256MB</td><td colspan="5">43R1962</td></tr><tr><td colspan="5"></td><td colspan="5">ATI Radeon HD 3470 256MB (DP, VGA)</td><td colspan="5">45K1636</td></tr><tr><td colspan="5"></td><td colspan="5">NVIDIA® GeForce® 9500GT 512MB (DP, DVI)</td><td colspan="5">45K1635</td></tr><tr><td colspan="5"></td><td colspan="5">Acc Guide in pdf lenovo.com/accessoriesguide</td><td colspan="5"></td></tr><tr><td colspan="5"></td><td colspan="5" rowspan="5">Other accessories at lenovo.com/accessories</td><td colspan="5" rowspan="5"></td></tr></table>															Preloaded operating system²⁰					Accessories										- Microsoft® Windows® XP Professional with Vista® COA					1GB PC2-5300 CL5 NP DDR2 UDIMM					73P4984					◆ Disk-to-Disk Recovery (in hidden protected area)					2GB PC2-5300 CL5 NP DDR2 UDIMM					73P4985					◆ Vista Basic logo					250GB SATA 3.0Gb/s Disk (7200 rpm)					41N3015										500GB SATA 3.0Gb/s Disk (7200 rpm)					43R1990										USB Portable Diskette Drive					05K9276										USB 2.0 Lenovo Multimedia Headset					40Y8518										USB 2.0 Lenovo Webcam					40Y8519										USB 2.0 Essential Memory Key 32GB					45K1258										USB 2.0 Portable Secure 320GB Hard Disk					43R2019										DVD-ROM DL SATA 1.5Gb/s 16-48X Max					41N5618										Super Multi-Burner DL DVD±RW SATA Drive					41N5620										ThinkVision® L1940p Wide 19" Monitor					4424HB6										ThinkVision L2240p Wide 22" Monitor					4422HB6										ThinkVision L2440p Wide 24" Monitor					4420HB2										Wireless Kbd & Opt Wheel Mouse (via USB)					73P4067										Laser Tilt Wheel Mouse (USB, PS/2)					41U3074										Kensington Cable Lock from Lenovo					73P2582										ATI Radeon HD 2400 XT 256MB					43R1962										ATI Radeon HD 3470 256MB (DP, VGA)					45K1636										NVIDIA® GeForce® 9500GT 512MB (DP, DVI)					45K1635										Acc Guide in pdf lenovo.com/accessoriesguide															Other accessories at lenovo.com/accessories									
Preloaded operating system²⁰					Accessories																																																																																																																																																																																																																																																																																																																																																																		
- Microsoft® Windows® XP Professional with Vista® COA					1GB PC2-5300 CL5 NP DDR2 UDIMM					73P4984																																																																																																																																																																																																																																																																																																																																																													
◆ Disk-to-Disk Recovery (in hidden protected area)					2GB PC2-5300 CL5 NP DDR2 UDIMM					73P4985																																																																																																																																																																																																																																																																																																																																																													
◆ Vista Basic logo					250GB SATA 3.0Gb/s Disk (7200 rpm)					41N3015																																																																																																																																																																																																																																																																																																																																																													
					500GB SATA 3.0Gb/s Disk (7200 rpm)					43R1990																																																																																																																																																																																																																																																																																																																																																													
					USB Portable Diskette Drive					05K9276																																																																																																																																																																																																																																																																																																																																																													
					USB 2.0 Lenovo Multimedia Headset					40Y8518																																																																																																																																																																																																																																																																																																																																																													
					USB 2.0 Lenovo Webcam					40Y8519																																																																																																																																																																																																																																																																																																																																																													
					USB 2.0 Essential Memory Key 32GB					45K1258																																																																																																																																																																																																																																																																																																																																																													
					USB 2.0 Portable Secure 320GB Hard Disk					43R2019																																																																																																																																																																																																																																																																																																																																																													
					DVD-ROM DL SATA 1.5Gb/s 16-48X Max					41N5618																																																																																																																																																																																																																																																																																																																																																													
					Super Multi-Burner DL DVD±RW SATA Drive					41N5620																																																																																																																																																																																																																																																																																																																																																													
					ThinkVision® L1940p Wide 19" Monitor					4424HB6																																																																																																																																																																																																																																																																																																																																																													
					ThinkVision L2240p Wide 22" Monitor					4422HB6																																																																																																																																																																																																																																																																																																																																																													
					ThinkVision L2440p Wide 24" Monitor					4420HB2																																																																																																																																																																																																																																																																																																																																																													
					Wireless Kbd & Opt Wheel Mouse (via USB)					73P4067																																																																																																																																																																																																																																																																																																																																																													
					Laser Tilt Wheel Mouse (USB, PS/2)					41U3074																																																																																																																																																																																																																																																																																																																																																													
					Kensington Cable Lock from Lenovo					73P2582																																																																																																																																																																																																																																																																																																																																																													
					ATI Radeon HD 2400 XT 256MB					43R1962																																																																																																																																																																																																																																																																																																																																																													
					ATI Radeon HD 3470 256MB (DP, VGA)					45K1636																																																																																																																																																																																																																																																																																																																																																													
					NVIDIA® GeForce® 9500GT 512MB (DP, DVI)					45K1635																																																																																																																																																																																																																																																																																																																																																													
					Acc Guide in pdf lenovo.com/accessoriesguide																																																																																																																																																																																																																																																																																																																																																																		
					Other accessories at lenovo.com/accessories																																																																																																																																																																																																																																																																																																																																																																		

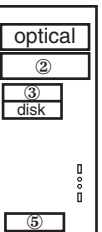
Name	Type-model	Slot x bay	AMD processor	GHz	Core	Memory ^a	SATA disk	2nd Disk Bay	SATA optical	Integrated graphics	Monitor connectors	Preload	Global Educ	Avail date
A62	9935-B8U	4x4	Athlon X2 5400B	2.8	Dual	2GB	250GB ^{b2}	None	DVD±RW	3100	VGA, DVI-D	XP Pro	None	Apr 09
A62	9935-B9U	4x4	Phenom X4 9600B	2.3	Quad	2GB	320GB	None	DVD±RW	3100	VGA, DVI-D	Bus32	None	Apr 09

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-year limited warranty¹

Positioning Processor	Quality, reliability, and manageability for small/medium businesses AMD® Athlon™ X2 Dual-Core Processor 5400B with dual-core, virtualization technology, integrated DDR2 memory controller, and 1MB dedicated L2 cache or AMD Phenom™ X4 Quad-Core Processor 9600B with quad-core, virtualization technology, integrated DDR2 memory controller, 2MB dedicated L2 cache and 2MB shared L3 cache Processor in Socket AM2 or AM2+			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• 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				Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk																																																			
Memory	2GB std, 8GB max⁸, PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; three sockets available			Slot 1: half-length, full-height, PCIe 2.0 x1 Slot 2: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3																																																			
Graphics	ATI™ Radeon™ 3100 , integrated graphics in 780V, uses main memory (up to 512MB), one analog VGA DB-15 connector, one DVI-D connector, DirectX® 10, ATI Avivo™, SurroundView™, supports dual independent display; supports up to 4 independent monitors with optional dual-head ATI graphics adapter																																																						
SATA disk	250GB or 320GB , SATA 3.0Gb/s 7200 rpm, vibration dampening																																																						
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in SB700, 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), four SATA connectors on planar																																																						
eSATA port	None																																																						
EIDE controller	None																																																						
Diskette drive	None																																																						
Media reader	None																																																						
Chipset	AMD 780V Chipset with HyperTransport™ 3.0 and PCI Express® 2.0 support; SB700 south bridge for SATA 3.0Gb/s with RAID 0/1 support, ATA-133 EIDE, PCI 2.3, USB, LPC bus / Winbond® W83627DHG 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), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DVI-D)																																																						
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, Realtek® ALC662 codec																																																						
Speaker	One internal speaker for business audio																																																						
Ethernet	Gigabit ethernet on planar, Marvell® 88E8070, Wake on LAN®, ASF 2.0																																																						
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), 400dpi, black, Lenovo logo																																																						
Power supply	280 watts with variable speed fan, manual switch																																																						
Preloaded operating system²⁰ <ul style="list-style-type: none">- <i>Some</i>: Microsoft® Windows® XP Professional with Vista® COA- <i>Some</i>: Microsoft Windows Vista Business Edition (32-bit)♦ Vista Premium logo Preloaded applications⁵ (all OSes) <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• Norton Internet Security™ (90 days of virus definitions)• Diskeeper® Home• PC-Doctor™ (diagnostics)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Picasa from Google• Microsoft Office 2007 Trial (60-day)• Multimedia Center for Think Offerings (DVD±RW) (XP)• Sonic RecordNow and Drive Letter Access (DVD±RW)• Corel® WinDVD® (DVD±RW)• Corel WinDVD Creator (DVD±RW) (XP)				Accessories <table><tr><td>1GB PC2-6400 NP DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 NP 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>USB Portable Diskette Drive</td><td>05K9276</td></tr><tr><td>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Essential Memory Key 32GB</td><td>45K1258</td></tr><tr><td>USB 2.0 Security Memory Key 4GB</td><td>41U5120</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 4GB</td><td>45J5917</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable 160GB Hard Disk</td><td>43R1784</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr><tr><td>ThinkVision® L1700p 17" Monitor</td><td>9417HE2</td></tr><tr><td>ThinkVision L1940p Wide 19" Monitor</td><td>4424HB6</td></tr><tr><td>ThinkVision L2240p Wide 22" Monitor</td><td>4422HB6</td></tr><tr><td>ThinkVision L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>ATI Radeon HD 2400 XT 256MB</td><td>43R1962</td></tr><tr><td>ATI Radeon HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr><tr><td>NVIDIA® GeForce® 9500GT 512MB (DP, DVI)</td><td>45K1635</td></tr></table> Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories				1GB PC2-6400 NP DDR2 UDIMM	41U2977	2GB PC2-6400 NP DDR2 UDIMM	41U2978	250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	USB Portable Diskette Drive	05K9276	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Lenovo Webcam	40Y8519	USB 2.0 Essential Memory Key 32GB	45K1258	USB 2.0 Security Memory Key 4GB	41U5120	USB 2.0 Ultra Secure Memory Key 4GB	45J5917	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable 160GB Hard Disk	43R1784	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ThinkVision® L1700p 17" Monitor	9417HE2	ThinkVision L1940p Wide 19" Monitor	4424HB6	ThinkVision L2240p Wide 22" Monitor	4422HB6	ThinkVision L2440p Wide 24" Monitor	4420HB2	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Kensington Cable Lock from Lenovo	73P2582	ATI Radeon HD 2400 XT 256MB	43R1962	ATI Radeon HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635
1GB PC2-6400 NP DDR2 UDIMM	41U2977																																																						
2GB PC2-6400 NP DDR2 UDIMM	41U2978																																																						
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015																																																						
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																																																						
USB Portable Diskette Drive	05K9276																																																						
USB 2.0 Lenovo Multimedia Headset	40Y8518																																																						
USB 2.0 Lenovo Webcam	40Y8519																																																						
USB 2.0 Essential Memory Key 32GB	45K1258																																																						
USB 2.0 Security Memory Key 4GB	41U5120																																																						
USB 2.0 Ultra Secure Memory Key 4GB	45J5917																																																						
USB 2.0 Ultra Secure Memory Key 8GB	45J5918																																																						
USB 2.0 Portable 160GB Hard Disk	43R1784																																																						
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																																						
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																																																						
ThinkVision® L1700p 17" Monitor	9417HE2																																																						
ThinkVision L1940p Wide 19" Monitor	4424HB6																																																						
ThinkVision L2240p Wide 22" Monitor	4422HB6																																																						
ThinkVision L2440p Wide 24" Monitor	4420HB2																																																						
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067																																																						
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074																																																						
Kensington Cable Lock from Lenovo	73P2582																																																						
ATI Radeon HD 2400 XT 256MB	43R1962																																																						
ATI Radeon HD 3470 256MB (DP, VGA)	45K1636																																																						
NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635																																																						
				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• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel 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 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																																																			

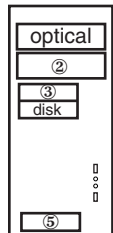
See footnotes for important warranty information
US models announced April 7, 2009

© Lenovo
(ATHN2-4) April 2009

Name	Type-model	Slot x bay	AMD processor	GHz	Core	Memory ⁸	SATA disk	2nd Disk Bay	SATA optical	Graphics	Monitor connectors	Preload	Global Educ	Avail date									
A62	9485-E4U	4x5	Athlon 1640B	2.7	Single	1GB	160GB ²	Bay	DVD	3100	VGA, DVI-D	XP Pro	None	Sep 08									
A62	9485-E5U	4x5	Athlon X2 5000B	2.6	Dual	1GB	160GB	Bay	DVD	3100	VGA, DVI-D	XP Pro	None	Sep 08									
A62	9485-E6U	4x5	Athlon X2 5000B	2.6	Dual	1GB	160GB	Bay	DVD±RW	3100	VGA, DVI-D	XP Pro	None	Sep 08									
A62	9485-E7U	4x5	Athlon X2 5000B	2.6	Dual	2GB	160GB	Bay	DVD±RW	3100	VGA, DVI-D	XP Pro	None	Sep 08									
A62	9485-E8U	4x4	Athlon X2 5400B	2.8	Dual	1GB	250GB		DVD	3100	VGA, DVI-D	XP Pro	None	Sep 08									
A62	9485-E9U	4x5	Athlon X2 5400B	2.8	Dual	2GB	250GB	Bay	DVD±RW	3100	VGA, DVI-D	XP Pro	None	Sep 08									
A62	9485-F1U	4x5	Phenom X3 8450	2.1	Triple	1GB	160GB	Bay	DVD	3100	VGA, DVI-D	XP Pro	None	Sep 08									
A62	9485-F2U	4x5	Phenom X3 8450	2.1	Triple	2GB	160GB	Bay	DVD±RW	9300GE	VGA, DVI-I	XP Pro	None	Sep 08									
• These models have a 3-year limited warranty ¹																							
Positioning Processor	Stability and manageability for large enterprise and mid-market AMD® Athlon™ Processor 1640B with single-core, virtualization technology, int DDR2 memory controller, and 512KB L2 cache or AMD Athlon X2 Dual-Core Processor 5000B or 5400B with dual-core , virtualization technology, integrated DDR2 memory controller, and 1MB dedicated L2 cache or AMD Phenom™ X3 Triple-Core Processor 8450 with triple-core , virtualization technology, integrated DDR2 memory controller, 1.5MB dedicated L2 cache and 2MB shared L3 cache Processor in Socket AM2 or AM2+									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• 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 Bay ⑤ 3.5", 1" high, no access, opt disk*													
Memory	1GB or 2GB std, 8GB max⁸, PC2-5300 667MHz DDR2 , 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; three sockets available									* 2nd Disk Bay is only available on some models Slot 1: half-length, full-height, PCIe 2.0 x1 Slot 2: half-length, full-height, PCIe 2.0 x16 (75w max)** Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3 ** used in some models													
Graphics	<i>Some:</i> ATI™ Radeon™ 3100 , int graphics in 780V, uses main memory (up to 512MB), one analog VGA DB-15 connector, one DVI-D conn, DirectX® 10, ATI Avivo™, SurroundView™, supports dual independent display; supports up to 4 monitors with optional dual-head ATI graphics adapter <i>Some:</i> NVIDIA® GeForce® 9300 GE , PCI Express® x16 adapter, 256MB, one analog VGA DB-15 conn via cable, one DVI-I conn, S-Video out for TV-out, HDCP, DirectX 10, 30 watts																						
SATA disk	160GB or 250GB , 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• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel port I/O control• Individual USB port disablement													
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in SB700, RAID 0/1 support																						
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 cables	Two SATA cables (each 1-drop to device), four SATA connectors on planar																						
eSATA port	None									Supports ThinkVantage® technologies GREENGUARD® certified RoHS-compliant Limited Warranty¹ <ul style="list-style-type: none">➤ 3-year parts and labor➤ International Warranty Service⁹➤ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)➤ Onsite service upgrade options (in eligible locations):⁷<ul style="list-style-type: none">• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 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													
EIDE controller	None																						
Diskette drive	None																						
Media reader	None																						
Chipset	AMD 780V Chipset with HyperTransport™ 3.0 and PCI Express 2.0 support; SB700 south bridge for SATA 3.0Gb/s with RAID 0/1 support, ATA-133 EIDE, PCI 2.3, USB, LPC bus / Winbond® W83627DHG Super I/O																						
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)									Supports ThinkVantage® technologies GREENGUARD® certified RoHS-compliant Limited Warranty¹ <ul style="list-style-type: none">➤ 3-year parts and labor➤ International Warranty 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													
Rear ports	Six USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), <i>F2U:</i> monitor (VGA DB-15, DVI-I), S-Video out; <i>Others:</i> monitor (VGA DB-15, DVI-D)																						
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, Realtek® ALC662 codec																						
Speaker	One internal speaker for business audio																						
Ethernet	Gigabit ethernet on planar, Marvell® 88E8070, Wake on LAN®, ASF 2.0																						
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), 400dpi, black, Lenovo logo																						
Power supply	280 watts with variable speed fan, manual switch																						
Preloaded operating system²⁰			Accessories																				
- Microsoft® Windows® XP Professional with Vista® COA			1GB PC2-5300 CL5 NP DDR2 UDIMM			73P4984																	
◆ Disk-to-Disk Recovery (in hidden protected area)			2GB PC2-5300 CL5 NP DDR2 UDIMM			73P4985																	
◆ Vista Basic logo			500GB SATA 3.0Gb/s Disk (7200 rpm)			43R1990																	
			USB 2.0 Lenovo Multimedia Headset			40Y8518																	
			USB 2.0 Essential Memory Key 32GB			45K1258																	
			USB 2.0 Portable Secure 320GB Hard Disk			43R2019																	
			DVD-ROM DL SATA 1.5Gb/s 16-48X Max			41N5618																	
			Super Multi-Burner DL DVD±RW SATA Drive			41N5620																	
			ThinkVision® L2440p Wide 24" Monitor			4420HB2																	
			Wireless Kbd & Opt Wheel Mouse (via USB)			73P4067																	
			Laser Tilt Wheel Mouse (USB, PS/2)			41U3074																	
			Kensington Cable Lock from Lenovo			73P2582																	
			ATI Radeon HD 2400 XT 256MB			43R1962																	
			ATI Radeon HD 3470 256MB (DP, VGA)			45K1636																	
			NVIDIA® GeForce® 9500GT 512MB (DP, DVI)			45K1635																	
			Acc Guide in pdf lenovo.com/accessoriesguide																				
			Other accessories at lenovo.com/accessories																				

See footnotes for important warranty information
 US models announced September 9, 2008

Name	Type-model	Slot x bay	AMD processor	GHz	Core	Memory ⁸	SATA disk	2nd Disk Bay	SATA optical	Graphics	Monitor connectors	Preload	Global Educ	Avail date																																																		
A62	9485-H7U	4x5	Phenom X3 8600B	2.3	Triple	1GB	160GB ²	Bay	DVD	3100	VGA, DVI-D	XP Pro	None	Apr 09																																																		
• This model has a 3-year limited warranty¹																																																																
Positioning Processor	Stability and manageability for large enterprise and mid-market AMD® Phenom™ X3 Triple-Core Processor 8600B with triple-core , virtualization technology, integrated DDR2 memory controller, 1.5MB dedicated L2 cache and 2MB shared L3 cache Processor in Socket AM2+								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• 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>⑤</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>Bay ⑤ 3.5", 1" high, no access, opt disk</div></div> <div>Slot 1: half-length,full-height, PCIe 2.0 x1</div> <div>Slot 2: half-length,full-height, PCIe 2.0 x16 (75w max)</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																																																																
Memory	1GB std, 8GB max ⁸ , PC2-6400 800MHz DDR2, non-parity, dual-channel capable, four 240-pin DIMM sockets; Non-italics: standard memory in one socket; three sockets available																																																															
Graphics	ATI™ Radeon™ 3100, integrated graphics in 780V, uses main memory (up to 512MB), one analog VGA DB-15 connector, one DVI-D connector, DirectX® 10, ATI Avivo™, SurroundView™, supports dual independent display; supports up to 4 independent monitors with optional dual-head ATI graphics adapter																																																															
SATA disk	160GB, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts																																																															
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in SB700, RAID 0/1 support																																																															
SATA DVD	DVD-ROM DL SATA 1.5Gb/s 16X-48X Max ⁴ Drive																																																															
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors																																																															
eSATA port	None																																																															
EIDE controller	None																																																															
Diskette drive	None																																																															
Media reader	None																																																															
Chipset	AMD 780V Chipset with HyperTransport™ 3.0 and PCI Express 2.0 support; SB700 south bridge for SATA 3.0Gb/s with RAID 0/1 support, ATA-133 EIDE, PCI 2.3, USB, LPC bus / Winbond® W83627DHG 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• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel 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), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DVI-D)																																																															
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, Realtek® ALC662 codec																																																															
Speaker	One internal speaker for business audio																																																															
Ethernet	Gigabit ethernet on planar, Marvell® 88E8070, Wake on LAN®, ASF 2.0																																																															
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), 400dpi, black, Lenovo logo																																																															
Power supply	280 watts with variable speed fan, manual switch																																																															
Preloaded operating system ²⁰ <ul style="list-style-type: none">- Microsoft® Windows® XP Professional with Vista® COA◆ Disk-to-Disk Recovery (in hidden protected area)◆ Vista Premium logo								Accessories <table><tr><td>1GB PC2-6400 NP DDR2 UDIMM</td><td>41U2977</td></tr><tr><td>2GB PC2-6400 NP 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>USB Portable Diskette Drive</td><td>05K9276</td></tr><tr><td>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Essential Memory Key 32GB</td><td>45K1258</td></tr><tr><td>USB 2.0 Security Memory Key 4GB</td><td>41U5120</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 2GB</td><td>45J5916</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 4GB</td><td>45J5917</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable 160GB Hard Disk</td><td>43R1784</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</td></tr><tr><td>DVD-ROM DL SATA 1.5Gb/s 16X-48X Max</td><td>41N5618</td></tr><tr><td>ThinkVision® L1700p 17" Monitor</td><td>9417HE2</td></tr><tr><td>ThinkVision L1940p Wide 19" Monitor</td><td>4424HB6</td></tr><tr><td>ThinkVision L2240p Wide 22" Monitor</td><td>4422HB6</td></tr><tr><td>ThinkVision L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>ATI Radeon HD 2400 XT 256MB</td><td>43R1962</td></tr><tr><td>ATI Radeon HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr><tr><td>NVIDIA® GeForce® 9500GT 512MB (DP, DVI)</td><td>45K1635</td></tr></table> Acc Guide in pdf lenovo.com/accessoriesguide Other accessories at lenovo.com/accessories							1GB PC2-6400 NP DDR2 UDIMM	41U2977	2GB PC2-6400 NP DDR2 UDIMM	41U2978	250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	USB Portable Diskette Drive	05K9276	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Lenovo Webcam	40Y8519	USB 2.0 Essential Memory Key 32GB	45K1258	USB 2.0 Security Memory Key 4GB	41U5120	USB 2.0 Ultra Secure Memory Key 2GB	45J5916	USB 2.0 Ultra Secure Memory Key 4GB	45J5917	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable 160GB Hard Disk	43R1784	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	DVD-ROM DL SATA 1.5Gb/s 16X-48X Max	41N5618	ThinkVision® L1700p 17" Monitor	9417HE2	ThinkVision L1940p Wide 19" Monitor	4424HB6	ThinkVision L2240p Wide 22" Monitor	4422HB6	ThinkVision L2440p Wide 24" Monitor	4420HB2	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Kensington Cable Lock from Lenovo	73P2582	ATI Radeon HD 2400 XT 256MB	43R1962	ATI Radeon HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635
1GB PC2-6400 NP DDR2 UDIMM	41U2977																																																															
2GB PC2-6400 NP DDR2 UDIMM	41U2978																																																															
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015																																																															
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																																																															
USB Portable Diskette Drive	05K9276																																																															
USB 2.0 Lenovo Multimedia Headset	40Y8518																																																															
USB 2.0 Lenovo Webcam	40Y8519																																																															
USB 2.0 Essential Memory Key 32GB	45K1258																																																															
USB 2.0 Security Memory Key 4GB	41U5120																																																															
USB 2.0 Ultra Secure Memory Key 2GB	45J5916																																																															
USB 2.0 Ultra Secure Memory Key 4GB	45J5917																																																															
USB 2.0 Ultra Secure Memory Key 8GB	45J5918																																																															
USB 2.0 Portable 160GB Hard Disk	43R1784																																																															
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																																															
DVD-ROM DL SATA 1.5Gb/s 16X-48X Max	41N5618																																																															
ThinkVision® L1700p 17" Monitor	9417HE2																																																															
ThinkVision L1940p Wide 19" Monitor	4424HB6																																																															
ThinkVision L2240p Wide 22" Monitor	4422HB6																																																															
ThinkVision L2440p Wide 24" Monitor	4420HB2																																																															
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067																																																															
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074																																																															
Kensington Cable Lock from Lenovo	73P2582																																																															
ATI Radeon HD 2400 XT 256MB	43R1962																																																															
ATI Radeon HD 3470 256MB (DP, VGA)	45K1636																																																															
NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635																																																															
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 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																																																																

Name	Type-model	Slot x bay	AMD processor	GHz	Core	Memory ⁸	SATA disk	2nd Disk Bay	SATA optical	Graphics	Monitor connectors	Vista preload	Global Educ	Avail date			
A62	9485-A4U	4x5	Athlon 1640B	2.7	Single	1GB	160GB ²	Bay	DVD	3100	VGA, DVI-D	Bus32		Sep 08			
A62	9485-F9U	4x4	Athlon X2 4450B	2.3	Dual	1GB	160GB		DVD	3100	VGA, DVI-D	Bus32		Sep 08			
A62	9485-F8U	4x5	Athlon X2 4450B	2.3	Dual	1GB	160GB	Bay	DVD±RW	9300GE	VGA, DVI-I	Bus32		Sep 08			
A62	9485-H1U	4x4	Athlon X2 4450B	2.3	Dual	2GB	160GB		DVD±RW	3100	VGA, DVI-D	Bus32		Sep 08			
A62	9485-E2U	4x4	Athlon X2 5000B	2.6	Dual	1GB	160GB		DVD±RW	3100	VGA, DVI-D	Bus32	Educ	Sep 08			
A62	9485-A1U	4x4	Athlon X2 5400B	2.8	Dual	2GB	160GB		DVD±RW	3100	VGA, DVI-D	Bus32		Sep 08			
A62	9485-A2U	4x5	Phenom X3 8600B	2.3	Triple	2GB	160GB	Bay	DVD±RW	3100	VGA, DVI-D	Bus64		Sep 08			
• These models have a 3-year limited warranty ¹																	
Positioning Processor	Stability and manageability for large enterprise and mid-market AMD® Athlon™ Processor 1640B with single-core, virtualization technology, int DDR2 memory controller, and 512KB L2 cache or AMD Athlon X2 Dual-Core Processor 4450B, 5000B, or 5400B with dual-core, virtualization technology, integrated DDR2 memory controller, and 1MB dedicated L2 cache or AMD Phenom™ X3 Triple-Core Processor 8600B with triple-core, virtualization technology, integrated DDR2 memory controller, 1.5MB dedicated L2 cache and 2MB shared L3 cache Processor in Socket AM2 or AM2+									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• 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)			
Memory	1GB or 2GB std, 8GB max ⁸ , 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; <i>Fxx/H1U:</i> PC2-5300 667MHz DDR2 , non-parity, dual-channel; <i>Others:</i> PC2-6400 800MHz DDR2 , non-parity, dual-channel									Bay ④ 3.5", 1" high, no access, std disk		Bay ⑤ 3.5", 1" high, no access, opt disk*					
Graphics	<i>Some:</i> ATI™ Radeon™ 3100 , int graphics in 780V, uses main memory (up to 512MB), one analog VGA DB-15 connector, one DVI-D conn, DirectX® 10, ATI Avivo™, SurroundView™, supports dual independent display; supports up to 4 monitors with optional dual-head ATI graphics adapter <i>Some:</i> NVIDIA® GeForce® 9300 GE , PCI Express® x16 adapter, 256MB, one analog VGA DB-15 conn via cable, one DVI-I conn, S-Video out for TV-out, HDCP, DirectX 10, 30 watts									* 2nd Disk Bay is only available on some models		Slot 1: half-length, full-height, PCIe 2.0 x1		Slot 2: half-length, full-height, PCIe 2.0 x16 (75w max)**			
											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		
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• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• Parallel 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 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 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 controller	Serial ATA, SATA 3.0Gb/s, integrated in SB700, RAID 0/1 support																
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 cables	Two SATA cables (each 1-drop to device), four SATA connectors on planar																
eSATA port	None																
EIDE controller	None																
Diskette drive	None																
Media reader	None																
Chipset	AMD 780V Chipset with HyperTransport™ 3.0 and PCI Express 2.0 support; SB700 south bridge for SATA 3.0Gb/s with RAID 0/1 support, ATA-133 EIDE, PCI 2.3, USB, LPC bus / Winbond® W83627DHG 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), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), F8U: monitor (VGA DB-15, DVI-I), S-Video out; Others: monitor (VGA DB-15, DVI-D)																
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, Realtek® ALC662 codec																
Speaker	One internal speaker for business audio																
Ethernet	Gigabit ethernet on planar, Marvell® 88E8070, Wake on LAN®, ASF 2.0																
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), 400dpi, black, Lenovo logo																
Power supply	280 watts with variable speed fan, manual switch																
Preloaded operating system ²⁰			Accessories														
- Some: Microsoft® Windows® Vista Business Edition (32-bit)			1GB PC2-5300 CL5 NP DDR2 UDIMM			73P4984											
			2GB PC2-5300 CL5 NP DDR2 UDIMM			73P4985											
- Some: Microsoft Windows Vista Business Edition (64-bit)			1GB PC2-6400 NP DDR2 UDIMM			41U2977											
◇ Vista Premium logo			2GB PC2-6400 NP DDR2 UDIMM			41U2978											
Preloaded applications ⁵ (all OSes; only some listed)			500GB SATA 3.0Gb/s Disk (7200 rpm)			43R1990											
• Some: Education software			USB 2.0 Lenovo Multimedia Headset			40Y8518											
- VitalSource Library College Edition			USB 2.0 Portable Secure 320GB Hard Disk			43R2019											
- Adobe® Instructor Resource Center			DVD-ROM DL SATA 1.5Gb/s 16-48X Max			41N5618											
- Adobe Digital School Collection			Super Multi-Burner DL DVD±RW SATA Drive			41N5620											
- Photoshop Elements 6 (and CD)			ThinkVision® L2440p Wide 24" Monitor			4420HB2											
- Premier Elements 4 (and DVD)			Wireless Kbd & Opt Wheel Mouse (via USB)			73P4067											
- Acrobat 8 Professional (and CD)			Kensington Cable Lock from Lenovo			73P2582											
- Contribute 4 (and CD)			ATI Radeon HD 2400 XT 256MB			43R1962											
• Rescue and Recovery™			ATI Radeon HD 3470 256MB (DP, VGA)			45K1636											
			NVIDIA® GeForce® 9500GT 512MB (DP, DVI)			45K1635											
			Acc Guide in pdf lenovo.com/accessoriesguide														
			Other accessories at lenovo.com/accessories														

See footnotes for important warranty information

US models announced September 9, 2008; previous models on August 12, 2008

© Lenovo
(ATHN1-4) September 2008

Name	Type-model	Slot x bay	AMD processor	GHz	Core	Memory ^a	SATA disk	2nd Disk Bay	SATA optical	Graphics	Monitor connectors	ENERGY STAR 4.0	Preload	Global Educ	Avail date
A62	9625-B5U	4x4	Athlon X2 5000B	2.6	Dual	1GB	160GB ²		DVD	3100	VGA, DVI-D	ES40	XP Pro	None	Sep 08
A62	9625-B6U	4x4	Athlon X2 5000B	2.6	Dual	2GB	160GB		DVD±RW	3100	VGA, DVI-D	ES40	XP Pro	None	Sep 08
A62	9625-B7U	4x4	Athlon X2 5400B	2.8	Dual	2GB	250GB		DVD±RW	3100	VGA, DVI-D	ES40	XP Pro	None	Sep 08
A62	9625-B9U	4x4	Athlon X2 5400B	2.8	Dual	2GB	160GB		DVD±RW	9300GE	VGA, DVI-I	ES40	XP Pro	None	Sep 08
A62	9625-B8U	4x4	Phenom X3 8450	2.1	Triple	2GB	160GB		DVD	3100	VGA, DVI-D	ES40	XP Pro	None	Dec 08
A62	9625-A3U	4x5	Athlon 1640B	2.7	Single	1GB	160GB	Bay	DVD	3100	VGA, DVI-D	ES40	Bus32	None	Sep 08
A62	9625-D2U	4x4	Athlon X2 4450B	2.3	Dual	1GB	160GB		DVD±RW	3100	VGA, DVI-D	ES40	Bus32	None	Sep 08
A62	9625-A2U	4x5	Athlon X2 5000B	2.6	Dual	1GB	160GB	Bay	DVD±RW	3100	VGA, DVI-D	ES40	Bus32	None	Sep 08
A62	9625-A1U	4x5	Phenom X3 8600B	2.3	Triple	2GB	160GB	Bay	DVD±RW	3100	VGA, DVI-D	ES40	Bus64	None	Dec 08

</

See footnotes for important warranty information

US models announced December 9, 2008; previous models on August 12 or September 9, 2008

© Lenovo
(ATHN1-5) December 2008

Name	Type-model	Slot x bay	AMD processor	GHz	Core	Memory ^a	SATA disk	2nd Disk Bay	SATA optical	Integrated graphics	Monitor connectors	Vista preload	Global (G) GMP (P)	Avail date
A62	7061-A1U	4x4	Athlon X2 5400B	2.8	Dual	2GB	160GB ²	None	DVD±RW	3100	VGA, DVI-D	Bus32	G P	Sep 08

- **This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty**

Positioning Processor	Stability and manageability for large enterprise and mid-market AMD® Athlon™ X2 Dual-Core Processor 5400B with dual-core, virtualization technology, integrated DDR2 memory controller, and 1MB dedicated L2 cache		<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 Socket AM2		
Memory	2GB std, 8GB max⁸, PC2-6400 800MHz DDR2 , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available		
Graphics	ATI™ Radeon™ 3100 , integrated graphics in 780V, uses main memory (up to 512MB), one analog VGA DB-15 connector, one DVI-D connector, DirectX® 10, ATI Avivo™, SurroundView™, supports dual independent display; supports up to 4 independent monitors with optional dual-head ATI graphics 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 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 x1</div> <div>Slot 2: half-length, full-height, PCIe 2.0 x16 (75w max)</div> <div>Slot 3: half-length, full-height, 32-bit PCI 2.3</div> <div>Slot 4: half-length, full-height, 32-bit PCI 2.3</div>
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in SB700, 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), four SATA connectors		
eSATA port	None		
EIDE controller	None		
Diskette drive	None		
Media reader	None		
Chipset	AMD 780V Chipset with HyperTransport™ 3.0 and PCI Express® 2.0 support; SB700 south bridge for SATA 3.0Gb/s with RAID 0/1 support, ATA-133 EIDE, PCI 2.3, USB, LPC bus / Winbond® W83627DHG 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), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DVI-D)		
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, Realtek® ALC662 codec		
Speaker	One internal speaker for business audio		
Ethernet	Gigabit ethernet on planar, Marvell® 88E8070, Wake on LAN®, ASF 2.0		
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), 400dpi, black, Lenovo logo		
Power supply	280 watts with variable speed fan, manual switch		
<div><div><div><div>Preloaded operating system²⁰</div><div>- Microsoft® Windows® Vista® Business Edition (32-bit)</div><div>♦ Vista Premium logo</div><div>Preloaded applications⁵</div><div>• Rescue and Recovery™</div><div>• Client Security Solution™</div><div>• ThinkVantage Productivity Center</div><div>• Norton Internet Security™ (90 days of virus definitions)</div><div>• Diskeeper® Home</div><div>• PC-Doctor™ (diagnostics)</div><div>• Adobe® Reader</div><div>• Windows Live™ Toolbar</div><div>• Windows Live Search</div><div>• Picasa from Google</div><div>• Microsoft Office 2007 Trial (60-day)</div><div>• Sonic RecordNow and Drive Letter Access (DVD±RW)</div><div>• Corel® WinDVD® (DVD±RW)</div></div><div><div>Accessories</div><div>1GB PC2-6400 NP DDR2 UDIMM</div><div>2GB PC2-6400 NP DDR2 UDIMM</div><div>250GB SATA 3.0Gb/s Disk (7200 rpm)</div><div>500GB SATA 3.0Gb/s Disk (7200 rpm)</div><div>USB Portable Diskette Drive</div><div>USB 2.0 Lenovo Multimedia Headset</div><div>USB 2.0 Lenovo Webcam</div><div>USB 2.0 Essential Memory Key 32GB</div><div>USB 2.0 Security Memory Key 4GB</div><div>USB 2.0 Ultra Secure Memory Key 2GB</div><div>USB 2.0 Ultra Secure Memory Key 4GB</div><div>USB 2.0 Ultra Secure Memory Key 8GB</div><div>USB 2.0 Portable 160GB Hard Disk</div><div>USB 2.0 Portable Secure 320GB Hard Disk</div><div>Super Multi-Burner DL DVD±RW SATA Drive</div><div>ThinkVision® L1700p 17" Monitor</div><div>ThinkVision L1940p Wide 19" Monitor</div><div>ThinkVision L2240p Wide 22" Monitor</div><div>ThinkVision L2440p Wide 24" Monitor</div><div>Wireless Kbd & Opt Wheel Mouse (via USB)</div><div>Laser Tilt Wheel Mouse (USB, PS/2)</div><div>Kensington Cable Lock from Lenovo</div><div>ATI Radeon HD 2400 XT 256MB</div><div>ATI Radeon HD 3470 256MB (DP, VGA)</div><div>NVIDIA® GeForce® 9500GT 512MB (DP, DVI)</div><div>Acc Guide in pdf lenovo.com/accessoriesguide</div><div>Other accessories at lenovo.com/accessories</div></div><div><div>41U2977</div><div>41U2978</div><div>41N3015</div><div>43R1990</div><div>05K9276</div><div>40Y8518</div><div>40Y8519</div><div>45K1258</div><div>41U5120</div><div>45J5916</div><div>45J5917</div><div>45J5918</div><div>43R1784</div><div>43R2019</div><div>41N5620</div><div>9417HE2</div><div>4424HB6</div><div>4422HB6</div><div>4420HB2</div><div>73P4067</div><div>41U3074</div><div>73P2582</div><div>43R1962</div><div>45K1636</div><div>45K1635</div></div></div></div>			
Supports ThinkVantage® technologies			
GREENGUARD® certified RoHS-compliant			
<div><div><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</div><div>• 4-year LOR 9x5, Next Business Day (ThinkPlus™ part number 45K5957)</div><div>• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 45K5958)</div><div>• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 45K5959)</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></div>			

See footnotes for important warranty information
US model announced August 12, 2008

Personal Systems Reference (PSREF)

- *This model is part of the Global Models Plus (GMP) program with limited onsite service³ 3-year limited warranty*

See footnotes for important warranty information
US model announced December 9, 2008

Partial list of accessories supported on ThinkCentre A62

Memory

1GB PC2-5300 CL5 NP DDR2 UDIMM ⁴⁰	73P4984	ann 06/28/05
2GB PC2-5300 CL5 NP DDR2 UDIMM ⁴⁰	73P4985	ann 09/26/06
512MB PC2-6400 NP DDR2 UDIMM	41U2976	ann 09/26/06
1GB PC2-6400 NP DDR2 UDIMM	41U2977	ann 09/26/06
2GB PC2-6400 NP DDR2 UDIMM	41U2978	ann 01/08/08

⁴⁰ When PC2-5300 is installed with systems that have PC2-6400 memory, PC2-6400 will operate at the PC2-5300 memory speed.

Optical

DVD-ROM DL SATA 1.5Gb/s 16X-48X Max ⁴	41N5618	ann 09/26/06
Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ann 09/26/06

Storage and removable storage

160GB SATA 3.0Gb/s Disk (7200 rpm)	09N4254	ann 05/19/03
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	ann 01/24/06
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	ann 11/06/07
USB Portable Diskette Drive	05K9276	ann 06/05/00
USB 2.0 Essential Memory Key 2GB	41U4944	ann 01/23/07
USB 2.0 Essential Memory Key 4GB	45J7904	ann 06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann 07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann 10/28/08
USB 2.0 Security Memory Key 4GB	41U5120	ann 07/17/07
USB 2.0 Ultra Secure Memory Key 1GB	45J5915	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann 08/26/08
USB 2.0 Portable 160GB Hard Disk	43R1784	ann 09/23/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
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
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann 01/05/06
USB 2.0 Super Multi-Burner Drive	41N5565	ann 01/23/07

Graphics

Desktop 9486/7057/7062/3658 support Low Profile 35 watts max:

ATI™ Radeon™ HD 2400 XT 256MB	43R1962	ann 11/06/07
ATI Radeon HD 3470 256MB (DP, VGA)	45K1636	ann 11/18/08

Tower 9705/9935/9485/9625/7061/3656 support 75 watts max:

ATI Radeon HD 2400 XT 256MB	43R1962	ann 11/06/07
ATI Radeon HD 3470 256MB (DP, VGA)	45K1636	ann 11/18/08
NVIDIA® GeForce® 9500 GT 512MB (DP, DVI)	45K1635	ann 11/18/08

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
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	ann 12/07/04
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

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

Mouse

Optical Wheel Mouse (USB)	06P4069	ann 05/21/03
Optical ScrollPoint® Mouse (USB, PS/2)	31P7405	ann 08/27/02
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	ann 01/23/07
Lenovo Wireless Laser Mouse (blk, via USB)	45K1696	ann 11/25/08
Lenovo Wireless Laser Mouse (red, via USB)	51J0198	ann 11/25/08

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

Multimedia

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann 06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann 08/29/06

Security

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

Monitors

ThinkVision® L174 17" Monitor	9227AE1	ann 04/15/08
ThinkVision L1700p 17" Monitor	9417HE2	ann 09/17/08
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1940p Wide 19" Monitor	4424HB6	ann 09/17/08
ThinkVision L200p Wide 20.1" Monitor	4438HB6	ann 04/15/08
ThinkVision L2240p Wide 22" Monitor	4422HB6	ann 09/17/08
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann 09/17/08
ThinkVision L2440x Wide 24" Monitor	4421HB2	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 Cable Lock from Lenovo	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Radial Arm	19K4464	ann 05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

Medialess License Key (MLK)

Microsoft® Office 2007 Basic, English	43R1528	ann 01/31/07
Microsoft Office 2007 Small Business, Engl	43R1534	ann 01/31/07
Microsoft Office 2007 Professional, English	43R1531	ann 01/31/07

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide

**Partial list of Lenovo® ThinkPlus Services⁷
for ThinkCentre desktops**

For more information see:

http://www.lenovo.com/services_warranty/us/en/index.html
ThinkPlus service upgrade options for ThinkCentre M series
ThinkCentre desktop with 1-year Onsite warranty
LOR = Lenovo Onsite Repair

1-year LOR 9x5 4-hour response	41C9189
2-year LOR 9x5 Next Business Day	41C9187
2-year LOR 9x5 4-hour response	41C9190
3-year LOR 9x5 Next Business Day	41C9188
3-year LOR 9x5 4-hour response	41C9191

ThinkCentre desktop with 3-year Onsite warranty
LOR = Lenovo Onsite Repair

3-year LOR 9x5 4-hour response	41C9192
3-year LOR 24x7 4-hour response	41C9193
4-year LOR 9x5 Next Business Day	41C9194
4-year LOR 9x5 4-hour response	41C9195
4-year LOR 24x7 4-hour response	41C9196

ThinkPlus service upgrade options for ThinkCentre A series
ThinkCentre desktop with 1-year Onsite warranty
LOR = Lenovo Onsite Repair

1-year LOR 9x5 4-hour response	45K5951
2-year LOR 9x5 Next Business Day	45K5949
2-year LOR 9x5 4-hour response	45K5952
3-year LOR 9x5 Next Business Day	45K5950
3-year LOR 9x5 4-hour response	45K5953

ThinkCentre desktop with 3-year Onsite warranty
LOR = Lenovo Onsite Repair

3-year LOR 9x5 4-hour response	45K5955
3-year LOR 24x7 4-hour response	45K5956
4-year LOR 9x5 Next Business Day	45K5957
4-year LOR 9x5 4-hour response	45K5958
4-year LOR 24x7 4-hour response	45K5959
5-year LOR 9x5 Next Business Day	45K5963

ThinkPlus Secure Business
Lenovo Online Data Backup

- Secure offsite data storage
- 256-bit Advanced Encryption System
- Data recovery or access in case of an unforeseen event
- Automatic, remote management
- Choose which business critical data to back up

1-year Lenovo Online Data Backup - 10GB	51J0787
1-year Lenovo Online Data Backup - 25GB	51J0795
1-year Lenovo Online Data Backup - 50GB	45K5849
1-year Lenovo Online Data Backup - Unlimited	45K5870

ThinkPlus Priority Support for enterprise customers

- 9x5 next-business-day response Lenovo Onsite Repair
- 24x7 support with priority routing and advanced level technicians

ThinkCentre desktop with 1-year Onsite warranty

3-year Priority Support	45J9087
-------------------------	---------

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.

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.

This publication was developed for products and services offered in the United States. Lenovo may not offer the products, services or features discussed in this document in other countries. Lenovo may withdraw an offering at any time. Information is subject to change without notice. Consult your local representative for information on offerings available in your area.

Lenovo reserves the right to change specifications and other product information at any time without prior notice. Lenovo is not responsible for photographic or typographical errors. LENOVO PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some jurisdictions do not allow disclaimer of express or implied warranties in certain transactions; therefore this disclaimer may not apply to you.

ThinkCentre®

Trademarks: Lenovo, the Lenovo logo, New World. New Thinking., Access Connections, Rescue and Recovery, ThinkCentre, ThinkPad, ThinkVantage, and ThinkVision are trademarks of Lenovo. Microsoft, Windows, and Vista are registered trademarks of Microsoft Corporation. Intel, the Intel logo, Intel Inside logo, Intel Core and Core Inside are trademarks of Intel Corporation in the US and other countries. Other company, product, or service names may be trademarks or service marks of others.

Visit www.lenovo.com/safecomputing periodically for the latest information on safe and effective computing.

Visit www.lenovo.com/psref for the latest version of Personal Systems Reference.

© Lenovo, 2009.
All rights reserved.

Lenovo
1009 Think Place
Morrisville, NC 27560
U.S.A.

April 2009
tcbook.pdf

Personal Systems Reference Lenovo® ThinkStation® Workstations

April 2009 - Version 354



ThinkStation S20 (left)
ThinkStation D20 (right)

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

ThinkStation



Lenovo ThinkStation S10



Lenovo ThinkStation S10 (left)
Lenovo ThinkStation D10 (right)



Lenovo ThinkStation S10



Lenovo ThinkStation S10



Lenovo ThinkStation S10



Lenovo ThinkStation S10
with Lenovo ThinkVision Monitor

Name	Type-model	Slot x bay	Processor	GHzCores	Mem-ory	Disk(s)	RAID	SATA optical	Graphics adapter(s)	1394 adptr	Sound adptr	ENERGY STAR 4.0	Vista preload	Workhorse Global	Avail date	
S10	6423-26U	5x6	E6750	2.66	2	2GB	1 x 250GB ²	SATA	DVD±RW	1 x FX370	1394		ES40	Bus64	No	Jan 08
S10	6423-27U	5x6	E6850	3.00	2	2GB	2 x 250GB	SATA	DVD±RW	1 x FX1700			ES40	Bus64	No	Jan 08
S10	6423-28U	5x6	E6850	3.00	2	2GB	1 x 146GB	SAS	DVD±RW	1 x FX1700			ES40	Bus64	No	Jan 08
S10	6423-29U	5x6	E6850	3.00	2	2GB	2 x 250GB	SATA	DVD±RW	1 x FX1700	1394	X-Fi	ES40	Bus64	No	Jan 08
S10	6423-31U	5x6	Q6600	2.40	4	2GB	2 x 250GB	SATA	DVD±RW	1 x FX1700	1394	X-Fi	ES40	Bus64	No	Jan 08
S10	6423-32U	5x6	Q6700	2.66	4	2GB	2 x 160GB	SATA	DVD±RW	2 x NVS290			ES40	Bus64	No	Jan 08

- **High performance workstation with premium graphics for specialized professionals**
- **Environmentally friendly, cool, and quiet with rock solid engineering**
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**

Processor	Intel® Core™ 2 Duo Processor E6750 or E6850 with dual-core, 1333MHz system bus, and 4MB L2 cache or Intel Core 2 Quad Processor Q6600 or Q6700 with quad-core, 1066MHz system bus, and 8MB L2 cache		Tower <ul style="list-style-type: none">• Raven black color; metal case• 6.9"W x 19.0"D x 16.8"H (without handle)• 175mm W x 483mm D x 426mm H• 36 lb (16.4kg) max configuration• 31-liter• Removable handle on top front• Toolless side cover removal• Toolless disk and optical drive removal• Toolless adapter retention• Illuminated front icons• Rack shelf support <div><div>optical</div><div>optical</div><div>media</div><div>disk</div><div>disk</div><div>disk</div></div>																																												
Implementation	Processor uses FC-LGA6 package, one LGA775 socket																																														
Memory	2GB std, 8GB max, PC3-8500 1066MHz DDR3, ECC, dual-channel capable, four 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in two sockets; two sockets available																																														
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * 76 to 150W adapters use auxiliary power connector from PSU <i>Some:</i> NVIDIA® Quadro® NVS 290 , PCIe x16 adapter, 256MB, two single-link DVI-I via DMS-59 dongle, 21W <i>Some:</i> NVIDIA Quadro FX 370 , PCIe x16 adapter, 256MB, one single-link and 1 dual-link DVI, dual DVI-I or dual VGA, 25W <i>Some:</i> NVIDIA Quadro FX 1700 , PCIe x16 adapter, 512MB, two dual-link DVI, dual DVI-I or dual VGA, HDTV out, 42W																																														
Media reader	9-in-1 media reader, internal USB 2.0		Bay ① 5.25", 1.6" high, external, std optical																																												
SATA disk(s)	<i>Some:</i> 160GB or 250GB , SATA 3.0Gb/s, 7200 rpm		Bay ② 5.25", 1.6" high, external, open																																												
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH9R		Bay ③ 3.5", 1" high, external, std media reader																																												
SATA connectors	Six SATA connectors on planar		Bay ④ 3.5", 1" high, internal, std disk																																												
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		Bay ⑤ 3.5", 1" high, internal, std or opt disk																																												
SAS disk	<i>Some:</i> 146GB , Serial Attached SCSI, 3.0Gb/s, 15000 rpm		Bay ⑥ 3.5", 1" high, internal, std or opt disk																																												
SAS controller	<i>Some:</i> LSI™ LSISAS3041E-R PCIe x4 adapter, 4-port, 3.0Gb/s, RAID® 0, 1, 1E		Slot 1: full-length, full-height, PCIe 2.0 x16 (75W* max)																																												
Chipset	Intel X38 Express Chipset , Intel I/O Controller Hub 9 RAID (ICH9R) for RAID 0, 1, 5 support, SMC® SCH5027D Super I/O		Slot 2: full-length, full-height, PCIe 2.0 x16 (75W* max)																																												
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm), FireWire 400 (IEEE 1394)		Slot 3: full-length, full-height, 32-bit PCI 2.3																																												
Rear ports	Eight USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), two ethernet (RJ-45), five analog audio ports (line-in, microphone-in, front-out, rear-out, center/sub-out), optical S/PDIF digital out <i>Some:</i> FireWire PCI adapter, 1394a-2000, 400Mbps, two 6-pin ports on rear		Slot 4: full-length, full-height, PCIe x4 (x16 mechanical)																																												
IEEE 1394 adpdr	High Definition (HD) Audio, Analog Devices AD1988A codec;		Slot 5: half-length, full-height, 32-bit PCI 2.3																																												
Audio	<i>Some:</i> Creative Sound Blaster® X-Fi, PCI adapter, high-end sound adapter																																														
Speaker	Internal speaker for business audio																																														
Ethernet	Dual gigabit ethernet on planar, Broadcom® BCM5754 and BCM5755, 2 x PCIe x1																																														
Security chip	Integrated in ethernet controller BCM5755, TCG 1.2-compliant																																														
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black																																														
Mouse	Optical Wheel Mouse (USB connector), black																																														
Power supply	650 watts with 120mm bottom-mounted variable speed fan, universal																																														
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">- Microsoft® Windows® Vista® Business Edition (64-bit)♦ Vista Premium logo Preloaded applications⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• System Migration Assistant• Norton Internet Security™ (90 days of virus definitions)• PC-Doctor™ (diagnostics)• Adobe® Reader• Microsoft Office 2007 Trial (60-day)• Sonic RecordNow and Drive Letter Access (DVD±RW)• Corel® WinDVD® (DVD±RW)		Accessories <table><tr><td>1GB PC3-8500 DDR3 ECC UDIMM</td><td>41U5251</td></tr><tr><td>2GB PC3-8500 DDR3 ECC UDIMM</td><td>41U5252</td></tr><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>750GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1991</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 1.5Gb/s</td><td>41N5620</td></tr><tr><td>Blu-ray Burner/HD-DVD Player SATA 1.5Gb/s</td><td>43R1958</td></tr><tr><td>USB 2.0 Lenovo Multimedia Headset</td><td>40Y8518</td></tr><tr><td>USB 2.0 Lenovo Webcam</td><td>40Y8519</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</td></tr><tr><td>ThinkVision® L1700p 17" Monitor</td><td>9417HE2</td></tr><tr><td>ThinkVision L1940p Wide 19" Monitor</td><td>4424HB6</td></tr><tr><td>ThinkVision L2240p Wide 22" Monitor</td><td>4422HB6</td></tr><tr><td>ThinkVision L2440x Wide 24" Monitor</td><td>4421HB2</td></tr><tr><td>Wireless Kbd & Opt Wheel Mouse (via USB)</td><td>73P4067</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Kensington® Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>NVIDIA® Quadro® 512MB FX 570</td><td>45J7917</td></tr><tr><td>NVIDIA Quadro 512MB FX 1700</td><td>43R1767</td></tr><tr><td>NVIDIA Quadro 512MB FX 3700</td><td>43R1768</td></tr><tr><td>NVIDIA Quadro 768MB FX 4600</td><td>43R1769</td></tr></table>	1GB PC3-8500 DDR3 ECC UDIMM	41U5251	2GB PC3-8500 DDR3 ECC UDIMM	41U5252	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	750GB SATA 3.0Gb/s Disk (7200 rpm)	43R1991	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s	41N5620	Blu-ray Burner/HD-DVD Player SATA 1.5Gb/s	43R1958	USB 2.0 Lenovo Multimedia Headset	40Y8518	USB 2.0 Lenovo Webcam	40Y8519	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ThinkVision® L1700p 17" Monitor	9417HE2	ThinkVision L1940p Wide 19" Monitor	4424HB6	ThinkVision L2240p Wide 22" Monitor	4422HB6	ThinkVision L2440x Wide 24" Monitor	4421HB2	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Kensington® Cable Lock from Lenovo	73P2582	NVIDIA® Quadro® 512MB FX 570	45J7917	NVIDIA Quadro 512MB FX 1700	43R1767	NVIDIA Quadro 512MB FX 3700	43R1768	NVIDIA Quadro 768MB FX 4600	43R1769	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)• Chassis intrusion switch• Power-on password• Administrator password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• USB port disablement (front or all)
1GB PC3-8500 DDR3 ECC UDIMM	41U5251																																														
2GB PC3-8500 DDR3 ECC UDIMM	41U5252																																														
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																																														
750GB SATA 3.0Gb/s Disk (7200 rpm)	43R1991																																														
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918																																														
Super Multi-Burner DL DVD±RW SATA 1.5Gb/s	41N5620																																														
Blu-ray Burner/HD-DVD Player SATA 1.5Gb/s	43R1958																																														
USB 2.0 Lenovo Multimedia Headset	40Y8518																																														
USB 2.0 Lenovo Webcam	40Y8519																																														
USB 2.0 Ultra Secure Memory Key 8GB	45J5918																																														
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																														
ThinkVision® L1700p 17" Monitor	9417HE2																																														
ThinkVision L1940p Wide 19" Monitor	4424HB6																																														
ThinkVision L2240p Wide 22" Monitor	4422HB6																																														
ThinkVision L2440x Wide 24" Monitor	4421HB2																																														
Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067																																														
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074																																														
Kensington® Cable Lock from Lenovo	73P2582																																														
NVIDIA® Quadro® 512MB FX 570	45J7917																																														
NVIDIA Quadro 512MB FX 1700	43R1767																																														
NVIDIA Quadro 512MB FX 3700	43R1768																																														
NVIDIA Quadro 768MB FX 4600	43R1769																																														
			Supports ThinkVantage® technologies																																												
			RoHS-compliant ENERGY STAR® 4.0-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• 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																																												
		Other accessories at lenovo.com/accessories																																													

Name	Type-model	Slot x bay	Processor	GHzCores	Mem-ory	Disk(s)	RAID	SATA optical	Graphics adapter(s)	1394 adptr	Sound adptr	ENERGY STAR 4.0	Preload	Workhorse Global	Avail date
S10	6423-33U	5x6	E6850	3.00	2	2GB	1 x 250GB ² SATA	DVD±RW	1 x NVS290			Pending	XP Pro	No	Apr 08
S10	6423-34U	5x6	E6850	3.00	2	2GB	1 x 250GB SATA	DVD±RW	1 x FX370			Pending	XP Pro	No	Apr 08
S10	6423-35U	5x6	E6850	3.00	2	2GB	1 x 250GB SATA	DVD±RW	1 x FX1700			Pending	XP Pro	No	Apr 08
S10	6423-36U	5x6	QX6850	3.00	4	2GB	1 x 250GB SATA	DVD±RW	1 x FX4600			Pending	XP Pro	No	Apr 08
S10	6423-37U	5x6	E6850	3.00	2	2GB	1 x 250GB SATA	BD burner	1 x FX1700			Pending	XP Pro	No	Apr 08
S10	6423-38U	5x6	QX6850	3.00	4	2GB	1 x 250GB SATA	BD burner	1 x FX4600			Pending	XP Pro	No	Apr 08
S10	6423-49U	5x6	E6750	2.66	2	2GB	1 x 250GB SATA	DVD±RW	1 x FX370	1394		Pending	Bus32	No	Apr 08
S10	6423-51U	5x6	E6850	3.00	2	2GB	2 x 250GB SATA	DVD±RW	1 x FX1700			Pending	Bus32	No	Apr 08
S10	6423-52U	5x6	E6850	3.00	2	2GB	1 x 146GB SAS	DVD±RW	1 x FX1700			Pending	Bus32	No	Apr 08
S10	6423-53U	5x6	E6850	3.00	2	2GB	2 x 250GB SATA	DVD±RW	1 x FX1700		X-Fi	Pending	Bus32	No	Apr 08
S10	6423-54U	5x6	Q6600	2.40	4	2GB	2 x 250GB SATA	DVD±RW	1 x FX1700		X-Fi	Pending	Bus32	No	Apr 08
S10	6423-55U	5x6	Q6700	2.66	4	2GB	2 x 160GB SATA	1 DVD±RW	2 x NVS290			Pending	Bus32	No	Apr 08

- High performance workstation with premium graphics for specialized professionals
- Environmentally friendly, cool, and quiet with rock solid engineering
- These small and medium business (SMB) models are part of the US TopSeller™ Program

Processor	Intel® Core™ 2 Duo Processor E6750 or E6850 with dual-core, 1333MHz system bus, and 4MB L2 cache or Intel Core 2 Quad Processor Q6600 or Q6700 with quad-core, 1066MHz system bus, and 8MB L2 cache or Intel Core 2 Extreme Processor QX6850 with quad-core, 1333MHz system bus, and 8MB L2 cache Processor uses FC-LGA6 package, one LGA775 socket		<div>Tower</div> <ul style="list-style-type: none">• Raven black color; metal case• 6.9"W x 19.0"D x 16.8"H (without handle)• 175mm W x 483mm D x 426mm H• 36 lb (16.4kg) max configuration• 31-liter• Removable handle on top front• Toolless side cover removal• Toolless disk and optical drive removal• Toolless adapter retention• Illuminated front icons• Rack shelf support <div><div>optical</div><div>optical</div><div>media</div><div>disk</div><div>disk</div><div>disk</div></div> <div>Bay ① 5.25", 1.6" high, external, std optical</div> <div>Bay ② 5.25", 1.6" high, external, open</div> <div>Bay ③ 3.5", 1" high, external, std media reader</div> <div>Bay ④ 3.5", 1" high, internal, std disk</div> <div>Bay ⑤ 3.5", 1" high, internal, std or opt disk</div> <div>Bay ⑥ 3.5", 1" high, internal, std or 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 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 x4 (x16 mechanical)</div> <div>Slot 5: half-length, full-height, 32-bit PCI 2.3</div>
Implementation			
Memory	2GB std, 8GB max, PC3-8500 1066MHz DDR3, ECC, dual-channel capable, four 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in two sockets; two sockets available		
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * 76 to 150W adapters use auxiliary power connector from PSU <i>Some:</i> NVIDIA® Quadro® NVS 290, PCIe x16 adapter, 256MB, two single-link DVI-I via DMS-59 dongle, 21W <i>Some:</i> NVIDIA Quadro FX 370, PCIe x16 adapter, 256MB, one single-link and 1 dual-link DVI, dual DVI-I or dual VGA, 25W <i>Some:</i> NVIDIA Quadro FX 1700, PCIe x16 adapter, 512MB, two dual-link DVI, dual DVI-I or dual VGA, HDTV out, 42W <i>Some:</i> NVIDIA Quadro FX 4600, PCIe x16 adapter, 768MB, two slot width, 2 dual-link DVI, dual DVI-I or dual VGA, 134W		
Media reader	9-in-1 media reader, internal USB 2.0		<div>Security</div> <ul style="list-style-type: none">• Security chip (see information on left)• Side cover lock (ships with two identical keys)• Padlock loop (in rear for opt padlock; padlock prohibits side cover removal)• Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal)• Chassis intrusion switch• Power-on password• Administrator password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• USB port disablement (front or all) <div>Supports ThinkVantage® technologies</div> <div>RoHS-compliant</div> <div>Pending: ENERGY STAR® 4.0-compliant</div> <div>Limited Warranty¹</div> <div>⇒ 3-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, next business day response time)</div> <div>⇒ ThinkPlus™ services available; see http://lenovo.com/thinkplus/warranty</div> <div>• Onsite service upgrade options (in eligible locations)⁷</div> <div>⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378</div>
SATA disk(s)	<i>Some:</i> 160GB or 250GB, SATA 3.0Gb/s, 7200 rpm		
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH9R		
SATA connectors	Six SATA connectors on planar		
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s		
SATA BD burner	<i>Some:</i> Blu-ray™ Burner / HD-DVD Player SATA 1.5Gb/s (43R1958)		
SAS disk	<i>Some:</i> 146GB, Serial Attached SCSI, 3.0Gb/s, 15000 rpm		
SAS controller	<i>Some:</i> LSI™ LSISAS3041E-R PCIe x4 adapter, 4-port, 3.0Gb/s, RAID® 0, 1, 1E		
Chipset	Intel X38 Express Chipset, Intel I/O Controller Hub 9 RAID (ICH9R) for RAID 0, 1, 5 support, SMC® SCH5027D Super I/O		
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm), FireWire 400 (IEEE 1394)		
Rear ports	Eight USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), two ethernet (RJ-45), five analog audio ports (line-in, microphone-in, front-out, rear-out, center/sub-out), optical S/PDIF digital out		
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; <i>Some:</i> Creative Sound Blaster® X-Fi, PCI adapter, high-end sound adapter		
Speaker	Internal speaker for business audio		
Ethernet	Dual gigabit ethernet on planar, Broadcom® BCM5754 and BCM5755, 2 x PCIe x1		
Security chip	Integrated in ethernet controller BCM5755, TCG 1.2-compliant		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black		
Mouse	Optical Wheel Mouse (USB connector), black		
Power supply	650 watts with 120mm bottom-mounted variable speed fan, universal		
Cooling	3 to 5 fans (power supply, CPU, rear, opt front PCI [>75W graphics], opt front [SAS])		
Rack mount	Rack shelf support		
<div>Preloaded operating system²⁰</div> <div>- Microsoft® Windows® XP Professional</div> <div>- Microsoft® Windows® Vista® Business Edition (32-bit)</div> <div>♦ Vista models: Vista Premium logo</div> <div>Preloaded applications⁵ (all OSes; only some listed)</div> <div>• Rescue and Recovery™</div> <div>• ThinkVantage Productivity Center</div> <div>• ThinkVantage System Update</div> <div>• Norton Internet Security™ (90 days of virus definitions)</div> <div>• Sonic RecordNow and Drive Letter Access (DVD±RW)</div> <div>• Corel® WinDVD® (DVD±RW)</div> <div>Accessories</div> <div>1GB PC3-8500 DDR3 ECC UDIMM 41U5251</div> <div>2GB PC3-8500 DDR3 ECC UDIMM 41U5252</div> <div>750GB SATA 3.0Gb/s Disk (7200 rpm) 43R1991</div> <div>1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918</div> <div>Super Multi-Burner DL DVD±RW SATA 1.5Gb/s 41N5620</div> <div>Blu-ray Burner / HD-DVD Player SATA 1.5Gb/s 43R1958</div> <div>USB 2.0 Ultra Secure Memory Key 8GB 45J5918</div> <div>USB 2.0 Portable Secure 320GB Hard Disk 43R2019</div> <div>ThinkVision® L2240p Wide 22" Monitor 4422HB6</div> <div>ThinkVision L2440p Wide 24" Monitor 4420HB2</div> <div>NVIDIA® Quadro® 512MB FX 1700 43R1767</div> <div>NVIDIA Quadro 512MB FX 3700 43R1768</div> <div>NVIDIA Quadro 768MB FX 4600 43R1769</div> <div>Other accessories at lenovo.com/accessories</div>			

See footnotes for important warranty information
US models announced April 15, 2008

ThinkStation® S10 (6423) - TopSeller (August 2008)

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHzCores	Mem-ory	Disk(s)	RAID	SATA optical	Graphics adapter(s)	1394 adptr	Sound adptr	ENERGY STAR 4.0	Preload	Workhorse Global	Avail date
S10	6423-56U	5x6	Q9550	2.83	4	2GB	2 x 250GB ²	SATA None	DVD±RW	1 x FX3700	None	Pending	Bus32	No	Aug 08
S10	6423-57U	5x6	Q9450	2.66	4	2GB	1 x 250GB	SATA None	DVD±RW	1 x FX570	None	Pending	Bus32	No	Aug 08
S10	6423-58U	5x6	E8200	2.66	2	2GB	1 x 250GB	SATA None	DVD±RW	1 x NVS290	1394	Pending	Bus64	No	Aug 08
S10	6423-59U	5x6	E8400	3.00	2	2GB	1 x 250GB	SATA None	DVD±RW	1 x FX370	None	Pending	Bus64	No	Aug 08
S10	6423-61U	5x6	E8500	3.16	2	4GB	1 x 146GB	SAS None	DVD±RW	1 x FX1700	None	Pending	Bus64	No	Aug 08
S10	6423-67U	5x6	Q9450	2.66	4	2GB	1 x 250GB	SATA None	DVD±RW	1 x FX570	None	Pending	Bus64	No	Aug 08
S10	6423-68U	5x6	Q9450	2.66	4	4GB	1 x 250GB	SATA None	DVD±RW	1 x FX1700	None	Pending	Bus64	No	Aug 08
S10	6423-69U	5x6	Q9550	2.83	4	4GB	1 x 500GB	SATA None	DVD±RW	1 x FX3700	None	Pending	Bus64	No	Aug 08
S10	6423-72U	5x6	QX9650	3.00	4	4GB	1 x 500GB	SATA None	DVD±RW	1 x FX3700	None	Pending	Bus64	No	Aug 08
S10	6423-H1U	5x6	Q9550	2.83	4	4GB	1 x 500GB	SATA None	DVD±RW	None	None	Pending	Bus64	No	Sep 08
S10	6423-H2U	5x6	E8400	3.00	2	2GB	1 x 250GB	SATA None	DVD±RW	None	None	Pending	Bus64	No	Sep 08
S10	6423-H3U	5x6	Q9550	2.83	4	4GB	1 x 146GB	SAS None	DVD±RW	None	None	Pending	Bus64	No	Sep 08
S10	6423-H4U	5x6	E8400	3.00	2	2GB	1 x 146GB	SAS None	DVD±RW	None	None	Pending	Bus64	No	Sep 08

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

Processor	Intel® Core™ 2 Duo Processor E8200, E8400, or E8500 with dual-core, 1333MHz system bus, and 6MB L2 cache or Intel Core 2 Quad Processor Q9450 or Q9550 with quad-core, 1333MHz system bus, and 12MB L2 cache or Intel Core 2 Extreme Processor QX9650 with quad-core, 1333MHz system bus, and 12MB L2 cache		Tower <ul style="list-style-type: none">• Raven black color; metal case• 6.9"W x 19.0"D x 16.8"H (without handle)• 175mm W x 483mm D x 426mm H• 36 lb (16.4kg) max configuration• 31-liter• Removable handle on top front• Toolless side cover removal• Toolless disk and optical drive removal• Toolless adapter retention• Illuminated front icons• Rack shelf support <div><div>optical</div><div>optical</div><div>media</div><div>disk</div><div>disk</div><div>disk</div></div> <div>Bay ① 5.25", 1.6" high, external, std optical</div> <div>Bay ② 5.25", 1.6" high, external, open</div> <div>Bay ③ 3.5", 1" high, external, std media reader</div> <div>Bay ④ 3.5", 1" high, internal, std disk</div> <div>Bay ⑤ 3.5", 1" high, internal, std or opt disk</div> <div>Bay ⑥ 3.5", 1" high, internal, std or 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 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 x4 (x16 mechanical)</div> <div>Slot 5: half-length, full-height, 32-bit PCI 2.3</div>																									
Implementation	Processor uses FC-LGA6 package, one LGA775 socket																											
Memory	2GB or 4GB std, 8GB max, PC3-8500 1066MHz DDR3, ECC, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in four sockets; no sockets available <i>Non-italics:</i> standard memory in two sockets; two sockets available																											
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * 76W to 150W adapters use auxiliary power connector from PSU <i>Some: NVIDIA® Quadro® NVS 290</i> , PCIe x16 adapter, 256MB, two single-link DVI-I via DMS-59 dongle, 21W <i>Some: NVIDIA Quadro FX 370</i> , PCIe x16 adapter, 256MB, one single-link and 1 dual-link DVI, dual DVI-I or dual VGA, 25W <i>Some: NVIDIA Quadro FX 570</i> , PCIe 2.0 x16 adapter, 256MB, two dual-link DVI, dual DVI-I or dual VGA, 38W <i>Some: NVIDIA Quadro FX 1700</i> , PCIe x16 adapter, 512MB, two dual-link DVI, dual DVI-I or dual VGA, HDTV out, 42W <i>Some: NVIDIA Quadro FX 3700</i> , PCIe 2.0 x16 adapter, 512MB, two dual-link DVI, dual DVI-I or dual VGA, 78W																											
Media reader	9-in-1 media reader, internal USB 2.0																											
SATA disk(s)	<i>Some: 250GB or 500GB</i> , SATA 3.0Gb/s, 7200 rpm																											
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH9R																											
SATA connectors	Six SATA connectors on planar																											
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s																											
SAS disk	<i>Some: 146GB</i> , Serial Attached SCSI, 3.0Gb/s, 15000 rpm																											
SAS controller	<i>Some: LSI™ LSISAS3041E-R</i> PCIe x4 adapter, 4-port, 3.0Gb/s, RAID® 0, 1, 1E																											
Chipset	Intel X38 Express Chipset, Intel I/O Controller Hub 9 RAID (ICH9R) for RAID 0, 1, 5 support, SMSC® SCH5027D Super I/O																											
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm), FireWire 400 (IEEE 1394)																											
Rear ports	Eight USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), two ethernet (RJ-45), five analog audio ports (line-in, microphone-in, front-out, rear-out, center/sub-out), optical S/PDIF digital out																											
IEEE 1394 adptr	<i>Some: FireWire PCI adapter</i> , 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® BCM5754 and BCM5755, 2 x PCIe x1																											
Security chip	Integrated in ethernet controller BCM5755, TCG 1.2-compliant																											
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black																											
Mouse	Optical Wheel Mouse (USB connector), black																											
Power supply	650 watts with 120mm bottom-mounted variable speed fan, universal																											
Cooling	3 to 5 fans (power supply, CPU, rear, opt front PCI [>75W graphics], opt front [SAS])																											
Rack mount	Rack shelf support																											
<div><div><div>Preloaded operating system²⁰</div><div><ul style="list-style-type: none">- Microsoft® Windows® Vista® Business Edition (32-bit)- Microsoft Windows Vista Business Edition (64-bit)✧ Vista models: Vista Premium logo</div><div>Preloaded applications⁵ (all OSes; only some listed)<ul style="list-style-type: none">• Rescue and Recovery™• ThinkVantage Productivity Center• ThinkVantage System Update• Norton Internet Security™• Sonic RecordNow and Drive Letter Access (DVD±RW)• Corel® WinDVD® (DVD±RW)</div></div><div><div>Accessories</div><div><table><tr><td>1GB PC3-8500 DDR3 ECC UDIMM</td><td>41U5251</td></tr><tr><td>2GB PC3-8500 DDR3 ECC UDIMM</td><td>41U5252</td></tr><tr><td>750GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1991</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 1.5Gb/s</td><td>41N5620</td></tr><tr><td>Blu-ray Burner / HD-DVD Player SATA 1.5Gb/s</td><td>43R1958</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</td></tr><tr><td>ThinkVision® L2240p Wide 22" Monitor</td><td>4422HB6</td></tr><tr><td>ThinkVision L2440p Wide 24" Monitor</td><td>4420HB2</td></tr><tr><td>NVIDIA® Quadro® 512MB FX 1700</td><td>43R1767</td></tr><tr><td>NVIDIA Quadro 512MB FX 3700</td><td>43R1768</td></tr><tr><td>NVIDIA Quadro 768MB FX 4600</td><td>43R1769</td></tr></table></div><div>Other accessories at lenovo.com/accessories</div></div></div>			1GB PC3-8500 DDR3 ECC UDIMM	41U5251	2GB PC3-8500 DDR3 ECC UDIMM	41U5252	750GB SATA 3.0Gb/s Disk (7200 rpm)	43R1991	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s	41N5620	Blu-ray Burner / HD-DVD Player SATA 1.5Gb/s	43R1958	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ThinkVision® L2240p Wide 22" Monitor	4422HB6	ThinkVision L2440p Wide 24" Monitor	4420HB2	NVIDIA® Quadro® 512MB FX 1700	43R1767	NVIDIA Quadro 512MB FX 3700	43R1768	NVIDIA Quadro 768MB FX 4600	43R1769
1GB PC3-8500 DDR3 ECC UDIMM	41U5251																											
2GB PC3-8500 DDR3 ECC UDIMM	41U5252																											
750GB SATA 3.0Gb/s Disk (7200 rpm)	43R1991																											
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918																											
Super Multi-Burner DL DVD±RW SATA 1.5Gb/s	41N5620																											
Blu-ray Burner / HD-DVD Player SATA 1.5Gb/s	43R1958																											
USB 2.0 Ultra Secure Memory Key 8GB	45J5918																											
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																											
ThinkVision® L2240p Wide 22" Monitor	4422HB6																											
ThinkVision L2440p Wide 24" Monitor	4420HB2																											
NVIDIA® Quadro® 512MB FX 1700	43R1767																											
NVIDIA Quadro 512MB FX 3700	43R1768																											
NVIDIA Quadro 768MB FX 4600	43R1769																											
<div><div>Security</div><div><ul style="list-style-type: none">• Security chip (see information on left)• Side cover lock (ships with two identical keys)• Padlock loop (in rear for opt padlock; padlock prohibits side cover removal)• Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal)• Chassis intrusion switch• Power-on password• Administrator password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• USB port disablement (front or all)</div></div>																												
Supports ThinkVantage® technologies																												
RoHS-compliant Pending: ENERGY STAR® 4.0-compliant																												
<div><div>Limited Warranty¹</div><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, 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➤ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378</div></div>																												

See footnotes for important warranty information

US models announced September 30, 2008; previous models on August 19, 2008

© Lenovo
(BARC11-1) September 2008

Name	Type-model	Slot x bay	Processor	GHzCores	Mem-ory	Disk(s)	RAID	SATA optical	Graphics adapter(s)	1394 adptr	Sound adptr	ENERGY STAR 4.0	Vista preload	Workhorse Global	Avail date
S10	6483-22U	5x6	Q6700	2.66	4	2GB	1 x 250GB ² SATA	DVD±RW	1 x FX4600			ES40	Bus64	No	Jan 08
S10	6483-23U	5x6	E6850	3.00	2	2GB	1 x 146GB SAS	DVD±RW	1 x FX4600				Bus64	No	Jan 08
S10	6483-24U	5x6	QX6850	3.00	4	2GB	1 x 146GB SAS	DVD±RW	1 x FX4600	1394	X-Fi	ES40	Bus64	No	Jan 08
S10	6483-33U	5x6	QX6850	3.00	4	4GB	1 x 146GB SAS	DVD±RW	1 x FX4600	1394	X-Fi	ES40	Bus64	No	Jan 08
S10	6483-25U	5x6	Q6700	2.66	4	2GB	2 x 250GB SATA	DVD±RW	1 x FX1700			ES40	Bus64	No	Jan 08
S10	6483-26U	5x6	E6850	3.00	2	2GB	2 x 250GB SATA	DVD±RW	1 x FX1700			ES40	Bus64	No	Jan 08
S10	6483-27U	5x6	Q6600	2.40	4	2GB	1 x 146GB SAS	DVD±RW	1 x FX1700			ES40	Bus64	No	Jan 08
S10	6483-29U	5x6	Q6700	2.66	4	4GB	2 x 250GB SATA	DVD±RW	1 x FX1700			ES40	Bus64	No	Jan 08
S10	6483-31U	5x6	E6850	3.00	2	2GB	2 x 250GB SATA	1 DVD±RW	1 x FX1700			ES40	Bus64	No	Jan 08
S10	6483-32U	5x6	E6850	3.00	2	2GB	3 x 250GB SATA	5 DVD±RW	1 x FX1700			ES40	Bus64	No	Jan 08
S10	6483-19U	5x6	E6850	3.00	2	2GB	1 x 250GB SATA	DVD±RW	1 x FX1700			ES40	Bus64	No	Jan 08
S10	6483-21U	5x6	QX6800	2.93	4	4GB	2 x 500GB SATA	0 BD burner	2 x FX4600		X-Fi	ES40	Bus64	No	Jan 08

- **High performance workstation with premium graphics for specialized professionals**
- **Environmentally friendly, cool, and quiet with rock solid engineering**

Processor	Intel® Core™ 2 Duo Processor E6850 with dual-core, 1333MHz system bus, and 4MB L2 cache or Intel Core 2 Quad Processor Q6600 or Q6700 with quad-core, 1066MHz system bus, and 8MB L2 cache or Intel Core 2 Extreme Processor QX6800 with quad-core, 1066MHz system bus, and 8MB L2 cache or Intel Core 2 Extreme Processor QX6850 with quad-core, 1333MHz system bus, and 8MB L2 cache Processor uses FC-LGA6 package, one LGA775 socket		Tower <ul style="list-style-type: none">• Raven black color; metal case• 6.9"W x 19.0"D x 16.8"H (without handle)• 175mm W x 483mm D x 426mm H• 36 lb (16.4kg) max configuration• 31-liter• Removable handle on top front• Toolless side cover removal• Toolless disk and optical drive removal• Toolless adapter retention• Illuminated front icons• Rack shelf support		
Memory	2GB or 4GB std, 8GB max, PC3-8500 1066MHz DDR3, ECC , dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in four sockets; no sockets available <i>Non-italics:</i> standard memory in two sockets; two sockets available		<div>Bay ① 5.25", 1.6" high, external, std optical</div> <div>Bay ② 5.25", 1.6" high, external, open</div> <div>Bay ③ 3.5", 1" high, external, std media reader</div> <div>Bay ④ 3.5", 1" high, internal, std disk</div> <div>Bay ⑤ 3.5", 1" high, internal, std or opt disk</div> <div>Bay ⑥ 3.5", 1" high, internal, std or 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 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 x4 (x16 mechanical)</div> <div>Slot 5: half-length, full-height, 32-bit PCI 2.3</div>		
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * 76 to 150W adapters use auxiliary power connector from PSU <i>Some: NVIDIA® Quadro® FX 1700</i> , PCIe x16 adapter, 512MB, two dual-link DVI, dual DVI-I or dual VGA, HDTV out, 42W <i>Some: NVIDIA Quadro FX 4600</i> , PCIe x16 adapter, 768MB, two slot width, 2 dual-link DVI, dual DVI-I or dual VGA, 134W				
Media reader	9-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)• Chassis intrusion switch• 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: 250GB</i> or 500GB , SATA 3.0Gb/s, 7200 rpm				
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH9R		Supports ThinkVantage® technologies		
SATA connectors	Six SATA connectors on planar				
SATA DVD±RW	<i>Some: Super Multi-Burner DL DVD±RW SATA 1.5Gb/s</i>		RoHS-compliant <i>Some: ENERGY STAR 4.0-compliant</i>		
SATA BD burner	<i>Some: Blu-ray™ Burner / HD-DVD Player SATA 1.5Gb/s</i>				
SAS disk	<i>Some: 146GB</i> , Serial Attached SCSI, 3.0Gb/s, 15000 rpm		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		
SAS controller	<i>Some: LSI™ LSISAS3041E-R</i> PCIe x4 adapter, 4-port, 3.0Gb/s, RAID® 0, 1, 1E				
Chipset	Intel X38 Express Chipset , Intel I/O Controller Hub 9 RAID (ICH9R) for RAID 0, 1, 5 support, SMSC® SCH5027D Super I/O				
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm), FireWire 400 (IEEE 1394)				
Rear ports	Eight USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), two ethernet (RJ-45), five analog audio ports (line-in, microphone-in, front-out, rear-out, center/sub-out), optical S/PDIF digital out				
IEEE 1394 adptr	<i>Some: FireWire PCI adapter, 1394a-2000, 400Mbps, two 6-pin ports on rear</i>				
Audio	High Definition (HD) Audio, Analog Devices AD1988A codec; <i>Some: Creative Sound Blaster® X-Fi</i> , PCI adapter, high-end sound adapter				
Speaker	Internal speaker for business audio				
Ethernet	Dual gigabit ethernet on planar, Broadcom® BCM5754 and BCM5755, 2 x PCIe x1				
Security chip	Integrated in ethernet controller BCM5755, TCG 1.2-compliant				
Keyboard	<i>Model 21U:</i> Lenovo USB Fingerprint Keyboard (USB connector), black <i>Others:</i> Preferred Pro USB Keyboard (USB connector), 104-key, black				
Mouse	Optical Wheel Mouse (USB connector), black				
Power supply	650 watts with 120mm bottom-mounted variable speed fan, universal				
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			
- Microsoft® Windows® Vista® Business Edition (64-bit)		1GB PC3-8500 DDR3 ECC UDIMM		41U5251	
◇ Vista Premium logo		2GB PC3-8500 DDR3 ECC UDIMM		41U5252	
Preloaded applications⁵ (only some listed)		1TB SATA 3.0Gb/s Disk (7200 rpm)		45J7918	
• Rescue and Recovery™		750GB SATA 3.0Gb/s Disk (7200 rpm)		43R1991	
• Client Security Solution™		Super Multi-Burner DL DVD±RW SATA 1.5Gb/s		41N5620	
• ThinkVantage Fingerprint Software (fingerprint keyboard model)		Blu-ray Burner / HD-DVD Player SATA 1.5Gb/s		43R1958	
• System Migration Assistant		USB 2.0 Lenovo Webcam		40Y8519	
• Norton Internet Security™		USB 2.0 Ultra Secure Memory Key 8GB		45J5918	
• PC-Doctor™ (diagnostics)		USB 2.0 Portable Secure 320GB Hard Disk		43R2019	
• Microsoft Office 2007 Trial (60-day)		ThinkVision® L2240p Wide 22" Monitor		4422HB6	
• Sonic RecordNow and Drive Letter Access (DVD±RW)		ThinkVision L2440x Wide 24" Monitor		4421HB2	
• Corel® WinDVD® (DVD±RW, Blu-ray)		Wireless Kbd & Opt Wheel Mouse (via USB)		73P4067	
• Ulead® DVD MovieFactory (Blu-ray)		Laser Tilt Wheel Mouse (USB, PS/2)		41U3074	
		NVIDIA® Quadro® 512MB FX 570		45J7917	
		NVIDIA Quadro 512MB FX 1700		43R1767	
		NVIDIA Quadro 512MB FX 3700		43R1768	
		Other accessories at lenovo.com/accessories			

Name	Type-model	Slot x bay	Processor	GHz	Cores	Mem-ory	Disk(s)	RAID	SATA optical	Graphics adapter(s)	1394 adptr	Sound adptr	ENERGY STAR 4.0	Preload	Workhorse Global	Avail date
S10	6483-34U	5x6	E6850	3.00	2	2GB	1 x 250GB ²	SATA	DVD±RW	1 x NVS290	None	None	Pending	XP Pro	No	Apr 08
S10	6483-35U	5x6	E6850	3.00	2	2GB	1 x 250GB	SATA	DVD±RW	1 x FX370	None	None	Pending	XP Pro	No	Apr 08
S10	6483-36U	5x6	E6850	3.00	2	2GB	1 x 250GB	SATA	DVD±RW	1 x FX1700	None	None	Pending	XP Pro	No	Apr 08
S10	6483-37U	5x6	QX6850	3.00	4	2GB	1 x 250GB	SATA	DVD±RW	1 x FX1700	None	None	Pending	XP Pro	No	Apr 08
S10	6483-38U	5x6	QX6850	3.00	4	2GB	1 x 250GB	SATA	DVD±RW	1 x FX4600	None	None	Pending	XP Pro	No	Apr 08
S10	6483-39U	5x6	E6850	3.00	2	2GB	1 x 146GB	SAS	DVD±RW	1 x FX1700	None	None	Pending	XP Pro	No	Apr 08
S10	6483-41U	5x6	QX6850	3.00	4	2GB	1 x 146GB	SAS	DVD±RW	1 x FX1700	None	None	Pending	XP Pro	No	Apr 08
S10	6483-42U	5x6	QX6850	3.00	4	2GB	1 x 146GB	SAS	DVD±RW	1 x FX4600	None	None	Pending	XP Pro	No	Apr 08
S10	6483-43U	5x6	E6850	3.00	2	2GB	2 x 250GB	SATA	1 DVD±RW	1 x FX1700	None	None	Pending	XP Pro	No	Apr 08
S10	6483-44U	5x6	QX6850	3.00	4	2GB	2 x 250GB	SATA	1 DVD±RW	1 x FX1700	None	None	Pending	XP Pro	No	Apr 08
S10	6483-45U	5x6	QX6850	3.00	4	2GB	2 x 250GB	SATA	1 DVD±RW	1 x FX4600	None	None	Pending	XP Pro	No	Apr 08
S10	6483-46U	5x6	E6850	3.00	2	2GB	1 x 250GB	SATA	BD burner	1 x FX1700	None	None	Pending	XP Pro	No	Apr 08
S10	6483-47U	5x6	QX6850	3.00	4	2GB	1 x 250GB	SATA	BD burner	1 x FX4600	None	None	Pending	XP Pro	No	Apr 08
S10	6483-92U	5x6	E6850	3.00	2	2GB	1 x 250GB	SATA	DVD±RW	1 x FX1700	None	None	Pending	Bus32	No	Apr 08
S10	6483-93U	5x6	Q6700	2.66	4	2GB	1 x 250GB	SATA	DVD±RW	1 x FX4600	None	None	Pending	Bus32	No	Apr 08
S10	6483-94U	5x6	E6850	3.00	2	2GB	2 x 250GB	SATA	DVD±RW	1 x FX1700	None	None	Pending	Bus32	No	Apr 08
S10	6483-95U	5x6	E6850	3.00	2	2GB	2 x 250GB	SATA	1 DVD±RW	1 x FX1700	None	None	Pending	Bus32	No	Apr 08
S10	6483-96U	5x6	E6850	3.00	2	2GB	3 x 250GB	SATA	5 DVD±RW	1 x FX1700	None	None	Pending	Bus32	No	Apr 08

- High performance workstation with premium graphics for specialized professionals
- Environmentally friendly, cool, and quiet with rock solid engineering

Processor	Intel® Core™ 2 Duo Processor E6850 with dual-core, 1333MHz system bus, and 4MB L2 cache or Intel Core 2 Quad Processor Q6700 with quad-core, 1066MHz system bus, and 8MB L2 cache or Intel Core 2 Extreme Processor QX6850 with quad-core, 1333MHz system bus, and 8MB L2 cache		Processor uses FC-LGA6 package, one LGA775 socket		Tower	
Implementation	2GB std, 8GB max, PC3-8500 1066MHz DDR3, ECC, dual-channel capable, four 240-pin DIMM sockets; Non-italics: standard memory in two sockets; two sockets available				<div><div>optical</div><div>optical</div><div>media</div><div>disk</div><div>disk</div><div>disk</div></div> <div>Bay ① 5.25", 1.6" high, external, std optical</div> <div>Bay ② 5.25", 1.6" high, external, open</div> <div>Bay ③ 3.5", 1" high, external, std media reader</div> <div>Bay ④ 3.5", 1" high, internal, std disk</div> <div>Bay ⑤ 3.5", 1" high, internal, std or opt disk</div> <div>Bay ⑥ 3.5", 1" high, internal, std or 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 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 x4 (x16 mechanical)</div> <div>Slot 5: half-length, full-height, 32-bit PCI 2.3</div>	
Memory						
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * 76 to 150W adapters use auxiliary power connector from PSU Some: NVIDIA® Quadro® NVS 290, PCIe x16 adapter, 256MB, two single-link DVI-I via DMS-59 dongle, 21W Some: NVIDIA Quadro FX 370, PCIe x16 adapter, 256MB, one single-link and 1 dual-link DVI, dual DVI-I or dual VGA, 25W Some: NVIDIA Quadro FX 1700, PCIe x16 adapter, 512MB, two dual-link DVI, dual DVI-I or dual VGA, HDTV out, 42W Some: NVIDIA Quadro FX 4600, PCIe x16 adapter, 768MB, two slot width, 2 dual-link DVI, dual DVI-I or dual VGA, 134W					
Media reader	9-in-1 media reader, internal USB 2.0					
SATA disk(s)	Some: 250GB, SATA 3.0Gb/s, 7200 rpm					
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH9R					
SATA connectors	Six SATA connectors on planar					
SATA DVD±RW	Some: Super Multi-Burner DL DVD±RW SATA 1.5Gb/s					
SATA BD burner	Some: Blu-ray™ Burner / HD-DVD Player SATA 1.5Gb/s					
SAS disk	Some: 146GB, Serial Attached SCSI, 3.0Gb/s, 15000 rpm					
SAS controller	Some: LSI™ LSISAS3041E-R PCIe x4 adapter, 4-port, 3.0Gb/s, RAID® 0, 1, 1E					
Chipset	Intel X38 Express Chipset, Intel I/O Controller Hub 9 RAID (ICH9R) for RAID 0, 1, 5 support, SMSC® SCH5027D Super I/O				Security	
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm), FireWire 400 (IEEE 1394)				<div><div>Security chip (see information on left)</div><div>Side cover lock (ships with two identical keys)</div><div>Padlock loop (in rear for opt padlock; padlock prohibits side cover removal)</div><div>Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal)</div><div>Chassis intrusion switch</div><div>Power-on password</div><div>Administrator 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 (front or all)</div></div>	
Rear ports	Eight USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), two ethernet (RJ-45), five analog audio ports (line-in, microphone-in, front-out, rear-out, center/sub-out), optical S/PDIF digital out					
IEEE 1394 adptr	None					
Audio	High Definition (HD) Audio, Analog Devices AD1988A codec;					
Speaker	Internal speaker for business audio					
Ethernet	Dual gigabit ethernet on planar, Broadcom® BCM5754 and BCM5755, 2 x PCIe x1					
Security chip	Integrated in ethernet controller BCM5755, TCG 1.2-compliant					
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black					
Mouse	Optical Wheel Mouse (USB connector), black					
Power supply	650 watts with 120mm bottom-mounted variable speed fan, universal					
Cooling	3 to 5 fans (power supply, CPU, rear, opt front PCI [>75W graphics], opt front [SAS])				Supports ThinkVantage® technologies	
Rack mount	Rack shelf support				RoHS-compliant	
Preloaded operating system ²⁰			Accessories			
- Microsoft® Windows® XP Professional			1GB PC3-8500 DDR3 ECC UDIMM 41U5251			
- Microsoft Windows Vista® Business Edition (32-bit)			2GB PC3-8500 DDR3 ECC UDIMM 41U5252			
◇ Vista models: Vista Premium logo			750GB SATA 3.0Gb/s Disk (7200 rpm) 43R1991			
Preloaded applications ⁵ (all OSes; only some listed)			1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918			
• Rescue and Recovery™			Blu-ray Burner / HD-DVD Player SATA 1.5Gb/s 43R1958			
• ThinkVantage System Update			USB 2.0 Ultra Secure Memory Key 8GB 45J5918			
• Sonic RecordNow and			USB 2.0 Portable Secure 320GB Hard Disk 43R2019			
• Drive Letter Access (DVD±RW)			ThinkVision® L2440p Wide 24" Monitor 4420HB2			
• Corel® WinDVD® (DVD±RW, Blu-ray)			NVIDIA® Quadro® 512MB FX 570 45J7917			
• Ulead® DVD MovieFactory (Blu-ray)			NVIDIA Quadro 512MB FX 1700 43R1767			
			NVIDIA Quadro 512MB FX 3700 43R1768			
			Other accessories at lenovo.com/accessories			
			Pending: ENERGY STAR 4.0-compliant			
			Limited Warranty ¹			
			⇒ 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			
			⇒ 24 hour x 7 day ¹⁴ toll-free support during the warranty period ¹			

Name	Type-model	Slot x bay	Processor	GHzCores	Mem-ory	Disk(s)	RAID	SATA optical	Graphics adapter(s)	1394 adptr	Sound adptr	ENERGY STAR 4.0	Preload	Workhorse Global	Avail date		
S10	6483-A1U	5x6	Q9450	2.66	4	2GB	1 x 250GB	SATA	None	DVD±RW	1 x FX3700		None	Pending	Bus64	No	Aug 08
S10	6483-A2U	5x6	Q9450	2.66	4	2GB	1 x 250GB	SATA	None	DVD±RW	1 x FX570		None	Pending	Bus64	No	Aug 08
S10	6483-A3U	5x6	Q9550	2.83	4	2GB	1 x 250GB	SATA	None	DVD±RW	1 x FX570		None	Pending	Bus64	No	Aug 08
S10	6483-A4U	5x6	Q9550	2.83	4	2GB	1 x 250GB	SATA	None	DVD±RW	1 x FX3700		None	Pending	Bus64	No	Aug 08
S10	6483-B2U	5x6	Q9450	2.66	4	4GB	1 x 146GB	SAS	None	DVD±RW	1 x FX1700	1394	None	Pending	Bus64	No	Aug 08
S10	6483-B3U	5x6	Q9550	2.83	4	4GB	2 x 250GB	SATA	None	DVD±RW	1 x FX1700		None	Pending	Bus64	No	Aug 08
S10	6483-B4U	5x6	Q9550	2.83	4	4GB	1 x 146GB	SAS	None	DVD±RW	1 x FX3700		None	Pending	Bus64	No	Aug 08
S10	6483-B5U	5x6	QX9650	3.00	4	4GB	2 x 250GB	SATA	None	DVD±RW	1 x FX1700		None	Pending	Bus64	No	Aug 08
S10	6483-B8U	5x6	E8200	2.66	2	2GB	1 x 160GB	SATA	None	DVD	1 x FX570	1394	None	Pending	Bus64	No	Aug 08
S10	6483-B9U	5x6	E8200	2.66	2	2GB	1 x 160GB	SATA	None	DVD	1 x FX3700	1394	None	Pending	Bus64	No	Aug 08
S10	6483-C1U	5x6	E8400	3.00	2	2GB	2 x 250GB	SATA	None	DVD±RW	1 x FX1700		None	Pending	Bus64	No	Aug 08
S10	6483-C2U	5x6	E8500	3.16	2	4GB	2 x 250GB	SATA	None	DVD±RW	1 x FX3700		None	Pending	Bus64	No	Aug 08
S10	6483-E1U	5x6	QX9650	3.00	4	4GB	2 x 500GB	SATA	None	DVD±RW	1 x FX1700		None	Pending	Bus64	No	Aug 08
S10	6483-E2U	5x6	QX9650	3.00	4	4GB	2 x 500GB	SATA	None	DVD±RW	1 x FX3700		None	Pending	Bus64	No	Aug 08

Processor	Intel® Core™ 2 Duo Processor E8200, E8400, or E8500 with dual-core , 1333MHz system bus, and 6MB L2 cache or Intel Core 2 Quad Processor Q9450 or Q9550 with quad-core , 1333MHz system bus, and 12MB L2 cache or Intel Core 2 Extreme Processor QX9650 with quad-core , 1333MHz system bus, and 12MB L2 cache		Tower <ul style="list-style-type: none">• Raven black color; metal case• 6.9"W x 19.0"D x 16.8"H (without handle)• 175mm W x 483mm D x 426mm H• 36 lb (16.4kg) 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-LGA6 package, one LGA775 socket																																				
Memory	2GB or 4GB std, 8GB max, PC3-8500 1066MHz DDR3, ECC , dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in four sockets; no sockets available <i>Non-italics:</i> standard memory in two sockets; two sockets available																																				
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * 76 to 150W adapters use auxiliary power connector from PSU <i>Some:</i> NVIDIA® Quadro® FX 570 , PCIe 2.0 x16 adapter, 256MB, two dual-link DVI, dual DVI-I or dual VGA, 38W <i>Some:</i> NVIDIA Quadro FX 1700 , PCIe x16 adapter, 512MB, two dual-link DVI, dual DVI-I or dual VGA, HDTV out, 42W <i>Some:</i> NVIDIA Quadro FX 3700 , PCIe 2.0 x16 adapter, 512MB, two dual-link DVI, dual DVI-I or dual VGA, 78W		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, std or opt disk																																		
Media reader	9-in-1 media reader, internal USB 2.0		Slot 1: full-length, full-height, PCIe 2.0 x16 (75W* max) 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 x4 (x16 mechanical) Slot 5: half-length, full-height, 32-bit PCI 2.3																																		
SATA disk(s)	<i>Some:</i> 160GB, 250GB , or 500GB , SATA 3.0Gb/s, 7200 rpm																																				
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH9R																																				
SATA connectors	Six SATA connectors on planar																																				
SATA DVD	<i>Some:</i> DVD-ROM DL SATA1.5Gb/s 16X-48X Max ⁴																																				
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s																																				
SAS disk	<i>Some:</i> 146GB , Serial Attached SCSI, 3.0Gb/s, 15000 rpm																																				
SAS controller	<i>Some:</i> LSI™ LSISAS3041E-R PCIe x4 adapter, 4-port, 3.0Gb/s, RAID® 0, 1, 1E																																				
Chipset	Intel X38 Express Chipset , Intel I/O Controller Hub 9 RAID (ICH9R) for RAID 0, 1, 5 support, SMSC® SCH5027D Super I/O																																				
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm), FireWire 400 (IEEE 1394)																																				
Rear ports	Eight USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), two ethernet (RJ-45), five analog audio ports (line-in, microphone-in, front-out, rear-out, center/sub-out), optical S/PDIF digital out <i>Some:</i> FireWire PCI adapter, 1394a-2000, 400Mbps, two 6-pin ports on rear																																				
IEEE 1394 adptr																																					
Audio	High Definition (HD) Audio, Analog Devices AD1988A codec;																																				
Speaker	Internal speaker for business audio																																				
Ethernet	Dual gigabit ethernet on planar, Broadcom® BCM5754 and BCM5755 , 2 x PCIe x1																																				
Security chip	Integrated in ethernet controller BCM5755 , TCG 1.2-compliant																																				
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black																																				
Mouse	Optical Wheel Mouse (USB connector), black																																				
Power supply	650 watts with 120mm bottom-mounted variable speed fan, universal																																				
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">- Microsoft® Windows® Vista® Business Edition (64-bit)❖ <i>Vista models:</i> Vista Premium logo		Accessories <table><tr><td>1GB PC3-8500 DDR3 ECC UDIMM</td><td>41U5251</td></tr><tr><td>2GB PC3-8500 DDR3 ECC UDIMM</td><td>41U5252</td></tr><tr><td>750GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1991</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>146GB SAS 3.0Gb/s Disk (15000 rpm)</td><td>43R1993</td></tr><tr><td>300GB SAS 3.0Gb/s Disk (15000 rpm)</td><td>43R1994</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA 1.5Gb/s</td><td>41N5620</td></tr><tr><td>Blu-ray Burner / HD-DVD Player SATA 1.5Gb/s</td><td>43R1958</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</td></tr><tr><td>ThinkVision® L1940p Wide 19" Monitor</td><td>4424HB6</td></tr><tr><td>ThinkVision L2240p Wide 22" Monitor</td><td>4422HB6</td></tr><tr><td>ThinkVision L2440x Wide 24" Monitor</td><td>4421HB2</td></tr><tr><td>NVIDIA® Quadro® 512MB FX 1700</td><td>43R1767</td></tr><tr><td>NVIDIA Quadro 512MB FX 3700</td><td>43R1768</td></tr><tr><td>NVIDIA Quadro 768MB FX 4600</td><td>43R1769</td></tr></table>		1GB PC3-8500 DDR3 ECC UDIMM	41U5251	2GB PC3-8500 DDR3 ECC UDIMM	41U5252	750GB SATA 3.0Gb/s Disk (7200 rpm)	43R1991	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	146GB SAS 3.0Gb/s Disk (15000 rpm)	43R1993	300GB SAS 3.0Gb/s Disk (15000 rpm)	43R1994	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s	41N5620	Blu-ray Burner / HD-DVD Player SATA 1.5Gb/s	43R1958	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ThinkVision® L1940p Wide 19" Monitor	4424HB6	ThinkVision L2240p Wide 22" Monitor	4422HB6	ThinkVision L2440x Wide 24" Monitor	4421HB2	NVIDIA® Quadro® 512MB FX 1700	43R1767	NVIDIA Quadro 512MB FX 3700	43R1768	NVIDIA Quadro 768MB FX 4600	43R1769		
1GB PC3-8500 DDR3 ECC UDIMM	41U5251																																				
2GB PC3-8500 DDR3 ECC UDIMM	41U5252																																				
750GB SATA 3.0Gb/s Disk (7200 rpm)	43R1991																																				
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918																																				
146GB SAS 3.0Gb/s Disk (15000 rpm)	43R1993																																				
300GB SAS 3.0Gb/s Disk (15000 rpm)	43R1994																																				
Super Multi-Burner DL DVD±RW SATA 1.5Gb/s	41N5620																																				
Blu-ray Burner / HD-DVD Player SATA 1.5Gb/s	43R1958																																				
USB 2.0 Ultra Secure Memory Key 8GB	45J5918																																				
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																				
ThinkVision® L1940p Wide 19" Monitor	4424HB6																																				
ThinkVision L2240p Wide 22" Monitor	4422HB6																																				
ThinkVision L2440x Wide 24" Monitor	4421HB2																																				
NVIDIA® Quadro® 512MB FX 1700	43R1767																																				
NVIDIA Quadro 512MB FX 3700	43R1768																																				
NVIDIA Quadro 768MB FX 4600	43R1769																																				
Preloaded applications⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• System Migration Assistant• Norton Internet Security™ (90 days of virus definitions)• PC-Doctor™ (diagnostics)• Adobe® Reader• Microsoft Office 2007 Trial (60-day)• Sonic RecordNow and Drive Letter Access (DVD±RW)• Corel® WinDVD® (DVD±RW)		Other accessories at lenovo.com/accessories																																			
				Security <ul style="list-style-type: none">• Security chip (see information on left)• Side cover lock (ships with two identical keys)• Padlock loop (in rear for opt padlock; padlock prohibits side cover removal)• Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal)• Chassis intrusion switch• 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																																	
				RoHS-compliant <i>Pending:</i> ENERGY STAR® 4.0-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⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378																																	

ThinkStation



Lenovo ThinkStation S20



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



Lenovo ThinkStation S20



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



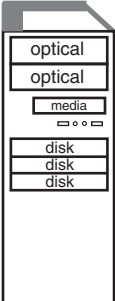
Lenovo ThinkStation Graphics Card Option
NVIDIA Quadro FX 4800 (45K1674)



Lenovo ThinkStation S20
with Lenovo ThinkVision Monitor

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	4105-11U	5x6	W3520	2.66	2 x 1GB	1066MHz	1 x 250GB ²	3.5"	DVD±RW	Media	1 x FX380		Pending	Bus32	Mar 09
S20	4105-12U	5x6	E5504	2.00	2 x 1GB	800MHz	1 x 500GB	3.5"	DVD±RW	Media	1 x FX1800	1394	Pending	Bus32	Mar 09
S20	4105-13U	5x6	E5506	2.13	2 x 2GB	800MHz	1 x 500GB	3.5"	DVD±RW	Media	1 x FX1800	1394	Pending	Bus64	Mar 09
S20	4105-14U	5x6	E5540	2.53	2 x 2GB	1066MHz	2 x 500GB	3.5"	0 DVD±RW	Media	1 x FX4800		Pending	Bus64	Mar 09
S20	4105-15U	5x6	E5506	2.13	2 x 1GB	800MHz	1 x 150GB	2.5"	DVD±RW	Media	1 x FX1800	1394	Pending	Bus32	Mar 09
S20	4105-16U	5x6	W5580	3.20	2 x 2GB	1333MHz	2 x 300GB	2.5"	0 DVD±RW	Media	1 x FX4800		ES50	Bus64	Mar 09
S20	4105-38U	5x6	E5540	2.53	4 x 1GB	1066MHz	1 x 250GB	3.5"	DVD±RW	Media	1 x V5700		Pending	Bus64	Mar 09
S20	4105-39U	5x6	W3540	2.93	2 x 1GB	1066MHz	1 x 250GB	3.5"	DVD±RW	Media	1 x V3700		Pending	Bus32	Mar 09
S20	4105-41U	5x6	E5506	2.13	3 x 1GB	800MHz	1 x 250GB	3.5"	DVD±RW	Media	1 x FX1800		Pending	XP Pro 64	Mar 09

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

Processor	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 E5504 or 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 or Intel Xeon processor W5580 with quad-core, 6.4GT/s QPI, 1333MHz DDR3 memory controller, and 8MB cache		Tower		
Implementation	Processor uses FC-LGA8 package, one LGA1366 socket		• Raven black color; metal case • 6.9"W x 19.0"D x 18.8"H (with handle) • 175mm W x 483mm D x 478mm H • 32 lb (14.5kg) in typical configuration • 31-liter • Removable handle on top front • Toolless side cover removal • Toolless disk and optical drive removal • Toolless adapter retention • Illuminated front icons • Rack shelf support		
Memory	2GB, 3GB, or 4GB std, 12GB max, UDIMM, PC3-8500 1066MHz DDR3*** or PC3-10600 1333MHz DDR3, ECC, 3-channel capable, six 240-pin DIMM sockets *** System automatically clocks down for processors with 800MHz DDR3 memory controller		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: full-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 Some: NVIDIA® Quadro® FX 380, PCIe x16 adapter, 256MB, two dual-link DVI-I, 35W Some: NVIDIA Quadro FX 1800, PCIe x16 adapter, 768MB, two DisplayPort, one dual-link DVI-I, 59W Some: NVIDIA Quadro FX 4800, PCIe x16 adapter, 1.5GB, two slot width, two DisplayPort, one dual-link DVI-I, 121W Some: ATI™ FirePro™ V3700, PCIe x16 adapter, 256MB, two dual-link DVI-I, 35W Some: ATI FirePro V5700, PCIe x16 adapter, 512MB, two DisplayPort, one dual-link DVI-I, 49W				
Media reader	20-in-1 media reader, internal USB 2.0				SECURITY
SATA disk(s)	Some: 250GB or 500GB, SATA 3.0Gb/s, 7200 rpm, 3.5" Some: 150GB or 300GB, SATA 3.0Gb/s, 10000 rpm, 2.5"				
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10R				• 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 connectors	Three SATA connectors for disks, two SATA connectors for opticals				
SATA DVD±RW	Some: Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive				
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 Some: 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				Supports ThinkVantage® technologies
Security chip					
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black				GREENGUARD® certified RoHS-compliant Some: ENERGY STAR® 5.0-compliant EPEAT™ Gold rating (only for ES5.0 models)
Mouse	Optical Wheel Mouse (USB connector), black				
Power supply	625 watts with 120mm bottom-mounted variable speed fan, universal, Climate Savers® Computing Bronze				
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			Accessories		LIMITED WARRANTY ¹
- Microsoft® Windows® XP Professional (64-bit) - Microsoft Windows Vista® Business Edition (32-bit) - Microsoft Windows Vista Business Edition (64-bit) ◇ Vista Premium logo			1GB PC3-8500 DDR3 ECC UDIMM 51J0503 2GB PC3-8500 DDR3 ECC UDIMM 51J0504 1GB PC3-10600 DDR3 ECC UDIMM 43R2032 2GB PC3-10600 DDR3 ECC UDIMM 43R2033 750GB SATA 3.0Gb/s Disk (7200 rpm) 43R1991 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 Blu-ray™ Burner SATA 1.5Gb/s 45K1675 ThinkVision® L2440p Wide 24" Monitor 4420HB2 Laser Tilt Wheel Mouse (USB) 41U3074 NVIDIA Quadro NVS 290 43R1765 NVIDIA Quadro FX 580 45K1671 ATI FirePro 1GB V7750 51J0511		
Preloaded applications ⁵ (all OSes; only some listed) • Rescue and Recovery™ • Client Security Solution™ • ThinkVantage Productivity Center • Microsoft Office 2007 Trial (60-day) • Corel® WinDVD® (DVD±RW)			Other accessories at lenovo.com/accessories		⇒ 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 • 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

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		Pending	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		Pending	Bus32	Mar 09
S20	4157-13U	5x6	E5502	1.86	2 x 2GB	800MHz	2 x 150GB	2.5"	1 DVD±RW	Media	1 x FX1800	1394	Pending	Bus64	Mar 09
S20	4157-14U	5x6	E5506	2.13	2 x 1GB	800MHz	2 x 250GB	3.5"	DVD±RW	Media	1 x FX380	1394	Pending	Bus32	Mar 09
S20	4157-15U	5x6	E5506	2.13	2 x 1GB	800MHz	1 x 250GB	3.5"	DVD±RW	Media	1 x NVS290	1394	Pending	Bus32	Mar 09
S20	4157-16U	5x6	E5506	2.13	2 x 2GB	800MHz	2 x 500GB	3.5"	0 DVD±RW	Media	1 x FX4800		Pending	Bus64	Mar 09
S20	4157-48U	5x6	W3540	2.93	2 x 1GB	1066MHz	1 x 250GB	3.5"	DVD	Media	1 x V3700		Pending	Bus32	Mar 09
S20	4157-49U	5x6	E5506	2.13	4 x 1GB	800MHz	1 x 250GB	3.5"	DVD	Media	1 x V5700		Pending	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		Pending	Bus64	Mar 09
S20	4157-52U	5x6	E5506	2.13	3 x 1GB	800MHz	1 x 250GB	3.5"	DVD±RW	Media	1 x FX1800		Pending	XP Pro 64	Mar 09
Processor	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										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• 32 lb (14.5kg) in typical 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	2GB, 3GB, or 4GB std, 12GB max, UDIMM, PC3-8500 1066MHz DDR3*** or PC3-10600 1333MHz DDR3, ECC, 3-channel capable, six 240-pin DIMM sockets *** System automatically clocks down for processors with 800MHz DDR3 memory controller										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: full-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 Some: NVIDIA® Quadro® NVS 290, PCIe x16 adapter, 256MB, two single-link DVI via DMS-59 with dual DVI-I dongle, 21W Some: NVIDIA Quadro FX 380, PCIe x16 adapter, 256MB, two dual-link DVI-I, 35W Some: NVIDIA Quadro FX 580, PCIe x16 adapter, 512MB, two DisplayPort, one dual-link DVI-I, 40W Some: NVIDIA Quadro FX 1800, PCIe x16 adapter, 768MB, two DisplayPort, one dual-link DVI-I, 59W Some: NVIDIA Quadro FX 4800, PCIe x16 adapter, 1.5GB, two slot width, two DisplayPort, one dual-link DVI-I, 121W Some: ATI™ FirePro™ V3700, PCIe x16 adapter, 256MB, two dual-link DVI-I, 35W Some: ATI FirePro V5700, PCIe x16 adapter, 512MB, two DisplayPort, one dual-link DVI-I, 49W Some: ATI FirePro V7750, PCIe x16 adapter, 1GB, two DisplayPort, one dual-link DVI-I, 76W										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 GREENGUARD® certified RoHS-compliant Pending: 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• 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				
SATA disk(s)	Some: 250GB or 500GB, SATA 3.0Gb/s, 7200 rpm, 3.5" Some: 150GB or 300GB, SATA 3.0Gb/s, 10000 rpm, 2.5"														
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10R														
SATA connectors	Three SATA connectors for disks, two SATA connectors for opticals														
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														
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 Some: 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														
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					Preloaded applications ⁵ (all OSes; only some listed)										
- Microsoft® Windows® XP Professional (64-bit)					• Rescue and Recovery™										
- Microsoft Windows Vista® Business Edition (32-bit)					• Client Security Solution™										
- Microsoft Windows Vista Business Edition (64-bit)					• ThinkVantage Productivity Center										
◇ Vista Premium logo					• Microsoft Office 2007 Trial (60-day)										
					• Corel® WinDVD® (DVD, DVD±RW)										

ThinkStation



Lenovo ThinkStation D10



Lenovo ThinkStation S10 (left)
Lenovo ThinkStation D10 (right)



Lenovo ThinkStation D10



Lenovo ThinkStation D10



ThinkStation Rail Kit (43R1964)



Lenovo ThinkStation D10

Name	Type-model	Slot x bay	Processor(s)	GHz	Memory	Disk(s)	RAID	SATA optical	Graphics adapter(s)	1394 adptr	Sound adptr	ENERGY STAR 4.0	Preload	Avail date
D10	6427-27U	7x9	1 x E5430	2.66	2 x 1GB	2 x 250GB	SATA	DVD±RW	1 x FX1700	None			Bus64	Mar 08
D10	6427-28U	7x9	2 x E5430	2.66	4 x 1GB	2 x 250GB	SATA	DVD±RW	1 x FX1700	None	X-Fi	ES40	Bus64	Mar 08
D10	6427-34U	7x9	2 x E5430	2.66	4 x 1GB	2 x 250GB	SATA	DVD±RW, BD burner	1 x FX4600	None	X-Fi		Bus64	Mar 08
D10	6427-29U	7x9	2 x E5440	2.83	2 x 2GB	2 x 146GB	SAS	DVD±RW	1 x FX1700	None	X-Fi	ES40	Bus64	Mar 08
D10	6427-31U	7x9	2 x E5430	2.66	4 x 1GB	2 x 250GB	SATA	DVD±RW	1 x FX1700	None		ES40	Bus64	Mar 08
D10	6427-32U	7x9	2 x E5430	2.66	2 x 2GB	2 x 146GB	SAS 1	DVD±RW	1 x FX1700	None		ES40	Bus64	Mar 08
D10	6427-33U	7x9	2 x E5430	2.66	2 x 1GB	2 x 250GB	SATA 1	DVD±RW	2 x NVS290	None		ES40	Bus64	Mar 08
ES® D10	6427-73U	7x9	1 x E5430	2.66	2 x 1GB	1 x 250GB	SATA	DVD±RW	1 x FX1700	None		Pending	XP Pro	Apr 08
ES® D10	6427-35U	7x9	1 x E5440	2.83	2 x 1GB	1 x 250GB	SATA	DVD±RW	1 x FX1700	None		Pending	XP Pro	Apr 08
ES® D10	6427-36U	7x9	2 x E5430	2.66	2 x 1GB	1 x 250GB	SATA	DVD±RW	1 x FX4600	None		Pending	XP Pro	Apr 08
ES® D10	6427-37U	7x9	2 x E5440	2.83	2 x 1GB	1 x 250GB	SATA	DVD±RW	1 x FX4600	None		Pending	XP Pro	Apr 08

- **High performance workstation with premium graphics for specialized professionals**
- **Environmentally friendly, cool, and quiet with rock solid engineering**
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**

Processor(s)	One or two processors, Intel® Xeon® processor E5430 or E5440 with quad-core , 1333MHz system bus, and 12MB L2 cache	Tower <ul style="list-style-type: none">• Raven black color; metal case• 8.3"W x 23.7"D x 17.1"H (without handle)• 210mm W x 602mm D x 434mm H• 65 lb (29.5kg) max configuration• 49-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-LGA6 package, two LGA771 sockets		
Memory	2GB or 4GB std, 64GB max, PC2-5300 667MHz DDR2, ECC , fully buffered, 4-channel capable, eight 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in two or four sockets; six or four sockets available	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 disk Bay ⑦ 3.5", 1" high, internal, std or opt disk Bay ⑧ 3.5", 1" high, internal, std or opt disk Bay ⑨ 3.5", 1" high, internal, opt disk Slot 1: half-length, full-height, PCIe x4 (x8 mechanical) Slot 2: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 3: full-length, full-height, PCIe x4 (x8 mechanical) Slot 4: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 5: full-length, full-height, 64-bit PCI-X Slot 6: full-length, full-height, 64-bit PCI-X Slot 7: full-length, full-height, 32-bit PCI 2.3	
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * 76 to 150W adapters use auxiliary power connector from PSU <i>Some:</i> NVIDIA® Quadro® NVS 290 , PCIe x16 adapter, 256MB, two single-link DVI-I via DMS-59 dongle, 21W <i>Some:</i> NVIDIA Quadro FX 1700 , PCIe x16 adapter, 512MB, two dual-link DVI, dual DVI-I or dual VGA, HDTV out, 42W <i>Some:</i> NVIDIA Quadro FX 4600 , PCIe x16 adapter, 768MB, two slot width, 2 dual-link DVI, dual DVI-I or dual VGA, 134W		
Media reader	9-in-1 media reader, internal USB 2.0	SECURITY <ul style="list-style-type: none">• Security chip (see information on left)• Side cover lock (ships with two identical keys)• Padlock loop (in rear for opt padlock; padlock prohibits side cover removal)• Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal)• Power-on password• Administrator password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• USB port disablement (front or all) Supports ThinkVantage® technologies RoHS-compliant <i>Some:</i> ENERGY STAR® 4.0-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⇨ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 800-426-7378	
SATA disk(s)	<i>Some:</i> 250GB , SATA 3.0Gb/s, 7200 rpm		
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in 6321ESB		
SATA connectors	Five SATA connectors on planar		
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s		
SATA BD burner	<i>Some:</i> Blu-ray™ Burner / HD-DVD Player SATA 1.5Gb/s		
SAS disk	<i>Some:</i> 146GB , Serial Attached SCSI, 3.0Gb/s, 15000 rpm		
SAS controller	LSI™ LSISAS1068E chipset, 5 connectors, 3.0Gb/s, RAID® 0, 1, 1E		
Chipset	Intel 5400A Chipset , Intel 6321ESB I/O Controller Hub for RAID 0, 1, 5, 10 support, Winbond® W83627EHG Super I/O		
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm), FireWire 400 (IEEE 1394)		
Rear ports	Four USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), two ethernet (RJ-45), six analog audio ports (line-in, mic-in, front-out, side-out, rear-out, center/sub-out), RCA-type coaxial digital in, RCA-type coaxial digital out		
IEEE 1394 adptr	None		
Audio	High Definition (HD) Audio, Realtek® ALC888 codec; <i>Some:</i> Creative Sound Blaster® X-Fi, PCI adapter, high-end sound adapter		
Speaker	Internal speaker for business audio		
Ethernet	Dual gigabit ethernet on planar, Intel® 82563EB, proprietary Intel bus		
Security chip	Winbond WPCT200 SafeKeeper™ 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	1000 watts with 120mm bottom-mounted variable speed fan, universal		
Cooling	Five fans (power supply, first processor, second processor, rear, front disk)		
Rack mount	Rack shelf support or optional sliding rack mount rail kit support		
Preloaded operating system²⁰ <ul style="list-style-type: none">- Microsoft® Windows® XP Professional- Microsoft Windows Vista® Business Edition (64-bit)♦ <i>Vista models:</i> Vista Premium logo Preloaded applications⁵ (all OSeS; only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• System Migration Assistant• Norton Internet Security™ (90 days of virus definitions)• PC-Doctor™ (diagnostics)• Microsoft Office 2007 Trial (60-day)• Sonic RecordNow and Drive Letter Access (DVD±RW)• Corel® WinDVD® (DVD±RW, Blu-ray)• Ulead® DVD MovieFactory (Blu-ray)		Accessories <ul style="list-style-type: none">Intel Xeon Quad-Core Processor E5430 43R2012Intel Xeon Quad-Core Processor E5440 43R20132GB PC2-5300 DDR2 ECC FB-DIMM 43R17724GB PC2-5300 DDR2 ECC FB-DIMM 43R1773500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990750GB SATA 3.0Gb/s Disk (7200 rpm) 43R19911TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918146GB SAS 3.0Gb/s Disk (15000 rpm) 43R1993300GB SAS 3.0Gb/s Disk (15000 rpm) 43R1994Blu-ray Burner / HD-DVD Player SATA 1.5Gb/s 43R1958ThinkStation Rail Kit 43R1964USB 2.0 Ultra Secure Memory Key 8GB 45J5918USB 2.0 Portable Secure 320GB Hard Disk 43R2019ThinkVision L2440p Wide 24" Monitor 4420HB2Laser Tilt Wheel Mouse (USB, PS/2) 41U3074NVIDIA® Quadro® 512MB FX 570 45J7917NVIDIA Quadro 512MB FX 1700 43R1767NVIDIA Quadro 512MB FX 3700 43R1768Other accessories at lenovo.com/accessories	

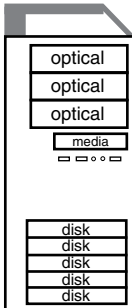
See footnotes for important warranty information

ES® US models announced April 15, 2008; previous models on March 11, 2008

© Lenovo
(BARC1-3) April 2008

Name	Type-model	Slot x bay	Processor(s)	GHz	Memory	Disk(s)	RAID	SATA optical	Graphics adapter(s)	1394 adptr	Sound adptr	ENERGY STAR 4.0	Preload	Avail date
D10	6427-74U	7x9	2 x E5440	2.83	2 x 1GB	1 x 250GB	SATA	None	DVD±RW	1 x FX3700	None	None	Pending	Bus64 Aug 08
D10	6427-88U	7x9	1 x E5450	3.00	2 x 2GB	1 x 146GB	SAS	None	DVD±RW	1 x FX3700	None	None	Pending	Bus64 Aug 08
D10	6427-89U	7x9	2 x E5440	2.83	2 x 1GB	1 x 250GB	SATA	None	DVD±RW	1 x FX570	None	None	Pending	Bus64 Aug 08
D10	6427-91U	7x9	1 x E5450	3.00	2 x 2GB	1 x 146GB	SAS	None	DVD±RW	1 x FX570	None	None	Pending	Bus64 Aug 08
ES D10	6427-H5U	7x9	1 x E5440	2.83	2 x 2GB	1 x 500GB	SATA	None	DVD±RW	None	None	None	Pending	Bus64 Sep 08
ES D10	6427-H6U	7x9	1 x E5420	2.50	2 x 2GB	1 x 500GB	SATA	None	DVD±RW	None	None	None	Pending	Bus64 Sep 08
ES D10	6427-H7U	7x9	1 x E5440	2.83	4 x 2GB	1 x 146GB	SAS	None	DVD±RW	None	None	None	Pending	Bus64 Sep 08
ES D10	6427-H8U	7x9	1 x E5420	2.50	4 x 2GB	1 x 146GB	SAS	None	DVD±RW	None	None	None	Pending	Bus64 Sep 08

- **High performance workstation with premium graphics for specialized professionals**
- **Environmentally friendly, cool, and quiet with rock solid engineering**
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**

Processor(s)	One or two processors, Intel® Xeon® processor E5420, E5440, or E5450 with quad-core , 1333MHz system bus, and 12MB L2 cache	Tower <ul style="list-style-type: none">• Raven black color; metal case• 8.3"W x 23.7"D x 17.1"H (without handle)• 210mm W x 602mm D x 434mm H• 65 lb (29.5kg) max configuration• 49-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-LGA6 package, two LGA771 sockets																																													
Memory	2GB, 4GB, or 8GB std, 64GB max, PC2-5300 667MHz DDR2, ECC , fully buffered, 4-channel capable, eight 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in two or four sockets; six or four sockets available	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 disk Bay ⑦ 3.5", 1" high, internal, std or opt disk Bay ⑧ 3.5", 1" high, internal, std or opt disk Bay ⑨ 3.5", 1" high, internal, opt disk Slot 1: half-length, full-height, PCIe x4 (x8 mechanical) Slot 2: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 3: full-length, full-height, PCIe x4 (x8 mechanical) Slot 4: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 5: full-length, full-height, 64-bit PCI-X Slot 6: full-length, full-height, 64-bit PCI-X Slot 7: full-length, full-height, 32-bit PCI 2.3																																												
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * 76W to 150W adapters use auxiliary power connector from PSU <i>Some:</i> NVIDIA® Quadro® FX 570 , PCIe 2.0 x16 adapter, 256MB, two dual-link DVI, dual DVI-I or dual VGA, 38W <i>Some:</i> NVIDIA Quadro FX 3700 , PCIe 2.0 x16 adapter, 512MB, two dual-link DVI, dual DVI-I or dual VGA, 78W																																													
Media reader	9-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:</i> 250GB or 500GB , SATA 3.0Gb/s, 7200 rpm																																													
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in 6321ESB	Supports ThinkVantage® technologies RoHS-compliant <i>Some:</i> ENERGY STAR® 4.0-compliant																																												
SATA connectors	Five SATA connectors on planar																																													
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s	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⇒ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 800-426-7378																																												
SAS disk	<i>Some:</i> 146GB , Serial Attached SCSI, 3.0Gb/s, 15000 rpm																																													
SAS controller	LSI™ LSISAS1068E chipset, 5 connectors, 3.0Gb/s, RAID® 0, 1, 1E																																													
Chipset	Intel 5400A Chipset , Intel 6321ESB I/O Controller Hub for RAID 0, 1, 5, 10 support, Winbond® W83627EHG Super I/O																																													
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm), FireWire 400 (IEEE 1394)																																													
Rear ports	Four USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), two ethernet (RJ-45), six analog audio ports (line-in, mic-in, front-out, side-out, rear-out, center/sub-out), RCA-type coaxial digital in, RCA-type coaxial digital out																																													
IEEE 1394 adptr	None																																													
Audio	High Definition (HD) Audio, Realtek® ALC888 codec;																																													
Speaker	Internal speaker for business audio																																													
Ethernet	Dual gigabit ethernet on planar, Intel® 82563EB, proprietary Intel bus																																													
Security chip	Winbond WPCT200 SafeKeeper™ 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	1000 watts with 120mm bottom-mounted variable speed fan, universal																																													
Cooling	Five fans (power supply, first processor, second processor, rear, front disk)																																													
Rack mount	Rack shelf support or optional sliding rack mount rail kit support																																													
Preloaded operating system²⁰ <ul style="list-style-type: none">- Microsoft® Windows® Vista® Business Edition (64-bit)♦ <i>Vista models:</i> Vista Premium logo Preloaded applications⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• System Migration Assistant• Norton Internet Security™ (90 days of virus definitions)• PC-Doctor™ (diagnostics)• Adobe® Reader• Microsoft Office 2007 Trial (60-day)• Sonic RecordNow and Drive Letter Access (DVD±RW)• Corel® WinDVD® (DVD±RW)																																														
Accessories <table><tr><td>Intel Xeon Quad-Core Processor E5450</td><td>43R2014</td></tr><tr><td>2GB PC2-5300 DDR2 ECC FB-DIMM</td><td>43R1772</td></tr><tr><td>4GB PC2-5300 DDR2 ECC FB-DIMM</td><td>43R1773</td></tr><tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr><tr><td>750GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1991</td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr><tr><td>146GB SAS 3.0Gb/s Disk (15000 rpm)</td><td>43R1993</td></tr><tr><td>300GB SAS 3.0Gb/s Disk (15000 rpm)</td><td>43R1994</td></tr><tr><td>Super Multi-Burner DL DVD±RW SATA1.5Gb/s</td><td>41N5620</td></tr><tr><td>Blu-ray Burner / HD-DVD Player SATA 1.5Gb/s</td><td>43R1958</td></tr><tr><td>ThinkStation Rail Kit</td><td>43R1964</td></tr><tr><td>USB 2.0 Ultra Secure Memory Key 8GB</td><td>45J5918</td></tr><tr><td>USB 2.0 Portable Secure 320GB Hard Disk</td><td>43R2019</td></tr><tr><td>ThinkVision® L1940p Wide 19" Monitor</td><td>4424HB6</td></tr><tr><td>ThinkVision L2240p Wide 22" Monitor</td><td>4422HB6</td></tr><tr><td>ThinkVision L2440x Wide 24" Monitor</td><td>4421HB2</td></tr><tr><td>Laser Tilt Wheel Mouse (USB, PS/2)</td><td>41U3074</td></tr><tr><td>Lenovo USB Fingerprint Keyboard</td><td>73P4730</td></tr><tr><td>NVIDIA® Quadro® 512MB FX 570</td><td>45J7917</td></tr><tr><td>NVIDIA Quadro 512MB FX 1700</td><td>43R1767</td></tr><tr><td>NVIDIA Quadro 512MB FX 3700</td><td>43R1768</td></tr><tr><td>NVIDIA Quadro 768MB FX 4600</td><td>43R1769</td></tr></table>		Intel Xeon Quad-Core Processor E5450	43R2014	2GB PC2-5300 DDR2 ECC FB-DIMM	43R1772	4GB PC2-5300 DDR2 ECC FB-DIMM	43R1773	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	750GB SATA 3.0Gb/s Disk (7200 rpm)	43R1991	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	146GB SAS 3.0Gb/s Disk (15000 rpm)	43R1993	300GB SAS 3.0Gb/s Disk (15000 rpm)	43R1994	Super Multi-Burner DL DVD±RW SATA1.5Gb/s	41N5620	Blu-ray Burner / HD-DVD Player SATA 1.5Gb/s	43R1958	ThinkStation Rail Kit	43R1964	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ThinkVision® L1940p Wide 19" Monitor	4424HB6	ThinkVision L2240p Wide 22" Monitor	4422HB6	ThinkVision L2440x Wide 24" Monitor	4421HB2	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	Lenovo USB Fingerprint Keyboard	73P4730	NVIDIA® Quadro® 512MB FX 570	45J7917	NVIDIA Quadro 512MB FX 1700	43R1767	NVIDIA Quadro 512MB FX 3700	43R1768	NVIDIA Quadro 768MB FX 4600	43R1769	
Intel Xeon Quad-Core Processor E5450	43R2014																																													
2GB PC2-5300 DDR2 ECC FB-DIMM	43R1772																																													
4GB PC2-5300 DDR2 ECC FB-DIMM	43R1773																																													
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																																													
750GB SATA 3.0Gb/s Disk (7200 rpm)	43R1991																																													
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918																																													
146GB SAS 3.0Gb/s Disk (15000 rpm)	43R1993																																													
300GB SAS 3.0Gb/s Disk (15000 rpm)	43R1994																																													
Super Multi-Burner DL DVD±RW SATA1.5Gb/s	41N5620																																													
Blu-ray Burner / HD-DVD Player SATA 1.5Gb/s	43R1958																																													
ThinkStation Rail Kit	43R1964																																													
USB 2.0 Ultra Secure Memory Key 8GB	45J5918																																													
USB 2.0 Portable Secure 320GB Hard Disk	43R2019																																													
ThinkVision® L1940p Wide 19" Monitor	4424HB6																																													
ThinkVision L2240p Wide 22" Monitor	4422HB6																																													
ThinkVision L2440x Wide 24" Monitor	4421HB2																																													
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074																																													
Lenovo USB Fingerprint Keyboard	73P4730																																													
NVIDIA® Quadro® 512MB FX 570	45J7917																																													
NVIDIA Quadro 512MB FX 1700	43R1767																																													
NVIDIA Quadro 512MB FX 3700	43R1768																																													
NVIDIA Quadro 768MB FX 4600	43R1769																																													
Other accessories at lenovo.com/accessories																																														

See footnotes for important warranty information

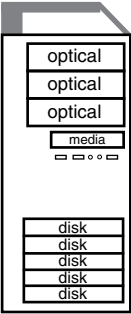
¹⁴ US models announced September 30, 2008; previous models on August 19, 2008

© Lenovo

(BARC11-3) September 2008

Name	Type-model	Slot x bay	Processor(s)	GHz	Memory	Disk(s)	RAID	SATA optical	Graphics adapter(s)	1394 adptr	Sound adptr	ENERGY STAR 4.0	Vista preload	Workhorse Global	Avail date
D10	6493-19U	7x9	1 x E5430	2.66	2 x 1GB	2 x 250GB ²	SATA	DVD±RW	1 x FX1700	None			Bus64	No	Mar 08
D10	6493-21U	7x9	1 x E5440	2.83	2 x 2GB	2 x 146GB	SAS	DVD±RW	1 x FX4600	None			Bus64	No	Mar 08
D10	6493-22U	7x9	2 x X5460	3.16	2 x 2GB	2 x 146GB	SAS	DVD±RW	1 x FX4600	None		ES40	Bus64	No	Mar 08
D10	6493-23U	7x9	1 x E5430	2.66	4 x 1GB	2 x 250GB	SATA	DVD±RW	1 x FX1700	None	X-Fi		Bus64	No	Mar 08
D10	6493-25U	7x9	1 x E5420	2.50	2 x 1GB	2 x 250GB	SATA	DVD±RW	1 x FX1700	None			Bus64	No	Mar 08
D10	6493-26U	7x9	2 x X5460	3.16	4 x 2GB	2 x 146GB	SAS	1 DVD±RW	1 x FX4600	None		ES40	Bus64	No	Mar 08
D10	6493-33U	7x9	2 x X5460	3.16	8 x 2GB	3 x 146GB	SAS	1E DVD±RW	1 x FX4600	None		ES40	Bus64	No	Mar 08
D10	6493-27U	7x9	2 x X5460	3.16	2 x 1GB	2 x 250GB	SATA	1 DVD±RW	2 x NVS290	None		ES40	Bus64	No	Mar 08
D10	6493-31U	7x9	2 x E5440	2.83	2 x 2GB	2 x 146GB	SAS	1 DVD±RW	1 x FX4600	None	X-Fi		Bus64	No	Mar 08
D10	6493-32U	7x9	2 x E5440	2.83	2 x 2GB	3 x 146GB	SAS	1E DVD±RW	1 x FX4600	None	X-Fi		Bus64	No	Mar 08
D10	6493-17U	7x9	2 x E5405	2.00	4 x 1GB	2 x 500GB	SATA	DVD±RW	1 x FX1700	None			Bus64	No	Mar 08
D10	6493-18U	7x9	2 x E5440	2.83	8 x 2GB	4 x 146GB	SAS	0 BD burner	2 x FX4600	None	X-Fi		Bus64	No	Mar 08

- High performance workstation with premium graphics for specialized professionals
- Environmentally friendly, cool, and quiet with rock solid engineering

Processor	One or two processors, Intel® Xeon® processor E5405, E5420, E5430, E5440, or X5460 with quad-core , 1333MHz system bus, and 12MB L2 cache	Tower	<ul style="list-style-type: none">• Raven black color; metal case• 8.3"W x 23.7"D x 17.1"H (without handle)• 210mm W x 602mm D x 434mm H• 65 lb (29.5kg) max configuration• 49-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-LGA6 package, two LGA771 sockets			
Memory	2GB, 4GB, 8GB or 16GB std, 64GB max, PC2-5300 667MHz DDR2, ECC , fully buffered, 4-channel capable, eight 240-pin DIMM sockets; <i>Italics:</i> standard memory in eight sockets; no sockets available <i>Non-italics:</i> standard memory in two or four sockets; six or four sockets available	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 disk Bay ⑦ 3.5", 1" high, internal, std or opt disk Bay ⑧ 3.5", 1" high, internal, std or opt disk Bay ⑨ 3.5", 1" high, internal, opt disk		
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * 76 to 150W adapters use auxiliary power connector from PSU <i>Some:</i> NVIDIA® Quadro® NVS 290 , PCIe x16 adapter, 256MB, two single-link DVI-I via DMS-59 dongle, 21W <i>Some:</i> NVIDIA Quadro FX 1700 , PCIe x16 adapter, 512MB, two dual-link DVI, dual DVI-I or dual VGA, HDTV out, 42W <i>Some:</i> NVIDIA Quadro FX 4600 , PCIe x16 adapter, 768MB, two slot width, 2 dual-link DVI, dual DVI-I or dual VGA, 134W	Slot 1: half-length, full-height, PCIe x4 (x8 mechanical) Slot 2: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 3: full-length, full-height, PCIe x4 (x8 mechanical) Slot 4: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 5: full-length, full-height, 64-bit PCI-X Slot 6: full-length, full-height, 64-bit PCI-X Slot 7: full-length, full-height, 32-bit PCI 2.3		
Media reader	9-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:</i> 250GB or 500GB , SATA 3.0Gb/s, 7200 rpm			
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in 6321ESB			
SATA connectors	Five SATA connectors on planar			
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s			
SATA BD burner	<i>Some:</i> Blu-ray™ Burner, SATA 1.5Gb/s HD-DVD Player			
SAS disk	<i>Some:</i> 146GB , Serial Attached SCSI, 3.0Gb/s, 15000 rpm			
SAS controller	LSI™ LSISAS1068E chipset, 5 connectors, 3.0Gb/s, RAID® 0, 1, 1E			
Chipset	Intel 5400A Chipset , Intel 6321ESB I/O Controller Hub for RAID 0, 1, 5, 10 support, Winbond® W83627EHG Super I/O			
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm), FireWire 400 (IEEE 1394)			
Rear ports	Four USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), two ethernet (RJ-45), six analog audio ports (line-in, mic-in, front-out, side-out, rear-out, center/sub-out), RCA-type coaxial digital in, RCA-type coaxial digital out			
IEEE 1394 adptr	None			
Audio	High Definition (HD) Audio, Realtek® ALC888 codec; <i>Some:</i> Creative Sound Blaster® X-Fi, PCI adapter, high-end sound adapter			
Speaker	Internal speaker for business audio			
Ethernet	Dual gigabit ethernet on planar, Intel® 82563EB, proprietary Intel bus			
Security chip	Winbond WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant			
Keyboard	<i>Model 18U:</i> Lenovo USB Fingerprint Keyboard (USB connector), black Preferred Pro USB Keyboard (USB connector), 104-key, black			
Mouse	Optical Wheel Mouse (USB connector), black			
Power supply	1000 watts with 120mm bottom-mounted variable speed fan, universal			
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

- Microsoft® Windows® Vista® Business Edition (64-bit)
- ♦ Vista Premium logo

Preloaded applications⁵ (only some listed)

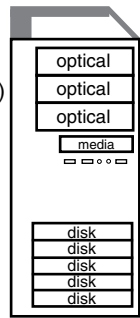
- Rescue and Recovery™
- ThinkVantage System Update
- ThinkVantage Fingerprint Software (fingerprint keyboard model)
- Norton Internet Security™ (90 days of virus definitions)
- PC-Doctor™ (diagnostics)
- Microsoft Office 2007 Trial (60-day)
- Sonic RecordNow and Drive Letter Access (DVD±RW)
- Corel® WinDVD® (DVD±RW, Blu-ray)
- Ulead® DVD MovieFactory (Blu-ray)

Accessories

- Intel Xeon Quad-Core Processor E5420 43R2011
- Intel Xeon Quad-Core Processor E5430 43R2012
- Intel Xeon Quad-Core Processor E5440 43R2013
- 2GB PC2-5300 DDR2 ECC FB-DIMM 43R1772
- 4GB PC2-5300 DDR2 ECC FB-DIMM 43R1773
- 750GB SATA 3.0Gb/s Disk (7200 rpm) 43R1991
- 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918
- 146GB SAS 3.0Gb/s Disk (15000 rpm) 43R1993
- 300GB SAS 3.0Gb/s Disk (15000 rpm) 43R1994
- Blu-ray Burner / HD-DVD Player SATA 1.5Gb/s 43R1958
- ThinkStation Rail Kit 43R1964
- USB 2.0 Ultra Secure Memory Key 8GB 45J5918
- USB 2.0 Portable Secure 320GB Hard Disk 43R2019
- ThinkVision® L2440p Wide 24" Monitor 4420HB2
- NVIDIA® Quadro® 512MB FX 1700 43R1767
- NVIDIA Quadro 512MB FX 3700 43R1768
- Other accessories at lenovo.com/accessories

Name	Type-model	Slot x bay	Processor(s)	GHz	Memory	Disk(s)	RAID	SATA optical	Graphics adapter(s)	1394 adpdr	Sound adpdr	ENERGY STAR 4.0	Vista preload	Workhorse Global	Avail date
D10	6493-34U	7x9	1 x E5430	2.66	2 x 1GB	1 x 250GB ² SATA		DVD±RW	1 x FX1700	None	None	Pending	XP Pro	No	Apr 08
D10	6493-39U	7x9	1 x E5430	2.66	2 x 1GB	1 x 146GB SAS		DVD±RW	1 x FX1700	None	None	Pending	XP Pro	No	Apr 08
D10	6493-35U	7x9	1 x E5450	3.00	2 x 1GB	1 x 250GB SATA		DVD±RW	1 x FX1700	None	None	Pending	XP Pro	No	Apr 08
D10	6493-41U	7x9	1 x E5450	3.00	2 x 1GB	1 x 146GB SAS		DVD±RW	1 x FX1700	None	None	Pending	XP Pro	No	Apr 08
D10	6493-36U	7x9	1 x X5460	3.16	2 x 1GB	2 x 250GB SATA		DVD±RW	1 x FX4600	None	None	Pending	XP Pro	No	Apr 08
D10	6493-42U	7x9	1 x X5460	3.16	2 x 1GB	2 x 146GB SAS		DVD±RW	1 x FX4600	None	None	Pending	XP Pro	No	Apr 08
D10	6493-45U	7x9	1 x X5460	3.16	2 x 1GB	4 x 250GB SATA	5	DVD±RW	1 x FX4600	None	None	Pending	XP Pro	No	Apr 08
D10	6493-37U	7x9	2 x E5450	3.00	2 x 1GB	2 x 250GB SATA		DVD±RW	1 x FX4600	None	None	Pending	XP Pro	No	Apr 08
D10	6493-43U	7x9	2 x E5450	3.00	2 x 1GB	2 x 146GB SAS		DVD±RW	1 x FX4600	None	None	Pending	XP Pro	No	Apr 08
D10	6493-46U	7x9	2 x E5450	3.00	2 x 1GB	4 x 250GB SATA	5	DVD±RW	1 x FX4600	None	None	Pending	XP Pro	No	Apr 08
D10	6493-38U	7x9	2 x X5460	3.16	2 x 1GB	2 x 250GB SATA		DVD±RW	1 x FX4600	None	None	Pending	XP Pro	No	Apr 08
D10	6493-44U	7x9	2 x X5460	3.16	2 x 1GB	2 x 146GB SAS		DVD±RW	1 x FX4600	None	None	Pending	XP Pro	No	Apr 08
D10	6493-47U	7x9	2 x X5460	3.16	2 x 1GB	4 x 250GB SATA	5	DVD±RW	1 x FX4600	None	None	Pending	XP Pro	No	Apr 08

- **High performance workstation with premium graphics for specialized professionals**
- **Environmentally friendly, cool, and quiet with rock solid engineering**

Processor	One or two processors, Intel® Xeon® processor E5430, E5450, or X5460 with quad-core , 1333MHz system bus, and 12MB L2 cache		Tower	
Implementation	Processor uses FC-LGA6 package, two LGA771 sockets			
Memory	2GB std, 64GB max, PC2-5300 667MHz DDR2, ECC , fully buffered, 4-channel capable, eight 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in two sockets; six sockets available		<ul style="list-style-type: none">• Raven black color; metal case• 8.3"W x 23.7"D x 17.1"H (without handle)• 210mm W x 602mm D x 434mm H• 65 lb (29.5kg) max configuration• 49-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	
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * 76 to 150W adapters use auxiliary power connector from PSU <i>Some:</i> NVIDIA® Quadro® FX 1700 , PCIe x16 adapter, 512MB, two dual-link DVI, dual DVI-I or dual VGA, HDTV out, 42W <i>Some:</i> NVIDIA Quadro FX 4600 , PCIe x16 adapter, 768MB, two slot width, 2 dual-link DVI, dual DVI-I or dual VGA, 134W			
Media reader	9-in-1 media reader, internal USB 2.0		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 disk Bay ⑦ 3.5", 1" high, internal, std or opt disk Bay ⑧ 3.5", 1" high, internal, std or opt disk Bay ⑨ 3.5", 1" high, internal, opt disk Slot 1: half-length, full-height, PCIe x4 (x8 mechanical) Slot 2: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 3: full-length, full-height, PCIe x4 (x8 mechanical) Slot 4: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 5: full-length, full-height, 64-bit PCI-X Slot 6: full-length, full-height, 64-bit PCI-X Slot 7: full-length, full-height, 32-bit PCI 2.3	
SATA disk(s)	<i>Some:</i> 250GB , SATA 3.0Gb/s, 7200 rpm			
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in 6321ESB			
SATA connectors	Five SATA connectors on planar			
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive			
SATA Blu-ray	None			
SAS disk	<i>Some:</i> 146GB , Serial Attached SCSI, 3.0Gb/s, 15000 rpm			
SAS controller	LSI™ LSISAS1068E chipset, 5 connectors, 3.0Gb/s, RAID® 0, 1, 1E			
Chipset	Intel 5400A Chipset , Intel 6321ESB I/O Controller Hub for RAID 0, 1, 5, 10 support, Winbond® W83627EHG Super I/O			
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm), FireWire 400 (IEEE 1394)			
Rear ports	Four USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), two ethernet (RJ-45), six analog audio ports (line-in, mic-in, front-out, side-out, rear-out, center/sub-out), RCA-type coaxial digital in, RCA-type coaxial digital out			
IEEE 1394 adpdr	None			
Audio	High Definition (HD) Audio, Realtek® ALC888 codec;		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)	
Speaker	Internal speaker for business audio			
Ethernet	Dual gigabit ethernet on planar, Intel® 82563EB, proprietary Intel bus			
Security chip	Winbond WPCT200 SafeKeeper™ 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	1000 watts with 120mm bottom-mounted variable speed fan, universal			
Cooling	Five fans (power supply, first processor, second processor, rear, front disk)			
Rack mount	Rack shelf support or optional sliding rack mount rail kit support			
Preloaded operating system ²⁰ - Microsoft® Windows® XP Professional				
Preloaded applications ⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• ThinkVantage System Update• System Migration Assistant• Norton Internet Security™ (90 days of virus definitions)• PC-Doctor™ (diagnostics)• Windows Live™ Toolbar• Windows Live Search• Sonic RecordNow and Drive Letter Access (DVD±RW)• Corel® WinDVD® (DVD±RW)				
Accessories <ul style="list-style-type: none">Intel Xeon Quad-Core Processor E5430 43R2012Intel Xeon Quad-Core Processor E5450 43R20142GB PC2-5300 DDR2 ECC FB-DIMM 43R17724GB PC2-5300 DDR2 ECC FB-DIMM 43R1773750GB SATA 3.0Gb/s Disk (7200 rpm) 43R19911TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918146GB SAS 3.0Gb/s Disk (15000 rpm) 43R1993300GB SAS 3.0Gb/s Disk (15000 rpm) 43R1994Super Multi-Burner DL DVD±RW SATA 1.5Gb/s 41N5620Blu-ray Burner / HD-DVD Player SATA 1.5Gb/s 43R1958ThinkStation Rail Kit 43R1964USB 2.0 Ultra Secure Memory Key 8GB 45J5918USB 2.0 Portable Secure 320GB Hard Disk 43R2019ThinkVision® L2240p Wide 22" Monitor 4422HB6ThinkVision L2440x Wide 24" Monitor 4421HB2Kensington® Cable Lock from Lenovo 73P2582Laser Tilt Wheel Mouse (USB, PS/2) 41U3074Lenovo USB Fingerprint Keyboard 73P4730NVIDIA® Quadro® 512MB FX 570 45J7917NVIDIA Quadro 512MB FX 1700 43R1767NVIDIA Quadro 512MB FX 3700 43R1768Other accessories at lenovo.com/accessories				
			Supports ThinkVantage® technologies	
			RoHS-compliant <i>Pending:</i> ENERGY STAR® 4.0-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⇒ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 800-426-7378	

Name	Type-model	Slot x bay	Processor(s)	GHz	Memory	Disk(s)	RAID	SATA optical	Graphics adapter(s)	1394 adpdr	Sound adpdr	ENERGY STAR 4.0	Preload	Avail date	
D10	6493-73U	7x9	2 x E5450	3.00	4 x 1GB	2 x 250GB	SATA	None	DVD±RW	1 x FX3700	None	None	Pending	Bus64	Aug 08
D10	6493-A2U	7x9	2 x E5450	3.00	4 x 1GB	2 x 250GB	SATA	None	DVD±RW	1 x FX1700	None	None	Pending	Bus64	Aug 08

- **High performance workstation with premium graphics for specialized professionals**
- **Environmentally friendly, cool, and quiet with rock solid engineering**
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**

Processor(s)	Two processors, Intel® Xeon® processor E5450 with quad-core , 1333MHz system bus, and 12MB L2 cache	Tower <ul style="list-style-type: none"> • Raven black color; metal case • 8.3"W x 23.7"D x 17.1"H (without handle) • 210mm W x 602mm D x 434mm H • 65 lb (29.5kg) max configuration • 49-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-LGA6 package, two LGA771 sockets	
Memory	4GB std, 64GB max, PC2-5300 667MHz DDR2, ECC , fully buffered, 4-channel capable, eight 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in two or four sockets; six or four sockets available	
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * 76 to 150W adapters use auxiliary power connector from PSU <i>Some: NVIDIA® Quadro® FX 1700</i> , PCIe x16 adapter, 512MB, two dual-link DVI, dual DVI-I or dual VGA, HDTV out, 42W <i>Some: NVIDIA Quadro FX 3700</i> , PCIe 2.0 x16 adapter, 512MB, two dual-link DVI, dual DVI-I or dual VGA, 78W	
Media reader	9-in-1 media reader, internal USB 2.0	
SATA disk(s)	250GB , SATA 3.0Gb/s, 7200 rpm	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in 6321ESB	
SATA connectors	Five SATA connectors on planar	
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s	
SAS disk	None	
SAS controller	LSI™ LSISAS1068E chipset, 5 connectors, 3.0Gb/s, RAID® 0, 1, 1E	
Chipset	Intel 5400A Chipset , Intel 6321ESB I/O Controller Hub for RAID 0, 1, 5, 10 support, Winbond® W83627EHG Super I/O	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 disk Bay ⑦ 3.5", 1" high, internal, std or opt disk Bay ⑧ 3.5", 1" high, internal, std or opt disk Bay ⑨ 3.5", 1" high, internal, opt disk Slot 1: half-length, full-height, PCIe x4 (x8 mechanical) Slot 2: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 3: full-length, full-height, PCIe x4 (x8 mechanical) Slot 4: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 5: full-length, full-height, 64-bit PCI-X Slot 6: full-length, full-height, 64-bit PCI-X Slot 7: full-length, full-height, 32-bit PCI 2.3
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm), FireWire 400 (IEEE 1394)	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	Four USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), two ethernet (RJ-45), six analog audio ports (line-in, mic-in, front-out, side-out, rear-out, center/sub-out), RCA-type coaxial digital in, RCA-type coaxial digital out	
IEEE 1394 adpdr	None	
Audio	High Definition (HD) Audio, Realtek® ALC888 codec;	
Speaker	Internal speaker for business audio	
Ethernet	Dual gigabit ethernet on planar, Intel® 82563EB, proprietary Intel bus	
Security chip	Winbond WPCT200 SafeKeeper™ 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	1000 watts with 120mm bottom-mounted variable speed fan, universal	
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 - Microsoft® Windows® Vista® Business Edition (64-bit) ♦ <i>Vista models:</i> Vista Premium logo Preloaded applications⁵ <ul style="list-style-type: none"> • Rescue and Recovery™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • PC-Doctor™ (diagnostics) • Adobe® Reader • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW) 		Accessories <ul style="list-style-type: none"> Intel Xeon Quad-Core Processor E5450 43R2014 2GB PC2-5300 DDR2 ECC FB-DIMM 43R1772 4GB PC2-5300 DDR2 ECC FB-DIMM 43R1773 500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 750GB SATA 3.0Gb/s Disk (7200 rpm) 43R1991 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 146GB SAS 3.0Gb/s Disk (15000 rpm) 43R1993 300GB SAS 3.0Gb/s Disk (15000 rpm) 43R1994 Super Multi-Burner DL DVD±RW SATA1.5Gb/s 41N5620 Blu-ray Burner / HD-DVD Player SATA 1.5Gb/s 43R1958 ThinkStation Rail Kit 43R1964 USB 2.0 Ultra Secure Memory Key 8GB 45J5918 USB 2.0 Portable Secure 320GB Hard Disk 43R2019 ThinkVision® L1940p Wide 19" Monitor 4424HB6 ThinkVision L2240p Wide 22" Monitor 4422HB6 ThinkVision L2440p Wide 24" Monitor 4420HB2 Laser Tilt Wheel Mouse (USB, PS/2) 41U3074 Lenovo USB Fingerprint Keyboard 73P4730 NVIDIA® Quadro® 512MB FX 570 45J7917 NVIDIA Quadro 512MB FX 1700 43R1767 NVIDIA Quadro 512MB FX 3700 43R1768 NVIDIA Quadro 768MB FX 4600 43R1769 Other accessories at lenovo.com/accessories
		SUPPORTS THINKVANTAGE® TECHNOLOGIES RoHS-compliant <i>Some: ENERGY STAR® 4.0-compliant</i> 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 ⇒ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 800-426-7378

See footnotes for important warranty information
 US models announced August 19, 2008

© Lenovo
 (BARC11-4) August 2008



Lenovo ThinkStation D20



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



Lenovo ThinkStation D20



Lenovo ThinkStation D20
with Lenovo ThinkVision L2440 Monitor



ThinkStation Rail Kit (43R1964)

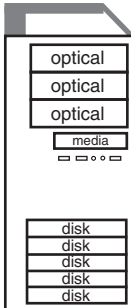


Lenovo ThinkStation Graphics Card
ATI™ FirePro™ 1GB V7750 (51J0511)

Name	Type-model	Slot x bay	Proc-essor(s)	GHz	Memory DIMMs	Memory speed	Disk(s)	Disk size	Disk type	RAID	SATA optical	Diskette or Media reader	Graphics adapter(s)	ENERGY STAR 5.0	Pre-load	Avail date
D20	4155-28U	7x9	2 x E5540	2.53	4 x 1GB	1066MHz	1 x 500GB	3.5"	SATA		DVD±RW	Media 1 x V5700		Pending	Bus64	Apr 09
D20	4155-29U	7x9	2 x E5502	1.86	4 x 1GB	1066MHz	1 x 250GB	3.5"	SATA		DVD±RW	Media 1 x FX580		Pending	Bus64	Apr 09
D20	4155-31U	7x9	2 x X5560	2.80	4 x 1GB	1333MHz	2 x 300GB	2.5"	SATA	1	DVD±RW	Media 1 x FX1800		Pending	Bus64	Apr 09
D20	4155-32U	7x9	1 x E5506	2.13	4 x 1GB	1066MHz	1 x 250GB, 1 x 500GB	3.5"	SATA		DVD±RW	Media 1 x FX1800			Bus64	Apr 09
D20	4155-33U	7x9	1 x E5540	2.53	4 x 1GB	1066MHz	2 x 300GB	3.5"	SAS	0	DVD±RW	Media 1 x FX4800			Bus64	Apr 09
D20	4155-34U	7x9	1 x E5540	2.53	4 x 1GB	1066MHz	1 x 500GB	3.5"	SATA		DVD±RW	Media 1 x FX580			Bus64	Apr 09

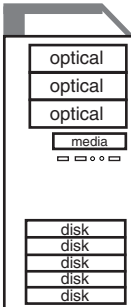
- **High performance workstation with premium graphics for specialized professionals**
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**

Processor(s)	One or two processors, 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 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 or Intel Xeon processor X5560 with quad-core , 6.4GT/s QPI, 1333MHz DDR3 memory controller, and 8MB cache Processor uses FC-LGA package, two LGA1366 sockets			Tower <ul style="list-style-type: none">• Raven black color; metal case• 8.3"W x 23.7"D x 17.1"H (without handle)• 210mm W x 602mm D x 434mm H• 60 lb (27.1kg) max configuration• 49-liter• Removable handle on top front• Toolless side cover removal• Toolless disk and optical drive removal• Toolless adapter retention• Illuminated front icons• Rack shelf support or optional rail kit <div><div>optical optical optical media □ □ □ □ □</div><div>disk disk disk disk disk</div></div>																																												
Implementation	Processor uses FC-LGA package, two LGA1366 sockets																																															
Memory	4GB std, 24GB max, UDIMM, PC3-8500 1066MHz DDR3 or PC3-10600 1333MHz DDR3, ECC , 6-channel capable, twelve 240-pin DIMM sockets; <i>Non-Italics:</i> standard memory in four sockets; eight sockets available																																															
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * Adapters >75W use auxiliary power connector(s) from PSU <i>Some:</i> ATI™ FirePro™ V5700 , PCIe x16 adapter, 512MB, two DisplayPort, one dual-link DVI-I, 49W <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, 2 DisplayPort, 1 dual-link DVI-I, 121W			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 Slot 1: half-length, full-height, PCIe 2.0 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: full-length, full-height, 32-bit PCI 2.3																																												
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; 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:</i> 250GB or 500GB , SATA 3.0Gb/s, 7200 rpm, 3.5" <i>Some:</i> 300GB , SATA 3.0Gb/s, 10000 rpm, 2.5"																																															
SATA controller	Marvell 88SE6480, 3.0Gb/s, RAID® 0, 1, 5, 10																																															
SATA connectors	Five SATA/SAS connectors for disks, 3 SATA connectors for opticals																																															
SATA DVD±RW	Super Multi-Burner DL DVD±RW, SATA 1.5Gb/s																																															
SAS disk	<i>Some:</i> 300GB , Serial Attached SCSI, 3.0Gb/s, 15000 rpm																																															
SAS controller	Marvell 88SE6480, 5 SAS connectors, 3.0Gb/s, RAID® 0, 1, 5, 10																																															
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 1394)																																															
Rear ports	Eight USB 2.0, eSATA, serial (9-pin), two ethernet (RJ-45), FireWire 400 (IEEE 1394), 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 ADI 1988A 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																																															
Cooling	Five fans (power supply, first processor, second processor, rear, front disk)																																															
Rack mount	Rack shelf support or optional sliding rack mount rail kit support			Supports ThinkVantage® technologies																																												
Preloaded operating system ²⁰ <ul style="list-style-type: none">- Microsoft® Windows® Vista® Business Edition (64-bit)◇ Vista Premium logo Preloaded applications ⁵ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• Norton Internet Security™ (90 days of virus definitions)• PC-Doctor™ (diagnostics)• Microsoft Office 2007 Trial (60-day)• Corel® WinDVD® (DVD±RW)				GREENGUARD® certified RoHS-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																																												
				<table><tr><td>Accessories</td><td></td><td></td></tr><tr><td>2GB PC3-8500 DDR3 ECC UDIMM</td><td>51J0504</td><td></td></tr><tr><td>1GB PC3-10600 DDR3 ECC UDIMM</td><td>43R2032</td><td></td></tr><tr><td>2GB PC3-10600 DDR3 ECC UDIMM</td><td>43R2033</td><td></td></tr><tr><td>Blu-ray™ Burner SATA 1.5Gb/s</td><td>45K1675</td><td></td></tr><tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td><td></td></tr><tr><td>150GB SATA 3.0Gb/s Disk (10000 rpm) 2.5"</td><td>43R2030</td><td></td></tr><tr><td>300GB SATA 3.0Gb/s Disk (10000 rpm) 2.5"</td><td>43R2031</td><td></td></tr><tr><td>300GB SAS 3.0Gb/s Disk (15000 rpm)</td><td>43R1994</td><td></td></tr><tr><td>ThinkStation Rail Kit</td><td>43R1964</td><td></td></tr><tr><td>ThinkVision® L2440p Wide 24" Monitor</td><td>4420HB2</td><td></td></tr><tr><td>ATI™ FirePro™ 1GB V7750</td><td>51J0511</td><td></td></tr><tr><td>NVIDIA® Quadro® 1.5GB FX 4800</td><td>45K1674</td><td></td></tr><tr><td>Other accessories at lenovo.com/accessories</td><td></td><td></td></tr></table>			Accessories			2GB PC3-8500 DDR3 ECC UDIMM	51J0504		1GB PC3-10600 DDR3 ECC UDIMM	43R2032		2GB PC3-10600 DDR3 ECC UDIMM	43R2033		Blu-ray™ Burner SATA 1.5Gb/s	45K1675		1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918		150GB SATA 3.0Gb/s Disk (10000 rpm) 2.5"	43R2030		300GB SATA 3.0Gb/s Disk (10000 rpm) 2.5"	43R2031		300GB SAS 3.0Gb/s Disk (15000 rpm)	43R1994		ThinkStation Rail Kit	43R1964		ThinkVision® L2440p Wide 24" Monitor	4420HB2		ATI™ FirePro™ 1GB V7750	51J0511		NVIDIA® Quadro® 1.5GB FX 4800	45K1674		Other accessories at lenovo.com/accessories		
Accessories																																																
2GB PC3-8500 DDR3 ECC UDIMM	51J0504																																															
1GB PC3-10600 DDR3 ECC UDIMM	43R2032																																															
2GB PC3-10600 DDR3 ECC UDIMM	43R2033																																															
Blu-ray™ Burner SATA 1.5Gb/s	45K1675																																															
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918																																															
150GB SATA 3.0Gb/s Disk (10000 rpm) 2.5"	43R2030																																															
300GB SATA 3.0Gb/s Disk (10000 rpm) 2.5"	43R2031																																															
300GB SAS 3.0Gb/s Disk (15000 rpm)	43R1994																																															
ThinkStation Rail Kit	43R1964																																															
ThinkVision® L2440p Wide 24" Monitor	4420HB2																																															
ATI™ FirePro™ 1GB V7750	51J0511																																															
NVIDIA® Quadro® 1.5GB FX 4800	45K1674																																															
Other accessories at lenovo.com/accessories																																																

Name	Type-model	Slot x bay	Processor(s)	GHz	Memory	Disk(s)	Disk size	Disk type	RAID	SATA optical	Diskette or Media reader	Graphics adapter(s)	ENERGY STAR 5.0	Preload	Avail date					
D20	4155-27U	7x9	2 x E5540	2.53	4 x 1GB	2 x 300GB	2.5"	SATA	1	DVD±RW	Media	1 x FX4800	Pending	XP Pro 64	Apr 09					
<ul style="list-style-type: none">• High performance workstation with premium graphics for specialized professionals• Environmentally friendly, cool, and quiet with rock solid engineering• These small and medium business (SMB) models are part of the US TopSeller™ Program																				
Processor(s)	One or two processors, Intel Xeon processor E5540 with quad-core , 5.86GT/s (giga-transfers/second) QPI (QuickPath Interconnect), 1066MHz DDR3 memory controller, and 8MB cache										Tower <ul style="list-style-type: none">• Raven black color; metal case• 8.3"W x 23.7"D x 17.1"H (without handle)• 210mm W x 602mm D x 434mm H• 60 lb (27.1kg) max configuration• 49-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-LGA package, two LGA1366 sockets																			
Memory	4GB std, 96GB max, RDIMM, PC3-8500 1066MHz DDR3, ECC , registered, 6-channel capable, twelve 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in four sockets; eight sockets available																			
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * Adapters >75W use auxiliary power connector(s) from PSU NVIDIA Quadro FX 4800 , PCIe x16 adapter, 1.5GB, two slot width, two DisplayPort, one dual-link DVI, 121W																			
Diskette drive	None										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 Slot 1: half-length, full-height, PCIe 2.0 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: full-length, full-height, 32-bit PCI 2.3									
Media reader	20-in-1 media reader																			
SATA disk(s)	300GB , SATA 3.0Gb/s, 10000 rpm, 2.5"																			
SATA controller	Marvell 88SE6480, 3.0Gb/s, RAID® 0, 1, 5, 10																			
SATA connectors	Five SATA/SAS connectors for disks, 3 SATA connectors for opticals																			
SATA DVD±RW	Super Multi-Burner DL DVD±RW, SATA 1.5Gb/s																			
SAS disk	None																			
SAS controller	Marvell 88SE6480, 5 SAS connectors, 3.0Gb/s, RAID® 0, 1, 5, 10																			
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 1394)																			
Rear ports	Eight USB 2.0, eSATA, serial (9-pin), two ethernet (RJ-45), FireWire 400 (IEEE 1394), 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										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									
Audio	High Definition (HD) Audio, Analog Devices ADI 1988A 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																			
Cooling	Seven fans (power supply, first processor, second processor, rear, front disk, first memory bank, second memory bank)																			
Rack mount	Rack shelf support or optional sliding rack mount rail kit support																			
Preloaded operating system ²⁰ <ul style="list-style-type: none">- Microsoft® Windows® XP Professional (64-bit)♦ Vista Premium logo						Accessories Blu-ray™ Burner SATA 1.5Gb/s 45K1675 750GB SATA 3.0Gb/s Disk (7200 rpm) 43R1991 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 150GB SATA 3.0Gb/s Disk (10000 rpm) 2.5" 43R2030 300GB SATA 3.0Gb/s Disk (10000 rpm) 2.5" 43R2031 146GB SAS 3.0Gb/s Disk (15000 rpm) 43R1993 300GB SAS 3.0Gb/s Disk (15000 rpm) 43R1994 ThinkStation Rail Kit 43R1964 USB 2.0 Ultra Secure Memory Key 8GB 45J5918 ThinkVision® L2440p Wide 24" Monitor 4420HB2 Laser Tilt Wheel Mouse (USB, PS/2) 41U3074 ATI™ FirePro™ 512MB V5700 51J0509 ATI FirePro 1GB V7750 51J0511 NVIDIA® Quadro® 768MB FX 1800 45K1672 NVIDIA Quadro 1.5GB FX 4800 45K1674 Other accessories at lenovo.com/accessories														
Preloaded applications ⁵ <ul style="list-style-type: none">• Rescue and Recovery™• Client Security Solution™• ThinkVantage Productivity Center• System Migration Assistant• Norton Internet Security™ (90 days of virus definitions)• PC-Doctor™ (diagnostics)• Adobe® Reader• Microsoft Office 2007 Trial (60-day)• Sonic RecordNow and Drive Letter Access (DVD±RW)• Corel® WinDVD® (DVD±RW)																				
											GREENGUARD® certified RoHS-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 model announced March 31, 2009

© Lenovo
 (SEV1-4) April 2009

Name	Type-model	Slot x bay	Processor(s)	GHz	Memory DIMMs	Memory speed	Disk(s)	Disk size	Disk type	RAID	SATA optical	Diskette or Media reader	Graphics adapter(s)	1394 adptr	ENERGY STAR 5.0	Preload	Avail date							
D20	4158-23U	7x9	2 x X5560	2.80	4 x 2GB	1333MHz	2 x 300GB	2.5"	SATA	1	DVD±RW	Media	1 x FX4800		Pending	Bus64	Apr 09							
D20	4158-24U	7x9	2 x E5540	2.53	2 x 2GB	1066MHz	2 x 147GB	3.5"	SAS		DVD±RW	Media	1 x FX1800		Pending	Bus64	Apr 09							
D20	4158-25U	7x9	2 x E5506	2.13	4 x 1GB	1066MHz	1 x 147GB	3.5"	SAS		DVD±RW	Media	1 x FX1800	1394	Pending	Bus64	Apr 09							
D20	4158-26U	7x9	1 x X5550	2.66	4 x 1GB	1066MHz	1 x 250GB	3.5"	SATA		DVD±RW	Media	1 x FX380			Bus64	Apr 09							
D20	4158-27U	7x9	2 x X5550	2.66	4 x 1GB	1333MHz	3 x 300GB	2.5"	SATA	5	DVD±RW	Media	1 x FX1800		Pending	Bus64	Apr 09							
D20	4158-28U	7x9	1 x X5560	2.80	4 x 1GB	1066MHz	1 x 500GB	3.5"	SATA		DVD±RW	Media	1 x FX580			Bus64	Apr 09							
D20	4158-29U	7x9	2 x E5540	2.53	2 x 2GB	1066MHz	1 x 500GB	3.5"	SATA		DVD±RW	Media	1 x FX1800		ES 5.0	Bus64	Apr 09							
D20	4158-31U	7x9	1 x X5550	2.66	2 x 2GB	1333MHz	2 x 147GB	3.5"	SAS	1	DVD±RW	Media	1 x FX580	1394		Bus64	Apr 09							
D20	4158-49U	7x9	2 x E5506	2.13	4 x 1GB	1066MHz	2 x 300GB	2.5"	SATA	0	DVD±RW	Media	1 x V5700		Pending	Bus64	Apr 09							
D20	4158-51U	7x9	2 x E5540	2.53	4 x 1GB	1066MHz	1 x 500GB	3.5"	SATA		DVD±RW	Media	1 x V3700		Pending	Bus64	Apr 09							
Processor(s)	One or two processors, Intel Xeon processor E5506 with quad-core , 4.8GT/s (giga-transfers/second) QPI (QuickPath Interconnect), 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 or Intel Xeon processor X5550 or X5560 with quad-core , 6.4GT/s QPI, 1333MHz DDR3 memory controller, and 8MB cache											<div><div>Tower</div><div><ul style="list-style-type: none">• Raven black color; metal case• 8.3"W x 23.7"D x 17.1"H (without handle)• 210mm W x 602mm D x 434mm H• 60 lb (27.1kg) max configuration• 49-liter• Removable handle on top front• Toolless side cover removal• Toolless disk and optical drive removal• Toolless adapter retention• Illuminated front icons• Rack shelf support or optional rail kit</div><div></div></div>												
Implementation	Processor uses FC-LGA package, two LGA1366 sockets																							
Memory	4GB or 8GB std, 24GB max, UDIMM, PC3-8500 1066MHz DDR3 or PC3-10600 1333MHz DDR3, ECC , 6-channel capable, twelve 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in two or four sockets; ten or eight sockets available																							
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * Adapters >75W use auxiliary power connector(s) from PSU <i>Some:</i> ATI™ FirePro™ V3700 , PCIe x16 adapter, 256MB, two dual-link DVI-I, 35W <i>Some:</i> ATI FirePro V5700 , PCIe x16 adapter, 512MB, two DisplayPort, one dual-link DVI-I, 49W <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, 2 DisplayPort, 1 dual-link DVI-I, 121W											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 Slot 1: half-length, full-height, PCIe 2.0 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: full-length, full-height, 32-bit PCI 2.3												
Diskette drive	None											<div><div>SECURITY</div><div><ul style="list-style-type: none">• Security chip (see information on left)• Side cover lock (ships with two identical keys)• Padlock loop (in rear for opt padlock; padlock prohibits side cover removal)• Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal)• Power-on password• Administrator password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• USB port disablement (front or all)</div></div>												
Media reader	20-in-1 media reader																							
SATA disk(s)	<i>Some:</i> 250GB or 500GB , SATA 3.0Gb/s, 7200 rpm, 3.5" <i>Some:</i> 300GB , SATA 3.0Gb/s, 10000 rpm, 2.5"																							
SATA controller	Marvell 88SE6480, 3.0Gb/s, RAID® 0, 1, 5, 10																							
SATA connectors	Five SATA/SAS connectors for disks, 3 SATA connectors for opticals																							
SATA DVD±RW	Super Multi-Burner DL DVD±RW, SATA 1.5Gb/s																							
SAS disk	<i>Some:</i> 147GB , Serial Attached SCSI, 3.0Gb/s, 15000 rpm																							
SAS controller	Marvell 88SE6480, 5 SAS connectors, 3.0Gb/s, RAID® 0, 1, 5, 10																							
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 1394)																							
Rear ports	Eight USB 2.0, eSATA, serial (9-pin), two ethernet (RJ-45), FireWire 400 (IEEE 1394), 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	<i>Some:</i> FireWire PCI adapter, 1394a-2000, 400Mbps, two 6-pin ports on rear																							
Audio	High Definition (HD) Audio, Analog Devices ADI 1988A 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																							
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										<div><div>LIMITED WARRANTY¹</div><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, 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</div></div>											
- Microsoft® Windows® Vista® Business Edition (64-bit)			2GB PC3-8500 DDR3 ECC UDIMM																					
◆ Vista Premium logo			1GB PC3-10600 DDR3 ECC UDIMM																					
Preloaded applications⁵ (only some listed)			2GB PC3-10600 DDR3 ECC UDIMM																					
• Rescue and Recovery™			1TB SATA 3.0Gb/s Disk (7200 rpm)																					
• Client Security Solution™			300GB SATA 3.0Gb/s Disk (10000 rpm)																					
• ThinkVantage Productivity Center			300GB SAS 3.0Gb/s Disk (15000 rpm)																					
• Norton Internet Security™			ThinkStation Rail Kit																					
(90 days of virus definitions)			ThinkVision® L2440p Wide 24" Monitor																					
• Corel® WinDVD® (DVD±RW)			ATI™ FirePro™ 1GB V7750																					
			NVIDIA® Quadro® 1.5GB FX 4800																					
			Other accessories at lenovo.com/accessories																					

See footnotes for important warranty information
US models announced March 31, 2009

© Lenovo
(SEV1-5) April 2009

Name	Type-model	Slot x bay	Processor(s)	GHz	Memory	Disk(s)	Disk type	Disk type	RAID	SATA optical	Diskette or Media reader	Graphics adapter(s)	1394 adptr	ENERGY STAR 5.0	Preload	Avail date
D20	4158-21U	7x9	2 x E5506	2.13	4 x 1GB	2 x 147GB	3.5"	SAS	0	DVD±RW	Media	1 x FX1800	1394	Pending	Business 64	Apr 09
D20	4158-22U	7x9	1 x X5560	2.80	2 x 1GB	1 x 250GB	3.5"	SATA		DVD±RW	Media	1 x FX1800			Business 32	Apr 09
D20	4158-52U	7x9	2 x E5540	2.53	4 x 1GB	2 x 147GB	3.5"	SAS	0	DVD±RW	Media	1 x FX4800		Pending	XP Pro 64	Apr 09
D20	4158-53U	7x9	2 x E5540	2.53	4 x 1GB	2 x 300GB	2.5"	SATA	1	DVD±RW	Media	1 x FX4800		Pending	XP Pro 64	Apr 09
<ul style="list-style-type: none">• High performance workstation with premium graphics for specialized professionals• Environmentally friendly, cool, and quiet with rock solid engineering																
Processor(s)	One or two processors, Intel Xeon processor E5540 with quad-core , 5.86GT/s (giga-transfers/second) QPI (QuickPath Interconnect), 1066MHz DDR3 memory controller, and 8MB cache or Intel Xeon processor X5550 or X5560 with quad-core , 6.4GT/s QPI, 1333MHz DDR3 memory controller, and 8MB cache										Tower <ul style="list-style-type: none">• Raven black color; metal case• 8.3"W x 23.7"D x 17.1"H (without handle)• 210mm W x 602mm D x 434mm H• 60 lb (27.1kg) max configuration• 49-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-LGA package, two LGA1366 sockets															
Memory	2GB or 4GB std, 96GB max, RDIMM, PC3-8500 1066MHz DDR3, ECC , registered, 6-channel capable, twelve 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in two or four sockets; ten or eight sockets available															
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 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, 2 DisplayPort, 1 dual-link DVI-I, 121W										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 Slot 1: half-length, full-height, PCIe 2.0 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: full-length, full-height, 32-bit PCI 2.3					
Diskette drive	None															
Media reader	20-in-1 media reader															
SATA disk(s)	<i>Some:</i> 250GB or 500GB , SATA 3.0Gb/s, 7200 rpm, 3.5" <i>Some:</i> 300GB , SATA 3.0Gb/s, 10000 rpm, 2.5"															
SATA controller	Marvell 88SE6480, 3.0Gb/s, RAID® 0, 1, 5, 10															
SATA connectors	Five SATA/SAS connectors for disks, 3 SATA connectors for opticals															
SATA DVD±RW	Super Multi-Burner DL DVD±RW, SATA 1.5Gb/s															
SAS disk	<i>Some:</i> 147GB , Serial Attached SCSI, 3.0Gb/s, 15000 rpm															
SAS controller	Marvell 88SE6480, 5 SAS connectors, 3.0Gb/s, RAID® 0, 1, 5, 10															
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 1394)															
Rear ports	Eight USB 2.0, eSATA, serial (9-pin), two ethernet (RJ-45), FireWire 400 (IEEE 1394), 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										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)					
IEEE 1394 adptr	High Definition (HD) Audio, Analog Devices ADI 1988A codec															
Audio	Internal speaker for business audio															
Speaker	Dual gigabit ethernet on planar, Broadcom® BCM5755 and BCM5754															
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	1060 watts with 120mm bottom-mounted variable speed fan, universal, Climate Savers® Computing Bronze															
Cooling	Seven fans (power supply, first processor, second processor, rear, front disk, first memory bank, second memory bank)															
Rack mount	Rack shelf support or optional sliding rack mount rail kit support															
Preloaded operating system²⁰					Accessories					Supports ThinkVantage® technologies						
- Microsoft® Windows® XP Professional (64-bit)					Blu-ray™ Burner SATA 1.5Gb/s 45K1675					750GB SATA 3.0Gb/s Disk (7200 rpm) 43R1991						
- Microsoft Windows Vista® Business Edition (32-bit)					1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918					150GB SATA 3.0Gb/s Disk (10000 rpm) 2.5" 43R2030						
- Microsoft Windows Vista Business Edition (64-bit)					300GB SATA 3.0Gb/s Disk (10000 rpm) 2.5" 43R2031					146GB SAS 3.0Gb/s Disk (15000 rpm) 43R1993						
✧ Vista Premium logo					300GB SAS 3.0Gb/s Disk (15000 rpm) 43R1994					ThinkStation Rail Kit 43R1964						
Preloaded applications⁵ (all OSeS; only some listed)					ThinkVision® L2440p Wide 24" Monitor 4420HB2					ATI™ FirePro™ 256MB V3700 51J0509						
• Rescue and Recovery™					ATI FirePro 512MB V5700 51J0510					ATI FirePro 1GB V7750 51J0511						
• Client Security Solution™					NVIDIA® Quadro® 768MB FX 1800 45K1672					NVIDIA Quadro 1.5GB FX 4800 45K1674						
• ThinkVantage Productivity Center					Other accessories at lenovo.com/accessories											
• Norton Internet Security™ (90 days of virus definitions)																
• Microsoft Office 2007 Trial (60-day)																
• Corel® WinDVD® (DVD±RW)																
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⇨ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 800-426-7378																

See footnotes for important warranty information
 US models announced March 31, 2009

© Lenovo
 (SEV1-6) April 2009

Partial list of accessories supported on ThinkStation S10, S20, D10, and D20**Processors****D10:**

Intel® Xeon® Quad-Core Processor E5405	43R2009	ann	07/29/08
Intel Xeon Quad-Core Processor E5410	43R2010	ann	07/29/08
Intel Xeon Quad-Core Processor E5420	43R2011	ann	07/29/08
Intel Xeon Quad-Core Processor E5430	43R2012	ann	07/29/08
Intel Xeon Quad-Core Processor E5440	43R2013	ann	07/29/08
Intel Xeon Quad-Core Processor E5450	43R2014	ann	07/29/08
Intel Xeon Quad-Core Processor E5460	43R2016	ann	07/29/08

Memory**S10:**

1GB PC3-8500 DDR3 ECC UDIMM	41U5251	ann	12/18/07
2GB PC3-8500 DDR3 ECC UDIMM	41U5252	ann	12/18/07

S20, D20:

1GB PC3-8500 DDR3 ECC UDIMM	51J0503	ann	03/31/09
2GB PC3-8500 DDR3 ECC UDIMM	51J0504	ann	03/31/09
1GB PC3-10600 DDR3 ECC UDIMM	43R2032	ann	03/31/09
2GB PC3-10600 DDR3 ECC UDIMM	43R2033	ann	03/31/09

D10 (install in pairs only):

1GB PC2-5300 DDR2 ECC FB-DIMM	43R1771	ann	03/11/08
2GB PC2-5300 DDR2 ECC FB-DIMM	43R1772	ann	03/11/08
4GB PC2-5300 DDR2 ECC FB-DIMM	43R1773	ann	03/11/08

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 / HD-DVD Player SATA1.5Gb/s	43R1958	ann	12/18/07
Blu-ray™ Burner SATA1.5Gb/s	45K1675	ann	03/31/09

Storage and removable storage**S10, S20, D10, D20 preconfigured with SATA disks:**

160GB SATA 3.0Gb/s Disk (7200 rpm)	09N4254	ann	05/19/03
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	ann	01/24/06
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	ann	11/06/07
750GB SATA 3.0Gb/s Disk (7200 rpm)	43R1991	ann	12/18/07
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

S10, S20, preconfigured with SAS disks and the SAS controller,**D10, D20 preconfigured with SAS disks:**

146GB SAS 3.0Gb/s Disk (15000 rpm)	43R1993	ann	03/11/08
300GB SAS 3.0Gb/s Disk (15000 rpm)	43R1994	ann	03/11/08

All:

USB 2.0 Essential Memory Key 8GB	45J7905	ann	07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann	10/28/08
USB 2.0 Security Memory Key 4GB	41U5120	ann	07/17/07
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann	08/26/08

All:

USB Portable Diskette Drive	05K9276	ann	06/05/00
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637		
USB 2.0 Portable 160GB Hard Disk	43R1784	ann	09/23/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
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
USB 2.0 Super Multi-Burner Drive	41N5565	ann	01/23/07

Keyboard

Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
Wireless Kybd & Opt Wheel Mouse (USB)	73P4067	ann	12/07/04
Lenovo USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

More information at www.lenovo.com/support/keyboards**Mouse**

Optical Wheel Mouse (USB)	06P4069	ann	05/21/03
Optical ScrollPoint® Mouse (USB, PS/2)	31P7405	ann	08/27/02
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	ann	01/23/07
Lenovo Wireless Laser Mouse (blk, via USB)	45K1696	ann	11/25/08
Lenovo Wireless Laser Mouse (red, via USB)	51J0198	ann	11/25/08

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

ThinkVision® L174 17" Monitor	9227AE1	ann	04/15/08
ThinkVision L1700p 17" Monitor	9417HE2	ann	09/17/08
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1940p Wide 19" Monitor	4424HB6	ann	09/17/08
ThinkVision L200p Wide 20.1" Monitor	4438HB6	ann	04/15/08
ThinkVision L2240p Wide 22" Monitor	4422HB6	ann	09/17/08
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08
ThinkVision L2440x Wide 24" Monitor	4421HB2	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® Cable Lock from Lenovo	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Radial Arm	19K4464	ann	05/05/00

⁴⁶Compatible on selected Lenovo and ThinkVision monitors.More information at www.lenovo.com/support/monitoraccessories**Graphics****S10, D10:**

NVIDIA® Quadro® 256MB NVS 290	43R1765	ann	12/18/07
NVIDIA Quadro 256MB FX 370	43R1766	ann	12/18/07
NVIDIA Quadro 256MB FX 570	45J7917	ann	08/19/08
NVIDIA Quadro 512MB FX 1700	43R1767	ann	12/18/07
NVIDIA Quadro 512MB FX 3700	43R1768	ann	08/19/08
NVIDIA Quadro 768MB FX 4600	43R1769	ann	12/18/07
NVIDIA Quadro 1.5GB FX 4800	45K1674	ann	03/31/09

S20, D20:

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 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

More information at www.lenovo.com/support/graphiccards**Multimedia**

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann	06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann	08/29/06

Security

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

Rack mount accessories**D10, D20:**

ThinkStation Rail Kit	43R1964	ann	03/11/08
-----------------------	---------	-----	----------

More information at www.lenovo.com/support/railkit**Medialess License Key (MLK)**

Microsoft® Office 2007 Basic, English	43R1528	ann	01/31/07
Microsoft Office 2007 Small Business, Engl	43R1534	ann	01/31/07
Microsoft Office 2007 Professional, English	43R1531	ann	01/31/07

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

Partial list of Lenovo® ThinkPlus Services⁷ for ThinkStation workstations

For more information see:

http://www.lenovo.com/services_warranty/us/en/index.html

<p>ThinkPlus service upgrade options</p> <p><i>ThinkStation workstation with 3-year Onsite warranty</i> <i>LOR = Lenovo Onsite Repair</i></p> <table> <tr> <td>4-year LOR 9x5 Next Business Day</td> <td>43R8983</td> </tr> <tr> <td>5-year LOR 9x5 Next Business Day</td> <td>43R8987</td> </tr> </table>	4-year LOR 9x5 Next Business Day	43R8983	5-year LOR 9x5 Next Business Day	43R8987	<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><i>ThinkStation workstation with 1-year Onsite warranty</i></p> <table> <tr> <td>3-year Priority Support</td> <td>45J9080</td> </tr> </table> <p><i>ThinkStation workstation with 3-year Onsite warranty</i></p> <table> <tr> <td>3-year Priority Support</td> <td>45J9081</td> </tr> <tr> <td>4-year Priority Support</td> <td>45J9082</td> </tr> <tr> <td>5-year Priority Support</td> <td>45J9083</td> </tr> <tr> <td>3-year Priority Support 4-hour response</td> <td>45J9084</td> </tr> <tr> <td>4-year Priority Support 4-hour response</td> <td>45J9085</td> </tr> <tr> <td>5-year Priority Support 4-hour response</td> <td>45J9086</td> </tr> </table>	3-year Priority Support	45J9080	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
4-year LOR 9x5 Next Business Day	43R8983																		
5-year LOR 9x5 Next Business Day	43R8987																		
3-year Priority Support	45J9080																		
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																		
<p>ThinkPlus Secure Business</p> <p><i>Lenovo Online Data Backup</i></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 - <i>50GB</i></td> <td>45K5849</td> </tr> <tr> <td>1-year Lenovo Online Data Backup - <i>Unlimited</i></td> <td>45K5870</td> </tr> </table>	1-year Lenovo Online Data Backup - <i>50GB</i>	45K5849	1-year Lenovo Online Data Backup - <i>Unlimited</i>	45K5870															
1-year Lenovo Online Data Backup - <i>50GB</i>	45K5849																		
1-year Lenovo Online Data Backup - <i>Unlimited</i>	45K5870																		

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.

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

This publication was developed for products and services offered in the United States. Lenovo may not offer the products, services or features discussed in this document in other countries. Lenovo may withdraw an offering at any time. Information is subject to change without notice. Consult your local representative for information on offerings available in your area.

Lenovo reserves the right to change specifications and other product information at any time without prior notice. Lenovo is not responsible for photographic or typographical errors. LENOVO PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some jurisdictions do not allow disclaimer of express or implied warranties in certain transactions; therefore this disclaimer may not apply to you.

Trademarks: Lenovo, the Lenovo logo, New World. New Thinking., Access Connections, Rescue and Recovery, ThinkCentre, ThinkPad, ThinkServer, ThinkStation, ThinkVantage, and ThinkVision are trademarks of Lenovo. Microsoft, Windows, and Vista are registered trademarks of Microsoft Corporation. Intel, the Intel logo, Intel Inside logo, Intel Core and Core Inside are trademarks of Intel Corporation in the US and other countries. Other company, product, or service names may be trademarks or service marks of others.

Visit www.lenovo.com/safecomputing periodically for the latest information on safe and effective computing.

Visit www.lenovo.com/psref for the latest version of Personal Systems Reference.

© Lenovo, 2009.
All rights reserved.

Lenovo
1009 Think Place
Morrisville, NC 27560
U.S.A.

April 2009
tsbook.pdf



Personal Systems Reference Lenovo® ThinkServer™ Servers

March 2009 - Version 353



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



Lenovo ThinkServer TS100
with 400W non-redundant power supply



Lenovo ThinkServer TS100
with simple-swap disks



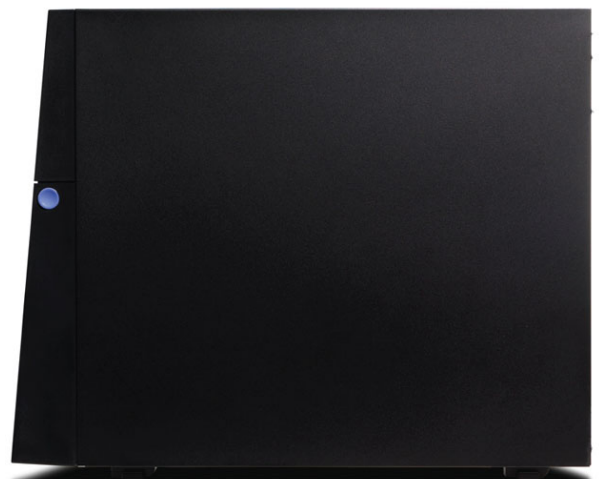
Lenovo ThinkServer TS100
with 430W redundant power supply



Lenovo ThinkServer TS100



Lenovo ThinkServer TS100



Lenovo ThinkServer TS100

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory	Disk(s)	Disk size	Disk connection	Disk type	RAID controller	SATA optical	Power supply	Limited warranty ¹	Workhorse Global	Avail date
TS100	6432-17U	4x7	E7200	2.53	2	1 x 1GB	None	3.5"	4 x Simple-swap	SATA	1064E	DVD	400W	1-year	No	Sep 08

- **T = Tower, S = Single processor**
- **High performance server with rock solid technology and proven hardware design**
- **Easy to use with ThinkServer EasyStartup, EasyUpdate, and EasyManage software**
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**

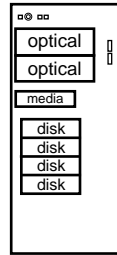
Processor	One Intel® Core™ 2 Duo Processor E7200 with dual-core, one maximum, 1066MHz system bus, and 3MB L2 cache		<div>Tower</div> <div><ul style="list-style-type: none">• Business black color; metal case• 8.5"W x 21.25"D x 17.25"H• 216mm W x 540mm D x 438mm H• 56 lb (25.2kg) max configuration• Toolless side cover removal• Toolless disk and optical drive removal• Toolless adapter retention• Illuminated front icons• Rack shelf support</div> <div><div>Bay ① 5.25", 1.6" high, external, standard optical</div><div>Bay ② 5.25", 1.6" high, external, optional optical</div><div>Bay ③ 3.5", 1" high, external, open</div><div>Bay ④ 3.5", 1" high, internal, optional SATA disk</div><div>Bay ⑤ 3.5", 1" high, internal, optional SATA disk</div><div>Bay ⑥ 3.5", 1" high, internal, optional SATA disk</div><div>Bay ⑦ 3.5", 1" high, internal, optional SATA disk</div></div> <div><div>Slot 1: full-length, full-height, PCIe x8</div><div>Slot 2: full-length, full-height, PCIe x1 (x4 mechanical)</div><div>Slot 3: full-length, full-height, 64-bit PCI-X (not enabled)</div><div>Slot 4: full-length, full-height, 32-bit PCI 2.2</div><div>Slot 5: half-length, full-height, 32-bit PCI 2.2</div></div> <div><div>Security</div><div><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)</div></div> <div><div>Software management tools</div><div><ul style="list-style-type: none">• ThinkServer EasyStartup• ThinkServer EasyUpdate• ThinkServer EasyManage</div></div> <div><div>ThinkPlus Priority Support, 90-day Trial</div></div> <div><div>RoHS-compliant</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, next business day response time)</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>											
Implementation	Processor uses FC-LGA8 package, one LGA775 socket													
Memory	1GB std, 8GB max, PC2-6400 800MHz DDR2, ECC , dual-channel capable, four 184-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; three sockets available													
Graphics	ATI® RN50 (ES1000), on planar, 32-bit/33MHz PCI 2.2, 16MB, external monitor port (VGA DB-15); <i>Maximum resolution</i> : 1024x768@85Hz													
Diskette	None (use USB port)													
SATA DVD	DVD-ROM, SATA 1.5Gb/s, uses ICH9R													
SATA disk(s)	None													
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH9R, not used by disks													
SATA connectors	Six SATA connectors on planar, four simple-swap connectors on 3.5" disk backplate													
SATA RAID cont	LSI™ 1064E, SATA 3.0 Gb/s, RAID® 0, 1 support, Mini PCI Express® adapter													
SAS disk	Not supported													
SAS connectors	Not supported													
SAS controller	Not supported													
Chipset	Intel 3210 Chipset , Intel I/O Controller Hub 9 RAID (ICH9R) for RAID 0, 1, 10 support, SMSC® SCH5027D Super I/O													
Front ports	Two USB 2.0													
Rear ports	Four USB 2.0, two serial (9-pin), parallel, ethernet (RJ-45), monitor (VGA DB-15)													
Diagnostics	Diagnostic LEDs (system-error LED on front cover; error LEDs for fans, disks, memory, processor, PCI slots, power supply)													
Systems mgmt	System management utility, baseboard management controller, IPMI 2.0-compliant													
Audio	None													
Speaker	Internal speaker													
Ethernet	Gigabit ethernet on planar, Broadcom® BCM5722, PCIe x1													
Keyboard	None (use USB port)													
Mouse	None (use USB port)													
Power supply	One 400 watts, one maximum, non-redundant, variable speed fan, non-hot-swap, universal													
Cooling	Three fans (processor, rear, disks)													
<div>Accessories</div> <table><tr><td>1GB PC2-6400 DDR2 ECC UDIMM</td><td>45J6188</td></tr><tr><td>2GB PC2-6400 DDR2 ECC UDIMM</td><td>45J6189</td></tr><tr><td>160GB 3.5" Simple-swap SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J6195</td></tr><tr><td>250GB 3.5" Simple-swap SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J6196</td></tr><tr><td>500GB 3.5" Simple-swap SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J6197</td></tr><tr><td>750GB 3.5" Simple-swap SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J6198</td></tr></table> <div>Other accessories at lenovo.com/accessories</div>				1GB PC2-6400 DDR2 ECC UDIMM	45J6188	2GB PC2-6400 DDR2 ECC UDIMM	45J6189	160GB 3.5" Simple-swap SATA 3.0Gb/s Disk (7200 rpm)	45J6195	250GB 3.5" Simple-swap SATA 3.0Gb/s Disk (7200 rpm)	45J6196	500GB 3.5" Simple-swap SATA 3.0Gb/s Disk (7200 rpm)	45J6197	750GB 3.5" Simple-swap SATA 3.0Gb/s Disk (7200 rpm)
1GB PC2-6400 DDR2 ECC UDIMM	45J6188													
2GB PC2-6400 DDR2 ECC UDIMM	45J6189													
160GB 3.5" Simple-swap SATA 3.0Gb/s Disk (7200 rpm)	45J6195													
250GB 3.5" Simple-swap SATA 3.0Gb/s Disk (7200 rpm)	45J6196													
500GB 3.5" Simple-swap SATA 3.0Gb/s Disk (7200 rpm)	45J6197													
750GB 3.5" Simple-swap SATA 3.0Gb/s Disk (7200 rpm)	45J6198													

See footnotes for important warranty information
US models announced September 30, 2008

© Lenovo
(TS100-1) March 2009

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory	Disk(s)	Disk size	Disk connection	Disk type	RAID controller	SATA optical	Power supply(s)	Limited Warranty ¹	Global	Avail date
TS100	6434-13U	4x7	E3110	3.00	2	2 x 1GB	None	3.5"	4 x Simple-swap	SATA	1064E	DVD	400W	3-year	No	Sep 08
TS100	6434-15U	4x7	X3360	2.83	4	2 x 2GB	None	3.5"	4 x Hot-swap	SATA/SAS ⁴	MR10i	DVD	2 x 430W	3-year	No	Sep 08

- **T = Tower, S = Single processor**
- **High performance server with rock solid technology and proven hardware design**
- **Easy to use with ThinkServer EasyStartup, EasyUpdate, and EasyManage software**
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**

Processor	One Intel® Xeon® Processor E3110 with dual-core , one maximum, 1333MHz system bus, and 6MB L2 cache or One Intel Xeon Processor X3360 with quad-core , one maximum, 1333MHz system bus, and 12MB L2 cache Processor uses FC-LGA8 package, one LGA775 socket			Tower <ul style="list-style-type: none">• Business black color; metal case• 8.5"W x 21.25"D x 17.25"H• 216mm W x 540mm D x 438mm H• 56 lb (25.2kg) max configuration• Toolless side cover removal• Toolless disk and optical drive removal• Toolless adapter retention• Illuminated front icons• Rack shelf support 
Implementation				
Memory	2GB or 4GB std, 8GB max, PC2-6400 800MHz DDR2, ECC , dual-channel capable, four 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in two sockets; two sockets available			
Graphics	ATI® RN50 (ES1000), on planar, 32-bit/33MHz PCI 2.2, 16MB, external monitor port (VGA DB-15); <i>Maximum resolution</i> : 1024x768@85Hz			
Diskette	None (use USB port)			Bay ① 5.25", 1.6" high, external, standard optical Bay ② 5.25", 1.6" high, external, optional optical Bay ③ 3.5", 1" high, external, open Bay ④ 3.5", 1" high, internal, optional disk Bay ⑤ 3.5", 1" high, internal, optional disk Bay ⑥ 3.5", 1" high, internal, optional disk Bay ⑦ 3.5", 1" high, internal, optional disk Slot 1: full-length, full-height, PCIe x8 Slot 2: full-length, full-height, PCIe x1 (x4 mechanical) Slot 3: full-length, full-height, 64-bit PCI-X (not enabled) Slot 4: full-length, full-height, 32-bit PCI 2.2 Slot 5: half-length, full-height, 32-bit PCI 2.2
SATA DVD	DVD-ROM, SATA 1.5Gb/s, uses ICH9R			
SATA disk(s)	None			
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH9R, not used by disks			
SATA connectors	Six SATA connectors on planar, 13U SATA: 4 simple-swap connectors on 3.5" disk backplate 15U SATA/SAS: 4 hot-swap connectors on 3.5" disk backplane			
SATA RAID cont	LSI™ 1064E, SATA 3.0 Gb/s, RAID® 0, 1 support, Mini PCI Express® adapter			
SAS disk(s)	None			
SAS connectors	15U SATA/SAS: 4 hot-swap connectors on 3.5" disk backplane			
SAS RAID cont	15U: LSI MR10i, SATA 3.0 Gb/s, SAS 3.0 Gb/s, RAID® 0, 1, 5, 6, 10, 50, 60 support, Mini PCI Express adapter			
Chipset	Intel 3210 Chipset , Intel I/O Controller Hub 9 RAID (ICH9R) for RAID 0, 1, 10 support, SMSC® SCH5027D Super I/O			
Front ports	Two USB 2.0			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)
Rear ports	Four USB 2.0, two serial (9-pin), parallel, ethernet (RJ-45), monitor (VGA DB-15)			
Diagnostics	Diagnostic LEDs (system-error LED on front cover; error LEDs for fans, disks, memory, processor, PCI slots, power supply)			
Systems mgmt	System management utility, baseboard management controller, IPMI 2.0-compliant			
Audio	None			Software management tools <ul style="list-style-type: none">• ThinkServer EasyStartup• ThinkServer EasyUpdate• ThinkServer EasyManage
Speaker	Internal speaker			
Ethernet	Gigabit ethernet on planar, Broadcom® BCM5722, PCIe x1			
Keyboard	None (use USB port)			
Mouse	None (use USB port)			ThinkPlus Priority Support, 90-day Trial
Power supply	<i>Some</i> : One 400 watts, one maximum, non-redundant, variable speed fan, non-hot-swap, universal <i>Some</i> : Two 430 watts, two maximum, redundant with two, variable speed fan, hot-swap, universal			
Cooling	Three fans (processor, rear, disks)			RoHS-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 lenovo.com/thinkplus/warranty<ul style="list-style-type: none">• Onsite service upgrade options (in eligible locations)⁷• Post warranty maintenance services⇒ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378
Accessories				
1GB PC2-6400 DDR2 ECC UDIMM		45J6188		
2GB PC2-6400 DDR2 ECC UDIMM		45J6189		
160GB 3.5" Simple-swap SATA 3.0Gb/s Disk (7200 rpm)		45J6195		
250GB 3.5" Simple-swap SATA 3.0Gb/s Disk (7200 rpm)		45J6196		
500GB 3.5" Simple-swap SATA 3.0Gb/s Disk (7200 rpm)		45J6197		
750GB 3.5" Simple-swap SATA 3.0Gb/s Disk (7200 rpm)		45J6198		
160GB 3.5" Hot-swap SATA 3.0Gb/s Disk (7200 rpm)		45J6200		
250GB 3.5" Hot-swap SATA 3.0Gb/s Disk (7200 rpm)		45J6201		
500GB 3.5" Hot-swap SATA 3.0Gb/s Disk (7200 rpm)		45J6202		
750GB 3.5" Hot-swap SATA 3.0Gb/s Disk (7200 rpm)		45J6203		
1TB 3.5" Hot-swap SATA 3.0Gb/s Disk (7200 rpm)		45J6204		
146GB 3.5" Hot-swap SAS 3.0Gb/s Disk (15000 rpm)		45J6211		
300GB 3.5" Hot-swap SAS 3.0Gb/s Disk (15000 rpm)		45J6212		
Other accessories at lenovo.com/accessories				

See footnotes for important warranty information
US models announced September 30, 2008

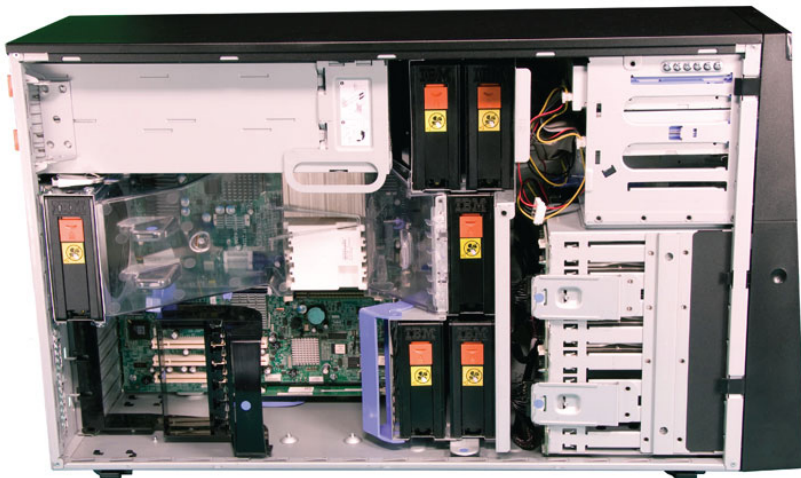
© Lenovo
(TS100-2) March 2009



Lenovo ThinkServer TD100



Lenovo ThinkServer TD100x



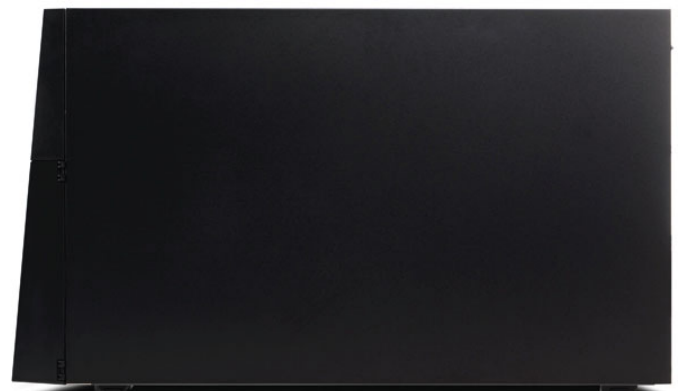
Lenovo ThinkServer TD100
or TD100x



Lenovo ThinkServer TD100
or TD100x



Lenovo ThinkServer TD100x
with Easy LED Diagnostic panel



Lenovo ThinkServer TD100
or TD100x

Name	Type-model	Slot x bay	Processor(s)	GHz	Cores	Memory	Disk(s) size	Disk connection	Disk type	RAID controller	EIDE optical	Power supply(s)	Fans	Limited warranty ¹	Global	Avail date
TD100	6399-14U	6x7	1 x E5405	2.00	4	2 x 1GB	None 3.5"	4 x Simple-swap	SATA	RAID-8k	DVD	670W	3	1-year	No	Sep 08
TD100	6399-15U	6x7	1 x E5405	2.00	4	2 x 1GB	None 3.5"	4 x Simple-swap	SATA	9580W	DVD	670W	3	1-year	No	Jan 09

- **T = Tower, D = Dual processor support**
- **High performance server with rock solid technology and proven hardware design**
- **Easy to use with ThinkServer EasyStartup, EasyUpdate, and EasyManage software**
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**

Processor(s)	One Intel® Xeon® Processor E5405 with quad-core , two maximum, 1333MHz system bus, and 12MB L2 cache	Tower	<div><div><div>optical</div><div>optical</div><div>tape</div></div><div><div>disk</div><div>disk</div><div>disk</div><div>disk</div></div></div>
Implementation	Processor uses FC-LGA6 package, two LGA771 sockets		
Memory	2GB std, 32GB max, PC2-5300 667MHz DDR2, Advanced ECC , fully buffered, eight 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in two sockets; six sockets available	<ul style="list-style-type: none">• Business black color; metal case• 8.6"W x 29.4"D x 17.3"H• 218mm W x 747mm D x 440mm H• 75 lb (34kg) max configuration• Toolless side cover removal• Toolless disk and optical drive removal• Toolless adapter retention• Illuminated front icons• Rack shelf support	
Graphics	ATI® RN50 (ES1000), on planar; 32-bit/33MHz PCI 2.3, 16MB, external monitor port (VGA DB-15 rear); <i>Maximum resolution:</i> 800x600@85Hz	Bay ① 5.25", 1.6" high, external, std optical Bay ② 5.25", 1.6" high, external, optional tape or optical Bay ③ 5.25", 1.6" high, external, optional tape or optical Bay ④ 3.5", 1" high, external, optional disk Bay ⑤ 3.5", 1" high, external, optional disk Bay ⑥ 3.5", 1" high, external, optional disk Bay ⑦ 3.5", 1" high, external, optional disk	
EIDE controller	Enhanced IDE/ATA 100 controller in Enterprise South Bridge, one connector on planar, single 2-drop IDE cable (for DVD)	Slot 1: half-length, full-height, PCIe® x4 (x8 mechanical) Slot 2: full-length, full-height, PCIe x8 Slot 3: full-length, full-height, PCIe x8 Slot 4: full-length, full-height, 64-bit PCI-X Slot 5: full-length, full-height, 64-bit PCI-X Slot 6: half-length, full-height, PCI	
EIDE DVD	DVD-ROM, 1.6" high		
SATA disk(s)	None		
SATA connectors	Four simple-swap connectors on 3.5" disk backplane		
SAS disk(s)	None		
SATA/SAS cont	15U SATA: Adaptec® AIC-9580W, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID® 0, 1, 10 support, 8-port, on planar		
SAS connectors	None		
SATA/SAS RAID controller	14U SATA: RAID-8k Adapter, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID® 0, 1, 1e, 5, 6, 10 support, in reserved connector, single cable to backplane		
Chipset	Intel 5000P chipset , Intel 6321ESB-2E I/O Controller Hub, NS PC8374L Super I/O		
Front ports	Two USB 2.0		
Rear ports	Two USB 2.0, two serial (9-pin), parallel, keyboard (PS/2), mouse (PS/2), external monitor (VGA DB-15), ethernet (RJ-45), system management (RJ-45)		
Diagnostics	Diagnostic LEDs (system-error LED on front cover; error LEDs for RAID, memory, processors, PCI slots, voltage regulator module, power supply)		
Systems mgmt	System management utility, baseboard management controller, IPMI 2.0-compliant		
Audio	None		
Speaker	Internal speaker		
Ethernet	Gigabit ethernet on planar, Broadcom® BCM5721, PCIe x1, full duplex, Wake on LAN®		
Keyboard	None (use PS/2 or USB port)		
Mouse	None (use PS/2 or USB port)		
Power supply	One 670 watts, one maximum, non-redundant, variable speed fan, non-hot-swap, universal		
Cooling	Three or six fans, six maximum, variable speed, hardware failure protection, hot-swap, six fans required with second redundant power supply		
Software management tools			
• ThinkServer EasyStartup • ThinkServer EasyUpdate • ThinkServer EasyManage			
Accessories			
Intel Xeon Quad-Core Processor E5405 45J6221			
1GB PC2-5300 DDR2 ECC FB-DIMM 45J6191			
2GB PC2-5300 DDR2 ECC FB-DIMM 45J6192			
4GB PC2-5300 DDR2 ECC FB-DIMM 45J6193			
160GB 3.5" Simple-swap SATA 3.0Gb/s Disk (7200 rpm) 45J6195			
250GB 3.5" Simple-swap SATA 3.0Gb/s Disk (7200 rpm) 45J6196			
500GB 3.5" Simple-swap SATA 3.0Gb/s Disk (7200 rpm) 45J6197			
750GB 3.5" Simple-swap SATA 3.0Gb/s Disk (7200 rpm) 45J6198			
Other accessories at lenovo.com/accessories			
</			

See footnotes for important warranty information

US model announced January 20, 2009; previous model on September 30, 2008

© Lenovo

(TD100-1) January 2009

Name	Type-model	Slot x bay	Processor(s)	GHz	Cores	Memory	Disk(s)	Disk size	Disk connection	Disk type	RAID controller	EIDE optical	Power supply(s)	Fans	Limited warranty ¹	Workhorse Global	Avail date
TD100	6429-17U	6x11	1 x E5410	2.33	4	2 x 1GB	None	3.5"	8 x Hot-swap	SATA/SAS ⁴	RAID-8k DVD	2 x 835W	6	3-year	No	Sep 08	
TD100	6429-18U	6x11	1 x E5430	2.66	4	2 x 2GB	None	3.5"	8 x Hot-swap	SATA/SAS ⁴	RAID-8k DVD	2 x 835W	6	3-year	No	Sep 08	

- **T = Tower, D = Dual processor support**
- **High performance server with rock solid technology and proven hardware design**
- **Easy to use with ThinkServer EasyStartup, EasyUpdate, and EasyManage software**
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**

Processor(s)	One Intel® Xeon® Processor E5410 or E5430 with quad-core , two maximum, 1333MHz system bus, and 12MB L2 cache	Tower <ul style="list-style-type: none"> • Business black color; metal case • 8.6"W x 29.4"D x 17.3"H • 218mm W x 747mm D x 440mm H • 75 lb (34kg) max configuration • Toolless side cover removal • Toolless disk and optical drive removal • Toolless adapter retention • Illuminated front icons • Rack shelf support 
Implementation	Processor uses FC-LGA6 package, two LGA771 sockets	
Memory	2GB or 4GB std, 32GB max, PC2-5300 667MHz DDR2, Advanced ECC , fully buffered, eight 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in two sockets; six sockets available	Bay ① 5.25", 1.6" high, external, std optical Bay ② 5.25", 1.6" high, external, optional tape or optical Bay ③ 5.25", 1.6" high, external, optional tape or optical Bay ④ 3.5", 1" high, external, optional disk Bay ⑤ 3.5", 1" high, external, optional disk Bay ⑥ 3.5", 1" high, external, optional disk Bay ⑦ 3.5", 1" high, external, optional disk Bay ⑧ 3.5", 1" high, external, optional disk Bay ⑨ 3.5", 1" high, external, optional disk Bay ⑩ 3.5", 1" high, external, optional disk
Graphics	ATI® RN50 (ES1000), on planar, 32-bit/33MHz PCI 2.3, 16MB, external monitor port (VGA DB-15 rear); <i>Maximum resolution</i> : 800x600@85Hz	
EIDE controller	Enhanced IDE/ATA 100 controller in Enterprise South Bridge, one connector on planar, single 2-drop IDE cable (for DVD)	Slot 1: half-length, full-height, PCIe® x4 (x8 mechanical) Slot 2: full-length, full-height, PCIe x8 Slot 3: full-length, full-height, PCIe x8 Slot 4: full-length, full-height, 64-bit PCI-X Slot 5: full-length, full-height, 64-bit PCI-X Slot 6: half-length, full-height, PCI
EIDE DVD	DVD-ROM, 1.6" high	
SATA disk(s)	None	Security <ul style="list-style-type: none"> • 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)
SATA connectors	Eight hot-swap connectors on 3.5" disk backplane	
SAS disk(s)	None	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 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
SATA/SAS cont	Adaptec® AIC-9580W, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID® 0, 1, 10 support, 8-port, on planar, not used	
SAS connectors	Eight hot-swap connectors on 3.5" disk backplane	Software management tools • ThinkServer EasyStartup • ThinkServer EasyUpdate • ThinkServer EasyManage
SATA/SAS RAID controller	RAID-8k Adapter, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID® 0, 1, 1e, 5, 6, 10 support, in reserved connector, single cable to backplane	
Chipset	Intel 5000P chipset , Intel 6321ESB-2E I/O Controller Hub, NS PC8374L Super I/O	Accessories Intel Xeon Quad-Core Processor E5410 45J6185 Intel Xeon Quad-Core Processor E5430 45J6186 1GB PC2-5300 DDR2 ECC FB-DIMM 45J6191 2GB PC2-5300 DDR2 ECC FB-DIMM 45J6192 4GB PC2-5300 DDR2 ECC FB-DIMM 45J6193 160GB 3.5" Hot-swap SATA 3.0Gb/s Disk (7200 rpm) 45J6200 250GB 3.5" Hot-swap SATA 3.0Gb/s Disk (7200 rpm) 45J6201 500GB 3.5" Hot-swap SATA 3.0Gb/s Disk (7200 rpm) 45J6202 750GB 3.5" Hot-swap SATA 3.0Gb/s Disk (7200 rpm) 45J6203 1TB 3.5" Hot-swap SATA 3.0Gb/s Disk (7200 rpm) 45J6204 146GB 3.5" Hot-swap SAS 3.0Gb/s Disk (15000 rpm) 45J6211 300GB 3.5" Hot-swap SAS 3.0Gb/s Disk (15000 rpm) 45J6212 Other accessories at lenovo.com/accessories
Front ports	Two USB 2.0	
Rear ports	Two USB 2.0, two serial (9-pin), parallel, keyboard (PS/2), mouse (PS/2), external monitor (VGA DB-15), ethernet (RJ-45), system management (RJ-45)	RoHS-compliant
Diagnostics	Diagnostic LEDs (system-error LED on front cover; error LEDs for RAID, memory, processors, PCI slots, voltage regulator module, power supply)	
Systems mgmt	System management utility, baseboard management controller, IPMI 2.0-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 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
Audio	None	
Speaker	Internal speaker	Other accessories at lenovo.com/accessories
Ethernet	Gigabit ethernet on planar, Broadcom® BCM5721, PCIe x1, full duplex, Wake on LAN®	
Keyboard	None (use PS/2 or USB port)	Other accessories at lenovo.com/accessories
Mouse	None (use PS/2 or USB port)	
Power supply	Two 835 watts, two maximum, redundant with two, variable speed fan, hot-swap, universal, two redundant power supplies require six fans	Other accessories at lenovo.com/accessories
Cooling	Six fans, six maximum, variable speed, hardware failure protection, hot-swap, six fans required with second redundant power supply	

See footnotes for important warranty information
 US models announced September 30, 2008

© Lenovo
 (TD100-2) October 2008

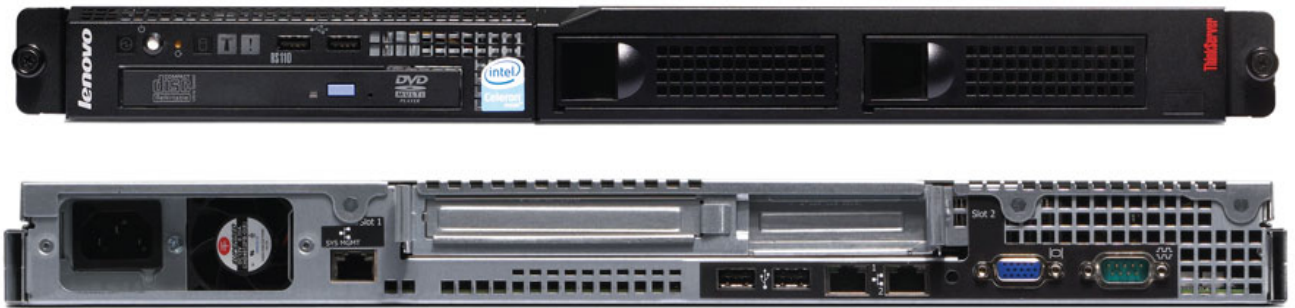
Name	Type-model	Slot x bay	Processor(s)	GHz	Cores	Memory	Disk(s)	size	Disk connection	Disk type	RAID controller	EIDE optical	Power supply(s)	Fans	Limited warranty ¹	Workhorse Global	Avail date
TD100x	4206-14U	6x11	1 x X5450	3.00	4	2 x 2GB	None	3.5"	8 x Hot-swap	SATA/SAS ⁴	RAID-8k	DVD	2 x 835W	6	3-year	No	Sep 08

- **T = Tower, D = Dual processor support**
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **The TD100x differs from the TD100 because of the following standard features:**
Easy LED Diagnostic panel, support for up to eight 3.5" hot-swap SAS disks,
two redundant 835 watt power supplies, six redundant fans

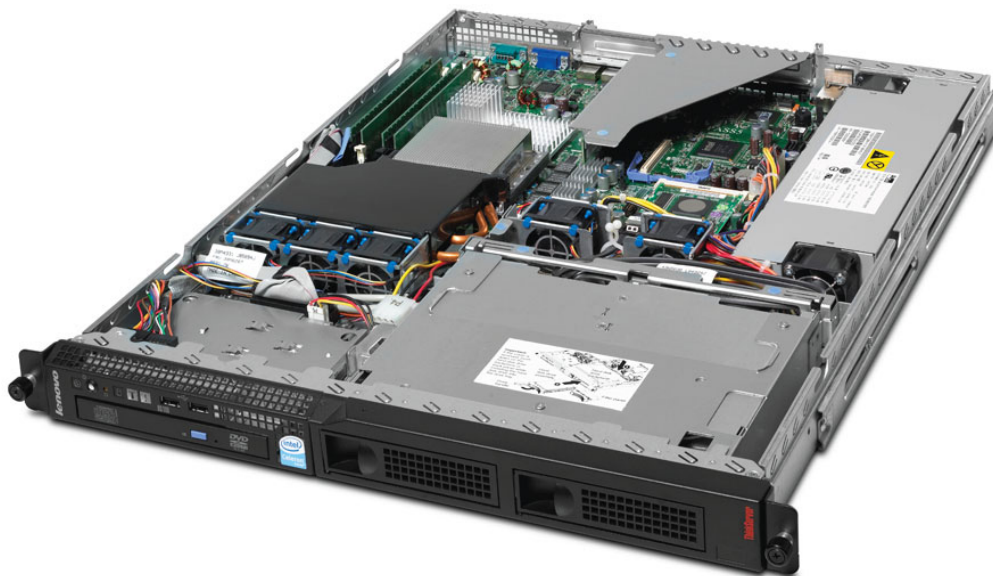
Processor(s)	One Intel® Xeon® Processor X5450 with quad-core, two maximum, 1333MHz system bus, and 12MB L2 cache	Tower <ul style="list-style-type: none">• Business black color; metal case• 8.6"W x 29.4"D x 17.3"H• 218mm W x 747mm D x 440mm H• 75 lb (34kg) max configuration• Toolless side cover removal• Toolless disk and optical drive removal• Toolless adapter retention• Illuminated front icons• Rack shelf support <div><div>optical</div><div>optical</div><div>tape</div><div>disk</div><div>disk</div><div>disk</div><div>disk</div><div>disk</div><div>disk</div><div>disk</div></div>																						
Implementation	Processor uses FC-LGA6 package, two LGA771 sockets																							
Memory	4GB std, 48GB max, PC2-5300 667MHz DDR2, Advanced ECC , fully buffered, twelve 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in two sockets; ten sockets available																							
Graphics	ATI® RN50 (ES1000), on planar, 32-bit/33MHz PCI 2.3, 16MB, external monitor port (VGA DB-15 rear); <i>Maximum resolution:</i> 800x600@85Hz																							
EIDE controller	Enhanced IDE/ATA 100 controller in Enterprise South Bridge, one connector on planar, single 2-drop IDE cable (DVD)																							
EIDE DVD	DVD-ROM, 1.6" high																							
SATA disk(s)	None																							
SATA connectors	Eight hot-swap connectors on 3.5" disk backplane																							
SAS disk(s)	None																							
SATA/SAS cont	Adaptec® AIC-9580W, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID® 0, 1, 10 support, 8-port, on planar, not used																							
SAS connectors	Eight hot-swap connectors on 3.5" disk backplane																							
SATA/SAS RAID controller	RAID-8k Adapter, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID® 0, 1, 1e, 5, 6, 10 support, in reserved connector, single cable to backplane																							
Chipset	Intel 5000P chipset , Intel 6321ESB-2E I/O Controller Hub, NS PC8374L Super I/O																							
Front ports	Two USB 2.0																							
Rear ports	Two USB 2.0, two serial (9-pin), parallel, keyboard (PS/2), mouse (PS/2), external monitor (VGA DB-15), ethernet (RJ-45), system management (RJ-45)																							
Diagnostics	Easy LED Diagnostics (operator information panel on left side with error LEDs for fans, disks, RAID, memory, processors, voltage regulator module, PCI slots, power supplies)																							
Systems mgmt	System management utility, baseboard management controller, IPMI 2.0-compliant																							
Audio	None																							
Speaker	Internal speaker																							
Ethernet	Gigabit ethernet on planar, Broadcom® BCM5721, PCIe x1, full duplex, Wake on LAN®																							
Keyboard	None (use PS/2 or USB port)																							
Mouse	None (use PS/2 or USB port)																							
Power supply	Two 835 watts, two maximum, redundant with 2, variable speed fan, hot-swap, universal, two redundant power supplies require six fans																							
Cooling	Six fans, six maximum, variable speed, hardware failure protection, hot-swap, six fans required with second redundant power supply																							
Software management tools <ul style="list-style-type: none">• ThinkServer EasyStartup• ThinkServer EasyUpdate• ThinkServer EasyManage		Slot 1: half-length, full-height, PCIe® x4 (x8 mechanical) Slot 2: full-length, full-height, PCIe x8 Slot 3: full-length, full-height, PCIe x8 Slot 4: full-length, full-height, 64-bit PCI-X Slot 5: full-length, full-height, 64-bit PCI-X Slot 6: half-length, full-height, PCI																						
Accessories <table><tr><td>Intel® Xeon® Quad-Core Processor X5450</td><td>45K1608</td></tr><tr><td>1GB PC2-5300 DDR2 ECC FB-DIMM</td><td>45J6191</td></tr><tr><td>2GB PC2-5300 DDR2 ECC FB-DIMM</td><td>45J6192</td></tr><tr><td>4GB PC2-5300 DDR2 ECC FB-DIMM</td><td>45J6193</td></tr><tr><td>160GB 3.5" Hot-swap SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J6200</td></tr><tr><td>250GB 3.5" Hot-swap SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J6201</td></tr><tr><td>500GB 3.5" Hot-swap SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J6202</td></tr><tr><td>750GB 3.5" Hot-swap SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J6203</td></tr><tr><td>1TB 3.5" Hot-swap SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J6204</td></tr><tr><td>146GB 3.5" Hot-swap SAS 3.0Gb/s Disk (15000 rpm)</td><td>45J6211</td></tr><tr><td>300GB 3.5" Hot-swap SAS 3.0Gb/s Disk (15000 rpm)</td><td>45J6212</td></tr></table> Other accessories at lenovo.com/accessories		Intel® Xeon® Quad-Core Processor X5450	45K1608	1GB PC2-5300 DDR2 ECC FB-DIMM	45J6191	2GB PC2-5300 DDR2 ECC FB-DIMM	45J6192	4GB PC2-5300 DDR2 ECC FB-DIMM	45J6193	160GB 3.5" Hot-swap SATA 3.0Gb/s Disk (7200 rpm)	45J6200	250GB 3.5" Hot-swap SATA 3.0Gb/s Disk (7200 rpm)	45J6201	500GB 3.5" Hot-swap SATA 3.0Gb/s Disk (7200 rpm)	45J6202	750GB 3.5" Hot-swap SATA 3.0Gb/s Disk (7200 rpm)	45J6203	1TB 3.5" Hot-swap SATA 3.0Gb/s Disk (7200 rpm)	45J6204	146GB 3.5" Hot-swap SAS 3.0Gb/s Disk (15000 rpm)	45J6211	300GB 3.5" Hot-swap SAS 3.0Gb/s Disk (15000 rpm)	45J6212	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)
Intel® Xeon® Quad-Core Processor X5450	45K1608																							
1GB PC2-5300 DDR2 ECC FB-DIMM	45J6191																							
2GB PC2-5300 DDR2 ECC FB-DIMM	45J6192																							
4GB PC2-5300 DDR2 ECC FB-DIMM	45J6193																							
160GB 3.5" Hot-swap SATA 3.0Gb/s Disk (7200 rpm)	45J6200																							
250GB 3.5" Hot-swap SATA 3.0Gb/s Disk (7200 rpm)	45J6201																							
500GB 3.5" Hot-swap SATA 3.0Gb/s Disk (7200 rpm)	45J6202																							
750GB 3.5" Hot-swap SATA 3.0Gb/s Disk (7200 rpm)	45J6203																							
1TB 3.5" Hot-swap SATA 3.0Gb/s Disk (7200 rpm)	45J6204																							
146GB 3.5" Hot-swap SAS 3.0Gb/s Disk (15000 rpm)	45J6211																							
300GB 3.5" Hot-swap SAS 3.0Gb/s Disk (15000 rpm)	45J6212																							
		ThinkPlus Priority Support, 90-day Trial																						
		RoHS-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 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 models announced September 30, 2008

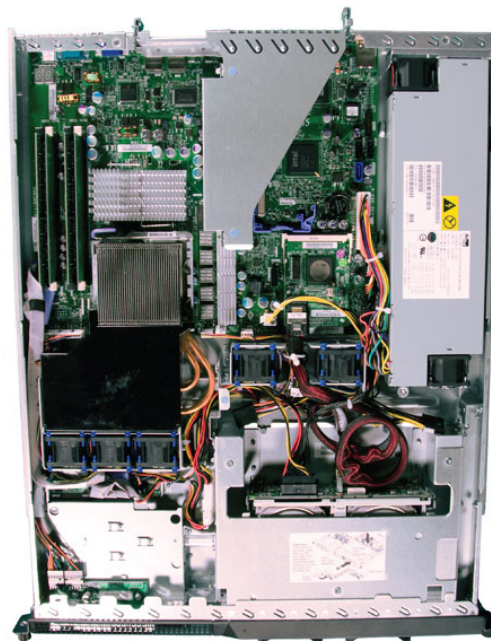
© Lenovo
 (TD100X-1) October 2008



Lenovo ThinkServer RS110



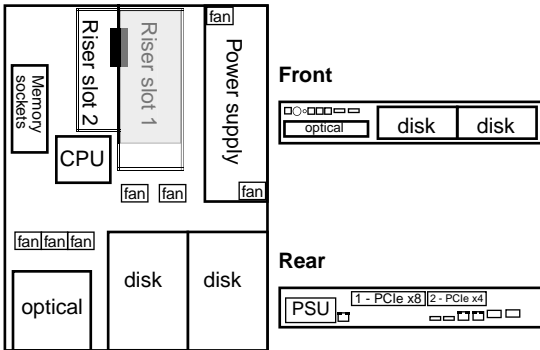
Lenovo ThinkServer RS110



Lenovo ThinkServer RS110

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory	Disk(s)	size	Disk connection	Disk type	RAID controller	EIDE optical	Power supply	Fans	Limited warranty ¹	Workhorse Global	Avail date
RS110	6436-15U	2x3	E7200	2.53	2	1 x 1GB	None	3.5"	2 x Simple-swap	SATA	1064E	Combo	350W	5	1-year	No	Sep 08

- **R = Rack, S = Single processor**
- **High performance server with rock solid technology and proven hardware design**
- **Easy to use with ThinkServer EasyStartup, EasyUpdate, and EasyManage software**
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**

Processor	One Intel® Core™ 2 Duo Processor E7200 with dual-core , one maximum, 1066MHz system bus, and 3MB L2 cache	<div>1U Rack top</div> <div></div> <div>• Black color front; metal case</div> <div>• 17.3" W x 22" D x 1.75" H</div> <div>• 440mm W x 559mm D x 43mm H</div> <div>• 28 lb (12.7kg) max configuration</div> <div>• Toolless top cover removal</div> <div>• Toolless disk and optical drive removal</div> <div>• Toolless adapter retention</div> <div>• Illuminated front icons with system error LED</div> <div>Bay ① 5.25", 0.5" high, external, std optical</div> <div>Bay ② 3.5", 1" high, external, optional disk</div> <div>Bay ③ 3.5", 1" high, external, optional disk</div> <div>PCI Express riser card:</div> <div>Slot 1: 3/4-length, full-height, PCIe x8</div> <div>Slot 2: half-length, low-profile, PCIe x4 (x8 mechanical)</div> <div>Security</div> <div>• Power-on password</div> <div>• Administrator 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 (front or all)</div> <div>ThinkPlus Priority Support, 90-day Trial</div> <div>RoHS-compliant</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, next business day response time)</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>
Implementation	Processor uses FC-LGA8 package, one LGA775 socket	
Memory	1GB std, 8GB max, PC2-6400 800MHz DDR2, ECC , dual-channel capable, four 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; three sockets available	
Graphics	ATI® RN50 (ES1000), on planar, 32-bit/33MHz PCI 2.3, 16MB, external monitor port (VGA DB-15 rear); <i>Maximum resolution</i> : 800x600@85Hz	
EIDE controller	Enhanced IDE controller in Enterprise South Bridge, one connector on planar, single 1-drop IDE cable (for Combo)	
EIDE Combo	DVD-ROM/CD-RW, Ultrabay Enhanced, 12.7mm high	
SATA disk(s)	None	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH9R, not used by disks	
SATA connectors	Two SATA connectors on planar, two simple-swap connectors on 3.5" disk backplate	
SATA RAID cont	LSI™ 1064E, SATA 3.0Gb/s, RAID® 0, 1 support, Mini PCI Express® adapter	
SAS disk	Not supported	
SAS connectors	Not supported	
SAS RAID cont	Not supported	
Chipset	Intel 3210 Chipset , Intel I/O Controller Hub 9 RAID (ICH9R) for RAID 0, 1, 10 support, SMSC® SCH5027 Super I/O	
Riser card	Contains one PCI Express x4 slot and one PCI Express x8 slot	
Front ports	Two USB 2.0	
Rear ports	Two USB 2.0, external monitor (VGA DB-15), serial (9-pin), two ethernet (RJ-45), system management (RJ-45)	
Diagnostics	Diagnostic LEDs (system-error LED on front cover; error LEDs for fans, disk controller, memory, PCI slots, power)	
Systems mgmt	System management utility, baseboard management controller, IPMI 2.0-compliant	
Audio	None	
Speaker	Internal speaker	
Ethernet	Dual gigabit on planar, Broadcom® 5722 (PCIe x1), Broadcom 5703 (PCI 2.2), full duplex, Wake on LAN®	
Keyboard	None (use USB port)	
Mouse	None (use USB port)	
Power supply	One 350 watts, one maximum, non-redundant, two variable speed fans, non-hot-swap, universal	
Cooling	Five fans, five maximum, variable speed	
Software management tools		
• ThinkServer EasyStartup • ThinkServer EasyUpdate • ThinkServer EasyManage		
Accessories		
1GB PC2-6400 DDR2 ECC UDIMM	45J6188	
2GB PC2-6400 DDR2 ECC UDIMM	45J6189	
160GB 3.5" Simple-swap SATA 3.0Gb/s Disk (7200 rpm)	45J6195	
250GB 3.5" Simple-swap SATA 3.0Gb/s Disk (7200 rpm)	45J6196	
500GB 3.5" Simple-swap SATA 3.0Gb/s Disk (7200 rpm)	45J6197	
750GB 3.5" Simple-swap SATA 3.0Gb/s Disk (7200 rpm)	45J6198	
Other accessories at lenovo.com/accessories		

See footnotes for important warranty information
US model announced September 30, 2008

© Lenovo
(RS110-1) October 2008

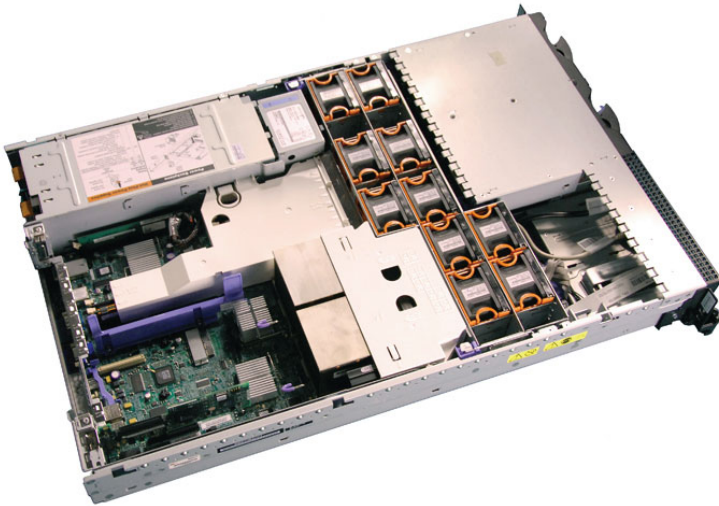
- *R = Rack, S = Single processor*
- *High performance server with rock solid technology and proven hardware design*
- *Easy to use with ThinkServer EasyStartup, EasyUpdate, and EasyManage software*
- *These small and medium business (SMB) models are part of the US TopSeller™ Program*

See footnotes for important warranty information
US models announced September 30, 2008

© Lenovo
(RS110-2) October 2008



Lenovo ThinkServer RD120



Lenovo ThinkServer RD120



Lenovo ThinkServer RD120



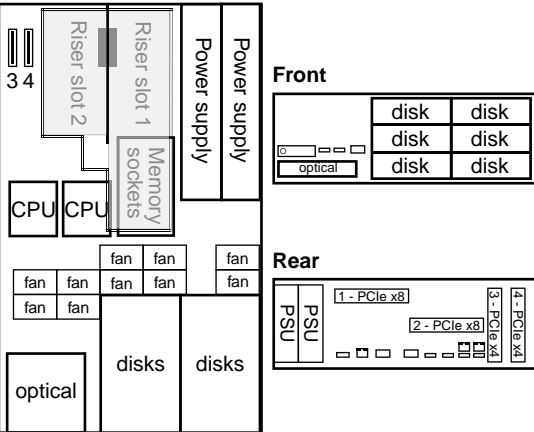
Lenovo ThinkServer RD120



Lenovo ThinkServer RD120

Name	Type-model	Slot x bay	Processor(s)	GHz	Cores	Memory	Disk(s) size	Disk connection	Disk type	RAID controller	EIDE optical	Power supply(s)	Fans	Limited warranty ¹	Workhorse Global	Avail date
RD120	6445-12U	4x7	1 x E5205	1.86	2	2 x 1GB	None	3.5" 6 x	Hot-swap	SATA/SAS ⁴	RAID-8k	Combo 2 x 835W	10	1-year	No	Sep 08
RD120	6445-14U	4x7	1 x E5205	1.86	2	2 x 1GB	None	3.5" 6 x	Hot-swap	SATA/SAS ⁴	9580W	Combo 2 x 835W	10	1-year	No	Jan 09

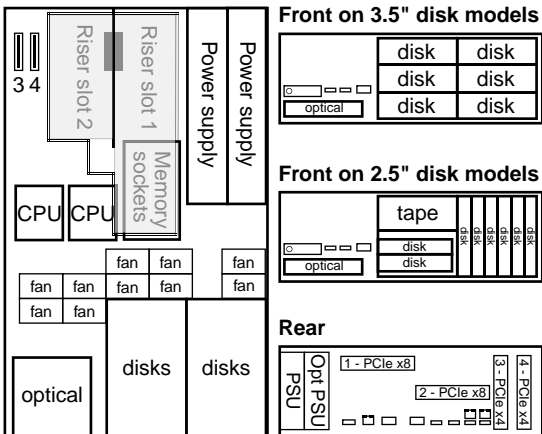
- **R = Rack, D = Dual processor support**
- **High performance server with rock solid technology and proven hardware design**
- **Easy to use with ThinkServer EasyStartup, EasyUpdate, and EasyManage software**
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**

Processor	One Intel® Xeon® Processor E5205 with dual-core, two maximum, 1066MHz system bus, and 6MB L2 cache	<div>2U Rack top</div> <div></div>
Implementation	Processor uses FC-LGA6 package, two LGA771 sockets	
Memory	2GB std, 48GB max, PC2-5300 667MHz DDR2, Advanced ECC , fully buffered, 4-channel capable, twelve 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in two sockets; ten sockets available	
Graphics	ATI® RN50 (ES1000), on planar, 32-bit/33MHz PCI 2.3, 16MB, external monitor port (two VGA DB-15 front and rear); <i>Maximum resolution</i> : 800x600@85Hz	
EIDE controller	Enhanced IDE controller in Enterprise South Bridge, one connector on planar, single 1-drop IDE cable (for Combo)	
EIDE Combo	DVD-ROM/CD-RW, Ultrabay Enhanced, 12.7mm high	
SATA disk(s)	None	
SATA connectors	Six hot-swap connectors on 3.5" disk backplane	
SAS disk(s)	None	
SATA/SAS ⁴ cont	14U SATA/SAS: Adaptec® AIC-9580W, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID® 0, 1, 10 support, 8-port, on planar	
SAS connectors	Six hot-swap connectors on 3.5" disk backplane	
SATA/SAS RAID controller	12U SATA/SAS: RAID-8k Adapter, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID® 0, 1, 1e, 5, 6, 10 support, in reserved connector, single cable to backplane	
Chipset	Intel 5000P chipset, Intel 6321ESB-2E I/O Controller Hub, NS PC8742XVUL Super I/O	
Riser card	Contains two PCI Express® x8 slots	
Front ports	Two USB 2.0, external monitor (VGA DB-15)	
Rear ports	Four USB 2.0, external monitor (VGA DB-15), serial (9-pin), two ethernet (RJ-45), system management (RJ-45), external SAS	
Diagnostics	Easy LED Diagnostics (pull-out operator information panel with information LED and system-error LED; error LEDs for fans, disks, RAID, memory, processors, voltage regulator module, riser card, PCI slots, power supplies)	
Systems mgmt	System management utility, baseboard management controller, IPMI 2.0-compliant	
Audio	None	
Speaker	Internal speaker	
Ethernet	Dual gigabit on planar, two Broadcom® 5708, PCIe x1, full duplex, Wake on LAN®, TCP/IP Offload Engine (TOE), Alert Standard Format 2.0	
Keyboard	None (use USB port)	
Mouse	None (use USB port)	
Power supply	Two 835 watts, two maximum, redundant with 2, variable speed fan, hot-swap, universal, two redundant power supplies require ten fans	
Cooling	Ten fans, ten maximum, variable speed, hardware failure protection, hot-swap, ten fans required with second redundant power supply	
Accessories		
Intel Xeon Quad-Core Processor E5205 45J6180		
1GB PC2-5300 DDR2 ECC FB-DIMM 45J6191		
2GB PC2-5300 DDR2 ECC FB-DIMM 45J6192		
4GB PC2-5300 DDR2 ECC FB-DIMM 45J6193		
500GB 3.5" Hot-swap SATA 3.0Gb/s Disk (7200 rpm) 45J6202		
750GB 3.5" Hot-swap SATA 3.0Gb/s Disk (7200 rpm) 45J6203		
1TB 3.5" Hot-swap SATA 3.0Gb/s Disk (7200 rpm) 45J6204		
146GB 3.5" Hot-swap SAS 3.0Gb/s Disk (15000 rpm) 45J6211		
300GB 3.5" Hot-swap SAS 3.0Gb/s Disk (15000 rpm) 45J6212		
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, next business day response time)		
⇒ 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		
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)		
Software management tools		
• ThinkServer EasyStartup		
• ThinkServer EasyUpdate		
• ThinkServer EasyManage		
ThinkPlus Priority Support, 90-day Trial		
RoHS-compliant		

See footnotes for important warranty information

US model announced January 20, 2009; previous model on September 30, 2008

© Lenovo
(RD120-1) February 2009

Name	Type-model	Slot x bay	Processor(s)	GHz	Cores	Memory	Disk(s)	size	Disk connection	Disk type	RAID controller	EIDE optical	Power supply(s)	Fans	warranty ¹	Global	Workhorse Avail date
RD120	6447-18U	4x7	1 x E5410	2.33	4	2 x 1GB	None	3.5"	6 x Hot-swap	SATA/SAS ⁴	RAID-8k	Combo	2 x 835W	10	3-year	No	Sep 08
RD120	6447-21U	4x7	1 x E5430	2.66	4	2 x 2GB	None	3.5"	6 x Hot-swap	SATA/SAS ⁴	RAID-8k	Combo	2 x 835W	10	3-year	No	Sep 08
RD120	6447-23U	4x10	2 x E5450	3.00	4	2 x 2GB	None	2.5"	8 x Hot-swap	SAS	RAID-8k	Combo	2 x 835W	10	3-year	No	Sep 08
<ul style="list-style-type: none">• <i>R = Rack, D = Dual processor support</i>• <i>High performance server with rock solid technology and proven hardware design</i>• <i>Easy to use with ThinkServer EasyStartup, EasyUpdate, and EasyManage software</i>• <i>These small and medium business (SMB) models are part of the US TopSeller™ Program</i>																	
Processor	One or two Intel® Xeon® Processor E5410, E5430, or E5450 with quad-core , two maximum, 1333MHz bus, and 12MB L2 cache																
Implementation	Processor uses FC-LGA6 package, two LGA771 sockets																
Memory	2GB or 4GB std, 48GB max, PC2-5300 667MHz DDR2, Advanced ECC , fully buffered, 4-channel capable, twelve 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in two sockets; ten sockets available																
Graphics	ATI® RN50 (ES1000), on planar, 32-bit/33MHz PCI 2.3, 16MB, external monitor port (two VGA DB-15 front and rear); <i>Maximum resolution</i> : 800x600@85Hz																
EIDE controller	Enhanced IDE controller in Enterprise South Bridge, one connector on planar, single 1-drop IDE cable (for DVD)																
EIDE Combo	DVD-ROM/CD-RW, Ultrabay Enhanced, 12.7mm high																
SATA disk(s)	None																
SATA connectors	<i>18U/21U</i> : six hot-swap connectors on 3.5" disk backplane																
SAS disk(s)	None																
SATA/SAS ⁴ cont	Adaptec® AIC-9580W, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID ⁵ 0, 1, 10 support, 8-port, on planar, not used																
SAS connectors	<i>18U/21U</i> : six hot-swap connectors on 3.5" disk backplane																
SATA/SAS RAID controller	<i>23U</i> : eight hot-swap connectors on 2.5" disk backplane RAID-8k Adapter, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID ⁵ 0, 1, 1e, 5, 6, 10 support, in reserved connector, single cable to backplane																
Chipset	Intel 5000P chipset , Intel 6321ESB-2E I/O Controller Hub, NS PC8742XVUL Super I/O																
Riser card	Contains two PCI Express® x8 slots																
Front ports	Two USB 2.0, external monitor (VGA DB-15)																
Rear ports	Four USB 2.0, external monitor (VGA DB-15), serial (9-pin), two ethernet (RJ-45), system management (RJ-45), external SAS																
Diagnostics	Easy LED Diagnostics (pull-out operator information panel with information LED and system-error LED; error LEDs for fans, disks, RAID, memory, processors, voltage regulator module, riser card, PCI slots, power supplies)																
Systems mgmt	System management utility, baseboard management controller, IPMI 2.0-compliant																
Audio	None																
Speaker	Internal speaker																
Ethernet	Dual gigabit on planar, two Broadcom® 5708, PCIe x1, full duplex, Wake on LAN®, TCP/IP Offload Engine (TOE), Alert Standard Format 2.0																
Keyboard	None (use USB port)																
Mouse	None (use USB port)																
Power supply	Two 835 watts, two maximum, redundant with 2, variable speed fan, hot-swap, universal, two redundant power supplies require ten fans																
Cooling	Ten fans, ten maximum, variable speed, hardware failure protection, hot-swap, ten fans required with second redundant power supply																
Accessories																	
Intel Xeon Quad-Core Processor E5410						45J6185											
Intel Xeon Quad-Core Processor E5430						45J6186											
1GB PC2-5300 DDR2 ECC FB-DIMM						45J6191											
2GB PC2-5300 DDR2 ECC FB-DIMM						45J6192											
4GB PC2-5300 DDR2 ECC FB-DIMM						45J6193											
750GB 3.5" Hot-swap SATA 3.0Gb/s Disk (7200 rpm)						45J6203											
1TB 3.5" Hot-swap SATA 3.0Gb/s Disk (7200 rpm)						45J6204											
146GB 2.5" Hot-swap SAS 3.0Gb/s Disk (10000 rpm)						45J6207											
146GB 3.5" Hot-swap SAS 3.0Gb/s Disk (15000 rpm)						45J6211											
300GB 3.5" Hot-swap SAS 3.0Gb/s Disk (15000 rpm)						45J6212											
Other accessories at lenovo.com/accessories																	
Software management tools																	
• ThinkServer EasyStartup • ThinkServer EasyUpdate • ThinkServer EasyManage																	
Limited Warranty¹																	
⇒ 3-year parts and labor																	
⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)																	
⇒ 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																	
<ul style="list-style-type: none">• Black color front; metal case• 17.5"W x 27.8"D x 3.36"H• 443.6mm W x 705mm 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																	
Some: 2.5" disk bays:																	
Bay ① 5.25", 0.5" high, external, std optical																	
Bay ② 3.5", 1.6" high, external, optional tape																	
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 2.5", 0.6" high, external, optional disk																	
Some: 3.5" disk bays:																	
Bay ① 5.25", 0.5" high, external, std optical																	
Bay ② 3.5", 1" high, external, optional disk																	
Bay ③ 3.5", 1" high, external, opt disk (opt 1.6" tape)																	
Bay ④ 3.5", 1" high, external, opt disk (used by tape)																	
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: full-length, full-height, PCIe x8 (<i>on riser card</i>)																	
Slot 2: half-length, full-height, PCIe x8 (<i>on riser card</i>)																	
Slot 3: half-length, low-profile, PCIe x4 (x8 mechanical)																	
Slot 4: half-length, low-profile, PCIe x4 (x8 mechanical)																	
Security																	
<ul style="list-style-type: none">• Power-on password• Administrator password• Boot sequence control• Boot without keyboard, mouse, diskette• Serial port I/O control• USB port disablement (front or all)																	
ThinkPlus Priority Support, 90-day Trial																	
RoHS-compliant																	

See footnotes for important warranty information
US models announced September 30, 2008

Partial list of accessories supported on Lenovo® ThinkServer

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

Storage

USB Portable Diskette Drive 05K9276 ann 06/05/00

Keyboard

Preferred Pro USB Keyboard 73P5220 ann 06/21/05

USB Travel Keyboard with UltraNav 31P9490 ann 04/27/04

Mouse

Optical Wheel Mouse (USB) 06P4069 ann 05/21/03

Monitors

ThinkVision® L151 15" LCD Monitor 9165AC6 ann 10/23/07

ThinkVision L171p 17" LCD Monitor 9227AD1 ann 10/31/06

ThinkVision L193p 19" LCD Monitor 4431HB2 ann 10/23/07

Other accessories at www.lenovo.com/thinkserver/options

Operating Systems**Microsoft® Windows® for Lenovo***English language*

Server 2008 Standard ROK 84978BE

Server 2008 Enterprise ROK 84978DE

Server 2008 Datacenter (64-bit) ROK 84979HE

Essential Business Server 2008 Standard ROK 84978IE

Essential Business Server 2008 Premium ROK 84978JE

Small Business Server 2008 Standard ROK 84978EE

Small Business Server 2008 Premium ROK 84978FE

Small Business Server 2003 Standard ROK 84973EE

Small Business Server 2003 Premium ROK 84973FE

French language

Server 2008 Standard ROK 84978BF

Server 2008 Enterprise ROK 84978DF

Server 2008 Datacenter (64-bit) ROK 84979HF

Small Business Server 2008 Standard ROK 84978EF

Small Business Server 2008 Premium ROK 84978FF

Small Business Server 2003 Standard ROK 84973EF

Small Business Server 2003 Premium ROK 84973FF

Spanish language

Server 2008 Standard ROK 84978BS

Server 2008 Enterprise ROK 84978DS

Server 2008 Datacenter (64-bit) ROK 84979HS

Small Business Server 2008 Standard ROK 84978ES

Small Business Server 2008 Premium ROK 84978FS

Small Business Server 2003 Standard ROK 84973ES

Small Business Server 2003 Premium ROK 84973FS

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

Essential Business Server 2008 Standard 5 user 849785E

Essential Business Server 2008 Standard 20 user 849782E

Essential Business Server 2008 Premium 5 user 849785F

Essential Business Server 2008 Premium 20 user 849782F

Novell® Server Software - SLES for Lenovo*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

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 options⁷LOR = *Lenovo Onsite Repair***TS100 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

TS100 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

TD100 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

TD100 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

RS110 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

RS110 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

RD120 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

RD120 with 3-year warranty

3-year LOR 9x5 4 hour response	45K4076
4-year LOR 9x5 Next Business Day	51J0751
4-year LOR 9x5 4 hour response	51J0752
5-year LOR 9x5 Next Business Day	51J0753
5-year LOR 9x5 4 hour response	51J0754

Lenovo Online Data Backup

- Secure offsite data storage
- 256-bit Advanced Encryption System
- Data recovery or access in case of an unforeseen event
- Automatic, remote management
- Choose which business critical data to back up

1-year 25GB Server Lenovo Online Data Backup (US)	45K2115
1-year 50GB Server Lenovo Online Data Backup (US)	45K2116
1-year 100GB Server Lenovo Online Data Backup (US)	45K2117

ThinkPlus Priority Support

- 9x5 Next Business Day response Lenovo Onsite Repair
- 24 x 7 support with priority routing and advanced level technicians

TS100 with 1-year warranty

3-year Priority Support	45K4057
3-year Priority Support 4 hour response	45K4058

TS100 with 3-year warranty

3-year Priority Support	45K4060
3-year Priority Support 4 hour response	45K4061

TD100 with 1-year warranty

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

TD100 with 3-year warranty

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

RS110 with 1-year warranty

3-year Priority Support	45K4071
3-year Priority Support 4 hour response	45K4072

RS110 with 3-year warranty

3-year Priority Support	45K4074
3-year Priority Support 4 hour response	45K4075

RD120 with 1-year warranty

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

RD120 with 3-year warranty

3-year Priority Support	45K4077
3-year Priority Support 4 hour response	45K4078

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

HDDR = *Hard Disk Drive Retention***TS100 with 1-year warranty**

3-year Priority Support with HDDR	45K5441
3-year Priority Support 4 hour response with HDDR	45K5442

TS100 with 3-year warranty

3-year Priority Support with HDDR	45K5443
3-year Priority Support 4 hour response with HDDR	45K5444

TD100 with 1-year warranty

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

TD100 with 3-year warranty

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

RS110 with 1-year warranty

3-year Priority Support with HDDR	45K5449
3-year Priority Support 4 hour response with HDDR	45K5450

RS110 with 3-year warranty

3-year Priority Support with HDDR	45K5451
3-year Priority Support 4 hour response with HDDR	45K5452

RD120 with 1-year warranty

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

RD120 with 3-year warranty

3-year Priority Support with HDDR	45K5455
3-year Priority Support 4 hour response with HDDR	45K5456

ThinkPlus Productivity

- Priority Support
- Online Training, Understanding Lenovo Servers
- One-time hardware installation

3-year ThinkPlus Productivity, TS100 (1-year)	45K4084
3-year ThinkPlus Productivity, TS100 (3-year)	45K4086
3-year ThinkPlus Productivity, TD100 (1-year)	45K4088
3-year ThinkPlus Productivity, TD100 (3-year)	45K4090
3-year ThinkPlus Productivity, RS110 (1-year)	45K4092
3-year ThinkPlus Productivity, RS110 (3-year)	45K4094
3-year ThinkPlus Productivity, RD120 (1-year)	45K5315
3-year ThinkPlus Productivity, RD120 (3-year)	45K4096

Availability: All offers subject to availability. Lenovo reserves the right to alter product offerings and specifications at any time, without notice. Lenovo is not responsible for photographic or typographic errors.

Warranty: For a copy of applicable product warranties, write to: Warranty Information, 500 Park Offices Drive, RTP, NC, 27709, Attn: Dept ZPYA/B600. Lenovo makes no representation or warranty regarding third party products or services.

¹ **Limited warranty:** Support unrelated to a warranty issue may be subject to additional charges.

² **Hard drive:** GB = billion bytes, TB = trillion bytes. Accessible capacity is less.

³ **Systems with limited onsite service** are designed to be repaired during the applicable warranty period primarily with customer-replaceable parts provided by Lenovo. Lenovo will only send a technician onsite to perform a repair if (a) remote telephone diagnosis and/or customer part replacement are unable to resolve the problem, or (b) the part is one of the few designated by Lenovo for onsite replacement. For a list of onsite replaceable parts, contact Lenovo. In the United States call 1-800-426-7378. Support unrelated to a warranty issue may be subject to additional charges.

⁴ **SATA/SAS:** The system configuration supports the installation of either SATA or SAS disks. A configuration including both SATA and SAS disks is not supported.

⁷ **ThinkPlus Services:** These services are available for machines normally used for business, professional, or trade purposes, rather than personal, family, or household purposes. Not all machine types and models are covered. Service period begins with the equipment date of purchase. Service must be purchased during the original limited product warranty period. Service levels are response time objectives and are not guarantees. If the machine problem turns out to be a Customer Replaceable Unit (CRU), a part will be express shipped to you for quick replacement. Onsite 24x7x2-hour service is not available in all locations. P&L means parts and labor. P/U means pick-up. See ThinkPlus terms and conditions for complete details and restrictions.

⁸ **RAID:** Supported RAID levels for a system will vary from the stated capabilities of the RAID controller due to dependencies on the number and capacity of physical disks in the system and on customer requirements for performance, fault tolerance, or data redundancy.

RAID levels and requirements:

- **RAID 0 (striping)** provides increased performance by writing data across multiple drives.
- **RAID 1 (mirroring)** provides fault tolerance by writing the data on two drives.
- **RAID 5 (striping with parity)** uses distributed parity data to provide fault tolerance more efficiently than RAID 1. Requires three or more drives.
- **RAID 6 (striped set with dual distributed parity)** provides fault tolerance from two drive failures; array continues to operate with up to two failed drives. Requires four drives.
- **RAID 10 (or RAID 1+0)** combines RAID 1 and RAID 0 to create a stripe of mirrors that is fault tolerant while offering increased performance. Requires four drives.
- **RAID 50 (or RAID 5+0)** combines RAID 5 and RAID 0 to create block-level striping with distributed parity improving performance over RAID 5. Requires six drives.
- **RAID 60 (or RAID 6+0)** combines RAID 6 and RAID 0 to create block-level striping with distributed double parity improving performance over RAID 6. Requires eight drives.

¹⁴ **Response times may vary.** May exclude some holidays. Telephone support may be subject to additional charges.

ThinkServer™

This publication was developed for products and services offered in the United States. Lenovo may not offer the products, services or features discussed in this document in other countries. Lenovo may withdraw an offering at any time. Information is subject to change without notice. Consult your local representative for information on offerings available in your area.

Lenovo reserves the right to change specifications and other product information at any time without prior notice. Lenovo is not responsible for photographic or typographical errors. LENOVO PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some jurisdictions do not allow disclaimer of express or implied warranties in certain transactions; therefore this disclaimer may not apply to you.

Trademarks: Lenovo, the Lenovo logo, New World. New Thinking., Access Connections, Rescue and Recovery, ThinkCentre, ThinkPad, ThinkServer, ThinkStation, ThinkVantage, and ThinkVision are trademarks of Lenovo. Microsoft, Windows, and Vista are registered trademarks of Microsoft Corporation. Intel, the Intel logo, Intel Inside logo, Intel Core and Core Inside are trademarks of Intel Corporation in the US and other countries. Other company, product, or service names may be trademarks or service marks of others.

Visit www.lenovo.com/safecomputing periodically for the latest information on safe and effective computing.

Visit www.lenovo.com/psref for the latest version of Personal Systems Reference.

© Lenovo, 2009.
All rights reserved.

Lenovo
1009 Think Place
Morrisville, NC 27560
U.S.A.

March 2009
svbook.pdf



Personal Systems Reference Lenovo® ThinkVision® Monitors

March 2009 - Version 353



ThinkVision L2440x Wide Monitor

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

E Series Essential CRT Monitors		Positioning
Name Case color Type-model Stand Screen Viewable image size Aspect ratio Dot pitch Max view area (inches) Max view area (mm) CRT type Video input Vertical refresh rate range Horizontal line rate range Clock rate Optimum resolution Maximum resolution Preset display modes Presets / user settings On screen display On screen display controls Control features Connector Signal cable Power cable Anti-reflective treatment Anti-static treatment Dimensions (H x W x D) Dimensions (H x W x D) Weight Stand VESA DDC VESA DPMS-compliant ENERGY STAR ³ Emission standards TCO 99-compliant ISO 9241 capable RoHS Ship group Power supply Limited warranty ⁴ Available date	Lenovo E75 CRT Monitor Business black 6307-BTN Tilt, swivel stand 17.0" (432mm) FST CRT 16.0" / 406mm (diagonal) 4x3 0.25mm 12.8" x 9.6" (horizontal x vertical) 325mm x 244mm (horizontal x vertical) Full Flat Shadow Mask (FST) Analog 50 to 160Hz 30 to 72kHz 110Mpels/sec (MHz) 1024x768 at 85Hz 1280x1024 at 60Hz VGA: 640x480 60, 85Hz 720x400 70Hz SVGA: 800x600 75, 85Hz XGA: 1024x768 75, 85Hz 1152x864 75Hz SXGA: 1280x1024 60Hz 9 / 8 Yes (6 languages) Digital front panel controls Contrast/brightness, horizontal/vertical size/centering, pincushion, pincushion balance, image rotation, geometry recall, degauss, color point adjustment, R/G/B control, color point recall, selectable color points, picture zoom, moire control, parallelogram, trapezoid, display time VGA 15-pin D-shell One 1.5 meter captive with VGA 15-pin D-shell 1.8 meter Yes Yes 15.0" x 15.6" x 16.9" 381mm x 397mm x 430mm 33.5 lb / 15.2 kg Tilt-swivel stand / tilt: 15° back, 5° forward / swivel: 90° left, 90° right 2B / CI DPMS No MPR-II, FCC-B No Parts 3, 7, 8 ¹ RoHS (EU Directive 2002/95/EC) Monitor, attachable stand, Setup Guide, Safety and Warranty Information, CD with multilingual User's Guide and monitor installation files, attached analog signal cable, separate 1.8m black power cable 90-264Vac, 75 watts maximum, 50-60Hz, universal 3-year January 2007	• The Lenovo E75 CRT monitor is an essential monitor offering standard business features for value-conscious customers. Features • 17-inch (432mm) CRT with a viewable image size of 16.0" (406mm) incorporating a 0.25 dot pitch • Flatter, squarer tube (FST) cathode ray tube (CRT) design • Recommended for use at maximum resolution of 1024x768 at 85Hz for flicker-free viewing • Anti-reflective screen treatments to minimize glare without sacrificing picture sharpness
Limited Warranty ⇒ 3-year limited warranty ⁴ ⇒ International Warranty Service ⁵ ⇒ Rapid Replacement Service at 1-800-IBM-SERV (426-7378) ⇒ Replacement normally arrives in two business days, excluding holidays ⇒ Lenovo pays all shipping costs for valid warranty claims ⁶ ⇒ Service upgrade options: ⁷ <ul style="list-style-type: none"> • 3-year, on site exchange, Mon-Fri 9-5 with next day response (ThinkPlus™ 41C9209) • 3-year, on site exchange 7 day x 24 hr with 4 hour response (ThinkPlus 41C9212) • 4-year, on site exchange Mon-Fri 9-5 with next day response (ThinkPlus 41C9217) • 4-year, on site exchange 7 day x 24 hr with 4 hour response (ThinkPlus 41C9218) ⇒ 24x7 ⁸ day toll-free support for warranty issues during the warranty period ⁴		E Series Essential CRT Monitors provide essential features at attractive prices Accessories ThinkPad® Convertible Monitor Stand 40Y7620 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 16, 2007

© Lenovo
 (E75) January 2007

<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) Brightness Contrast ratio Pixel response time Color gamut Anti-reflective Vertical frequency Horizontal frequency Viewing angle at 10:1 CR Viewing angle at 5:1 CR Stand Bezel width Dimensions (HxWxD) Power supply Weight Limited warranty⁴ Available date</div> <div>D156 Wide Flat Panel Monitor Business black 4415-AB1 TFT-LCD, twisted nematic (TN) 15.6" (396.2mm) diagonal 13.6" x 7.6" / 344.2mm x 193.5mm 1366x768 at 60Hz 1366x768 at 60Hz (135MHz max pixel rate) 16:9 .252mm 250 nits or cd/m² (typical) 500:1 (typical) 8ms (typical) 65% Anti-reflective, anti-glare 50 to 75Hz 30 to 60Hz 90° (+/- 45°) horizontal, 65° (+20/- 45°) vertical 110° (+/- 55°) horizontal, 85° vertical Tilt adjustable stand Sides: 0.60" (15.8mm); top: 0.65" (16.5mm); bottom: 1.25" (31.8mm) 9.51-11.76" H x 14.72" W x 2.61-7.46" D; 241.5-298.6mm H x 374.0mm W x 66.3-189.6mm D 18 watts typical, 28 watts maximum, <2 watts standby/suspend, universal, integrated (no external brick-like power supply) 5.82 lb; 2.64kg 3 year (includes backlight) October 2008</div>		<div>Features</div> <div><ul style="list-style-type: none">• Widescreen 15.6-inch monitor• EPEAT™ Gold rating• Supports WXGA 1366x768 resolution• Matching design to Lenovo notebooks and desktops</div>								
<div>VESA-compliant² Power management Ergonomics Pixel defect Emission standards Environmental</div> <div>VESA DDC2B/CI, VESA DPMS-compliant ENERGY STAR® 5.0 ISO 13406 Part 2¹ 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</div>	<div></div> <div>D156 Wide Monitor</div>									
<div>Preset display resolutions</div> <div>VGA: 640x480, 640x350, 700x570 SVGA: 800x600 XGA: 1024x768 WXGA: 1360x768, 1366x768 Standard presets: 13; user settings: 10</div>										
<div>Presets / user settings</div> <div>Tilt: 20° back, 5° forward; no lift; no swivel; detachable stand None On screen display with digital user controls (7 languages) Direct access (buttons on front) for automatic image setup and brightness None None VGA 15-pin D-shell, analog, blue Detachable, VGA 15-pin D-shell at each end, analog, 1.8 meter Wall or desk mounting using the Radial Arm⁹ or third-party accessories meeting the VESA FPMPI® (75mm 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, 1.8m analog signal cable, 1.8m 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-IBM-SERV (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 (41C9227)• 4 year, on site exchange, 7 day x 24 hr with 4 hour response (41C9228)⇒ 24x7⁸ day toll-free support for warranty issues during the warranty period⁴</div>		<div>Accessories</div> <div><table><tr><td>Kensington® Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>Kensington Twin Head Cable Lock</td><td>45K1620</td></tr><tr><td>ThinkPad Convertible Monitor Stand</td><td>40Y7620</td></tr><tr><td>ThinkVision TFT Radial Arm⁹</td><td>19K4464</td></tr></table><div>See details at www.lenovo.com/support/monitoraccessories</div><div>See all monitors at www.lenovo.com/thinkvision</div></div>	Kensington® Cable Lock from Lenovo	73P2582	Kensington Twin Head Cable Lock	45K1620	ThinkPad Convertible Monitor Stand	40Y7620	ThinkVision TFT Radial Arm ⁹	19K4464
Kensington® Cable Lock from Lenovo	73P2582									
Kensington Twin Head Cable Lock	45K1620									
ThinkPad Convertible Monitor Stand	40Y7620									
ThinkVision TFT Radial Arm ⁹	19K4464									

See footnotes for important warranty information
US model announced September 17, 2008

© Lenovo
(D156) January 2009

<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 Viewing angle at 10:1 CR Stand Bezel width Dimensions (HxWxD) Power supply Weight Limited warranty⁴ Available date</div> <div>D185 Wide Flat Panel Monitor High gloss black 6207-HB1 6318-HB1 TFT-LCD, twisted nematic (TN), CCFL backlight 18.5" (470mm) diagonal 16.1" x 9.1" / 409.6mm x 230.3mm 1366x768 at 60Hz 1366x768 at 60Hz (135MHz max pixel rate) 16:9 .300mm 85 dpi 250 nits or cd/m² (typical) 1000:1 (typical) 5ms (typical) 72% Anti-reflective, anti-glare 160° (+/- 80°) horizontal, 160° (+/- 80°) vertical Tilt adjustable stand Sides: 0.61" (15.6mm); top: 0.61" (15.6mm); bottom: 1.08" (27.5mm) 13.9" H x 17.6" W x 7.9" D; 354mm H x 446mm W x 201mm D 16 watts typical, 22 watts maximum, <1 watts standby/suspend, universal, integrated (no external brick-like power supply) 8.9 lb; 4.05kg 1 year (includes backlight) 3 years (includes backlight) March 2009 February 2009</div>		<div>Features</div> <ul style="list-style-type: none">• Widescreen 18.5-inch monitor• High Definition (HD) ready; 1366x768 resolution• Detachable stand tilts for comfortable viewing• NovoVision offers four modes (text, Internet and picture, video, and split demo) and provides automatic contrast, brightness, color correction, and color enhancement
<div>VESA-compliant² Power management Ergonomics Pixel defect Emission standards Environmental Preset resolutions Presets</div> <div>VESA DDC2B/CI, VESA DPMS-compliant ENERGY STAR[®] 4.1 ISO 13406 Part 2¹ ISO 13406-2 Class II pixel defect standard MPR-2, MPR-3A, FCC Class B WEEE, RoHS (EU Directive 2002/95/EC), EPEAT™ Silver rating VGA: 640x350, 640x480, 720x400 SVGA: 800x600 XGA: 1024x768 WXGA: 1366x768 Standard presets: 20</div>	<div>Lenovo D185 Wide Monitor</div> <div>Lenovo D185 Wide Monitor rear view</div>	
<div>Viewing adjustments Rotating screen On screen display Control features USB hub Multiple input Monitor connectors Signal cables Mounting features Security Ship group</div> <div>Tilt: 20° back, -5° forward; no lift; no swivel; detachable stand None On screen display with digital user controls (7 languages) Direct access (control buttons on front) for automatic image setup and Novo Vision function providing automatic adjustment for contrast, brightness, color correction, and color enhancement with 4 mode settings for text, Internet and picture, video, and split demo) None 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, 1.8 meter (2) detachable, DVI-D at each end, digital, 1.8 meter Wall or desk mounting using the Radial Arm⁹ or third-party accessories meeting the VESA FPMPI[®] (100mm mount) Security keyhole for attachment of optional cable lock (Kensington[®] lock-compatible) 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><div>➤ 6207: 1 year limited warranty⁴</div><div>➤ 6318: 3 year limited warranty⁴</div><div>➤ Rapid Replacement Service at 1-800-IBM-SERV (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>➤ 24x7[®] day toll-free support for warranty issues during the warranty period⁴</div></div>	<div>Accessories</div> <div><div>ThinkVision Soundbar45K1263</div><div>Kensington[®] Cable Lock from Lenovo73P2582</div><div>Kensington Twin Head Cable Lock45K1620</div><div>ThinkVision TFT Radial Arm⁹19K4464</div></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 models announced January 27 or March 10, 2009

© Lenovo
(D185) March 2009

Name	L215 Wide Flat Panel Monitor	<div>Features</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>Lenovo L215 Wide Monitor</div></div> <div><div>Lenovo L215 Wide Monitor rear view with cable management</div></div>
Case color	High gloss black	
Type-model	6521-HB1 6325-HB1	
Panel	TFT-LCD, twisted nematic (TN), CCFL backlight	
Viewable image size	21.5" (547mm) diagonal	
Max view area (W x H)	18.7" x 10.5" / 476.0mm x 267.7mm	
Optimum resolution	1920x1080 at 60Hz	
Maximum resolution	1920x1080 at 60Hz (205MHz max pixel rate)	
Aspect ratio	16:9	
Pixel pitch (mm)	.248mm	
Dot/Pixel per Inch	103 dpi	
Brightness	300 nits or cd/m ² (typical)	
Contrast ratio	1000:1 (typical)	
Pixel response time	5ms (typical)	
Color gamut	72%	
Anti-reflective	Anti-reflective, anti-glare	
Viewing angle at 10:1 CR	160° (+/- 80°) horizontal, 160° (+/- 80°) vertical	
Stand	Tilt and swivel adjustable stand	
Bezel width	<i>Sides: 0.66" (16.9mm); top: 0.98" (25.0mm); bottom: 0.83" (21.0mm)</i>	
Dimensions (HxWxD)	15.4" H x 20.2" W x 7.1" D; 391.0mm H x 512.3mm W x 180.2mm D	
Power supply	36 watts typical, 45 watts maximum, <1 watts standby/suspend, universal, integrated (no external brick-like power supply)	
Weight	10.8 lb; 4.9kg	
Limited warranty ⁴	1 year 3 years (includes backlight) (includes backlight)	
Available date	February 2009	
VESA-compliant ²	VESA DDC2B/CI, VESA DPMS-compliant	
Power management	ENERGY STAR [®] 4.1	
Ergonomics	ISO 13406 Part 2 ¹	
Pixel defect	ISO 13406-2 Class II pixel defect standard	
Emission standards	MPR-2, MPR-3A, FCC Class B	
Environmental	WEEE, RoHS (EU Directive 2002/95/EC)	
Preset resolutions	VGA: 640x350, 640x480 SVGA: 800x600, 832x624 XGA: 1024x768, 1152x864 SXGA: 1280x1024 WXGA+: 1440x900 WSXGA+: 1680x1050 WUXGA: 1920x1080	
Presets	Standard presets: 25	
Viewing adjustments	<i>Tilt:</i> 20° back, -5° forward; <i>swivel:</i> +/-170°; detachable stand	
Rotating screen	None	
On screen display	On screen display with digital user controls (7 languages)	
Control features	Direct access (control buttons on front) for automatic image setup and Novo Vision function providing automatic adjustment for contrast, brightness, color correction, and color enhancement with 4 mode settings for text, Internet and picture, video, and split demo)	
USB hub	None	
Multiple input	Multiple input (two different PCs attach to two different connectors; one PC shows image; select via button)	
Monitor connectors	(1) VGA 15-pin D-shell, analog, blue (2) Digital Visual Interface (DVI-D), digital, white, HDCP-compliant	
Signal cables	(1) detachable, VGA 15-pin D-shell at each end, analog, 1.8 meter (2) detachable, DVI-D at each end, digital, 1.8 meter	
Mounting features	Wall or desk mounting using the Radial Arm ⁹ or third-party accessories meeting the VESA FPMPI [®] (75mm mount)	
Security	Security keyhole for attachment of optional cable lock (Kensington [®] lock-compatible)	
Ship group	Monitor, attached stand, cable clip, Setup poster, Safety and Warranty Information, CD with multilingual User's Guide and monitor installation files, 1.8 meter analog signal cable, 1.8 meter digital signal cable, 1.8 meter black power cord	
<div>Limited Warranty</div> <div>➤ 6521: 1 year limited warranty⁴</div> <div>➤ 6325: 3 year limited warranty⁴</div> <div>➤ Rapid Replacement Service at 1-800-IBM-SERV (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>➤ 24x7[®] day toll-free support for warranty issues during the warranty period⁴</div>		
<div>Accessories</div> <div>ThinkVision Soundbar45K1263</div> <div>Kensington[®] Cable Lock from Lenovo73P2582</div> <div>Kensington Twin Head Cable Lock45K1620</div> <div>ThinkVision TFT Radial Arm⁹19K4464</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 models announced January 27 or February 17, 2009

© Lenovo
(L215) February 2009

<div>NameL215p Wide Flat Panel Monitor Case colorHigh gloss black Type-model6521-HC1 6325-HC1 PanelTFT-LCD, twisted nematic (TN), CCFL backlight Viewable image size21.5" (547mm) diagonal Max view area (W x H)18.7" x 10.5" / 476.0mm x 267.7mm Optimum resolution1920x1080 at 60Hz Maximum resolution1920x1080 at 60Hz (205MHz max pixel rate) Aspect ratio16:9 Pixel pitch (mm).248mm Dot/Pixel per Inch103 dpi Brightness300 nits or cd/m² (typical) Contrast ratio1000:1 (typical) Pixel response time5ms (typical) Color gamut72% Anti-reflectiveAnti-reflective, anti-glare Viewing angle at 10:1 CR160° (+/- 80°) horizontal, 160° (+/- 80°) vertical StandTilt and swivel adjustable stand Bezel widthSides: 0.66" (16.9mm); top: 0.98" (25.0mm); bottom: 0.83" (21.0mm) Web cameraIntegrated in top bezel, 0.3-megapixel, fixed focus MicrophoneIntegrated in top bezel Dimensions (HxWxD)15.4" H x 20.2" W x 7.1" D; 391.0mm H x 512.3mm W x 180.2mm D Power supply40 watts typical, 45 watts maximum, <1 watts standby/suspend, universal, integrated (no external brick-like power supply) Weight11.6 lb; 5.06kg Limited warranty⁴1 year 3 years (includes backlight) (includes backlight) Available dateFebruary 2009</div>		<div>Features<ul style="list-style-type: none">• Widescreen 21.5-inch monitor• High Definition (Full HD) ready; supports 1080p video• Stand tilts and swivels for comfortable viewing• VOIP ready with integrated 0.3-megapixel camera and microphone plus optional ThinkVision Soundbar• 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-compliant²VESA DDC2B/CI, VESA DPMS-compliant Power managementENERGY STAR[®] 4.1 ErgonomicsISO 13406 Part 2¹ Pixel defectISO 13406-2 Class II pixel defect standard Emission standardsMPR-2, MPR-3A, FCC Class B EnvironmentalWEEE, RoHS (EU Directive 2002/95/EC)</div>	<div>Lenovo L215p Wide Monitor</div>								
<div>Preset resolutions VGA: 640x350, 640x480 SVGA: 800x600, 832x624 XGA: 1024x768, 1152x864 SXGA: 1280x1024 WXGA+: 1440x900 WSXGA+: 1680x1050 WUXGA: 1920x1080 Preset video timing for HDMI 480i: 720x240 480p: 640x480, 720x480 576p: 720x576 720p: 1280x720 1080i: 1920x1080 1080p: 1920x1080 Presets Standard presets: 25</div>	<div>Lenovo L215p Wide Monitor rear view with cable management</div>								
<div>Viewing adjustmentsTilt: 20° back, -5° forward; swivel: +/-170°; detachable stand Rotating screenNone On screen displayOn screen display with digital user controls (7 languages), touch-sensitive control buttons Control featuresDirect access (control buttons on front) for automatic image setup and Novo Vision function providing automatic adjustment for contrast, brightness, color correction, and color enhancement with 4 mode settings for text, Internet and picture, video, and split demo)</div>									
<div>USB hubUSB 2.0 Hub (1 port into PC, 3 ports for accessories) Multiple inputMultiple 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) HDMI (1.3), digital, black, HDCP-compliant</div>									
<div>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</div>									
<div>Mounting featuresWall or desk mounting using the Radial Arm[®] or third-party accessories meeting the VESA FPMPI[®] (75mm mount) SecuritySecurity keyhole for attachment of optional cable lock (Kensington[®] lock-compatible)</div>									
<div>Ship groupMonitor, 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 HDMI cable, 1.8 meter USB cable, 1.8 meter audio cable, 1.8 meter black power cord</div>									
<div>Limited Warranty ⇒ 6521: 1 year limited warranty⁴ ⇒ 6325: 3 year limited warranty⁴ ⇒ Rapid Replacement Service at 1-800-IBM-SERV (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</div>	<div>Accessories<table><tr><td>ThinkVision Soundbar</td><td>45K1263</td></tr><tr><td>Kensington[®] Cable Lock from Lenovo</td><td>73P2582</td></tr><tr><td>Kensington Twin Head Cable Lock</td><td>45K1620</td></tr><tr><td>ThinkVision TFT Radial Arm⁹</td><td>19K4464</td></tr></table>See details at www.lenovo.com/support/monitoraccessories See all monitors at www.lenovo.com/thinkvision</div>	ThinkVision Soundbar	45K1263	Kensington [®] Cable Lock from Lenovo	73P2582	Kensington Twin Head Cable Lock	45K1620	ThinkVision TFT Radial Arm ⁹	19K4464
ThinkVision Soundbar	45K1263								
Kensington [®] Cable Lock from Lenovo	73P2582								
Kensington Twin Head Cable Lock	45K1620								
ThinkVision TFT Radial Arm ⁹	19K4464								


Flat Panel Monitors - US model		Features
Name	L151 Flat Panel Monitor	<ul style="list-style-type: none"> • All-purpose 15-inch flat panel LCD monitor • EPEAT™ Gold rating • Slim 16mm (0.63") side bezel • Resolution of 1024x768 provides crisp screen images • Stand tilts for comfortable viewing • Direct access for automatic image setup and brightness • Quick and easy monitor adjustments using on-screen display menus • A great replacement for a 15" or 17" CRT monitor • Integrated power supply eliminates the bulky power adapter for improved cable management • Lockable digital controls • Matching design to ThinkPad® and ThinkCentre® systems
Case color	Business black	
Type-model	9165-AC6	
US Govt model (TAA) ¹⁰	No	
Stand	Tilt stand	
Screen	LCD Active Matrix TFT (Thin Film Transistor)	
Viewable image size(diag)	15.0" / 381mm (diagonal)	
Aspect ratio	4:3	
Pixel pitch (mm)	.297mm	
Max view area (inches)	12.0" x 9.0" (horizontal x vertical)	
Max view area (mm)	304mm x 228mm (horizontal x vertical)	
Viewing angle at 5:1 CR	140° (+80°/- 60°) vertical, 160° (+/- 80°) horizontal	
Viewing angle at 10:1 CR	125° (+/- 62.5°) vertical, 140° (+/- 70°) horizontal	
Video input	Analog	
Dual input	No	
Rotating screen	No pivot	
Optimum resolution	1024x768 at 60Hz	Presets / user settings Brightness Contrast ratio Pixel response time Scaling On screen display Control features Monitor connector Signal cable Anti-reflective Dimensions Weight Viewing adjustments Mounting features Security VESA-compliant ² Power management Ergonomics Pixel defect Emission standards Environmental Ship group Power supply Limited warranty ⁴ Available date
Maximum resolution	1024x768 at 75Hz (80MHz maximum pixel rate)	
Vertical frequency	55 to 75Hz	
Horizontal frequency	30 to 63kHz	
Preset display modes	VGA: 640x480 60, 66, 72, 75Hz 640x350 70Hz 720x400 70Hz SVGA: 800x600 60, 72, 75Hz XGA: 1024x768 60, 70, 75Hz	
Standard presets: 12; user settings: 10		
250 nits or cd/m ² (typical)		
500:1 (typical)		
8ms (typical)		
Can expand image of lower resolution to full screen of 1024x768		
On screen display	On screen display with digital user controls (7 languages)	
Control features	Direct access (buttons on front) for auto adjustment and brightness; contrast; image horizontal and vertical position; user color settings (3 preset + 1 user); on screen display (OSD) language selection; menu position; information screen; image setup; image size to show normal or expanded format; reset of geometry and color point to factory default settings; lockable settings	
Monitor connector	One connector: analog VGA 15-pin D-shell [blue]	
Signal cable	Analog cable, detachable, VGA 15-pin D-shell at each end (for analog connector), 1.8 meter, matches color of monitor	
Anti-reflective	Anti-reflective, anti-glare	
Dimensions	13.31"H x 13.56"W x 6.12"D / 338mm height x 345mm width x 156mm depth	
Weight	6.8 lb / 3.1kg	
Viewing adjustments	Tilt: 30° back, 4° forward, no swivel, no lift, detachable stand	
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)	
VESA-compliant ²	VESA DDC2B/CI, VESA DPMS-compliant	
Power management	ENERGY STAR® 4.0	
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 99, 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, set-up test pattern, and monitor installation files; analog signal cable; 1.8m black power cord	
Power supply	100-240Vac (universal), integrated (no external brick-like power supply), 25 watts typical, <2 watts standby/suspend	
Limited warranty ⁴	3-year (includes backlight)	
Available date	November 2007	

Limited Warranty	Accessories										
⇒ 3-year limited warranty⁴ ⇒ International Warranty Service⁵ ⇒ Rapid Replacement Service at 1-800-IBM-SERV (426-7378) ⇒ Replacement normally arrives in two business days, excluding holidays ⇒ Lenovo pays all shipping costs for valid warranty claims⁵ ⇒ 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 (41C9234) • 4 year, mail exchange (51J0589) • 5 year, mail exchange (51J0590) ⇒ 24x7⁸ day toll-free support for warranty issues during the warranty period⁴	<table> <tr> <td>ThinkVision® USB Soundbar</td><td>40Y7616</td></tr> <tr> <td>Kensington® MicroSaver® Security Cable Lock</td><td>73P2582</td></tr> <tr> <td>Kensington Twin Head Cable Lock</td><td>45K1620</td></tr> <tr> <td>ThinkPad Convertible Monitor Stand</td><td>40Y7620</td></tr> <tr> <td>ThinkVision TFT Radial Arm⁹</td><td>19K4464</td></tr> </table> <p>See details at www.lenovo.com/support/monitoraccessories</p> <p>See all monitors at www.lenovo.com/thinkvision</p>	ThinkVision® USB Soundbar	40Y7616	Kensington® MicroSaver® Security Cable Lock	73P2582	Kensington Twin Head Cable Lock	45K1620	ThinkPad Convertible Monitor Stand	40Y7620	ThinkVision TFT Radial Arm ⁹	19K4464
ThinkVision® USB Soundbar	40Y7616										
Kensington® MicroSaver® Security Cable Lock	73P2582										
Kensington Twin Head Cable Lock	45K1620										
ThinkPad Convertible Monitor Stand	40Y7620										
ThinkVision TFT Radial Arm ⁹	19K4464										

See footnotes for important warranty information
 US model announced October 23, 2006

© Lenovo
 (L151-07) March 2008

Flat Panel Monitors - US model		Features
Name	L174 Flat Panel Monitor	<ul style="list-style-type: none">• All-purpose 17-inch flat panel LCD monitor• EPEAT™ Gold rating• Resolution of 1280x1024 provides crisp screen images• Slim 15.6mm (0.61") side bezel• Stand tilts for comfortable viewing• Direct access for automatic image setup and brightness• Quick and easy monitor adjustments using on-screen-display• Scaling allows full screen viewing of resolutions less than 1280x1024• Integrated power supply eliminates the bulky power adapter for improved cable management• Lockable digital controls• Complements the ThinkCentre® and ThinkPad® systems
Case color	Business black	
Type-model	9227-AE1	
Stand	Tilt stand	
Screen	LCD Active Matrix TFT (Thin Film Transistor)	
Viewable image size (diag)	17.0" / 432mm (diagonal)	
Aspect ratio	5:4	
Pixel pitch (mm)	.264mm	
Max view area (inches)	13.3" x 10.6" (horizontal x vertical)	
Max view area (mm)	340mm x 272mm (horizontal x vertical)	
Viewing angle at 5:1 CR	140° vertical, 152° horizontal	
Viewing angle at 10:1 CR	130° vertical, 140° horizontal	
Video input	Analog	
Dual input	No	
Optimum resolution	1280x1024 at 60Hz	
Maximum resolution	1280x1024 at 76Hz (140MHz maximum pixel rate)	
Vertical frequency	55 to 75Hz	
Horizontal frequency	30 to 83kHz	
Preset display modes	VGA: 640x480 60, 66, 72, 75Hz 640x350 70Hz 720x400 70Hz SVGA: 800x600 60, 72, 75Hz XGA: 1024x768 60, 70, 75Hz SXGA: 1280x1024 60, 70, 75, 76Hz	
Presets / user settings	Standard presets: 16; user settings: 20	
Brightness	250 nits or cd/m² (typical)	
Contrast ratio	700:1 (typical)	
Pixel response time	5ms (typical)	
Color gamut	72%	
Scaling	Can expand image of lower resolution to full screen of 1280x1024	
On screen display	On screen display with digital user controls (7 languages)	
Control features	Direct access (buttons on front) for auto adjustment and brightness; contrast; image horizontal and vertical position; user color settings (3 preset + 1 user); on screen display (OSD) language selection; menu position; information screen; image setup; image size to show normal or expanded format; reset of geometry and color point to factory default settings; lockable settings	
Monitor connector	One connector: analog VGA 15-pin D-shell [blue]	
Signal cable	Analog cable, detachable, VGA 15-pin D-shell at each end (for analog connector), 1.8 meter, matches color of monitor	
Anti-reflective	Anti-reflective, anti-glare	
Dimensions	15.3"H x 14.6"W x 6.8"D / 387mm height x 371mm width x 173mm depth	
Weight	9.1 lb / 4.2kg	
Viewing adjustments	Tilt: 30° back, 4° forward, no swivel, no lift, detachable stand	
Mounting features	Wall or desk mounting using the TFT 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)	
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, customer installable base, Setup Guide, Safety and Warranty Information, CD with multilingual User's Guide and monitor installation files, analog signal cable, 1.8m black power cord	
Power supply	100-240Vac (universal), integrated (no external brick-like power supply), 20 watts typical, <2 watts standby/suspend	
Limited warranty ⁴	3 year (includes backlight)	
Available date	April 2008	



Lenovo ThinkVision L174

Limited Warranty		Accessories										
<ul style="list-style-type: none">⇒ 3-year limited warranty⁴⇒ International Warranty Service⁵⇒ Rapid Replacement Service at 1-800-IBM-SERV (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 (41C9234)• 4 year, mail exchange (51J0589)• 5 year, mail exchange (51J0590)⇒ 24x7⁸ day toll-free support for warranty issues during the warranty period⁴		<table><tr><td>ThinkVision® USB Soundbar</td><td>40Y7616</td></tr><tr><td>Kensington® MicroSaver® Security Cable Lock</td><td>73P2582</td></tr><tr><td>Kensington Twin Head Cable Lock</td><td>45K1620</td></tr><tr><td>ThinkPad Convertible Monitor Stand</td><td>40Y7620</td></tr><tr><td>ThinkVision TFT Radial Arm⁹</td><td>19K4464</td></tr></table> <p>See details at www.lenovo.com/support/monitoraccessories</p> <p>See all monitors at www.lenovo.com/thinkvision</p>	ThinkVision® USB Soundbar	40Y7616	Kensington® MicroSaver® Security Cable Lock	73P2582	Kensington Twin Head Cable Lock	45K1620	ThinkPad Convertible Monitor Stand	40Y7620	ThinkVision TFT Radial Arm ⁹	19K4464
ThinkVision® USB Soundbar	40Y7616											
Kensington® MicroSaver® Security Cable Lock	73P2582											
Kensington Twin Head Cable Lock	45K1620											
ThinkPad Convertible Monitor Stand	40Y7620											
ThinkVision TFT Radial Arm ⁹	19K4464											


See footnotes for important warranty information
US model announced April 15, 2006

© Lenovo
(L174) January 2009

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	L1700p Flat Panel Monitor Business black 9417-HE2 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 (135MHz max pixel rate) 5:4 0.264mm 96 dpi 250 nits or cd/m ² (typical) 800:1 (typical) 5ms (typical) 72% Anti-reflective, anti-glare 55 to 76Hz 30 to 81kHz 160° (+/- 80°) horizontal, 160° (+/- 80°) vertical Tilt, swivel, pivot, and height adjustable stand <i>Sides: 0.63" (16.1mm); top: 0.73" (18.6mm); bottom: 1.07" (27.2mm)</i> 14.4-18.7" H x 14.6" W x 6.7-7.8" D; 366.1-476.1mm H x 371.3mm W x 170.2-223.3mm D 16 watts typical, 21 watts maximum, <1 watts standby/suspend, universal, integrated (no external brick-like power supply) 10.5 lb; 4.8kg 3 year (includes backlight) September 2008	Features <ul style="list-style-type: none"> • Regular screen 17-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 • Carrying handle • Microsoft® Windows® Vista® 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, 832x624 XGA: 1024x768, 1152x864 WXGA: 1280x720, 1280x768 SXGA: 1280x1024	
Preset / user settings	Standard presets: 21; user settings: 20	
Viewing adjustments Rotating screen On screen display Control features 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 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	
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 Security	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 digital signal cable, 1.8 meter black power cord	


ThinkVision L1700p Monitor

Limited Warranty <ul style="list-style-type: none"> ⇒ 3 year limited warranty⁴ ⇒ International Warranty Service⁵ ⇒ Rapid Replacement Service at 1-800-IBM-SERV (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 (41C9234) • 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 USB Soundbar</td><td>40Y7616</td></tr> <tr> <td>Kensington® Cable Lock from Lenovo</td><td>73P2582</td></tr> <tr> <td>Kensington Twin Head Cable Lock</td><td>45K1620</td></tr> <tr> <td>ThinkPad Convertible Monitor Stand</td><td>40Y7620</td></tr> <tr> <td>ThinkVision TFT Radial Arm⁹</td><td>19K4464</td></tr> </table> <p>See details at www.lenovo.com/support/monitoraccessories</p> <p>See all monitors at www.lenovo.com/thinkvision</p>	ThinkVision USB Soundbar	40Y7616	Kensington® Cable Lock from Lenovo	73P2582	Kensington Twin Head Cable Lock	45K1620	ThinkPad Convertible Monitor Stand	40Y7620	ThinkVision TFT Radial Arm ⁹	19K4464
ThinkVision USB Soundbar	40Y7616										
Kensington® Cable Lock from Lenovo	73P2582										
Kensington Twin Head Cable Lock	45K1620										
ThinkPad Convertible Monitor Stand	40Y7620										
ThinkVision TFT Radial Arm ⁹	19K4464										

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)	Lenovo ThinkVision L197 Wide
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)	Two connectors: (1) analog VGA 15-pin D-shell [blue], (2) Digital Visual Interface (DVI-D) for digital (not analog) attach [white], HDCP-compliant
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 ⁹ 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	EPEAT™ Gold rating 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 90-264Vac (universal), integrated (no external brick-like power supply), 22 watts typical, <2 watts standby/suspend
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	
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-IBM-SERV (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 (41C9234) • 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® Security Cable Lock 73P2582 Kensington Twin Head Cable Lock 45K1620 ThinkPad Convertible Monitor Stand 40Y7620 ThinkVision TFT Radial Arm ⁹ 19K4464
		See details at www.lenovo.com/support/monitoraccessories
		See all monitors at www.lenovo.com/thinkvision

Name	L1900p Flat Panel Monitor	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/m ² (typical)	
Contrast ratio	800:1 (typical)	
Pixel response time	5ms (typical)	
Color gamut	72%	
Anti-reflective	Anti-reflective, anti-glare	
Vertical frequency	56 to 76Hz	
Horizontal frequency	30 to 81kHz	
Viewing angle at 10:1 CR	160° (+/- 80°) horizontal, 160° (+/- 80°) vertical	
Stand	Tilt, swivel, pivot, and height adjustable stand	
Bezel width	<i>Sides: 0.6" (15.3mm); top: 0.66" (16.8mm); bottom: 1.05" (26.8mm)</i>	
Dimensions (HxWxD)	14.9-19.2" H x 16.1" W x 7.4-9.5" D; 378.7-488.7mm H x 408mm W x 188-241.1mm D	
Power supply	17 watts typical, 24 watts maximum, <1 watts standby/suspend, universal, integrated (no external brick-like power supply)	
Weight	12.5 lb; 5.7kg	
Limited warranty ⁴	3 year (includes backlight)	
Available date	November 2008	
VESA-compliant ²	VESA DDC2B/CI, VESA DPMS-compliant	
Power management	ENERGY STAR ^{®3} 5.0	
Ergonomics	ISO 13406 Part 2 ¹	
Pixel defect	ISO 13406-2 Class II pixel defect standard	
Emission standards	MPR-2, MPR-3A, FCC Class B	
Environmental	TCO 03, WEEE, RoHS (EU Directive 2002/95/EC), EPEAT™ Gold rating , GREENGUARD® certified	
Preset resolutions	VGA: 640x350, 640x480, 720x400 SVGA: 800x600 XGA: 1024x768 SXGA: 1280x1024	
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-IBM-SERV (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 (41C9234)		
• 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® Cable Lock from Lenovo		73P2582
Kensington Twin Head Cable Lock		45K1620
ThinkPad Convertible Monitor Stand		40Y7620
ThinkVision TFT Radial Arm ⁹		19K4464
See details at www.lenovo.com/support/monitoraccessories		
See all monitors at www.lenovo.com/thinkvision		

Name	L1940p Wide Flat Panel Monitor	Features <ul style="list-style-type: none">• Widescreen 19-inch monitor• Supports WXGA+ 1440x900 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	4424-HB6	
Panel	TFT-LCD, twisted nematic (TN), CCFL backlight	
Viewable image size	19.0" (481mm) diagonal	
Max view area (W x H)	16.1" x 10" (408.2mm x 255.2mm)	
Optimum resolution	1440x900 at 60Hz	
Maximum resolution	1440x900 at 75Hz (137MHz max pixel rate)	
Aspect ratio	16:10	
Pixel pitch (mm)	.285mm	
Dot/Pixel per Inch	89 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 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: 0.61" (15.4mm); top: 0.65" (16.4mm); bottom: 1.1" (27.9mm)</i>	
Dimensions (HxWxD)	14-18.3" H x 17.3" W x 7.4-9.5" D; 356.1-466.1mm H x 440.2mm W x 188-241.1mm D	
Power supply	16 watts typical, 23 watts maximum, <1 watts standby/suspend, universal, integrated (no external brick-like power supply)	
Weight	12.8 lb; 5.8kg	
Limited warranty ⁴	3 year (includes backlight)	
Available date	October 2008	
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 , GREENGUARD® certified	
Preset resolutions	VGA: 640x350, 640x480, 720x400 SVGA: 800x600, 832x624 XGA: 1024x768, 1152x864 WXGA: 1280x720, 1280x768 SXGA: 1280x1024 WXGA+: 1440x900	
Presets / user settings	Standard presets: 22; 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	
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-IBM-SERV (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 (41C9234)		
• 4 year, mail exchange (51J0589)		
• 5 year, mail exchange (51J0590)		
⇒ 24x7⁸ day toll-free support for warranty issues during the warranty period⁴		
Accessories		
ThinkVision USB Soundbar		40Y7616
Kensington® Cable Lock from Lenovo		73P2582
Kensington Twin Head Cable Lock		45K1620
ThinkPad Convertible Monitor Stand		40Y7620
ThinkVision TFT Radial Arm ⁹		19K4464
See details at www.lenovo.com/support/monitoraccessories		
See all monitors at www.lenovo.com/thinkvision		

Name	L2240p 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• Carrying handle• 65% recycled packaging materials• Microsoft® Windows® Vista® certified
Case color	Business black	
Type-model	4422-HB6	
Panel	TFT-LCD, twisted nematic (TN), CCFL backlight	
Viewable image size	22.0" (559mm) diagonal	
Max view area (W x H)	18.65" x 11.66" (473.8mm x 296.1mm)	
Optimum resolution	1680x1050 at 60Hz	
Maximum resolution	1680x1050 at 75Hz (190MHz max pixel rate)	
Aspect ratio	16:10	
Pixel pitch (mm)	.282mm	
Dot/Pixel per Inch	98 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	160° (+/- 80°) horizontal, 160° (+/- 80°) vertical	
Stand	Tilt, swivel, pivot, and height adjustable stand	
Bezel width	<i>Sides: 0.69" (17.5mm); top: 0.72" (18.3mm); bottom: 1.11" (28.3mm)</i>	
Dimensions (HxWxD)	14.9-19.2" H x 20.1" W x 7.4-9.5" D; 378.8-488.8mm H x 510.3mm W x 188-241.1mm D	
Power supply	21 watts typical, 31 watts maximum, <1 watts standby/suspend, universal, integrated (no external brick-like power supply)	
Weight	14 lb; 6.35kg	
Limited warranty ⁴	3 year (includes backlight)	
Available date	October 2008	
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 , GREENGUARD [®] certified	
Preset resolutions	VGA: 640x350, 640x480, 720x400 SVGA: 800x600 XGA: 1024x768, 1152x864 SXGA: 1280x1024 WXGA+: 1440x900 UXGA: 1600x1000 WSXGA+: 1680x1050	
Presets / user settings	Standard presets: 22; user settings: 20	
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, 2.2 meter (2) detachable, DVI-D at each end, digital, 2.2 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, 2.2 meter analog signal cable, 2.2 meter digital signal cable, 1.8 meter black power cord	

ThinkVision L2240p Wide Monitor

Limited Warranty <ul style="list-style-type: none"> ⇒ 3 year limited warranty⁴ ⇒ International Warranty Service⁵ ⇒ Rapid Replacement Service at 1-800-IBM-SERV (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 (41C9234) • 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 USB Soundbar</td><td>40Y7616</td></tr> <tr> <td>Kensington® Cable Lock from Lenovo</td><td>73P2582</td></tr> <tr> <td>Kensington Twin Head Cable Lock</td><td>45K1620</td></tr> <tr> <td>ThinkPad Convertible Monitor Stand</td><td>40Y7620</td></tr> <tr> <td>ThinkVision TFT Radial Arm⁹</td><td>19K4464</td></tr> </table> <p>See details at www.lenovo.com/support/monitoraccessories</p> <p>See all monitors at www.lenovo.com/thinkvision</p>	ThinkVision USB Soundbar	40Y7616	Kensington® Cable Lock from Lenovo	73P2582	Kensington Twin Head Cable Lock	45K1620	ThinkPad Convertible Monitor Stand	40Y7620	ThinkVision TFT Radial Arm ⁹	19K4464
ThinkVision USB Soundbar	40Y7616										
Kensington® Cable Lock from Lenovo	73P2582										
Kensington Twin Head Cable Lock	45K1620										
ThinkPad Convertible Monitor Stand	40Y7620										
ThinkVision TFT Radial Arm ⁹	19K4464										

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	
Signal cables	(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	
Mounting features Security	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, 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-IBM-SERV (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 (41C9234) • 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® Cable Lock from Lenovo</td><td>73P2582</td></tr> <tr> <td>Kensington Twin Head Cable Lock</td><td>45K1620</td></tr> <tr> <td>ThinkPad Convertible Monitor Stand</td><td>40Y7620</td></tr> <tr> <td>ThinkVision TFT Radial Arm⁹</td><td>19K4464</td></tr> </table> <p>See details at www.lenovo.com/support/monitoraccessories</p> <p>See all monitors at www.lenovo.com/thinkvision</p>	ThinkVision Soundbar	45K1263	Kensington® Cable Lock from Lenovo	73P2582	Kensington Twin Head Cable Lock	45K1620	ThinkPad Convertible Monitor Stand	40Y7620	ThinkVision TFT Radial Arm ⁹	19K4464
ThinkVision Soundbar	45K1263										
Kensington® Cable Lock from Lenovo	73P2582										
Kensington Twin Head Cable Lock	45K1620										
ThinkPad Convertible Monitor Stand	40Y7620										
ThinkVision TFT Radial Arm ⁹	19K4464										

Name	L2440x Wide Flat Panel Monitor	Features <ul style="list-style-type: none">• Widescreen 24-inch monitor with white LED backlight• 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• Mercury and arsenic free• Low halogen with trace levels of BFR, CFR, and PVC ¹²• 65% recycled packaging materials• Microsoft® Windows® Vista® Premium certified
Case color	Business black	
Type-model	4421-HB2	
Panel	TFT-LCD, twisted nematic (TN), white LED backlight	
Viewable image size	24.0" (610mm) diagonal	
Max view area (W x H)	20.4" x 12.8" / 518.4mm x 324.0mm	
Optimum resolution	1920x1200 at 60Hz	
Maximum resolution	1920x1200 at 60Hz (205MHz max pixel rate)	
Aspect ratio	16:10	
Pixel pitch (mm)	.270mm	
Dot/Pixel per Inch	94 dpi	
Brightness	300 nits or cd/m ² (typical)	
Contrast ratio	1000:1 (typical)	
Pixel response time	5ms (typical)	
Color gamut	72%	
Anti-reflective	Anti-reflective, anti-glare	
Vertical frequency	50 to 75Hz	
Horizontal frequency	30 to 94kHz	
Viewing angle at 10:1 CR	170° (+/- 85°) horizontal, 160° (+/- 80°) vertical	
Stand	Tilt, swivel, pivot, and height adjustable stand	
Bezel width	<i>Sides: 0.78" (19.9mm); top: 0.78" (19.9mm); bottom: 1.12" (28.4mm)</i>	
Dimensions (HxWxD)	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	
Power supply	29 watts typical, 45 watts maximum, <1 watts standby/suspend, universal, integrated (no external brick-like power supply)	
Weight	17.16 lb; 7.78kg	
Limited warranty ⁴	3 year (includes backlight)	
Available date	October 2008	
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 , 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	<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	USB 2.0 Hub (1 port into PC, 4 ports for accessories)	
Multiple input	Multiple input (three different PCs attach to three 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 (3) DisplayPort, digital, black, HDCP-compliant	
Signal cables	(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 (3) detachable, DisplayPort at each end, digital, 2.2 meter	
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)	
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 DisplayPort cable, 2.2 meter USB cable, 1.8 meter black power cord	

Limited Warranty	Accessories										
<ul style="list-style-type: none"> 3 year limited warranty⁴ International Warranty Service⁵ Rapid Replacement Service at 1-800-IBM-SERV (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 (41C9234) 4 year, mail exchange (51J0589) 5 year, mail exchange (51J0590) 24x7⁸ day toll-free support for warranty issues during the warranty period⁴ 	<table> <tbody> <tr> <td>ThinkVision Soundbar</td> <td>45K1263</td> </tr> <tr> <td>Kensington® Cable Lock from Lenovo</td> <td>73P2582</td> </tr> <tr> <td>Kensington Twin Head Cable Lock</td> <td>45K1620</td> </tr> <tr> <td>ThinkPad Convertible Monitor Stand</td> <td>40Y7620</td> </tr> <tr> <td>ThinkVision TFT Radial Arm⁹</td> <td>19K4464</td> </tr> </tbody> </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® Cable Lock from Lenovo	73P2582	Kensington Twin Head Cable Lock	45K1620	ThinkPad Convertible Monitor Stand	40Y7620	ThinkVision TFT Radial Arm ⁹	19K4464
ThinkVision Soundbar	45K1263										
Kensington® Cable Lock from Lenovo	73P2582										
Kensington Twin Head Cable Lock	45K1620										
ThinkPad Convertible Monitor Stand	40Y7620										
ThinkVision TFT Radial Arm ⁹	19K4464										

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®

Trademarks: Lenovo, the Lenovo logo, New World. New Thinking., Access Connections, Rescue and Recovery, ThinkCentre, ThinkPad, ThinkStation, ThinkVantage, and ThinkVision are trademarks of Lenovo. Microsoft, Windows, and Vista are registered trademarks of Microsoft Corporation. Other company, product, or service names may be trademarks or service marks of others.

This publication was developed for products and services offered in the United States. Lenovo may not offer the products, services or features discussed in this document in other countries. Lenovo may withdraw an offering at any time. Information is subject to change without notice. Consult your local representative for information on offerings available in your area.

Lenovo reserves the right to alter specifications and other product information at any time without prior notice. Lenovo is not responsible for photographic or typographical errors. **LENOVO PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** Some jurisdictions do not allow disclaimer of express or implied warranties in certain transactions; therefore this disclaimer may not apply to you. This publication was developed in the US.

Visit www.lenovo.com/safecomputing periodically for the latest information on safe and effective computing.

Visit www.lenovo.com/psref for the latest version of Personal Systems Reference.

© Lenovo, 2009.
All rights reserved.

Lenovo
1009 Think Place
Morrisville, NC 27560
U.S.A.

March 2009
mbook.pdf



Personal Systems Reference Lenovo® IdeaPad™ Netbooks and Notebooks

April 2009 - Version 354



Lenovo IdeaPad S10e

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



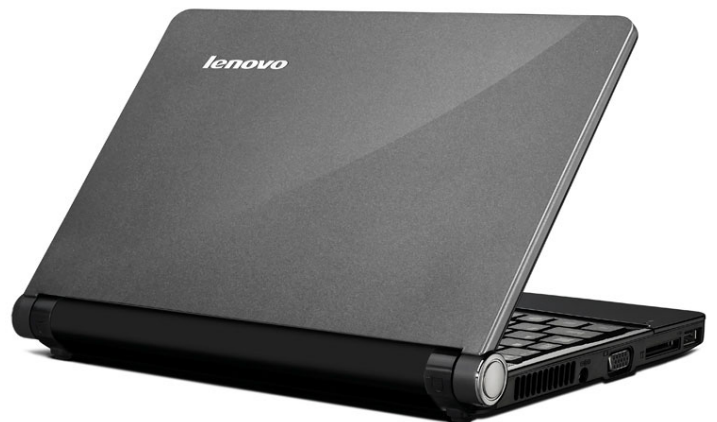
Lenovo IdeaPad S9e



Lenovo IdeaPad S9e



Lenovo IdeaPad S10e



Lenovo IdeaPad S10e



Lenovo IdeaPad S10e



Lenovo IdeaPad S10e

Type-model	Processor	GHz	Memory	Widescreen display	Camera	Integrated graphics	Disk	Mini PCIe 802.11 wireless	Color	Blue-tooth	Battery	Preload	Avail date
4187-34U	Atom N270	1.60	512MB	8.9" WSVGA	Cam	GMA	80GB ² HDD	11b/g ¹¹	Gray		3-cell	XP Home	Nov 08
4187-33U	Atom N270	1.60	1GB	8.9" WSVGA	Cam	GMA	80GB HDD	11b/g	Gray	Blue	6-cell	XP Home	Dec 08

- **Lenovo's netbook: smaller and lighter than a notebook**
- **8.9" widescreen display with LED backlight**
- **Super-slim (starting at 0.9 inches thin), ultra-light (starting at 2.43 pounds)**
- **ExpressCard slot for WWAN card**
- **Touch pad supports multi-touch function (pinch, expansion, chiral motion)**
- **Integrated camera**
- **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 - Microsoft® Windows® XP Home Edition Preloaded applications ¹⁴ <ul style="list-style-type: none">• ThinkVantage® System Update• Norton Internet Security™ (90 days of virus definitions)• Adobe Flash® Player• Windows Live™ Toolbar• Microsoft Office 2007 Trial (60-day) (HDD models only)• Adobe® Reader® (HDD models only)• PC-Doctor™ (diagnostics) (HDD models only)
Memory	512MB or 1GB std / 1.5GB * 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>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		
External combo SATA disk	None 80GB (5400 rpm) HDD / SATA 1.5Gb/s, 9.5mm high, 2.5" wide, not removable		
Widescreen display	8.9" (226.1mm) WSVGA (1024x600) TFT color, LED backlight , 180 nits, 16:10 aspect ratio, 300:1 contrast ratio		
Camera	Camera on top of screen, 0.3-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 with HDD:</i> starting at 2.65 lb (1.2kg) <i>6-cell with HDD:</i> starting at 2.87 lb (1.3kg)		
Case color	<i>Top:</i> dark gray <i>Bottom:</i> dark gray		
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	One slot (ExpressCard/34)		40-watt AC adapter ENERGY STAR® 4.0-compliant RoHS-compliant
Multicard reader Ports	4-in-1 reader (MMC, Memory Stick®, Memory Stick PRO™, Secure Digital Card) Two USB 2.0, external monitor (VGA DB-15), ethernet (RJ-45)		
TV tuner	None		Limited Warranty ¹² <ul style="list-style-type: none">⇒ 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
Mini PCI Express	One 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, 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 November 25 or December 9, 2008

© Lenovo
(KRL1-1) March 2009

Type-model	Processor	GHz	Memory	Widescreen display	Camera	Integrated graphics	Disk	Mini PCIe 802.11 wireless	Color	Blue-tooth	Battery	Preload	Avail date
4187-32U	Atom N270	1.60	512MB	8.9" WSVGA	Cam	GMA	4GB ² SSD	11b/g ¹¹	Gray	None	3-cell	SLED10	Nov 08
4187-DRU	Atom N270	1.60	1GB	8.9" WSVGA	Cam	GMA	4GB SSD	11b/g	Gray	None	6-cell	SLED10	Dec 08

- **Lenovo's netbook: smaller and lighter than a notebook**
- **8.9" widescreen display with LED backlight**
- **Super-slim (starting at 0.9 inches thin), ultra-light (starting at 2.43 pounds)**
- **ExpressCard slot for WWAN card**
- **Touch pad supports multi-touch function (pinch, expansion, chiral motion)**
- **Integrated camera**

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 - SUSE® Linux™ Enterprise Desktop10 Service Pack 2 Preloaded applications ¹⁴ <ul style="list-style-type: none">• Firefox® Web Browser• OpenOffice• Evolution® email client• Pidgin instant messaging client• Network Manager• GNOME™ Power Manager• AppArmor® Firewall• F-Spot photo software• GIMP image editor• Banshee® music player• RealPlayer®• ClamAV™• Adobe® Reader®• System Backup Utility
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		
External combo EIDE disk	None 4GB Solid State Drive (SSD) / EIDE, not removable		
Widescreen display	8.9" (226.1mm) WSVGA (1024x600) TFT color, LED backlight , 180 nits, 16:10 aspect ratio, 300:1 contrast ratio		
Camera	Camera on top of screen, 0.3-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 with SSD:</i> starting at 2.43 lb (1.1kg) <i>6-cell with SSD:</i> starting at 2.65 lb (1.2kg)		
Case color	<i>Top:</i> dark gray <i>Bottom:</i> dark gray		
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	One slot (ExpressCard/34)		40-watt AC adapter RoHS-compliant
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)		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
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 November 25 or December 9, 2008

© Lenovo
(KRL1-2) February 2009

Type-model	Processor	GHz	Memory	Widescreen display	Camera	Integrated graphics	Disks HDD	SSD	Mini PCIe 802.11 wireless	Color	Blue-tooth	Battery cells	Quick Start	Preload	Avail date
4187-39U	Atom N270	1.60	512MB	10.1" WSVGA	Cam	GMA	80GB ²		11b/g ¹¹	Gray		3-cell	Quick	XP Home	Nov 08
4187-3AU	Atom N270	1.60	1GB	10.1" WSVGA	Cam	GMA	80GB		11b/g	Gray	Blue	6-cell	Quick	XP Home	Dec 08
4187-2PU	Atom N270	1.60	1GB	10.1" WSVGA	Cam	GMA	160GB		11b/g	Gray		3-cell	Quick	XP Home	Mar 09
4187-2SU	Atom N270	1.60	1GB	10.1" WSVGA	Cam	GMA	160GB		11b/g	Gray		6-cell	Quick	XP Home	Mar 09
4187-2NU	Atom N270	1.60	1GB	10.1" WSVGA	Cam	GMA	160GB		11b/g	Gray	Blue	6-cell	Quick	XP Home	Mar 09
4187-4MU	Atom N270	1.60	1GB	10.1" WSVGA	Cam	GMA	160GB		11b/g	Black		3-cell	Quick	XP Home	Apr 09
4187-4LU	Atom N270	1.60	1GB	10.1" WSVGA	Cam	GMA	160GB		11b/g	Black		6-cell	Quick	XP Home	Apr 09
4187-4KU	Atom N270	1.60	1GB	10.1" WSVGA	Cam	GMA	160GB		11b/g	Black	Blue	6-cell	Quick	XP Home	Apr 09
4187-2QU	Atom N270	1.60	1GB	10.1" WSVGA	Cam	GMA	160GB	4GB	11b/g	Gray		3-cell		XP Home	Mar 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)**
- **ExpressCard slot for WWAN card**
- **Touch pad supports multi-touch function (pinch, expansion, chiral motion)**
- **Integrated camera**
- **(Select models) Lenovo® Quick Start: Utility for quick access to Web, music, photos, chat, and Skype® without booting Windows**

Positioning Processor	Netbook; consumer markets Intel® Atom™ Processor N270 with single-core, Hyper-Threading technology, 533MHz system bus, and 512KB L2 cache	Preloaded operating system²⁰ - Microsoft® Windows® XP Home Edition Preloaded applications¹⁴ <ul style="list-style-type: none"> • ThinkVantage® System Update • Norton Internet Security™ (90 days of virus definitions) • Adobe Flash® Player • Windows Live™ Toolbar • Microsoft Office 2007 Trial (60-day) (HDD models only) • Adobe® Reader® (HDD models only) • PC-Doctor™ (diagnostics) (HDD models only) 4187-2QU: SSD model without Office 2007 Trial, Adobe Reader, and PC-Doctor
Memory	512MB or 1GB std / 1.5GB* 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>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	
External combo SATA disk	None 80GB (5400 rpm) or 160GB (5400 rpm) HDD / SATA 1.5Gb/s, 9.5mm high, 2.5" wide, not removable	
Widescreen display	10.1" (256.5mm) WSVGA (1024x576) TFT color, LED backlight , 200 nits, 16:9 aspect ratio, 300:1 contrast ratio	
Camera	Camera on top of screen, 1.3-megapixel, fixed focus	
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) , in 945GSE	
Keyboard	6-row, 80-key, 85% size, Fn keys, Novo key, wireless on/off button	
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®), multi-touch	
Dimensions ³	<i>3-cell:</i> (WxDxH): 9.8" x 7.2" x 0.9-1.1"; 250mm x 183mm x 22-27.5mm <i>6-cell:</i> (WxDxH): 9.8" x 7.7" x 0.9-1.4"; 250mm x 196mm x 22-36mm	
Weight ²	<i>3-cell:</i> starting at 2.65 lb (1.2 kg) <i>6-cell:</i> starting at 3.09 lb (1.4 kg)	
Case color	<i>Top:</i> dark gray or black <i>Bottom:</i> dark gray or black	40-watt AC adapter ENERGY STAR® 4.0-compliant RoHS-compliant Limited Warranty¹² <ul style="list-style-type: none"> ⇒ 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
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	One slot (ExpressCard/34)	
Multicard reader	4-in-1 reader (MMC, Memory Stick®, Memory Stick PRO™, Secure Digital Card)	
Ports	Two USB 2.0, external monitor (VGA DB-15), ethernet (RJ-45)	
TV tuner	None	
Mini PCI Express	One Mini PCI Express slot	
11b/g ²⁸	11b/g wireless ⁴ , Mini PCIe adapter, Broadcom® BCM4312	
Bluetooth™	Some: Bluetooth 2.1 wireless, LED indicator	
Modem	None	
Ethernet	10/100 ethernet, 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 24 or April 7, 2009;
previous models on November 25 or December 9, 2008, or March 17, 2009

© Lenovo
(KRL1-5) April 2009

Type-model	Processor	GHz	Memory	Widescreen display	Camera	Integrated graphics	Disk	Mini PCIe 802.11 wireless	Color	Blue-tooth	Battery	Preload	Avail date
4187-ERU	Atom N270	1.60	1GB	10.1" WSVGA	Cam	GMA	4GB ² SSD	11b/g ¹¹	Gray	None	6-cell	SLED10	Dec 08

- **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)**
- **ExpressCard slot for WWAN card**
- **Touch pad supports multi-touch function (pinch, expansion, chiral motion)**
- **Integrated camera**

Positioning Processor	<i>Netbook; consumer markets</i> Intel® Atom™ Processor N270 with single-core, Hyper-Threading technology, 533MHz system bus, and 512KB L2 cache							Preloaded operating system²⁰ - SUSE® Linux™ Enterprise Desktop10 Service Pack 2					
Memory	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							Preloaded applications ¹⁴ • Firefox® Web Browser • OpenOffice • Evolution® email client • Pidgin instant messaging client • Network Manager • GNOME™ Power Manager • AppArmor® Firewall • F-Spot photo software • GIMP image editor • Banshee® music player • RealPlayer® • ClamAV™ • Adobe® Reader® • System Backup Utility					
External combo EIDE disk	None 4GB Solid State Drive (SSD) / EIDE, not removable												
Widescreen display	10.1" (256.5mm) WSVGA (1024x576) TFT color, LED backlight , 200 nits, 16:9 aspect ratio, 300:1 contrast ratio												
Camera	Camera on top of screen, 1.3-megapixel, fixed focus												
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) , in 945GSE												
Keyboard	6-row, 80-key, 85% size, Fn keys, Novo key, wireless on/off button												
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®), multi-touch												
Dimensions ³	<i>3-cell:</i> (WxDxH): 9.8" x 7.2" x 0.9-1.1"; 250mm x 183mm x 22-27.5mm <i>6-cell:</i> (WxDxH): 9.8" x 7.7" x 0.9-1.4"; 250mm x 196mm x 22-36mm												
Weight ²	<i>3-cell with SSD:</i> starting at 2.43 lb (1.1kg) <i>6-cell with SSD:</i> starting at 2.87 lb (1.3kg)												
Case color	<i>Top:</i> dark gray <i>Bottom:</i> dark gray												
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	One slot (ExpressCard/34)												
Multicard reader	4-in-1 reader (MMC, Memory Stick®, Memory Stick PRO™, Secure Digital Card)												
Ports	Two USB 2.0, external monitor (VGA DB-15), ethernet (RJ-45)												
TV tuner	None												
Mini PCI Express	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 model announced December 9, 2008

© Lenovo
(KRL1-6) February 2009

**Partial list of accessories supported on:
IdeaPad S9e and S10e****Memory**1 GB PC2-5300 DDR2 SODIMM 40Y7734 *ann 01/05/06***Storage and removable storage**USB 2.0 Essential Memory Key 2GB 41U4944 *ann 01/23/07*USB 2.0 Essential Memory Key 4GB 45J7904 *ann 06/24/08*USB 2.0 Essential Memory Key 8GB 45J7905 *ann 07/15/08*USB 2.0 CD-RW/DVD-ROM Combo II Drive 40Y8637 *ann 01/05/06*USB 2.0 Super Multi-Burner Drive 41N5565 *ann 01/23/07***Expansion**USB 2.0 Lenovo Enhanced Port Replicator 43R8770 *ann 02/26/08***Mouse**Lenovo Wireless Laser Mouse (blk, via USB) 45K1696 *ann 11/25/08*Lenovo Wireless Laser Mouse (red, via USB) 51J0198 *ann 11/25/08*Laser Tilt Wheel Travel Mouse (Bluetooth)⁴⁵ 41U5008 *ann 01/22/08*⁴⁵ Requires Bluetooth enabled IdeaPad systems**Security**Kensington Cable Lock from Lenovo 73P2582 *ann 12/29/03*Kensington Twin Head Cable Lock 45K1620 *ann 09/30/08***Multimedia**USB 2.0 Lenovo Multimedia Headset 40Y8518 *ann 06/27/06*USB 2.0 Lenovo Webcam 40Y8519 *ann 08/29/06***Modem**USB 2.0 Lenovo Modem 43R1814 *ann 02/26/08***Batteries**IdeaPad S9e/S10e Li-Ion Battery 3-cell (blk) 45K1274 *ann 11/25/08*IdeaPad S9e/S10e Li-Ion Battery 6-cell (blk) 45K1275 *ann 11/25/08*IdeaPad S9e/S10e Li-Ion Battery 3-cell (wht) 51J0398 *ann 12/16/08*IdeaPad S9e/S10e Li-Ion Battery 6-cell (wht) 51J0399 *ann 12/16/08*IdeaPad S9e/S10e 40W AC Adapter 41R4441 *ann 11/25/08***Carrying Cases**IdeaPad S9e/S10e Case Sleeve 45K1609 *ann 11/25/08*Lenovo Carrying Case - Messenger Max 41U5253 *ann 05/01/07*Lenovo Standard Case 45K1697 *ann 11/25/08*Lenovo Standard Backpack 45K1698 *ann 11/25/08***Monitors**Lenovo® D185 Wide 18.5" Monitor 6318HB1 *ann 01/27/09*Lenovo L215 Wide 21.5" Monitor 6325HB1 *ann 01/27/09*Lenovo L215p Wide 21.5" Monitor 6325HC1 *ann 01/27/09*ThinkVision® L174 17" Monitor 9227AE1 *ann 04/15/08*ThinkVision L1700p 17" Monitor 9417HE2 *ann 09/17/08*ThinkVision L1940p Wide 19" Monitor 4424HB6 *ann 09/17/08*ThinkVision L200p Wide 20.1" Monitor 4438HB6 *ann 04/15/08*ThinkVision L2240p Wide 22" Monitor 4422HB6 *ann 09/17/08*ThinkVision L2440p Wide 24" Monitor 4420HB2 *ann 09/17/08*ThinkVision L2440x Wide 24" Monitor 4421HB2 *ann 09/17/08***Monitor Accessories⁴⁶**ThinkVision USB Soundbar 40Y7616 *ann 08/23/05*ThinkVision Soundbar 45K1263 *ann 09/16/08*Kensington Cable Lock from Lenovo 73P2582 *ann 12/29/03*Kensington Twin Head Cable Lock 45K1620 *ann 09/30/08*ThinkPad Convertible Monitor Stand 40Y7620 *ann 01/05/06*Radial Arm 19K4464 *ann 05/05/00*⁴⁶ Compatible on selected ThinkVision monitors.**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 <http://www.lenovo.com/accessories>Accessories Guide pdf at <http://www.lenovo.com/accessoriesguide>

**Partial list of Lenovo® Care Services²²
for IdeaPad® S9e, S10e**

For more information see:

http://www.lenovo.com/services_warranty/us/en/index.html**Lenovo Care service upgrade options****IdeaPad® S9e, S10e with Split warranty***Mail in = Mail In repair, ADP = Accidental Damage Protection,
HDDR = Hard Drive Retention*

2-year Mail In warranty 9x5	55Y3556
3-year Mail In warranty 9x5	55Y3557
4-year Mail In warranty 9x5	55Y3558
1-year Mail In warranty 9x5 with ADP	55Y3559
2-year Mail In warranty 9x5 with ADP	55Y3560
3-year Mail In warranty 9x5 with ADP	55Y3561
4-year Mail In warranty 9x5 with ADP	55Y3562
1-year Mail In warranty 9x5 with HDDR	55Y3571
2-year Mail In warranty 9x5 with HDDR	55Y3572
3-year Mail In warranty 9x5 with HDDR	55Y3573
4-year Mail In warranty 9x5 with HDDR	55Y3574

*LOR = Lenovo Onsite Repair, ADP = Accidental Damage Protection,
HDDR = Hard Drive Retention*

1-year LOR 9x5 Next Business Day	55Y3563
2-year LOR 9x5 Next Business Day	55Y3564
3-year LOR 9x5 Next Business Day	55Y3565
4-year LOR 9x5 Next Business Day	55Y3566
1-year LOR 9x5 Next Business Day with ADP	55Y3567
2-year LOR 9x5 Next Business Day with ADP	55Y3568
3-year LOR 9x5 Next Business Day with ADP	55Y3569
4-year LOR 9x5 Next Business Day with ADP	55Y3570
1-year LOR 9x5 Next Business Day with HDDR	55Y3599
2-year LOR 9x5 Next Business Day with HDDR	55Y3600
3-year LOR 9x5 Next Business Day with HDDR	55Y3601
4-year LOR 9x5 Next Business Day with HDDR	55Y3602

ThinkPlus Secure Business**Lenovo Online Data Backup**

- Secure offsite data storage
- 256-bit Advanced Encryption System
- Data recovery or access in case of an unforeseen event
- Automatic, remote management
- Choose which business critical data to back up

1-year Lenovo Online Data Backup - 10GB	51J0787
1-year Lenovo Online Data Backup - 25GB	51J0795
1-year Lenovo Online Data Backup - 50GB	45K5849
1-year Lenovo Online Data Backup - Unlimited	45K5870

Note: Supported only on Microsoft® Windows® operating systems

ideapad



Lenovo IdeaPad S10
Classic White



Lenovo IdeaPad S10
Deep Blue



Lenovo IdeaPad S10
Bold Black, Ruby Red,
Deep Blue, Classic White, Pastel Pink



Lenovo IdeaPad S10
Pastel Pink



Lenovo IdeaPad S10
Ruby Red



Lenovo IdeaPad S10
Ruby Red

Part number	Processor	GHz	Memory	Widescreen display	Camera	Integrated graphics	SATA disk	Mini PCIe 802.11 wireless	Color	Blue-tooth	Battery	Preload	Avail date
59015819	Atom N270	1.60	512MB	10.2" WSVGA	Cam	GMA	80GB ⁸	11b/g ¹¹	Pink	None	3-cell	XP Home	Sep 08
59015866	Atom N270	1.60	512MB	10.2" WSVGA	Cam	GMA	80GB	11b/g	White	None	3-cell	XP Home	Sep 08
59015875	Atom N270	1.60	512MB	10.2" WSVGA	Cam	GMA	80GB	11b/g	Black	None	3-cell	XP Home	Sep 08
59015864	Atom N270	1.60	512MB	10.2" WSVGA	Cam	GMA	80GB	11b/g	Black	None	3-cell	XP Home	Nov 08
59015817	Atom N270	1.60	512MB	10.2" WSVGA	Cam	GMA	80GB	11b/g	Red	None	3-cell	XP Home	Nov 08
59016575	Atom N270	1.60	1GB	10.2" WSVGA	Cam	GMA	160GB	11b/g	Black	None	3-cell	XP Home	Nov 08
59016410	Atom N270	1.60	1GB	10.2" WSVGA	Cam	GMA	160GB	11b/g	Black	None	3-cell	XP Home	Dec 08
59016593	Atom N270	1.60	1GB	10.2" WSVGA	Cam	GMA	160GB	11b/g	White	None	3-cell	XP Home	Nov 08
59016604	Atom N270	1.60	1GB	10.2" WSVGA	Cam	GMA	160GB	11b/g	Red	None	3-cell	XP Home	Nov 08
59016819	Atom N270	1.60	1GB	10.2" WSVGA	Cam	GMA	160GB	11b/g	Black	None	3-cell	XP Home	Mar 09
59016598	Atom N270	1.60	1GB	10.2" WSVGA	Cam	GMA	160GB	11b/g	Blue	None	3-cell	XP Home	Mar 09
59017496	Atom N270	1.60	1GB	10.2" WSVGA	Cam	GMA	160GB	11b/g	Pink	None	3-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**
- **OneKey™ Rescue System includes OneKey Recovery with press of recovery key**

Positioning Processor	Netbook; consumer markets Intel® Atom™ Processor N270 with single-core, Hyper-Threading technology, 533MHz system bus, and 512KB L2 cache	Preloaded operating system²⁰ - Microsoft® 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
Memory	512MB or 1GB std / 1.5GB max ⁷ / PC2-5300 667MHz DDR2 , non-parity, single-channel, one 200-pin SO-DIMM socket; <i>Italics:</i> standard memory 512MB soldered to systemboard, 512MB in socket; no sockets available; <i>Non-italics:</i> standard memory 512MB soldered to systemboard; one socket available	
Diskette drive	None	
External combo SATA disk	None 80GB (5400 rpm) or 160GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, 2.5" wide, 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	Available at these retailers <ul style="list-style-type: none"> • Newegg® • TigerDirect • Amazon.com • Supercom (Canada) • BeachCamera.com™
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	<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	40-watt AC adapter ENERGY STAR® 4.0-compliant RoHS-compliant Limited Warranty¹² <ul style="list-style-type: none"> ⇒ 1-year parts and labor ⇒ Depot repair service¹⁹ ⇒ Service upgrade options (in eligible locations):⁹ <ul style="list-style-type: none"> • 1-year accidental damage protection via depot 43R8885 • 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day 43R8883 • 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day with accidental damage protection 43R8884 ⇒ 24x7¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic	
Battery - type	Lithium Ion, 3-cell 2600 mAh	
Battery - life ¹⁰	3-cell: up to 2.5 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, 2008; previous models on September 9, November 12, or December 10, 2008

© Lenovo (MRA1-2) March 2009

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

- **Lenovo's netbook: smaller and lighter than a notebook**
- **10.2" widescreen, anti-glare display 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 - Microsoft® 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™ Facial Recognition
Memory	1GB std / 1.5GB max ⁷ / PC2-5300 667MHz DDR2 , non-parity, single-channel, one 200-pin SO-DIMM socket		
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	10.2" (259.1mm) WSVGA (1024x600) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 300:1 contrast ratio		
Camera	Camera on top of screen, 1.3-megapixel, fixed focus		Available at these retailers <ul style="list-style-type: none">• B&H™• TigerDirect• Amazon.com• J&R™ 40-watt AC adapter ENERGY STAR® 4.0-compliant RoHS-compliant
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) , in 945GSE		
Keyboard	6-row, 80-key, 85% size, multimedia Fn keys, recovery key, wireless on/off button		
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®), multi-touch		
Dimensions ³	<i>3-cell:</i> (WxDxH): 9.8" x 7.2" x 0.9-1.1"; 250mm x 183mm x 22-27.5mm		
Weight ²	<i>6-cell:</i> (WxDxH): 9.8" x 7.7" x 0.9-1.4"; 250mm x 196mm x 22-36mm		
Case color	<i>3-cell:</i> starting at 2.43 lb (1.1 kg) <i>6-cell:</i> starting at 2.87 lb (1.3 kg) <i>Top:</i> multiple color choices: black, white, red, blue, or pink (piano finish for red, blue, pink) <i>Bottom:</i> color matches top color		
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic		
Battery - type	Lithium Ion, 3-cell		
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 43R8885• 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day 43R8883• 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day with accidental damage protection 43R8884 ➤ 24x7¹⁶ toll-free support for warranty issues during the warranty 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 7, 2009

© Lenovo
(MRA1-4) April 2009

Type-model	Processor	GHz	Memory	Widescreen display	Camera	Integrated graphics	SATA disk	Mini PCIe 802.11 wireless	Color	Blue-tooth	Battery	Preload	Avail date
4231-2BU	Atom N270	1.60	512MB	10.2" WSVGA	Cam	GMA	80GB ⁸	11b/g ¹¹	Black	None	3-cell	XP Home	Aug 08
4231-3AU	Atom N270	1.60	512MB	10.2" WSVGA	Cam	GMA	80GB	11b/g	Black	None	3-cell	XP Home	Sep 08
4231-2CU	Atom N270	1.60	512MB	10.2" WSVGA	Cam	GMA	80GB	11b/g	White	None	3-cell	XP Home	Aug 08
4231-2DU	Atom N270	1.60	512MB	10.2" WSVGA	Cam	GMA	80GB	11b/g	Red	None	3-cell	XP Home	Aug 08
4231-36U	Atom N270	1.60	512MB	10.2" WSVGA	Cam	GMA	80GB	11b/g	Blue	None	3-cell	XP Home	Oct 08
4231-2AU	Atom N270	1.60	512MB	10.2" WSVGA	Cam	GMA	80GB	11b/g	Pink	None	3-cell	XP Home	Dec 08
4231-3CU	Atom N270	1.60	1GB	10.2" WSVGA	Cam	GMA	160GB	11b/g	Black	None	3-cell	XP Home	Sep 08
4231-3DU	Atom N270	1.60	1GB	10.2" WSVGA	Cam	GMA	160GB	11b/g	Black	None	3-cell	XP Home	Sep 08
4231-35U	Atom N270	1.60	1GB	10.2" WSVGA	Cam	GMA	160GB	11b/g	Black	None	3-cell	XP Home	Dec 08
4231-34U	Atom N270	1.60	1GB	10.2" WSVGA	Cam	GMA	160GB	11b/g	White	None	3-cell	XP Home	Dec 08
4231-33U	Atom N270	1.60	1GB	10.2" WSVGA	Cam	GMA	160GB	11b/g	Red	None	3-cell	XP Home	Dec 08
4231-37U	Atom N270	1.60	1GB	10.2" WSVGA	Cam	GMA	160GB	11b/g	Blue	None	3-cell	XP Home	Oct 08
4231-32U	Atom N270	1.60	1GB	10.2" WSVGA	Cam	GMA	160GB	11b/g	Pink	None	3-cell	XP Home	Dec 08

- **Lenovo's netbook: smaller and lighter than a notebook**
- **10.2" widescreen, anti-glare display 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 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 - Microsoft® Windows® XP Home Edition
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	Preloaded applications ¹⁴ • Lenovo® OneKey Recovery • Norton Internet Security™ (90 days of virus definitions) • Adobe® Reader • Windows Live™ Toolbar • Lenovo Energy Management Software
Diskette drive	None	Available at these retailers • lenovo.com • Fry's
External combo SATA disk	None 80GB (5400 rpm) or 160GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, 2.5" platter, not removable	
Widescreen display	10.2" (259.1mm) WSVGA (1024x600) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 300:1 contrast ratio	
Camera	Camera on top of screen, 1.3-megapixel, fixed focus	
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) , in 945GSE	40-watt AC adapter ENERGY STAR® 4.0-compliant RoHS-compliant
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)	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
Case color	<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 2600 mAh	
Battery - life ¹⁰	3-cell: up to 2.5 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

© Lenovo
(MRA1-1) March 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 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	<i>Netbook; consumer markets</i> Intel® Atom™ Processor N270 with single-core, Hyper-Threading technology, 533MHz system bus, and 512KB L2 cache		Preloaded operating system ²⁰ - Microsoft® 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™ Facial Recognition
Memory	1GB std / 1.5GB max ⁷ / PC2-5300 667MHz DDR2 , non-parity, single-channel, one 200-pin SO-DIMM socket;		
Diskette drive	None		
External combo	None		
SATA disk	160GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, 2.5" platter, not removable		
Widescreen display	10.2" (259.1mm) WSVGA (1024x600) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 300:1 contrast ratio		
Camera	Camera on top of screen, 1.3-megapixel, fixed focus		
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) , in 945GSE		
Keyboard	6-row, 80-key, 85% size, multimedia Fn keys, recovery key, wireless on/off button		
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®), multi-touch		
Dimensions ³	3-cell: (WxDxH): 9.8" x 7.2" x 0.9-1.1"; 250mm x 183mm x 22-27.5mm		Available at these retailers <ul style="list-style-type: none">• lenovo.com
Weight ²	6-cell: (WxDxH): 9.8" x 7.7" x 0.9-1.4"; 250mm x 196mm x 22-36mm		
Case color	3-cell: starting at 2.43 lb (1.1 kg) 6-cell: starting at 2.87 lb (1.3 kg) Top: multiple color choices: black, white, red, blue, or pink (piano finish for red, blue, pink) Bottom: color matches top color		40-watt AC adapter ENERGY STAR® 4.0-compliant RoHS-compliant
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic		
Battery - type	Lithium Ion, 3-cell or 6-cell		Limited Warranty ¹² <ul style="list-style-type: none">⇒ 1-year parts and labor⇒ Depot repair service¹⁹⇒ Service upgrade options (in eligible locations):⁹<ul style="list-style-type: none">• 1-year accidental damage protection via depot 43R8885• 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day 43R8883• 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day with accidental damage protection 43R8884⇒ 24x7¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686
Battery - life ¹⁰	3-cell: up to 2.5 hr; 6-cell: 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	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

© Lenovo
(MRA1-3) March 2009

ideapad



Lenovo IdeaPad U110



Lenovo IdeaPad U110
(also available with black top)



Lenovo IdeaPad U110



Lenovo IdeaPad U110



Lenovo IdeaPad U110
(also available with black top)



Lenovo IdeaPad U110

Part number	Low Voltage processor	GHz	Memory	Widescreen display	Camera	Graphics controller	EIDE disk	USB external optical	Mini PCIe 802.11 wireless	Top color	Batteries	Vista preload	Avail date
59014189	L7500	1.60	3GB	11.1" WXGA	Cam	GMA	120GB ⁸	DVD±RW	*4965AG ¹¹	Red	4- + 7-cell	Home Prem	Jun 08
59014294	L7500	1.60	3GB	11.1" WXGA	Cam	GMA	120GB	DVD±RW	*4965AG	Red	4- + 7-cell	Home Prem	Jun 08
59014847	L7500	1.60	3GB	11.1" WXGA	Cam	GMA	120GB	DVD±RW	*4965AG	Red	4- + 7-cell	Home Prem	Jul 08
59014234	L7500	1.60	3GB	11.1" WXGA	Cam	GMA	120GB	DVD±RW	*4965AG	Black	4- + 7-cell	Home Prem	Jun 08
59014295	L7500	1.60	3GB	11.1" WXGA	Cam	GMA	120GB	DVD±RW	*4965AG	Black	4- + 7-cell	Home Prem	Jun 08
59014245	L7500	1.60	3GB	11.1" WXGA	Cam	GMA	120GB	DVD±RW	*4965AG	Black	4- + 7-cell	Home Prem	Jul 08
59014843	L7500	1.60	3GB	11.1" WXGA	Cam	GMA	120GB	DVD±RW	*4965AG	Black	4- + 7-cell	Home Prem	Aug 08
59014844	L7500	1.60	3GB	11.1" WXGA	Cam	GMA	120GB	DVD±RW	*4965AG	Black	4- + 7-cell	Home Prem	Sep 08
59014845	L7500	1.60	3GB	11.1" WXGA	Cam	GMA	120GB	DVD±RW	*4965AG	Black	4- + 7-cell	Home Prem	Sep 08

- **11.1" widescreen, glossy display**
- **Frameless screen (no plastic frame) to extend to the edges of the PC**
- **The thinnest and lightest of versatile ultraportables; starting at 0.7 inch high and 2.42 pounds**
- **Top cover with tendril textured floral pattern**
- **Bottom air vents resemble scroll patterns from antique Chinese rosewood furniture**
- **Cherry blossom design on bottom cover**
- **Ultra-glossy keyboard reminiscent of glass**
- **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**
- **Shuttle Center offers a one-stop, total entertainment environment with Shuttle Key that puts volume control on the keyboard**



Lenovo IdeaPad U110
(also available with black top)

Positioning Processor	Ultimate mobility; one-spindle Intel® Core™ 2 Duo processor L7500 with low voltage, dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB L2 cache	Preloaded operating system ²⁰ - Microsoft® Windows® Vista® Home Premium Edition (32-bit) ✦ Vista Premium logo
Memory	3GB std / 3GB max ⁷ / PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, one 200-pin SO-DIMM socket; <i>Italics:</i> std memory 1GB soldered to systemboard, 2GB in socket; no sockets avail	Preloaded applications ¹⁴ • Lenovo™ OneKey Recovery • Lenovo Anycomm • Norton® AntiVirus 2007 (90 days of virus definitions) • Adobe® Reader • Windows Live™ Toolbar • Easy Capture • Microsoft Office 2007 Trial (60-day) • VeriFace™ Facial Recognition™ • EarthLink® • Lenovo Energy Management Software • Lenovo Shuttle Center (DVD±RW) • Cyberlink Power2Go (DVD±RW)
Diskette drive	None	Available at these retailers • B&H™ • Newegg® • TigerDirect • MICROCENTER® • Best Buy™ • The Source (Canada)
External DVD±RW	USB 2.0 external DVD burner, dual-layer support, 12.7mm high, tray-in	
EIDE disk	120GB (4200 rpm) / ATA-100, 8mm high, 1.8" wide, not removable, Active Protection System™	65-watt AC adapter Wireless on/off switch ENERGY STAR® 4.0-compliant RoHS-compliant
Widescreen display	11.1" (281.9mm) WXGA (1366x768) TFT color, VibrantView (glossy), CCFL backlight, 370 nits, 16:9 aspect ratio, 500:1 contrast ratio, frameless screen	
Camera	Camera on top of screen, 1.3-megapixel, fixed focus	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
Graphics	Intel Graphics Media Accelerator X3100 , in GM965	
Keyboard	Ultra-glossy keyboard, 6-row, 83-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): 10.8" x 7.7" x 0.7-0.9"; 275mm x 196mm x 18.4-22.4mm	
Weight ²	4-cell: starting at 2.42 lb (1.09kg); 7-cell: starting at 2.92 lb (1.32kg)	
Case color	Red or black top, black bottom	
Case material	Top: aluminum alloy; Bottom: magnesium-aluminum alloy	
Battery - type	Lithium Ion, 4-cell 1750 mAh and 7-cell 4600 mAh	
Battery - life ¹⁰	4-cell: up to 2.0 hr; 7-cell: up to 6.0 hr	
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, USB 2.0, PCI Express® 1.1, PCI 2.3), LPC bus	
ExpressCard	One slot (ExpressCard/34)	
Multicard reader	4-in-1 reader (MultiMedia Card, Memory Stick®, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)	
Ports	Three USB 2.0, 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	
Intel 4965AG ³²	11a/g wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG	
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator	
Modem	None	
Ethernet	10/100 ethernet, Broadcom® BCM5906M, PCI 2.3	
Audio support	Intel High Definition (HD) Audio, RealTek® ALC888S codec / two stereo speakers (1.5 watt), Dolby® Home Theater™ speaker system / stereo microphone, microphone input jack (3.5 mm), stereo 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 models announced September 9, 2008; previous models on June 2 or July 15, 2008

© Lenovo
(LEO1-1) September 2008

Model	Type-model	Low Voltage processor	GHz	Memory	Widescreen display	Cam-Graphics era controller	EIDE disk	USB external optical	Mini PCIe 802.11 wireless	Top color	Blue-tooth	Batteries	Vista preload	Avail date	
	2304-2AU	L7500	1.60	2GB	11.1" WXGA	Cam	GMA	120GB ⁸	DVD±RW	* 4965AG ¹¹	Red	Blue	4- + 7-cell	Home Prem	May 08
	2304-2BU	L7500	1.60	2GB	11.1" WXGA	Cam	GMA	120GB	DVD±RW	* 4965AG	Black	Blue	4- + 7-cell	Home Prem	May 08
	2304-3AU	L7500	1.60	3GB	11.1" WXGA	Cam	GMA	120GB	DVD±RW	* 4965AG	Red	Blue	4- + 7-cell	Home Prem	Aug 08
	2304-3BU	L7500	1.60	3GB	11.1" WXGA	Cam	GMA	120GB	DVD±RW	* 4965AG	Black	Blue	4- + 7-cell	Home Prem	Aug 08
	2304-4AU	L7500	1.60	3GB	11.1" WXGA	Cam	GMA	120GB	DVD±RW	* 4965AG	Red	Blue	4- + 7-cell	Home Prem	Sep 08
	2304-4BU	L7500	1.60	3GB	11.1" WXGA	Cam	GMA	120GB	DVD±RW	* 4965AG	Black	Blue	4- + 7-cell	Home Prem	Sep 08

- 11.1" widescreen, glossy display
- Frameless screen (no plastic frame) to extend to the edges of the PC
- The thinnest and lightest of versatile ultraportables; starting at 0.7 inch high and 2.42 pounds
- Top cover with tendril textured floral pattern
- Bottom air vents resemble scroll patterns from antique Chinese rosewood furniture
- Cherry blossom design on bottom cover
- Ultra-glossy keyboard reminiscent of glass
- 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
- Shuttle Center offers a one-stop, total entertainment environment with Shuttle Key that puts volume control on the keyboard



Lenovo IdeaPad U110
(also available with red top)

Positioning Processor	Ultimate mobility; one-spindle Intel® Core™ 2 Duo processor L7500 with low voltage, dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB L2 cache	Preloaded operating system²⁰ - Microsoft® Windows® Vista® Home Premium Edition (32-bit) ◇ Vista Premium logo
Memory	2GB or 3GB std / 3GB max ⁷ / PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, one 200-pin SO-DIMM socket; <i>Italics:</i> std memory 1GB soldered to systemboard, 1GB or 2GB in socket; no sockets available	Preloaded applications¹⁴ • Lenovo™ OneKey Recovery • Lenovo Anycomm • Norton® AntiVirus 2007 (90 days of virus definitions) • Adobe® Reader • Windows Live™ Toolbar • Easy Capture • Microsoft Office 2007 Trial (60-day) • VeriFace™ Facial Recognition™ • EarthLink® • Lenovo Energy Management Software • Lenovo Shuttle Center (DVD±RW) • Cyberlink Power2Go (DVD±RW)
Diskette drive	None	Available at these retailers • lenovo.com • Fry's
External DVD±RW	USB 2.0 external DVD burner, dual-layer support, 12.7mm high, tray-in	
EIDE disk	120GB (4200 rpm) / ATA-100, 8mm high, 1.8" wide, not removable, Active Protection System™	
Widescreen display	11.1" (281.9mm) WXGA (1366x768) TFT color, VibrantView (glossy), CCFL backlight, 370 nits, 16:9 aspect ratio, 500:1 contrast ratio, frameless screen	
Camera	Camera on top of screen, 1.3-megapixel, fixed focus	65-watt AC adapter Wireless on/off switch ENERGY STAR® 4.0-compliant RoHS-compliant
Graphics	Intel Graphics Media Accelerator X3100 , in GM965	
Keyboard	Ultra-glossy keyboard, 6-row, 83-key, multimedia Fn keys	Limited Warranty¹² ⇒ 1-year parts and labor ⇒ Depot repair service¹⁹ ⇒ Service upgrade options (in eligible locations):⁹ • 1-year accidental damage protection via depot 43R8885 • 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day 43R8883 • 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day with accidental damage protection 43R8884 ⇒ 24x7¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686
Multimedia controls	Touch-sensitive audio-video control panel, Shuttle Key	
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®)	
Dimensions ³	(WxDxH): 10.8" x 7.7" x 0.7-0.9"; 275mm x 196mm x 18.4-22.4mm	
Weight ²	4-cell: starting at 2.42 lb (1.09kg); 7-cell: starting at 2.92 lb (1.32kg)	
Case color	Red or black top, black bottom	
Case material	Top: aluminum alloy; Bottom: magnesium-aluminum alloy	
Battery - type	Lithium Ion, 4-cell 1750 mAh and 7-cell 4600 mAh	
Battery - life ¹⁰	4-cell: up to 2.0 hr; 7-cell: up to 6.0 hr	
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, USB 2.0, PCI Express® 1.1, PCI 2.3), LPC bus	
ExpressCard/34	One slot (ExpressCard/34)	
Multicard reader	4-in-1 reader (MultiMedia Card, Memory Stick®, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)	
Ports	Three USB 2.0, 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	
Intel 4965AG ³²	11a/g wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG	
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator	
Modem	None	
Ethernet	10/100 ethernet, Broadcom® BCM5906M, PCI 2.3	
Audio support	High Definition (HD) Audio, RealTek® ALC888S codec / two stereo speakers (1.5 watt), Dolby® Home Theater™ speaker system / stereo microphone, microphone input jack (3.5 mm), stereo 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 models announced September 9, 2008; previous models on April 29 or August 12, 2008

© Lenovo
(LEO1-2) September 2008



Lenovo IdeaPad U330



Lenovo IdeaPad U330



Lenovo IdeaPad U330



Lenovo IdeaPad U330



Lenovo IdeaPad U330



Lenovo IdeaPad U330

Part number	Processor	GHz	Memory	Widescreen display	Camera	Switchable graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	Top color	Battery	Vista preload	Availability
59015270	P7350	2.00	3GB	13.3" WXGA	Cam	GMA, HD 3450	250GB ⁸	DVD±RW	✦ Intel 5100 ²⁸	Black	6-cell	Home Prem	Nov 08
59016807	P7350	2.00	3GB	13.3" WXGA	Cam	GMA, HD 3450	250GB	DVD±RW	✦ Intel 5100	Black	6-cell	Home Prem	Nov 08
59016806	P7350	2.00	3GB	13.3" WXGA	Cam	GMA, HD 3450	250GB	DVD±RW	✦ Intel 5100	Black	6-cell	Home Prem	Nov 08

- **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**
- **Bold black color with piano finish**
- **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 P7350 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache		Preloaded operating system ²⁰ - Microsoft® Windows® Vista® Home Premium Edition (32-bit) ✦ Vista Premium logo 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) • Carbonite Online Backup • VeriFace™ Facial Recognition™ • Lenovo Energy Management Software • Cyberlink Power2Go (DVD±RW)
Memory	3GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available		
Diskette drive SATA DVD±RW SATA disk	None DVD burner, dual-layer support, fixed, not removable, 9.5mm high, tray-in 250GB (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 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)		Available at these retailers • B&H™ • J&R™ • MICROCENTER® • TigerDirect • Amazon.com • Supercom (Canada)
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 Multicard reader	One slot (ExpressCard/34) 6-in-1 reader (MultiMedia Card, Memory Stick®, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)		90-watt AC adapter Wireless on/off switch ENERGY STAR® 4.0-compliant RoHS-compliant
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		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
Security Fingerprint reader	None		

See footnotes for important warranty information
US models announced November 12, 2008

✦ Intel Centrino® 2 processor technology

© Lenovo
(OLP1-2) November 2008

Type-model	Processor	GHz	Memory	Widescreen display	Camera	Switchable graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	Top color	Battery	Vista preload	Avail date
2267-2BU	P7350	2.00	2GB	13.3" WXGA	Cam	GMA, HD 3450	250GB ⁸	DVD±RW	✚Intel 5100 ²⁸	Black	6-cell	Home Prem	Aug 08
2267-3AU	P7350	2.00	3GB	13.3" WXGA	Cam	GMA, HD 3450	250GB	DVD±RW	✚Intel 5100	Black	6-cell	Home Prem	Sep 08
2267-2AU	P7350	2.00	3GB	13.3" WXGA	Cam	GMA, HD 3450	320GB	DVD±RW	✚Intel 5100	Black	6-cell	Home Prem	Aug 08

- **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**
- **Bold black color with piano finish**
- **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 P7350 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache		Preloaded operating system ²⁰ - Microsoft® Windows® Vista® Home Premium Edition (32-bit) ✧ Vista Premium logo Preloaded applications ¹⁴ <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)• Napster™ To Go®• WildGames™• Carbonite Online Backup• VeriFace™ Facial Recognition™• 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		
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 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)		Available at these retailers <ul style="list-style-type: none">• lenovo.com• Fry's
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 ENERGY STAR® 4.0-compliant RoHS-compliant
ExpressCard/34 Multicard reader	One slot (ExpressCard/34) 6-in-1 reader (MultiMedia Card, Memory Stick®, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)		Limited Warranty ¹² ➤ 1-year parts and labor ➤ Depot repair service ¹⁹ ➤ Service upgrade options (in eligible locations): ⁹ <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
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	None		
Mini PCI Express	One Mini PCI Express slot 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)		
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH9M, LED indicator		
Modem	None		
Ethernet	10/100 ethernet, Broadcom® BCM5906M, PCI 2.3		
Audio support	High Definition (HD) Audio, RealTek® ALC269 codec / two stereo speakers (1.5 watt), Dolby® Home Theater™ speaker system / dual array microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Fingerprint reader	None		

See footnotes for important warranty information

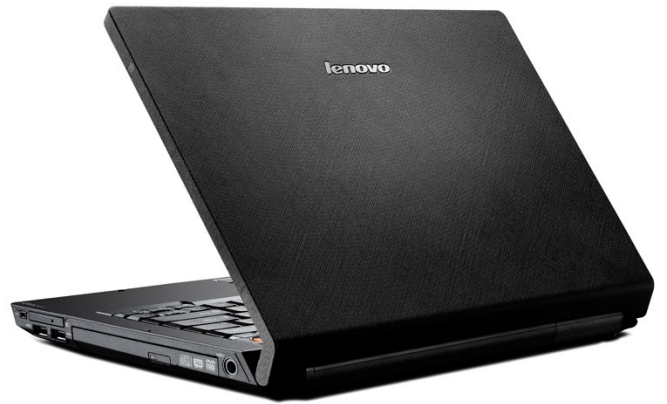
✚ Intel Centrino® 2 processor technology

☞ US model announced September 9, 2008; previous models on August 19, 2008

© Lenovo
(OLP1-1) September 2008



Lenovo IdeaPad Y430



Lenovo IdeaPad Y430



Lenovo IdeaPad Y430



Lenovo IdeaPad Y430



Lenovo IdeaPad Y430



Lenovo IdeaPad Y430

Part number	Processor	GHz	Memory	Widescreen display	CCFL or LED	Camera	Integrated graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	Top color	ENERGY STAR 4.0	Vista preload	Avail date
59015967	Pentium T3200	2.00	2GB	14.1" WXGA		Cam	GMA	160GB ⁸	DVD±RW	Intel 5100 ²⁸	Black		Prem 32	Oct 08
59015954	Pentium T3200	2.00	2GB	14.1" WXGA		Cam	GMA	160GB	DVD±RW	Intel 5100	Black		Prem 32	Dec 08
59016011	Pentium T3200	2.00	2GB	14.1" WXGA		Cam	GMA	250GB	DVD±RW	Intel 5100	Black		Prem 32	Nov 08
59015974	Pentium T3200	2.00	3GB	14.1" WXGA		Cam	GMA	160GB	DVD±RW	Intel 5100	Black		Prem 32	Oct 08
59018804	Pentium T3400	2.16	4GB	14.1" WXGA	LED	Cam	GMA	250GB	DVD±RW	Intel 5100	Black		Prem 64	Apr 09
59018800	Pentium T3400	2.16	4GB	14.1" WXGA	LED	Cam	GMA	250GB	DVD±RW	Intel 5100	Black		Prem 64	Apr 09
59016751	Core 2 Duo T5800	2.00	4GB	14.1" WXGA		Cam	GMA	250GB	DVD±RW *	Intel 5100	Black	ES40	Prem 64	Oct 08
59016838	Core 2 Duo T5800	2.00	4GB	14.1" WXGA		Cam	GMA	250GB	DVD±RW *	Intel 5100	Black	ES40	Prem 64	Nov 08
59016785	Core 2 Duo T5800	2.00	4GB	14.1" WXGA		Cam	GMA	320GB	DVD±RW *	Intel 5100	Black	ES40	Prem 64	Nov 08
59018213	Core 2 Duo T6400	2.00	4GB	14.1" WXGA	LED	Cam	GMA	250GB	DVD±RW *	Intel 5100	Black	ES40	Prem 64	Mar 09

- **14.1" widescreen, glossy display**
- **Light Weave textured cover**
- **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 two speakers and one subwoofer**
- **HDMI port, HDCP-compliant**
- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**
- **OneKey silence mode provides quieter operation through a touch-sensitive control button**

Positioning Processor	Widescreen flexibility; two-spindle Intel® Pentium® dual-core processor T3200 or T3400 with dual-core, 667MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo processor T5800 or T6400 with dual-core, 800MHz system bus, and 2MB L2 cache	Preloaded operating system²⁰ - Some: Microsoft® Windows® Vista® Home Premium Edition (32-bit) - Some: Microsoft Windows Vista Home Premium Edition (64-bit) 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™ Facial Recognition • Lenovo Energy Management Software • Cyberlink Power2Go (DVD±RW) Available at these retailers • B&H™ • J&R™ • TigerDirect • Amazon.com • Supercom (Canada) 65-watt AC adapter Wireless on/off switch Some: ENERGY STAR® 4.0-compliant RoHS-compliant
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	
Diskette drive	None (use optional USB-based diskette drive)	
SATA DVD±RW	DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in	
SATA disk	160GB (5400 rpm), 250GB (5400 rpm), or 320GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high, removable	
Widescreen display	14.1" (358.1mm) WXGA (1280x800) TFT color, VibrantView (glossy), Some: CCFL backlight, 200 nits, 16:10 aspect ratio, 400:1 contrast ratio Some: LED backlight , 200 nits, 16:10 aspect ratio, 400:1 contrast ratio	
Camera	Camera on top of screen, 1.3-megapixel, fixed focus	
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, HDMI port supporting HDCP to output protected content	
Keyboard	Full-size keyboard, 6-row, 84-key, multimedia Fn keys, recovery key	
Multimedia controls	Touch-sensitive audio-video control panel, Shuttle Key	
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®)	
Dimensions ³	(WxDxH): 13.1" x 9.5" x 1.0" to 1.5"; 334mm x 241mm x 26 to 38mm	Limited Warranty¹² ⇨ 1-year parts and labor ⇨ Depot repair service¹⁹ ⇨ Service upgrade options (in eligible locations):⁹ • 1-year accidental damage protection via depot 43R8885 • 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day 43R8883 • 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day with accidental damage protection 43R8884 ⇨ 24x7¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686
Weight ²	with optical drive and battery: <i>6-cell</i> : 5.2 lb (2.35 kg)	
Case color	Black top, black bottom	
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic	
Battery - type	Lithium Ion 6-cell , 5200 mAh, smart battery	
Battery - life ¹⁰	Up to 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, PCI 2.3, ethernet MAC)	
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)	
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)	
Ports	Three 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	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™	None	
Modem	56K V.92 ⁶ modem	
Ethernet	10/100 ethernet, Broadcom® BCM5906M, PCI 2.3	
Audio support	High Definition (HD) Audio, Conexant 20561 codec / two main speakers (2 watt) and subwoofer (2.5 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 lockhole	
Fingerprint reader	None	

See footnotes for important warranty information

* Intel Centrino® processor technology

US models announced April 7, 2009;

previous models on October 22, November 12, or December 10, 2008, or March 17, 2009

© Lenovo
(RSM1-2) April 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	ENERGY STAR 4.0	Vista preload	Avail date
2781-74U	T3200	2.00	2GB	14.1" WXGA		Cam	GMA	250GB ⁸	DVD±RW	Intel 5100 ²⁸	Black		Prem 32	Nov 08
2781-82U	T3400	2.16	2GB	14.1" WXGA	LED	Cam	GMA	160GB	DVD±RW	* Intel 5100	Black		Prem 32	Feb 09
2781-83U	T3400	2.16	2GB	14.1" WXGA	LED	Cam	GMA	320GB	DVD±RW	* Intel 5100	Black		Prem 32	Feb 09
2781-84U	T3400	2.16	3GB	14.1" WXGA	LED	Cam	GMA	320GB	DVD±RW	* Intel 5100	Black		Prem 32	Feb 09
2781-73U	T5800	2.00	3GB	14.1" WXGA		Cam	GMA	250GB	DVD±RW	* Intel 5100	Black	ES40	Prem 32	Sep 08
2781-86U	T6400	2.00	3GB	14.1" WXGA	LED	Cam	GMA	320GB	DVD±RW	* Intel 5100	Black	ES40	Prem 32	Feb 09
2781-7AU	T6400	2.00	4GB	14.1" WXGA	LED	Cam	GMA	250GB	DVD±RW	* Intel 5100	Black	ES40	Prem 64	Jan 09
2781-87U	T6400	2.00	4GB	14.1" WXGA	LED	Cam	GMA	320GB	DVD±RW	* Intel 5100	Black	ES40	Prem 64	Feb 09

- **14.1" widescreen, glossy display**
- **Light Weave textured cover**
- **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 two speakers and one subwoofer**
- **HDMI port, HDCP-compliant**
- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**
- **OneKey silence mode provides quieter operation through a touch-sensitive control button**

Positioning Processor	Widescreen flexibility; two-spindle Intel® Pentium® dual-core processor T3200 or T3400 with dual-core, 667MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo processor T5800 or T6400 with dual-core, 800MHz system bus, and 2MB L2 cache	Preloaded operating system²⁰ - Some: Microsoft® Windows® Vista® Home Premium Edition (32-bit) - Some: Microsoft® Windows® Vista® Home Premium Edition (64-bit) ♦ Vista Premium logo Preloaded applications¹⁴ (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) • Carbonite Online Backup • VeriFace™ Facial Recognition • Lenovo Energy Management Software • Cyberlink Power2Go (DVD±RW)
Memory	2GB, 3GB, or 4GB std / 4GB max ⁷ ; <i>Italics:</i> standard memory in both sockets; no sockets available 73U/74U: PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Others:</i> PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	
Diskette drive SATA DVD±RW SATA disk	None (use optional USB-based diskette drive) DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in 160GB (5400 rpm), 250GB (5400 rpm), or 320GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high, removable	
Widescreen display	14.1" (358.1mm) WXGA (1280x800) TFT color, VibrantView (glossy), <i>Some:</i> CCFL backlight, 200 nits, 16:10 aspect ratio, 400:1 contrast ratio <i>Some:</i> LED backlight , 200 nits, 16:10 aspect ratio, 400:1 contrast ratio	
Camera	Camera on top of screen, 1.3-megapixel, fixed focus	
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, HDMI port supporting HDCP to output protected content	Available at these retailers • lenovo.com 65-watt AC adapter Wireless on/off switch <i>Some:</i> ENERGY STAR® 4.0-compliant RoHS-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 accidental damage protection via depot 43R8885 • 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day 43R8883 • 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day with accidental damage protection 43R8884 ⇒ 24x7¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686
Keyboard Multimedia controls Touch pad	Full-size keyboard, 6-row, 84-key, multimedia Fn keys, recovery key 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): 13.1" x 9.5" x 1.0" to 1.5"; 334mm x 241mm x 26 to 38mm with optical drive and battery: 6-cell: 5.2 lb (2.35 kg) Black top, black bottom Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Lithium Ion 6-cell , 5200 mAh, smart battery Up to 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, PCI 2.3, ethernet MAC) One slot (ExpressCard/34, ExpressCard/54) 6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)	
ExpressCard/54 Multicard reader	Three 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)	
Ports	TV tuner Mini PCI Express Intel 5100 ²⁸ Bluetooth™ Modem Ethernet Audio support	
Security	Power-on password, hard disk password, supervisor password, security lockhole, VeriFace face recognition software	
Fingerprint reader	None	

See footnotes for important warranty information

* Intel Centrino® processor technology

© Lenovo

US models announced February 24, 2009; previous models on September 9 or November 12, 2008 or January 13, 2009

(RSM1-1) March 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	ENERGY STAR 4.0	Vista preload	Avail date
2781-89U	P7450	2.13	4GB	14.1" WXGA	LED	Cam	9300M GS	320GB ⁸	DVD±RW	✚ Intel 5100 ²⁸	Black	ES40	Prem 64	Feb 09
<ul style="list-style-type: none">• 14.1" widescreen, glossy display• Light Weave textured cover• 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 two speakers and one subwoofer• HDMI port, HDCP-compliant• Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows• OneKey silence mode provides quieter operation through a touch-sensitive control button														
</														

See footnotes for important warranty information
US model announced February 24, 2009

✚ Intel Centrino® 2 processor technology

© Lenovo
(RSM1-3) February 2009



Lenovo IdeaPad Y510



Lenovo IdeaPad Y510
with aluminum palm rest



Lenovo IdeaPad Y510



Lenovo IdeaPad Y510
with aluminum palm rest



Lenovo IdeaPad Y510



Lenovo IdeaPad Y510

Part number	Processor	GHz	Memory	Widescreen display	Camera	Graphics controller	SATA disk	EIDE optical	Mini PCIe 802.11 wireless	Blue-tooth	Vista preload	Avail date
59012693	Pentium T2330	1.60	2GB	15.4" WXGA	Cam	GMA	160GB ⁸	DVD±RW	* Intel 11a/b/g ¹¹	None	Home Prem	Jan 08
59012889	Pentium T2330	1.60	2GB	15.4" WXGA	Cam	GMA	160GB	DVD±RW	* Intel 11a/b/g	None	Home Prem	Mar 08
59012696	Pentium T2330	1.60	2GB	15.4" WXGA	Cam	GMA	160GB	DVD±RW	* Intel 11a/b/g	None	Home Prem	Mar 08
59012697	Pentium T2330	1.60	2GB	15.4" WXGA	Cam	GMA	250GB	DVD±RW	* Intel 11a/b/g	None	Home Prem	Jan 08
59013478	Pentium T2370	1.73	2GB	15.4" WXGA	Cam	GMA	160GB	DVD±RW	* Intel 11a/b/g	None	Home Prem	Apr 08
59012698	Core 2 Duo T5450	1.66	2GB	15.4" WXGA	Cam	GMA	160GB	DVD±RW	* Intel 11a/b/g	None	Home Prem	Jan 08
59012924	Core 2 Duo T5450	1.66	2GB	15.4" WXGA	Cam	GMA	160GB	DVD±RW	* Intel 11a/b/g	None	Home Prem	Mar 08
59013046	Core 2 Duo T5450	1.66	2GB	15.4" WXGA	Cam	GMA	250GB	DVD±RW	* Intel 11n ²⁸	None	Home Prem	Mar 08
59012779	Core 2 Duo T5550	1.83	2GB	15.4" WXGA	Cam	GMA	250GB	DVD±RW	* Intel 11n	None	Home Prem	Jan 08
59012891	Core 2 Duo T5550	1.83	2GB	15.4" WXGA	Cam	GMA	250GB	DVD±RW	* Intel 11n	None	Home Prem	Mar 08
59013333	Core 2 Duo T5550	1.83	2GB	15.4" WXGA	Cam	GMA	250GB	DVD±RW	* Intel 11n	None	Home Prem	Mar 08
59013272	Core 2 Duo T8100	2.10	2GB	15.4" WXGA	Cam	GMA	250GB	DVD±RW	* Intel 11n	None	Home Prem	Mar 08
<ul style="list-style-type: none">• 15.4" widescreen, glossy display• Frameless screen (no plastic frame) to extend to the edges of the PC• Light Weave textured cover• 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• Shuttle Center offers a one-stop, total entertainment environment with Shuttle Key that puts volume and equalizer controls on the keyboard• One key system recovery												
Positioning Processor	<i>Widescreen flexibility; two-spindle</i> Intel® Pentium® Dual-Core Processor T2330 or T2370 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo processor T5450 or T5550 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep technology, Execute Disable Bit, 667MHz system bus, and 2MB L2 cache or Intel Core 2 Duo processor T8100 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep technology, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 3MB L2 cache								Preloaded operating system²⁰ - Microsoft® Windows® Vista® Home Premium Edition (32-bit) ♦ Vista Premium logo Preloaded applications¹⁴ <ul style="list-style-type: none">• Lenovo™ OneKey Recovery• Lenovo Anycomm• Norton® AntiVirus 2007 (90 days of virus definitions)• Adobe® Reader• Windows Live™ Toolbar• Easy Capture• Microsoft Office 2007 Trial (60-day)• VeriFace™ Facial Recognition• EarthLink®• Energy Cut• Lenovo Shuttle Center (DVD±RW)• Cyberlink Power2Go (DVD±RW)			
Memory	2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available											
Diskette drive	None (use optional USB-based diskette drive)											
EIDE DVD±RW	DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in											
SATA disk	160GB (5400 rpm) or 250GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable											
Widescreen display	15.4" (391.2mm) WXGA (1280x800) TFT color, VibrantView (glossy), CCFL backlight, 200 nits, 16:10 aspect ratio, 400:1 contrast ratio, frameless screen											
Camera	Camera on top of screen, 1.3-megapixel, fixed focus											
Graphics	Intel Graphics Media Accelerator X3100 , in GM965											
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®)								Available at these retailers <ul style="list-style-type: none">• B&H™• BJ'sSM• J&R™• MICROCENTER®• Newegg®• Office DEPOT®• RCSEXPERIENCE• TigerDirect			
Dimensions ³	<i>(WxDxH):</i> 14.2" x 10.3" x 1.2" to 1.4"; 360mm x 262mm x 29 to 36mm								65-watt AC adapter Wireless on/off switch ENERGY STAR® 4.0-compliant RoHS-compliant			
Weight ²	with optical drive and battery: <i>6-cell:</i> 6.4 lb (2.91 kg)											
Case color	Black top, black bottom								Limited Warranty ¹² ⇨ 1-year parts and labor ⇨ Depot repair service¹⁹ ⇨ Service upgrade options (in eligible locations):⁹ <ul style="list-style-type: none">• 1-year accidental damage protection via depot 43R8885• 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day 43R8883• 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day with accidental damage protection 43R8884 ⇨ 24x7¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686			
Case material	ABS plastic											
Battery - type	Lithium Ion 6-cell , 5200 mAh, smart battery, 5-bar battery indicator											
Battery - life ¹⁰	Up to 4 hr											
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, USB 2.0, PCI Express® 1.1, PCI 2.3), LPC bus											
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)											
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)											
Ports	Three USB 2.0, external monitor (VGA DB-15), S-video, modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											
TV tuner	None											
Video out	S-video out port (TV-out), one 7-pin industry standard connector											
Mini PCI Express	Two Mini PCI Express slot											
Intel 11a/b/g	11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG											
Intel 11n	11a/b/g/n wireless, Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)											
Bluetooth™	None											
Modem	56K V.92 ⁶ modem											
Ethernet	10/100 ethernet, Broadcom® BCM5906M, PCI 2.3											
Audio support	Intel High Definition (HD) Audio, RealTek® ALC882 codec / two main speakers (2 watt), two secondary speaker (1 watt) and subwoofer (2.5 watt), Dolby® Home Theater™ Speaker System / stereo microphone, microphone input jack (3.5 mm), stereo 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

* Intel Centrino® processor technology

† US model announced April 15, 2008; previous models on January 6 or March 25, 2008

© Lenovo
(MKL1-1) April 2008

Part number	Processor	GHz	Memory	Widescreen display	Cam-era	Graphics controller	SATA disk	EIDE optical	Mini PCIe 802.11 wireless	Blue-tooth	Vista preload	Avail date	
59014835	Pentium T2390	1.86	2GB	15.4" WXGA	Cam	GMA	120GB ⁸	DVD±RW	Intel 4965AG ¹¹	None	Home Prem	Aug 08	
59014810	Pentium T2390	1.86	2GB	15.4" WXGA	Cam	GMA	160GB	DVD±RW	Intel 4965AG	None	Home Prem	Jul 08	
59014900	Pentium T2390	1.86	2GB	15.4" WXGA	Cam	GMA	160GB	DVD±RW	Intel 4965AG	None	Home Prem	Jul 08	
59014632	Pentium T2390	1.86	3GB	15.4" WXGA	Cam	GMA	160GB	DVD±RW	Intel 4965AG	None	Home Prem	Jul 08	
59014807	Pentium T2390	1.86	3GB	15.4" WXGA	Cam	GMA	250GB	DVD±RW	Intel 4965AG	None	Home Prem	Jul 08	
59014834	Core 2 Duo T5750	2.00	2GB	15.4" WXGA	Cam	GMA	250GB	DVD±RW	* Intel 4965AG	None	Home Prem	Aug 08	
59014491	Core 2 Duo T5750	2.00	2GB	15.4" WXGA	Cam	GMA	250GB	DVD±RW	* Intel 4965AG	None	Home Prem	Jul 08	
59014899	Core 2 Duo T5750	2.00	2GB	15.4" WXGA	Cam	GMA	250GB	DVD±RW	* Intel 4965AG	None	Home Prem	Jul 08	
59015479	Core 2 Duo T5750	2.00	3GB	15.4" WXGA	Cam	GMA	250GB	DVD±RW	* Intel 11a/b/g ¹¹	None	Home Prem	Sep08	
59014866	Core 2 Duo T5750	2.00	3GB	15.4" WXGA	Cam	GMA	250GB	DVD±RW	* Intel 4965AG	None	Home Prem	Sep08	
59014867	Core 2 Duo T5750	2.00	3GB	15.4" WXGA	Cam	GMA	250GB	DVD±RW	* Intel 4965AG	None	Home Prem	Jul 08	
59014898	Core 2 Duo T5750	2.00	3GB	15.4" WXGA	Cam	GMA	250GB	DVD±RW	* Intel 4965AG	None	Home Prem	Jul 08	
59014633	Core 2 Duo T5750	2.00	3GB	15.4" WXGA	Cam	GMA	250GB	DVD±RW	* Intel 4965AG	None	Home Prem	Sep08	
59014903	Core 2 Duo T5750	2.00	3GB	15.4" WXGA	Cam	GMA	320GB	DVD±RW	* Intel 4965AG	None	Home Prem	Jul 08	
<ul style="list-style-type: none">• 15.4" widescreen, glossy display• Light Weave textured cover• 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• Shuttle Center offers a one-stop, total entertainment environment with Shuttle Key that puts volume and equalizer controls on the keyboard• One key system recovery													
Positioning Processor	Widescreen flexibility; two-spindle Intel® Pentium® Dual-Core Processor T2390 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo processor T5750 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep technology, Execute Disable Bit, 667MHz system bus, and 2MB L2 cache								Preloaded operating system ²⁰ - Microsoft® Windows® Vista® Home Premium Edition (32-bit) ♦ Vista Premium logo Preloaded applications ¹⁴ • Lenovo™ OneKey Recovery • Lenovo Anycomm • Norton® AntiVirus 2007 (90 days of virus definitions) • Adobe® Reader • Windows Live™ Toolbar • Easy Capture • Microsoft Office 2007 Trial (60-day) • VeriFace™ Facial Recognition • EarthLink® • Energy Cut • Lenovo Shuttle Center (DVD±RW) • Cyberlink Power2Go (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												
Diskette drive	None (use optional USB-based diskette drive)												
EIDE DVD±RW	DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in												
SATA disk	120GB (5400 rpm), 160GB (5400 rpm), 250GB (5400 rpm), or 320GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable												
Widescreen display	15.4" (391.2mm) WXGA (1280x800) TFT color, VibrantView (glossy), CCFL backlight, 200 nits, 16:10 aspect ratio, 400:1 contrast ratio												
Camera	Camera on top of screen, 1.3-megapixel, fixed focus												
Graphics	Intel Graphics Media Accelerator X3100, in GM965												
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): 14.2" x 10.3" x 1.2" to 1.4"; 360mm x 262mm x 29 to 36mm								Available at these retailers				
Weight ²	with optical drive and battery: 6-cell: 6.4 lb (2.91 kg)								• B&H™				
Case color	Black top, black bottom								• MICROCENTER®				
Case material	ABS plastic								• Newegg®				
Battery - type	Lithium Ion 6-cell, 5200 mAh, smart battery, 5-bar battery indicator								• TigerDirect				
Battery - life ¹⁰	Up to 4 hr								• The Source (Canada)				
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, USB 2.0, PCI Express® 1.1, PCI 2.3), LPC bus								65-watt AC adapter				
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)								Wireless on/off switch				
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)								ENERGY STAR® 4.0-compliant				
Ports	Three USB 2.0, external monitor (VGA DB-15), S-video, modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)								RoHS-compliant				
TV tuner	None								Limited Warranty ¹²				
Video out	S-video out port (TV-out), one 7-pin industry standard connector								⇒ 1-year parts and labor				
Mini PCI Express	Two Mini PCI Express slot								⇒ Depot repair service ¹⁹				
Intel 11a/b/g	Some: 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG								⇒ Service upgrade options (in eligible locations): ⁹				
Intel 4965AG	Some: 11a/b/g wireless, Mini PCIe adapter, Intel Wireless WiFi Link 4965AG								• 1-year accidental damage protection via depot 43R8885				
Bluetooth™	None								• 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day 43R8883				
Modem	56K V.92 ⁶ modem								• 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day with accidental damage protection 43R8884				
Ethernet	10/100 ethernet, Broadcom® BCM5906M, PCI 2.3								⇒ 24x7 ¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686				
Audio support	Intel High Definition (HD) Audio, RealTek® ALC882 codec / two main speakers (2 watt), two secondary speaker (1 watt) and subwoofer (2.5 watt), Dolby® Home Theater™ Speaker System / stereo microphone, microphone input jack (3.5 mm), stereo 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

* Intel Centrino® processor technology

US models announced September 30, 2008; previous models on July 15 or September 9, 2008

© Lenovo

(MKL1-6) September 2008

Part number	Processor	GHz	Memory	Widescreen display	Camera	Graphics controller	SATA disk	EIDE optical	Mini PCIe 802.11 wireless	Blue-tooth	Vista preload	Avail date
59013791	Pentium T2370	1.73	2GB	15.4" WXGA	Cam	GMA	160GB ⁸	DVD±RW	* Intel 11a/b/g ¹¹	None	Home Prem	May 08
59013613	Pentium T2370	1.73	3GB	15.4" WXGA	Cam	GMA	160GB	DVD±RW	* Intel 11a/b/g	None	Home Prem	May 08
59013769	Pentium T2370	1.73	3GB	15.4" WXGA	Cam	GMA	250GB	DVD±RW	* Intel 11a/b/g	None	Home Prem	May 08
59013615	Core 2 Duo T5550	1.83	3GB	15.4" WXGA	Cam	GMA	250GB	DVD±RW	* Intel 11n ²⁸	None	Home Prem	May 08
59013765	Core 2 Duo T5550	1.83	3GB	15.4" WXGA	Cam	GMA	250GB	DVD±RW	* Intel 11n	None	Home Prem	May 08
59013885	Core 2 Duo T5550	1.83	3GB	15.4" WXGA	Cam	GMA	160GB	DVD±RW	* Intel 11a/b/g	None	Home Prem	May 08
59014491	Core 2 Duo T5750	2.00	2GB	15.4" WXGA	Cam	GMA	250GB	DVD±RW	* Intel 4965AG	None	Home Prem	Jun 08
59013782	Core 2 Duo T8100	2.10	2GB	15.4" WXGA	Cam	GMA	250GB	DVD±RW	* Intel 11n	None	Home Prem	May 08

- **15.4" widescreen, glossy display**
- **Frameless screen (no plastic frame) to extend to the edges of the PC**
- **Light Weave textured cover**
- **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**
- **Shuttle Center offers a one-stop, total entertainment environment with Shuttle Key that puts volume and equalizer controls on the keyboard**
- **One key system recovery**

Positioning Processor	Widescreen flexibility; two-spindle Intel® Pentium® Dual-Core Processor T2370 with dual-core , Intel 64 Technology, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo processor T5550 or T5750 with dual-core , Intel 64 Technology, Enhanced Intel SpeedStep technology, Execute Disable Bit, 667MHz system bus, and 2MB L2 cache or Intel Core 2 Duo processor T8100 with dual-core , Intel 64 Technology, Enhanced Intel SpeedStep technology, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 3MB L2 cache		Preloaded operating system ²⁰ - Microsoft® Windows® Vista® Home Premium Edition (32-bit) ✧ Vista Premium logo Preloaded applications ¹⁴ <ul style="list-style-type: none">• Lenovo™ OneKey Recovery• Lenovo Anycomm• Norton® AntiVirus 2007 (90 days of virus definitions)• Adobe® Reader• Windows Live™ Toolbar• Easy Capture• Microsoft Office 2007 Trial (60-day)• VeriFace™ Facial Recognition• EarthLink®• Energy Cut• Lenovo Shuttle Center (DVD±RW)• Cyberlink Power2Go (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			
Diskette drive	None (use optional USB-based diskette drive)			
EIDE DVD±RW	DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in			
SATA disk	160GB (5400 rpm) or 250GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable			
Widescreen display	15.4" (391.2mm) WXGA (1280x800) TFT color, VibrantView (glossy), CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio, frameless screen			
Camera	Camera on top of screen, 1.3-megapixel, fixed focus			
Graphics	Intel Graphics Media Accelerator X3100 , in GM965			
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	<i>(WxDxH):</i> 14.2" x 10.3" x 1.2" to 1.4"; 360mm x 262mm x 29 to 36mm			
Weight ²	with optical drive and battery: <i>6-cell:</i> 6.4 lb (2.91 kg)			
Case color	Black top, black bottom		Available at these retailers <ul style="list-style-type: none">• B&H™• BJ'sSM• J&R™• MICROCENTER®• Newegg®• Office DEPOT®• RCSEXPERIENCE• TigerDirect	
Case material	ABS plastic			
Battery - type	Lithium Ion 6-cell , 5200 mAh, smart battery, 5-bar battery indicator			
Battery - life ¹⁰	Up to 4 hr			
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, USB 2.0, PCI Express® 1.1, PCI 2.3), LPC bus		65-watt AC adapter Wireless on/off switch ENERGY STAR® 4.0-compliant RoHS-compliant	
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)			
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)			
Ports	Three USB 2.0, external monitor (VGA DB-15), S-video, modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		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	
TV tuner	None			
Video out	S-video out port (TV-out), one 7-pin industry standard connector			
Mini PCI Express	Two Mini PCI Express slot			
Intel 11a/b/g	<i>Some:</i> 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG			
Intel 4965AG	<i>Some:</i> 11a/b/g wireless, Mini PCIe adapter, Intel Wireless WiFi Link 4965AG			
Intel 11n	<i>Some:</i> 11a/b/g/n wireless, Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)			
Bluetooth™	None			
Modem	56K V.92 ⁶ modem			
Ethernet	10/100 ethernet, Broadcom® BCM5906M, PCI 2.3			
Audio support	Intel High Definition (HD) Audio, RealTek® ALC882 codec / two main speakers (2 watt), two secondary speaker (1 watt) and subwoofer (2.5 watt), Dolby® Home Theater™ Speaker System / stereo microphone, microphone input jack (3.5 mm), stereo 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 * Intel Centrino® processor technology
 Ⓢ US model announced June 27, 2008; previous models on May 12, 2008

© Lenovo
 (MKL1-2) June 2008

Part number	Processor	GHz	Memory	Widescreen display	Camera	Graphics controller	SATA disk	EIDE optical	Mini PCIe 802.11 wireless	Blue-tooth	Vista preload	Avail date
59013678	Core 2 Duo T5550	1.83	2GB	15.4" WXGA	Cam	8600M GT	160GB ⁸	DVD±RW	* Intel 11n ²⁸	Blue	Home Prem	May 08
59013679	Core 2 Duo T5550	1.83	2GB	15.4" WXGA	Cam	8600M GT	250GB	DVD±RW	* Intel 11n	Blue	Home Prem	May 08
59013680	Core 2 Duo T5550	1.83	4GB	15.4" WXGA	Cam	8600M GT	250GB	DVD±RW	* Intel 11n	Blue	Home Prem	May 08
59013779	Core 2 Duo T5550	1.83	4GB	15.4" WXGA	Cam	8600M GT	250GB	DVD±RW	* Intel 11n	Blue	Home Prem	May 08

- **15.4" widescreen, glossy display**
- **Frameless screen (no plastic frame) to extend to the edges of the PC**
- **Light Weave textured cover**
- **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**
- **Shuttle Center offers a one-stop, total entertainment environment with Shuttle Key that puts volume and equalizer controls on the keyboard**
- **One key system recovery**

Positioning Processor	Widescreen flexibility; two-spindle Intel® Core™ 2 Duo processor T5550 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB L2 cache	Preloaded operating system²⁰ - Microsoft® Windows® Vista® Home Premium Edition (32-bit) ♦ Vista Premium logo
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	Preloaded applications¹⁴ (only some listed) • Lenovo™ OneKey Recovery • Lenovo Anycomm • Norton® AntiVirus 2007 (90 days of virus definitions) • Adobe® Reader • Easy Capture • Microsoft Office 2007 Trial (60-day) • VeriFace™ Facial Recognition • Energy Cut • Lenovo Shuttle Center (DVD±RW) • Cyberlink Power2Go (DVD±RW)
Diskette drive	None (use optional USB-based diskette drive)	Available at these retailers • B&H™ • BJ's SM • J&R™ • MICROCENTER® • Newegg® • Office DEPOT® • RCSEXPERIENCE • TigerDirect
EIDE DVD±RW	DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in	
SATA disk	160GB (5400 rpm) or 250GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable	
Widescreen display	15.4" (391.2mm) WXGA (1280x800) TFT color, VibrantView (glossy), CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio, frameless screen	
Camera	Camera on top of screen, 1.3-megapixel, fixed focus	
Graphics	NVIDIA® GeForce® 8600M GT , PCI Express® x16, 256MB memory, DirectX® 10, TurboCache, PureVideo™ technology, VGA connector, S-video connector	90-watt AC adapter Wireless on/off switch ENERGY STAR® 4.0-compliant RoHS-compliant
Keyboard	Full-size keyboard, 6-row, 84-key, multimedia Fn keys	
Multimedia controls	Touch-sensitive audio-video control panel, Shuttle Key	Limited Warranty¹² ⇒ 1-year parts and labor ⇒ Depot repair service¹⁹ ⇒ Service upgrade options (in eligible locations): ⁹ • 1-year accidental damage protection via depot 43R8885 • 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day 43R8883 • 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day with accidental damage protection 43R8884 ⇒ 24x7¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®)	
Dimensions ³	(WxDxH): 14.2" x 10.3" x 1.2" to 1.4"; 360mm x 262mm x 29 to 36mm	
Weight ²	with optical drive and battery: 6-cell : 6.4 lb (2.91 kg)	
Case color	Black top, black bottom	
Case material	ABS plastic; <i>Palm rest:</i> aluminum	
Battery - type	Lithium Ion 6-cell , 5200 mAh, smart battery, 5-bar battery indicator	
Battery - life ¹⁰	Up to 3 hr	
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, USB 2.0, PCI Express 1.1, PCI 2.3), LPC bus	
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)	
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)	
Ports	Three USB 2.0, external monitor (VGA DB-15), S-video, modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
TV tuner	None	
Video out	S-video out port (TV-out), one 7-pin industry standard connector	
Mini PCI Express	Two Mini PCI Express slot	
Intel 11a/b/g	11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG	
Intel 11n	11a/b/g/n wireless, Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)	
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator	
Modem	56K V.92 ⁶ modem	
Ethernet	10/100 ethernet, Broadcom® BCM5906M, PCI 2.3	
Audio support	Intel High Definition (HD) Audio, RealTek® ALC882 codec / two main speakers (2 watt), two secondary speaker (1 watt) and subwoofer (2.5 watt), Dolby® Home Theater™ Speaker System / stereo microphone, microphone input jack (3.5 mm), stereo 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 May 12, 2008

* Intel Centrino® processor technology

© Lenovo
(MKL1-3) May 2008

Type-model	Processor	GHz	Memory	Widescreen display	Camera	Graphics controller	SATA disk	EIDE optical	Mini PCIe 802.11 wireless	Blue-tooth	Vista preload	Avail date
7758-2AU	Pentium T2370	1.73	2GB	15.4" WXGA	Cam	GMA	120GB ⁸	DVD±RW	Intel 11a/b/g ¹¹	None	Home Prem	May 08
7758-2BU	Pentium T2370	1.73	2GB	15.4" WXGA	Cam	GMA	160GB	DVD±RW	Intel 11a/b/g	None	Home Prem	May 08
7758-2CU	Core 2 Duo T5550	1.83	2GB	15.4" WXGA	Cam	GMA	160GB	DVD±RW	* Intel 11a/b/g	None	Home Prem	May 08
7758-3AU	Pentium T2390	1.86	2GB	15.4" WXGA	Cam	GMA	160GB	DVD±RW	Intel 11a/b/g	None	Home Prem	Aug 08
7758-3BU	Pentium T2390	1.86	2GB	15.4" WXGA	Cam	GMA	250GB	DVD±RW	Intel 11a/b/g	None	Home Prem	Aug 08
7758-3CU	Core 2 Duo T5750	2.00	2GB	15.4" WXGA	Cam	GMA	250GB	DVD±RW	* Intel 11a/b/g	None	Home Prem	Aug 08

- **15.4" widescreen, glossy display**
- **Frameless screen (no plastic frame) to extend to the edges of the PC**
- **Light Weave textured cover**
- **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**
- **Shuttle Center offers a one-stop, total entertainment environment with Shuttle Key that puts volume and equalizer controls on the keyboard**
- **One key system recovery**

Positioning Processor	Widescreen flexibility; two-spindle Intel® Pentium® Dual-Core Processor T2370 or T2390 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo processor T5550 or T5750 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep technology, Execute Disable Bit, 667MHz system bus, and 2MB L2 cache	Preloaded operating system²⁰ - Microsoft® Windows® Vista® Home Premium Edition (32-bit) ✧ Vista Premium logo Preloaded applications¹⁴ <ul style="list-style-type: none"> • Lenovo™ OneKey Recovery • Lenovo Anycomm • Norton® AntiVirus 2007 (90 days of virus definitions) • Adobe® Reader • Windows Live™ Toolbar • Easy Capture • Microsoft Office 2007 Trial (60-day) • VeriFace™ Facial Recognition • EarthLink® • Energy Cut • Lenovo Shuttle Center (DVD±RW) • Cyberlink Power2Go (DVD±RW)
Memory	2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available	
Diskette drive	None (use optional USB-based diskette drive)	
EIDE DVD±RW	DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in	
SATA disk	120GB (5400 rpm), 160GB (5400 rpm), or 250GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable	
Widescreen display	15.4" (391.2mm) WXGA (1280x800) TFT color, VibrantView (glossy), CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio, frameless screen	
Camera	Camera on top of screen, 1.3-megapixel, fixed focus	
Graphics	Intel Graphics Media Accelerator X3100 , in GM965	
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): 14.2" x 10.3" x 1.2" to 1.4"; 360mm x 262mm x 29 to 36mm	Available at these retailers • lenovo.com
Weight ²	with optical drive and battery: 6-cell: 6.4 lb (2.91 kg)	
Case color	Black top, black bottom	65-watt AC adapter Wireless on/off switch ENERGY STAR® 4.0-compliant RoHS-compliant
Case material	ABS plastic	
Battery - type	Lithium Ion 6-cell , 5200 mAh, smart battery, 5-bar battery indicator	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 accidental damage protection via depot 43R8885 • 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day 43R8883 • 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day with accidental damage protection 43R8884 ✧ 24x7¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686
Battery - life ¹⁰	Up to 4 hr	
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, USB 2.0, PCI Express® 1.1, PCI 2.3), LPC bus	
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)	
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)	
Ports	Three USB 2.0, external monitor (VGA DB-15), S-video, modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
TV tuner	None	
Video out	S-video out port (TV-out), one 7-pin industry standard connector	
Mini PCI Express	Two Mini PCI Express slot	
Intel 11a/b/g	11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG	
Bluetooth™	None	
Modem	56K V.92 ⁶ modem	
Ethernet	10/100 ethernet, Broadcom® BCM5906M, PCI 2.3	
Audio support	Intel High Definition (HD) Audio, RealTek® ALC882 codec / two main speakers (2 watt), two secondary speaker (1 watt) and subwoofer (2.5 watt), Dolby® Home Theater™ Speaker System / stereo microphone, microphone input jack (3.5 mm), stereo 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

* Intel Centrino® processor technology

US models announced August 5, 2008; previous models on April 29, 2008

© Lenovo
(MKL1-4) August 2008

Type-model	Processor	GHz	Memory	Widescreen display	Camera	Graphics controller	SATA disk	EIDE optical	Mini PCIe 802.11 wireless	Blue-tooth	Vista preload	Avail date
7758-2DU	Core 2 Duo T5550	1.83	2GB	15.4" WXGA	Cam	8600M GT	160GB ⁸	DVD±RW	* Intel 11n ²⁸	Blue	Home Prem	May 08
7758-2EU	Core 2 Duo T5550	1.83	2GB	15.4" WXGA	Cam	8600M GT	250GB	DVD±RW	* Intel 11n	Blue	Home Prem	May 08
7758-2FU	Core 2 Duo T5550	1.83	4GB	15.4" WXGA	Cam	8600M GT	250GB	DVD±RW	* Intel 11n	Blue	Home Prem	May 08
7758-3DU	Core 2 Duo T5750	2.00	2GB	15.4" WXGA	Cam	8600M GT	250GB	DVD±RW	* Intel 11n	Blue	Home Prem	Aug 08
7758-3EU	Core 2 Duo T5750	2.00	2GB	15.4" WXGA	Cam	8600M GT	320GB	DVD±RW	* Intel 11n	Blue	Home Prem	Aug 08
7758-3FU	Core 2 Duo T5750	2.00	4GB	15.4" WXGA	Cam	8600M GT	320GB	DVD±RW	* Intel 11n	Blue	Home Prem	Aug 08

- **15.4" widescreen, glossy display**
- **Frameless screen (no plastic frame) to extend to the edges of the PC**
- **Light Weave textured cover**
- **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**
- **Shuttle Center offers a one-stop, total entertainment environment with Shuttle Key that puts volume and equalizer controls on the keyboard**
- **One key system recovery**

Positioning Processor	<i>Widescreen flexibility; two-spindle</i> Intel® Core™ 2 Duo processor T5550 or T5750 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB L2 cache								Preloaded operating system ²⁰ - Microsoft® Windows® Vista® Home Premium Edition (32-bit) ✦ Vista Premium logo			
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								Preloaded applications ¹⁴ • Lenovo™ OneKey Recovery • Lenovo Anycomm • Norton® AntiVirus 2007 (90 days of virus definitions) • Adobe® Reader • Windows Live™ Toolbar • Easy Capture • Microsoft Office 2007 Trial (60-day) • VeriFace™ Facial Recognition • EarthLink® • Energy Cut • Lenovo Shuttle Center (DVD±RW) • Cyberlink Power2Go (DVD±RW)			
Diskette drive EIDE DVD±RW SATA disk	None (use optional USB-based diskette drive) DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in 160GB (5400 rpm), 250GB (5400 rpm), or 320GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable											
Widescreen display Camera	15.4" (391.2mm) WXGA (1280x800) TFT color, VibrantView (glossy), CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio, frameless screen Camera on top of screen, 1.3-megapixel, fixed focus											
Graphics	NVIDIA® GeForce® 8600M GT , PCI Express® x16, 256MB memory, DirectX® 10, TurboCache, PureVideo™ technology, VGA connector, S-video connector											
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): 14.2" x 10.3" x 1.2" to 1.4"; 360mm x 262mm x 29 to 36mm with optical drive and battery: <i>6-cell</i> : 6.4 lb (2.91 kg) Black top, black bottom ABS plastic; <i>Palm rest</i> : aluminum Lithium Ion 6-cell , 5200 mAh, smart battery, 5-bar battery indicator Up to 3 hr								Available at these retailers • lenovo.com			
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, USB 2.0, PCI Express® 1.1, PCI 2.3), LPC bus								90-watt AC adapter Wireless on/off switch ENERGY STAR® 4.0-compliant RoHS-compliant			
ExpressCard/54 Multicard reader	One slot (ExpressCard/34, ExpressCard/54) 6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)											
Ports	Three USB 2.0, external monitor (VGA DB-15), S-video, modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											
TV tuner Video out Mini PCI Express Intel 11n	None S-video out port (TV-out), one 7-pin industry standard connector Two Mini PCI Express slot 11a/b/g/n wireless, Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)											
Bluetooth™ Modem Ethernet Audio support	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator 56K V.92 ⁶ modem 10/100 ethernet, Broadcom® BCM5906M, PCI 2.3 Intel High Definition (HD) Audio, RealTek® ALC882 codec / two main speakers (2 watt), two secondary speaker (1 watt) and subwoofer (2.5 watt), Dolby® Home Theater™ Speaker System / stereo microphone, microphone input jack (3.5 mm), stereo 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 * Intel Centrino® processor technology
 US models announced August 5, 2008; previous models on April 29, 2008

© Lenovo
 (MKL1-5) August 2008

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** 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



Lenovo IdeaPad Y530



Lenovo IdeaPad Y530



Lenovo IdeaPad Y530



Lenovo IdeaPad Y530



Lenovo IdeaPad Y530



Lenovo IdeaPad Y530

Part number	Proc- essor	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 4.0	Vista preload	Avail date
59016229	T3200	2.00	2GB DDR2	15.4" WXGA		Cam	GMA	250GB ^a	DVD±RW	Intel 5100 ²⁸	Black	None		Prem 32	Nov 08
59016233	T3200	2.00	3GB DDR2	15.4" WXGA		Cam	GMA	160GB	DVD±RW	Intel 5100	Black	None		Prem 32	Oct 08
59016832	T3200	2.00	3GB DDR2	15.4" WXGA		Cam	GMA	160GB	DVD±RW	Intel 5100	Black	None		Prem 32	Nov 08
59016809	T3200	2.00	3GB DDR2	15.4" WXGA		Cam	GMA	160GB	DVD±RW	Intel 5100	Black	None		Prem 32	Nov 08
59017841	T3400	2.16	4GB DDR3	15.4" WXGA	LED	Cam	GMA	250GB	DVD±RW	Intel 5100	Black	None		Prem 64	Mar 09
59017827	T3400	2.16	4GB DDR3	15.4" WXGA	LED	Cam	GMA	250GB	DVD±RW	Intel 5100	Black	None		Prem 64	Mar 09
59015788	T5800	2.00	3GB DDR2	15.4" WXGA		Cam	GMA	250GB	DVD±RW *	Intel 5100	Black	None	ES40	Prem 32	Nov 08
59015870	T5800	2.00	3GB DDR2	15.4" WXGA		Cam	GMA	320GB	DVD±RW *	Intel 5100	Black	None	ES40	Prem 32	Oct 08
59015873	T5800	2.00	3GB DDR2	15.4" WXGA		Cam	GMA	320GB	DVD±RW *	Intel 5100	Black	None	ES40	Prem 32	Nov 08
59016235	T5800	2.00	4GB DDR2	15.4" WXGA		Cam	GMA	250GB	DVD±RW *	Intel 5100	Black	None	ES40	Prem 64	Feb 09
59018472	T6400	2.00	4GB DDR2	15.4" WXGA	LED	Cam	GMA	250GB	DVD±RW *	Intel 5100	Black	None	ES40	Prem 64	Feb 09
59018468	T6400	2.00	4GB DDR3	15.4" WXGA	LED	Cam	GMA	250GB	DVD±RW *	Intel 5100	Black	None	ES40	Prem 64	Mar 09
59018790	P7450	2.13	4GB DDR3	15.4" WXGA	LED	Cam	GMA	320GB	DVD±RW ↗	Intel 5100	Black	None	ES40	Prem 64	Mar 09
59018773	P7450	2.13	4GB DDR3	15.4" WXGA	LED	Cam	GMA	320GB	DVD±RW ↗	WiMAX	Black	None	ES40	Prem 64	Apr 09

- **15.4" widescreen, glossy display**
- **Light Weave textured cover**
- **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**

Positioning Processor	Widescreen flexibility; two-spindle Intel® Pentium® processor T3200 or T3400 with dual-core , 667MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo processor T5800 or T6400 with dual-core , 800MHz system bus, and 2MB L2 cache or Intel Core 2 Duo processor P7450 with dual-core , 1066MHz system bus, and 3MB L2 cache	Preloaded operating system²⁰ - <i>Some:</i> Microsoft® Windows® Vista® Home Premium Edition (32-bit) - <i>Some:</i> Microsoft Windows Vista Home Premium Edition (64-bit) ✧ Vista Premium logo Preloaded applications¹⁴ (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)• WildGames™• Carbonite Online Backup• VeriFace™ Facial Recognition• Lenovo Energy Management Software• Cyberlink Power2Go (DVD±RW)
Memory	2GB, 3GB, or 4GB std / 4GB max ⁷ ; <i>Italics:</i> standard memory in both sockets; no sockets available <i>Some:</i> PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Some:</i> PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, two 200-pin SO-DIMM sockets	
Diskette drive SATA DVD±RW SATA disk	None (use optional USB-based diskette drive) DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in 160GB (5400 rpm), 250GB (5400 rpm), or 320GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable	
Widescreen display	15.4" (391.2mm) WXGA (1280x800) TFT color, VibrantView (glossy), <i>Some:</i> CCFL backlight, 200 nits, 16:10 aspect ratio, 400:1 contrast ratio <i>Some:</i> LED backlight , 200 nits, 16:10 aspect ratio, 400:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus	
Camera		
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, HDMI port supporting HDCP to output protected content	Available at these retailers <ul style="list-style-type: none">• B&H™• J&R™• Newegg®• TigerDirect• Amazon.com• Supercom (Canada) 65-watt AC adapter Wireless on/off switch <i>Some:</i> ENERGY STAR® 4.0-compliant RoHS-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 accidental damage protection via depot 43R8885• 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day 43R8883• 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day with accidental damage protection 43R8884 ➤ 24x7¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686
Keyboard	Full-size keyboard, 6-row, 84-key, multimedia Fn keys, recovery key	
Multimedia controls	Touch-sensitive audio-video control panel, Shuttle Key	
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®)	
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	(WxDxH): 14.2" x 10.3" x 1.2" to 1.4"; 360mm x 262mm x 29 to 36mm with optical drive and battery: <i>6-cell</i> : 6.6 lb (2.98 kg) Black top, black bottom ABS plastic; <i>Palm rest</i> : aluminum Lithium Ion 6-cell , 5200 mAh, smart battery, 5-bar battery indicator Up to 3 hr	
Chipset	Mobile Intel GM45 Express Chipset (Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, ethernet MAC), PCI bus (Ricoh® R5C833 Cardbus/1394/Multicard), LPC bus (IT8752 Super I/O)	
ExpressCard/54 Multicard reader	One slot (ExpressCard/34, ExpressCard/54) 6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)	
Ports	Three USB 2.0, 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 Intel 5100 ²⁸ WiMAX	Two Mini PCI Express slots <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> 11a/b/g/n and WiMAX wireless ⁴ , Mini PCIe adap, Intel WiMAX/WiFi Link 5350, 3x3 (450Mbps) WiFi + 1x2 WiMAX (Echo Peak)	
Bluetooth™ Modem	None 56K V.92 ⁶ modem	
Ethernet	10/100 ethernet, Broadcom® BCM5906M, PCI 2.3	
Audio support	High Definition (HD) Audio, RealTek® ALC888S codec / two main speakers (2 watt), two secondary speakers (1 watt) and subwoofer (2.5 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 lockhole	
Fingerprint reader	None	

See footnotes for important warranty information

* Intel Centrino® processor technology

© Lenovo

Ⓜ US model announced April 7, 2009;

↗ Intel Centrino 2 processor technology

(MKL2-3) April 2009

previous models on October 22, November 12, or February 24, 2008, or March 17, 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 4.0	Vista preload	Avail date
4051-2QU	T3200	2.00	2GB	15.4" WXGA	LED	Cam	GMA	160GB ⁸	DVD±RW	Intel 5100 ²⁸	Black			Prem 32	Sep 08
4051-2RU	T3200	2.00	2GB	15.4" WXGA	LED	Cam	GMA	250GB	DVD±RW	Intel 5100	Black			Prem 32	Sep 08
4051-62U	T3200	2.00	2GB	15.4" WXGA	LED	Cam	GMA	320GB	DVD±RW	Intel 5100	Black			Prem 32	Nov 08
4051-2SU	T3200	2.00	3GB	15.4" WXGA	LED	Cam	GMA	250GB	DVD±RW	Intel 5100	Black			Prem 32	Sep 08
4051-63U	T3200	2.00	4GB	15.4" WXGA	LED	Cam	GMA	320GB	DVD±RW	Intel 5100	Black	Blue		Prem 64	Nov 08
4051-2TU	T5800	2.00	2GB	15.4" WXGA	LED	Cam	GMA	250GB	DVD±RW *	Intel 5100	Black	Blue	ES40	Prem 32	Sep 08
4051-42U	T5800	2.00	3GB	15.4" WXGA		Cam	GMA	250GB	DVD±RW *	Intel 5100	Black		ES40	Prem 32	Sep 08
4051-2WU	T5800	2.00	3GB	15.4" WXGA	LED	Cam	GMA	250GB	DVD±RW *	Intel 5100	Black	Blue	ES40	Prem 32	Sep 08
4051-2UU	T5800	2.00	3GB	15.4" WXGA	LED	Cam	GMA	320GB	DVD±RW *	Intel 5100	Black	Blue	ES40	Prem 32	Sep 08
4051-43U	T5800	2.00	4GB	15.4" WXGA		Cam	GMA	320GB	DVD±RW *	Intel 5100	Black		ES40	Prem 64	Sep 08
4051-53U	T6400	2.00	4GB	15.4" WXGA	LED	Cam	GMA	250GB	DVD±RW *	Intel 5100	Black		ES40	Prem 64	Mar 09
4051-54U	P7450	2.13	4GB	15.4" WXGA	LED	Cam	GMA	320GB	DVD±RW ⚡	Intel 5100	Black		ES40	Prem 64	Jan 09

- **15.4" widescreen, glossy display**
- **Light Weave textured cover**
- **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; two-spindle Intel® Pentium® dual-core processor T3200 with dual-core, 667MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo processor T5800 or T6400 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo processor P7450 with dual-core, 1066MHz system bus, and 3MB L2 cache	Preloaded operating system²⁰ - Some: Microsoft® Windows® Vista® Home Premium Edition (32-bit) - Some: Microsoft Windows Vista Home Premium Edition (64-bit) ⚡ Vista Premium logo
Memory	2GB, 3GB, or 4GB std / 4GB max ³¹ ; <i>Italics:</i> standard memory in both sockets; no sockets available; 42U/43U: PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Others:</i> PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	Preloaded applications¹⁴ (only some listed) • Lenovo® OneKey Recovery • Lenovo ReadyComm • Norton Internet Security™ (90 days of virus definitions) • Easy Capture • Microsoft Office 2007 Trial (60-day) • Carbonite Online Backup • VeriFace™ Facial Recognition • Lenovo Energy Management Software • Cyberlink Power2Go (DVD±RW)
Diskette drive SATA DVD±RW SATA disk	None (use optional USB-based diskette drive) DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in 160GB (5400 rpm), 250GB (5400 rpm), or 320GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable	
Widescreen display	15.4" (391.2mm) WXGA (1280x800) TFT color, VibrantView (glossy), <i>Some:</i> CCFL backlight, 200 nits, 16:10 aspect ratio, 400:1 contrast ratio <i>Some:</i> LED backlight , 200 nits, 16:10 aspect ratio, 400:1 contrast ratio	
Camera	Camera on top of screen, 1.3-megapixel, fixed focus	
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, HDMI port supporting HDCP to output protected content	
Keyboard Multimedia controls Touch pad	Full-size keyboard, 6-row, 84-key, multimedia Fn keys, recovery key Touch-sensitive audio-video control panel, Shuttle Key Two-button touch pad with scroll feature (no TrackPoint®)	
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	(<i>WxDxH</i>): 14.2" x 10.3" x 1.2" to 1.4"; 360mm x 262mm x 29 to 36mm with optical drive and battery: <i>6-cell</i> : 6.6 lb (2.98 kg) Black top, black bottom ABS plastic; <i>Palm rest</i> : aluminum Lithium Ion 6-cell , 5200 mAh, smart battery, 5-bar battery indicator Up to 3 hr	Available at these retailers • lenovo.com • Fry's
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), PCI bus (Ricoh® R5C833 Cardbus/1394/Multicard), LPC bus (IT8752 Super I/O)	65-watt AC adapter Wireless on/off switch <i>Some:</i> ENERGY STAR® 4.0-compliant RoHS-compliant
ExpressCard/54 Multicard reader	One slot (ExpressCard/34, ExpressCard/54) 6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)	Limited Warranty¹² ⇒ 1-year parts and labor ⇒ Depot repair service¹⁹ ⇒ Service upgrade options (in eligible locations): ⁹ • 1-year accidental damage protection via depot 43R8885 • 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day 43R8883 • 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day with accidental damage protection 43R8884 ⇒ 24x7¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686
Ports	Three 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 Two 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, USB 2.0 interface via ICH9M, LED indicator 56K ⁶ V.92 ¹⁵ modem 10/100 ethernet, Broadcom® BCM5906M, PCI 2.3 High Definition (HD) Audio, RealTek® ALC888S codec / two main speakers (2 watt), two secondary speakers (1 watt) and subwoofer (2.5 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 lockhole, None	

See footnotes for important warranty information

* Intel Centrino® processor technology

⚡ US model announced March 17, 2009;

⚡ Intel Centrino 2 processor technology

previous models on September 9, September 16, or November 18, 2008 or January 13, 2009

© Lenovo
(MKL2-2) March 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 4.0	Vista preload	Avail date
4051-6HU	T3400	2.16	1GB	15.4" WXGA	LED	Cam	GMA	160GB ⁸	DVD±RW	Intel 5100 ²⁸	Black			Basic	Feb 09
4051-68U	T3400	2.16	2GB	15.4" WXGA	LED	Cam	GMA	250GB	DVD±RW	Intel 5100	Black			Prem 32	Feb 09
4051-6FU	T3400	2.16	2GB	15.4" WXGA	LED	Cam	GMA	320GB	DVD±RW	Intel 5100	Black			Prem 32	Feb 09
4051-69U	T3400	2.16	3GB	15.4" WXGA	LED	Cam	GMA	320GB	DVD±RW	Intel 5100	Black			Prem 32	Feb 09
4051-67U	T6400	2.00	3GB	15.4" WXGA	LED	Cam	GMA	250GB	DVD±RW *	Intel 5100	Black		ES40	Prem 32	Feb 09
4051-6AU	T6400	2.00	3GB	15.4" WXGA	LED	Cam	GMA	320GB	DVD±RW *	Intel 5100	Black	Blue	ES40	Prem 32	Feb 09
4051-6BU	T6400	2.00	4GB	15.4" WXGA	LED	Cam	GMA	320GB	DVD±RW *	Intel 5100	Black	Blue	ES40	Prem 64	Feb 09

- **15.4" widescreen, glossy display**
- **Light Weave textured cover**
- **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; two-spindle Intel® Pentium® processor T3400 with dual-core, 667MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo processor T6400 with dual-core, 800MHz system bus, and 2MB L2 cache		<div>Preloaded operating system²⁰</div> <div>- Some: Microsoft® Windows® Vista® Home Premium Edition (32-bit)</div> <div>- Some: Microsoft Windows Vista Home Premium Edition (64-bit)</div> <div>- Some: Microsoft Windows Vista Home Basic Edition (32-bit)</div> <div>✧ 4051-6HU: Vista Basic logo</div> <div>✧ Others: Vista Premium logo</div> <div>Preloaded applications¹⁴ (only some listed)</div> <div>• Lenovo® OneKey Recovery</div> <div>• Lenovo ReadyComm</div> <div>• Norton Internet Security™ (90 days of virus definitions)</div> <div>• Easy Capture</div> <div>• Microsoft Office 2007 Trial (60-day)</div> <div>• Carbonite Online Backup</div> <div>• VeriFace™ Facial Recognition</div> <div>• Lenovo Energy Management Software</div> <div>• Cyberlink Power2Go (DVD±RW)</div> <div>Available at these retailers</div> <div>• lenovo.com</div> <div>65-watt AC adapter</div> <div>Wireless on/off switch</div> <div>Some: ENERGY STAR® 4.0-compliant</div> <div>RoHS-compliant</div> <div>Limited Warranty¹²</div> <div>⇒ 1-year parts and labor</div> <div>⇒ Depot repair service¹⁹</div> <div>⇒ Service upgrade options (in eligible locations):⁹</div> <div>• 1-year accidental damage protection via depot 43R8885</div> <div>• 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day 43R8883</div> <div>• 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day with accidental damage protection 43R8884</div> <div>⇒ 24x7¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686</div>
Memory	1GB, 2GB, 3GB, or 4GB std / 4GB max ³¹ / 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 (use optional USB-based diskette drive)		
SATA DVD±RW	DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in		
SATA disk	160GB (5400 rpm), 250GB (5400 rpm), or 320GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable		
Widescreen display	15.4" (391.2mm) WXGA (1280x800) TFT color, VibrantView (glossy), LED backlight , 200 nits, 16:10 aspect ratio, 400:1 contrast ratio		
Camera	Camera on top of screen, 1.3-megapixel, fixed focus		
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, HDMI port supporting HDCP to output protected content		
Keyboard	Full-size keyboard, 6-row, 84-key, multimedia Fn keys, recovery key		
Multimedia controls	Touch-sensitive audio-video control panel, Shuttle Key		
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®)		
Dimensions ³	(WxDxH): 14.2" x 10.3" x 1.2" to 1.4"; 360mm x 262mm x 29 to 36mm		
Weight ²	with optical drive and battery: 6-cell: 6.6 lb (2.98 kg)		
Case color	Black top, black bottom		
Case material	ABS plastic; <i>Palm rest:</i> ABS plastic		
Battery - type	Lithium Ion 6-cell , 5200 mAh, smart battery, 5-bar battery indicator		
Battery - life ¹⁰	Up to 3 hr		
Chipset	Mobile Intel GM45 Express Chipset (Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, ethernet MAC), PCI bus (Ricoh® R5C833 Cardbus/1394/Multicard), LPC bus (IT8752 Super I/O)		
ExpressCard/54 Multicard reader	One slot (ExpressCard/34, ExpressCard/54) 6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)		
Ports	Three USB 2.0, 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	Two Mini PCI Express slots		
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)		
Bluetooth™	Some: Bluetooth 2.1 wireless, USB 2.0 interface via ICH9M, LED indicator		
Modem	56K ⁶ V.92 ¹⁵ modem		
Ethernet	10/100 ethernet, Broadcom® BCM5906M, PCI 2.3		
Audio support	High Definition (HD) Audio, RealTek® ALC888S codec / two main speakers (2 watt), two secondary speakers (1 watt) and subwoofer (2.5 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 lockhole		
Fingerprint reader	None		

See footnotes for important warranty information
US models announced February 24, 2009

* Intel Centrino® processor technology

© Lenovo
(MKL2-5) February 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
4051-2XU	T5800	2.00	2GB	15.4" WXGA	LED	Cam	9300M GS	250GB ⁸	DVD±RW	* Intel 5100 ²⁸	Black	Blue	Prem 32	Sep 08
4051-64U	T5800	2.00	4GB	15.4" WXGA	LED	Cam	9300M GS	320GB	DVD±RW	* Intel 5100	Black	Blue	Prem 64	Nov 08
4051-2AU	P7350	2.00	2GB	15.4" WXGA		Cam	9300M GS	250GB	DVD±RW	✧ Intel 5100	Black	Blue	Prem 32	Aug 08
4051-2NU	P7350	2.00	2GB	15.4" WXGA	LED	Cam	9300M GS	250GB	DVD±RW	✧ Intel 5100	Black	Blue	Prem 32	Sep 08
4051-2BU	P7350	2.00	3GB	15.4" WXGA		Cam	9300M GS	320GB	DVD±RW	✧ Intel 5100	Black	Blue	Prem 32	Aug 08
4051-2PU	P7350	2.00	3GB	15.4" WXGA	LED	Cam	9300M GS	320GB	DVD±RW	✧ Intel 5100	Black	Blue	Prem 32	Sep 08
4051-2YU	P8400	2.26	4GB	15.4" WXGA	LED	Cam	9500M G	320GB	DVD±RW	✧ Intel 5100	Black	Blue	Prem 64	Sep 08

- **15.4" widescreen, glossy display**
- **Frameless screen (no plastic frame) to extend to the edges of the PC**
- **Light Weave textured cover**
- **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; two-spindle 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										Preloaded operating system²⁰ - Some: Microsoft® Windows® Vista® Home Premium Edition (32-bit) - Some: Microsoft Windows Vista Home Premium Edition (64-bit) ✧ Vista Premium logo Preloaded applications¹⁴ (only some listed) • Lenovo™ OneKey Recovery • Lenovo ReadyComm • Norton Internet Security™ (90 days of virus definitions) • Adobe® Reader • Windows Live™ Toolbar • Easy Capture • Microsoft Office 2007 Trial (60-day) • WildGames™ • Carbonite Online Backup • VeriFace™ Facial Recognition Software • Cyberlink Power2Go (DVD±RW)			
Memory	2GB, 3GB, or 4GB std / 4GB max ⁷ ; <i>Italics:</i> standard memory in both sockets; no sockets available; 2AU/2BU: PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Others:</i> PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets													
Diskette drive	None (use optional USB-based diskette drive)													
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 1.5Gb/s, 9.5mm high, removable													
Widescreen display	15.4" (391.2mm) WXGA (1280x800) TFT color, VibrantView (glossy); Some: CCFL backlight, 200 nits, 16:10 aspect ratio, 400:1 contrast ratio, frameless screen Some: LED backlight , 200 nits, 16:10 aspect ratio, 400:1 contrast ratio, frameless screen													
Camera	Camera on top of screen, 1.3-megapixel, fixed focus													
Discrete graphics	Some: NVIDIA® GeForce® 9300M GS , PCI Express® x16, 256MB memory, DirectX® 10, PureVideo® HD technology, VGA, HDMI, HDCP-compliant Some: NVIDIA GeForce 9500M G , PCI Express x16, 512MB memory, DirectX 10, PureVideo HD technology, VGA, HDMI, HDCP-compliant													
Keyboard	Full-size keyboard, 6-row, 84-key, multimedia Fn keys, recovery key													
Multimedia controls	Touch-sensitive audio-video control panel, Shuttle Key													
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®)													
Dimensions ³	(WxDxH): 14.2" x 10.3" x 1.2" to 1.4"; 360mm x 262mm x 29 to 36mm													
Weight ²	with optical drive and battery: 6-cell: 6.6 lb (2.98 kg)													
Case color	Black top, black bottom													
Case material	ABS plastic; <i>Palm rest:</i> aluminum													
Battery - type	Lithium Ion 6-cell , 5200 mAh, smart battery, 5-bar battery indicator													
Battery - life ¹⁰	Up to 3 hr													
Chipset	Mobile Intel GM45 Express Chipset (Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, ethernet MAC), PCI bus (Ricoh® R5C833 Cardbus/1394/Multicard), LPC bus (IT8752 Super I/O)										90-watt AC adapter Wireless on/off switch ENERGY STAR® 4.0-compliant RoHS-compliant			
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)													
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)													
Ports	Three 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	Two Mini PCI Express slots													
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wi-Fi 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 watt) and subwoofer (2.5 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 lockhole													
Fingerprint reader	None													

Limited Warranty¹²
 ➤ **1-year parts and labor**
 ➤ **Depot repair service¹⁹**
 ➤ **Service upgrade options** (in eligible locations):⁹
 • **1-year accidental damage protection via depot** 43R8885
 • **3-year Lenovo Onsite Repair¹³** 9x5 Next Business Day 43R8883
 • **3-year Lenovo Onsite Repair¹³** 9x5 Next Business Day with accidental damage protection 43R8884
 ➤ **24x7¹⁶ toll-free support for warranty issues during the warranty period¹²** via 877-453-6686

See footnotes for important warranty information

* Intel Centrino® processor technology

© Lenovo

E8 US model announced November 18, 2008;

✧ Intel Centrino 2 processor technology

(MKL2-1) December 2008

previous models on August 19 or September 16, 2008

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
4051-65U	T6400	2.00	3GB	15.4" WXGA	LED	Cam	9300M GS	320GB ⁸	DVD±RW	* Intel 5100 ²⁸	Black	Blue	Prem 32 Feb 09	
4051-66U	T6400	2.00	4GB	15.4" WXGA	LED	Cam	9300M GS	320GB	DVD±RW	* Intel 5100	Black	Blue	Prem 64 Feb 09	
4051-6DU	P7450	2.13	3GB	15.4" WXGA	LED	Cam	9300M GS	320GB	DVD±RW	✚ Intel 5100	Black	Blue	Prem 32 Feb 09	
4051-6GU	P7450	2.13	4GB	15.4" WXGA	LED	Cam	9300M GS	320GB	DVD±RW	✚ Intel 5100	Black	Blue	Prem 64 Feb 09	
4051-6CU	P8600	2.40	3GB	15.4" WXGA	LED	Cam	9300M GS	320GB	DVD±RW	✚ Intel 5100	Black	Blue	Prem 32 Feb 09	
4051-6EU	P8600	2.40	4GB	15.4" WXGA	LED	Cam	9300M G	320GB	DVD±RW	✚ Intel 5100	Black	Blue	Prem 64 Feb 09	

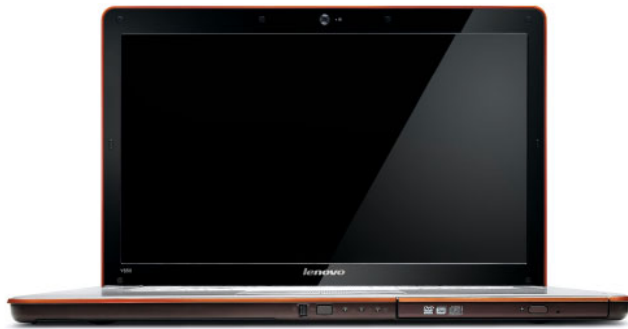
- **15.4" widescreen, glossy display**
- **Frameless screen (no plastic frame) to extend to the edges of the PC**
- **Light Weave textured cover**
- **Integrated 1.3 megapixel camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face.**
- **Dolby® 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; two-spindle Intel® Core™ 2 Duo processor T6400 with dual-core , 800MHz system bus, and 2MB L2 cache or Intel Core 2 Duo processor P7450 or P8600 with dual-core , Intel HD Boost, 1066MHz system bus, and 3MB L2 cache		Preloaded operating system ²⁰ - <i>Some:</i> Microsoft® Windows® Vista® Home Premium Edition (32-bit) - <i>Some:</i> Microsoft Windows Vista Home Premium Edition (64-bit) ✧ 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) • WildGames™ • Carbonite Online Backup • VeriFace™ Facial Recognition • 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 (use optional USB-based diskette drive) DVD burner, dual-layer support, fixed, not removable, 12.7mm high, tray-in 320GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable		
Widescreen display Camera	15.4" (391.2mm) WXGA (1280x800) TFT color, VibrantView (glossy); LED backlight , 200 nits, 16:10 aspect ratio, 400:1 contrast ratio, frameless screen Camera on top of screen, 1.3-megapixel, fixed focus		
Discrete graphics	<i>Some:</i> NVIDIA® GeForce® 9300M GS , PCI Express® x16, 256MB memory, DirectX® 10, PureVideo® HD technology, VGA, HDMI, HDCP-compliant <i>Some:</i> NVIDIA GeForce 9500M G , PCI Express x16, 512MB memory, DirectX 10, PureVideo HD technology, VGA, HDMI, HDCP-compliant		
Keyboard Multimedia controls Touch pad	Full-size keyboard, 6-row, 84-key, multimedia Fn keys, recovery key 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): 14.2" x 10.3" x 1.2" to 1.4"; 360mm x 262mm x 29 to 36mm with optical drive and battery: 6-cell: 6.6 lb (2.98 kg) Black top, black bottom ABS plastic; <i>Palm rest:</i> ABS plastic Lithium Ion 6-cell , 5200 mAh, smart battery, 5-bar battery indicator Up to 3 hr		
Chipset	Mobile Intel GM45 Express Chipset (Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, ethernet MAC), PCI bus (Ricoh® R5C833 Cardbus/1394/Multicard), LPC bus (IT8752 Super I/O)		Available at these retailers • lenovo.com
ExpressCard/54 Multicard reader	One slot (ExpressCard/34, ExpressCard/54) 6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)		
Ports	Three USB 2.0, external monitor (VGA DB-15, HDMI), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		90-watt AC adapter Wireless on/off switch ENERGY STAR® 4.0-compliant RoHS-compliant
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 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 watt) and subwoofer (2.5 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 lockhole		Limited Warranty ¹² ⇒ 1-year parts and labor ⇒ Depot repair service ¹⁹ ⇒ Service upgrade options (in eligible locations): ⁹ • 1-year accidental damage protection via depot 43R8885 • 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day 43R8883 • 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day with accidental damage protection 43R8884 ⇒ 24x7 ¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686
Security Fingerprint reader	None		

See footnotes for important warranty information
US models announced February 24, 2009

* Intel Centrino® processor technology
✚ Intel Centrino 2 processor technology

© Lenovo
(MKL2-4) February 2009



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 4.0	Vista preload	Avail date
59019001	P8600	2.40	4GB	16.0" WXGA	LED	Cam	GMA	320GB ⁸	DVD±RW	Intel 5100 ²⁸	Black	Blue	ES40	Prem 64	Apr 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 - Microsoft® Windows® Vista® Home Premium Edition (64-bit) ✦ 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™ Facial Recognition • 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 (use optional USB-based diskette drive) 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		Available at these retailers • TigerDirect 65-watt AC adapter Wireless on/off switch ENERGY STAR® 4.0-compliant RoHS-compliant Limited Warranty ¹² ⇨ 1-year parts and labor ⇨ Depot repair service ¹⁹ ⇨ Service upgrade options (in eligible locations): ⁹ • 1-year accidental damage protection via depot 43R8885 • 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day 43R8883 • 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day with accidental damage protection 43R8884 ⇨ 24x7 ¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	(WxDxH): 15.4" x 10.2" x 1.0"; 390mm x 260mm x 26mm with optical drive and battery: 6-cell: 5.62 lb (2.55 kg) Black top with engraved pattern, black bottom <i>Top:</i> carbon fiber reinforced plastic; <i>Bottom:</i> magnesium-aluminum alloy Lithium Ion 6-cell Up to 3.5 hr		
Chipset	Mobile Intel GM45 Express Chipset (Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, ethernet MAC)		
ExpressCard/34 Multicard reader	One slot (ExpressCard/34) 6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)		
Ports	Two USB 2.0, external monitor (VGA DB-15, HDMI), ethernet (RJ-45), CIR, eSATA port		
TV tuner Mini PCI Express Intel 5100 ²⁸ Bluetooth™ Modem Ethernet Audio support	None Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Bluetooth 2.1 wireless + EDR, USB 2.0 interface via ICH9M, LED indicator None Gigabit ethernet, Broadcom® BCM5784, PCIe x1 High Definition (HD) Audio, RealTek® ALC272 codec / two JBL® stereo speakers (2 watt), Dolby® Home Theater™ Speaker System / dual array microphone, microphone input jack (3.5 mm), headphone jack (SPDIF-out) (stereo, 3.5 mm) Hard disk password, user password, supervisor password, security lockhole		
Security Fingerprint reader	None		

See footnotes for important warranty information
US model announced April 7, 2009

✦ Intel Centrino® 2 processor technology

© Lenovo
(BM1-3) April 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 4.0	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	ES40	Prem 32	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 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache		Preloaded operating system ²⁰ - Microsoft® Windows® Vista® Home Premium Edition (32-bit) ✦ 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™ Facial Recognition • Lenovo Energy Management Software • Cyberlink Power2Go (DVD±RW) • Media Show • Lenovo Desktop Navigator software
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;		
Diskette drive SATA DVD±RW SATA disk	None (use optional USB-based diskette drive) 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		Available at these retailers • lenovo.com 65-watt AC adapter Wireless on/off switch ENERGY STAR® 4.0-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"; 390mm x 260mm x 26mm with optical drive and battery: 6-cell: 5.62 lb (2.55 kg) Black top with engraved pattern, black bottom <i>Top:</i> carbon fiber reinforced plastic; <i>Bottom:</i> magnesium-aluminum alloy Lithium Ion 6-cell Up to 3.5 hr		
Chipset	Mobile Intel GM45 Express Chipset (Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, ethernet MAC)		
ExpressCard/34 Multicard reader	One slot (ExpressCard/34) 6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)		
Ports	Two USB 2.0, external monitor (VGA DB-15, HDMI), ethernet (RJ-45), CIR, eSATA port		
TV tuner Mini PCI Express Intel 5100 ²⁸ Bluetooth™ Modem Ethernet Audio support	None Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) 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		Limited Warranty ¹² ⇨ 1-year parts and labor ⇨ Depot repair service ¹⁹ ⇨ Service upgrade options (in eligible locations): ⁹ • 1-year accidental damage protection via depot 43R8885 • 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day 43R8883 • 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day with accidental damage protection 43R8884 ⇨ 24x7 ¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686
Security Fingerprint reader	None		

See footnotes for important warranty information
US model announced February 24, 2009

⇨ Intel Centrino® 2 processor technology

© Lenovo
(BM1-1) February 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 - Microsoft® Windows® Vista® Home Premium Edition (64-bit) ✧ 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• Easy Capture• Microsoft Office 2007 Trial (60-day)• VeriFace™ Facial Recognition• Lenovo Energy Management Software• Cyberlink Power2Go (DVD±RW)• Media Show• Lenovo Desktop Navigator software
Memory	3GB or 4GB std / 8GB max ⁷ ; PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets <i>Italics:</i> standard memory in both sockets; no sockets available;		
Diskette drive SATA DVD±RW SATA disk	None (use optional USB-based diskette drive) DVD burner, dual-layer support, fixed, not removable, 9.5 mm high, tray-in 320GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high, removable		
Widescreen display Camera	16.0" (406.4mm) WXGA (1366x768) TFT color, VibrantView (glossy); LED backlight , 300 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus, LED indicator		
Discrete graphics	NVIDIA® GeForce® G105M , PCI Express® x16, 256MB memory, DirectX® 10, PureVideo® HD technology, VGA, HDMI, HDCP-compliant		Available at these retailers <ul style="list-style-type: none">• lenovo.com
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 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) One slot (ExpressCard/34)		
ExpressCard/34 Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)		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
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		

See footnotes for important warranty information
US models announced February 24, 2009

♦ Intel Centrino® 2 processor technology

© Lenovo
(BM1-2) February 2009



Lenovo IdeaPad Y710



Lenovo IdeaPad Y710



Lenovo IdeaPad Y710



Lenovo IdeaPad Y710
(Game Zone on select models)



Lenovo IdeaPad Y710
(Game Zone on select models)



Lenovo IdeaPad Y710

Part number	Proc- essor	GHz	Memory	Widescreen display	Camera	Graphics controller	SATA disk(s)	EIDE optical	Mini PCIe 802.11 wireless	Blue- tooth	Vista preload	Avail date
59012817	T5450	1.66	2GB	17.0" WXGA+	Camera	HD 2600	1 x 250GB ⁸	DVD±RW	*Intel 11n ²⁸	Blue	Home Prem	Jan 08
59013787	T5550	1.83	3GB	17.0" WXGA+	Camera	HD 2600	1 x 250GB	DVD±RW	*Intel 11n	Blue	Home Prem	Apr 08
59012816	T9300	2.50	2GB	17.0" WXGA+	Camera	HD 2600	2 x 250GB	Blu-ray	*Intel 11n	Blue	Home Prem	Feb 08
59013334	T9300	2.50	2GB	17.0" WXGA+	Camera	HD 2600	2 x 250GB	Blu-ray	*Intel 11n	Blue	Home Prem	Mar 08

- **17.0" widescreen, glossy display**
- **Frameless screen (no plastic frame) to extend to the edges of the PC**
- **Blue metallic finish**
- **Halo Lighting to emit a different color light from side bezel and Lenovo logo on cover**
- **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**
- **Shuttle Center offers a one-stop, total entertainment environment with Shuttle Key that puts volume and equalizer controls on the keyboard**
- **HDMI port, HDCP-compliant**
- **One key system recovery**
- **Hot-swap secondary disk capability on select models**



Positioning Processor	Widescreen flexibility Intel® Core™ 2 Duo processor T5450 or T5550 with dual-core , Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB L2 cache or Intel Core 2 Duo processor T9300 with dual-core , Intel 64 Technology, Enhanced Intel SpeedStep® technology, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz bus, and 6MB L2 cache		Preloaded operating system ²⁰ - Microsoft® Windows® Vista® Home Premium Edition (32-bit) ✧ Vista Premium logo Preloaded applications ¹⁴ <ul style="list-style-type: none">• Lenovo™ OneKey Recovery• Norton® AntiVirus 2007 (90 days of virus definitions)• Adobe® Reader• Windows Live™ Toolbar• Easy Capture• Microsoft Office 2007 Trial (60-day)• VeriFace™ Facial Recognition• EarthLink®• Energy Cut• Lenovo Shuttle Center (DVD±RW, Blu-ray)• Cyberlink Power2Go (DVD±RW, Blu-ray)	
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			
Diskette drive	None (use optional USB-based diskette drive)			
EIDE DVD±RW	Some: DVD burner, dual-layer support, fixed, not removable, 12.7mm, tray-in			
EIDE Blu-ray™	Some: Blu-ray Disc reader (no Blu-ray media burning), BD-ROM, no HD-DVD playback, DVD and CD recordable, not removable, 12.7mm high, tray-in			
SATA disk	250GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable and upgradable			
Secondary disk	Some: 250GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable and upgradable, hot-swap support, external support via USB cable			
Widescreen display	17.0" (431.8mm) WXGA+ (1440x900) TFT color, VibrantView (glossy), CCFL backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio, frameless screen			
Camera	Camera on top of screen, 1.3-megapixel, fixed focus			
Graphics	ATI™ Mobility Radeon™ HD 2600 , PCI Express® x16, 256MB memory, DirectX® 10, ATI Avivo™, VGA connector (with VGA-in support), HDMI connector, HDCP-compliant			
Keyboard	Full-size keyboard, 6-row, 84-key, multimedia Fn keys, numeric keypad on right			
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 1.02" to 1.53"; 395mm x 285mm x 26 to 39mm		Available at these retailers	
Weight ²	with optical drive and battery: 7.9 lb (3.6 kg)		<ul style="list-style-type: none">• B&H™• J&R™• RCSEXPERIENCE• TigerDirect	
Case color	Blue top, black bottom			
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 GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, USB 2.0, PCI Express 1.1, PCI 2.3), LPC bus		135-watt AC adapter	
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)		Wireless on/off switch	
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)		VGA in/out switch	
Ports	Four USB 2.0, external monitor (VGA DB-15, HDMI), S-video, modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		ENERGY STAR® 4.0-compliant	
TV tuner	None		RoHS-compliant	
Mini PCI Express	One Mini PCI Express slot			
Intel 11n ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)			
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator			
Modem	56K V.92 ⁶ modem			
Ethernet	10/100 ethernet, Broadcom® BCM5906M, PCI 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 / stereo microphone, microphone input jack (3.5 mm), stereo 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 April 15, 2008; previous models on January 6, January 29, or March 25, 2008

© Lenovo
(MB1-1) April 2008

Part number	Proc- essor	GHz	Memory	Widescreen display	Camera	Graphics controller	SATA disk(s)	EIDE optical	Mini PCIe 802.11 wireless	Blue- tooth	Game Zone	Vista preload	Avail date
59013729	T8100	2.10	4GB	17.0" WUXGA	Camera	HD 2600	1 x 250GB ⁸	DVD±RW	*Intel 11n ²⁸	Blue	Game	Home Prem	May 08
59013620	X9000	2.80	4GB	17.0" WUXGA	Camera	HD 2600	2 x 250GB	Blu-ray	*Intel 11n	Blue	Game	Home Prem	Jun 08
59013785	X9000	2.80	4GB	17.0" WUXGA	Camera	HD 2600	2 x 250GB	Blu-ray	*Intel 11n	Blue	Game	Home Prem	Jun 08

- 17.0" widescreen, glossy display
- Frameless screen (no plastic frame) to extend to the edges of the PC
- Blue metallic finish
- Halo Lighting to emit a different color light from side bezel and Lenovo logo on cover
- Game Zone with secondary display, user-defined keys, performance control switch and enlarged direction keys
- 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
- Shuttle Center offers a one-stop, total entertainment environment with Shuttle Key that puts volume and equalizer controls on the keyboard
- HDMI port, HDCP-compliant
- One key system recovery



Positioning Processor	Widescreen flexibility Intel® Core™ 2 Duo processor T8100 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz bus, and 3MB L2 cache or Intel Core 2 Extreme processor X9000 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology, Execute Disable Bit, Virtualization Technology, 800MHz bus, and 6MB L2 cache	Preloaded operating system ²⁰ - Microsoft® Windows® Vista® Home Premium Edition (32-bit) ✦ Vista Premium logo Preloaded applications ¹⁴ • Lenovo™ OneKey Recovery • Norton® AntiVirus 2007 (90 days of virus definitions) • Adobe® Reader • Windows Live™ Toolbar • Easy Capture • Microsoft Office 2007 Trial (60-day) • VeriFace™ Facial Recognition • EarthLink® • Energy Cut • Lenovo Shuttle Center (DVD±RW, Blu-ray) • Cyberlink Power2Go (DVD±RW, Blu-ray)
Memory	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	
Diskette drive	None (use optional USB-based diskette drive)	
EIDE DVD±RW	Some: DVD burner, dual-layer support, fixed, not removable, 12.7mm, tray-in	
EIDE Blu-ray™	Some: Blu-ray Disc reader (no Blu-ray media burning), BD-ROM, no HD-DVD playback, DVD and CD recordable, not removable, 12.7mm high, tray-in	
SATA disk	250GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable and upgradable	
Secondary disk	Some: 250GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable and upgradable, hot-swap support, external support via USB cable	
Widescreen display	17.0" (431.8mm) WUXGA (1920x1200) TFT color, VibrantView (glossy), CCFL backlight, 300 nits, 16:10 aspect ratio, 500:1 contrast ratio, frameless screen	
Camera	Camera on top of screen, 1.3-megapixel, fixed focus	
Graphics	ATI™ Mobility Radeon™ HD 2600 , PCI Express® x16, 512MB memory, DirectX® 10, ATI Avivo™, VGA connector (with VGA-in support), HDMI connector, HDCP-compliant	
Keyboard	Full-size keyboard, 6-row, 84-key, multimedia Fn keys	
Game Zone	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®)	Available at these retailers • B&H™ • J&R™ • Newegg® • RCSEXPERIENCE • TigerDirect
Dimensions ³	(WxDxH): 15.5" x 11.2" x 1.02" to 1.53"; 395mm x 285mm x 26 to 39mm	
Weight ²	with optical drive and battery: 7.9 lb (3.6 kg)	
Case color	Blue top, black bottom	
Case material	ABS plastic	
Battery - type	Lithium Ion 6-cell , 5200 mAh, smart battery, 5-bar battery indicator	135-watt AC adapter Wireless on/off switch VGA in/out switch ENERGY STAR® 4.0-compliant RoHS-compliant
Battery - life ¹⁰	Up to 3.5 hr	
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, USB 2.0, PCI Express 1.1, PCI 2.3), LPC bus	
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)	
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)	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 43R8883 • 9x5 Next Business Day • 3-year Lenovo Onsite Repair ¹³ 43R8883 • 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
Ports	Four USB 2.0, external monitor (VGA DB-15, HDMI), S-video, modem (RJ-11), 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 11n ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)	
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator	
Modem	56K V.92 ⁶ modem	
Ethernet	10/100 ethernet, Broadcom® BCM5906M, PCI 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 / stereo microphone, microphone input jack (3.5 mm), stereo 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 models announced June 27, 2008; previous model on May 12, 2008

© Lenovo
(MB1-2) June 2008

Part number	Proc- essor	GHz	Memory	Widescreen display	Camera	Graphics controller	SATA disk(s)	EIDE optical	Mini PCIe 802.11 wireless	Blue- tooth	Keypad / Game Zone	Vista preload	Avail date
59014906	T2390	1.86	2GB	17.0" WXGA+	Camera	HD 2600 512M	1 x 160GB ⁸	DVD±RW	Intel 11n ²⁸	Blue	Keypad	Home Prem	Jul 08
59014832	T2390	1.86	2GB	17.0" WXGA+	Camera	HD 2600 512M	1 x 250GB	DVD±RW	Intel 11n	Blue	Keypad	Home Prem	Aug 08
59014756	T2390	1.86	3GB	17.0" WXGA+	Camera	HD 2600 512M	1 x 250GB	DVD±RW	Intel 11n	Blue	Keypad	Home Prem	Jul 08
59014927	T5750	2.00	2GB	17.0" WXGA+	Camera	HD 2600 512M	1 x 250GB	DVD±RW	* Intel 11n	Blue	Keypad	Home Prem	Jul 08
59013620	X9000	2.80	4GB	17.0" WUXGA	Camera	HD 2600 512M	2 x 250GB	Blu-ray	* Intel 11n	Blue	Game	Home Prem	Jul 08
<ul style="list-style-type: none">• 17.0" widescreen, glossy display• Frameless screen (no plastic frame) to extend to the edges of the PC• Blue metallic 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• HDMI port, HDCP-compliant• Hot-swap secondary disk capability on select models													
Positioning Processor		Widescreen flexibility Intel® Pentium® Dual-Core Processor T2390 with dual-core, Intel 64 Technology, 533MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo processor T5750 with dual-core, Intel 64 Technology, 667MHz system bus, and 2MB L2 cache or Intel Core 2 Extreme processor X9000 with dual-core, Intel 64 Technology, 800MHz bus, and 6MB L2 cache								Preloaded operating system²⁰ - Microsoft® Windows® Vista® Home Premium Edition (32-bit) ♦ Vista Premium logo Preloaded applications¹⁴ <ul style="list-style-type: none">• Lenovo™ OneKey Recovery• Norton® AntiVirus 2007 (90 days of virus definitions)• Adobe® Reader• Windows Live™ Toolbar• Easy Capture• Microsoft Office 2007 Trial (60-day)• VeriFace™ Facial Recognition• EarthLink®• Energy Cut• Lenovo Shuttle Center (DVD±RW, Blu-ray)• Cyberlink Power2Go (DVD±RW, Blu-ray)			
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											
Diskette drive		None (use optional USB-based diskette drive)											
EIDE DVD±RW		<i>Some:</i> DVD burner, dual-layer support, fixed, not removable, 12.7mm, tray-in											
EIDE Blu-ray™		<i>Some:</i> Blu-ray Disc reader (no Blu-ray media burning), BD-ROM, no HD-DVD playback, DVD and CD recordable, not removable, 12.7mm high, tray-in											
SATA disk		160 (5400 rpm) or 250GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable and upgradable											
Secondary disk		<i>Some:</i> 250GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable and upgradable, hot-swap support, external support via USB cable											
Widescreen display		<i>Some:</i> 17.0" (431.8mm) WXGA+ (1440x900) TFT color , 200 nits <i>Some:</i> 17.0" (431.8mm) WUXGA (1920x1200) TFT color , 300 nits <i>All:</i> VibrantView (glossy), CCFL backlight, 16:10 aspect ratio, 500:1 contrast ratio, frameless screen											
Camera		Camera on top of screen, 1.3-megapixel, fixed focus											
Graphics		ATI™ Mobility Radeon™ HD 2600 , PCI Express® x16, 512MB memory, DirectX® 10, ATI Avivo™, VGA connector (with VGA-in support), HDMI connector, HDCP-compliant											
Keyboard		Full-size keyboard, 6-row, 84-key, multimedia Fn keys											
Numeric keypad		<i>Some:</i> Numeric keypad on right of keyboard											
Game Zone		<i>Some:</i> 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 1.02" to 1.53"; 395mm x 285mm x 26 to 39mm								Available at these retailers			
Weight ²		with optical drive and battery: 7.9 lb (3.6 kg)								• B&H™			
Case color		Blue top, black bottom								• Newegg®			
Case material		ABS plastic								• TigerDirect			
Battery - type		Lithium Ion 6-cell , 5200 mAh, smart battery, 5-bar battery indicator								• The Source (Canada)			
Battery - life ¹⁰		Up to 3.5 hr											
Chipset		Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, USB 2.0, PCI Express 1.1, PCI 2.3), LPC bus								135-watt AC adapter			
ExpressCard/54		One slot (ExpressCard/34, ExpressCard/54)								Wireless on/off switch			
Multicard reader		6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)								VGA in/out switch			
Ports		Four USB 2.0, external monitor (VGA DB-15, HDMI), S-video, modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)								ENERGY STAR® 4.0-compliant			
TV tuner		None								RoHS-compliant			
Mini PCI Express		One Mini PCI Express slot											
Intel 11n ²⁸		11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)											
Bluetooth™		Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator											
Modem		56K V.92 ⁶ modem											
Ethernet		10/100 ethernet, Broadcom® BCM5906M, PCI 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 / stereo microphone, microphone input jack (3.5 mm), stereo headphone jack (3.5 mm)											
Security		Power-on password, hard disk password, supervisor password, security keyhole											
Fingerprint reader		None											




Limited Warranty¹²

- ⇨ **1-year parts and labor**
- ⇨ **Depot repair service¹⁹**
- ⇨ **Service upgrade options (in eligible locations):⁹**
 - **1-year accidental damage protection via depot** 43R8885
 - **3-year Lenovo Onsite Repair¹³** 9x5 Next Business Day 43R8883
 - **3-year Lenovo Onsite Repair¹³** 9x5 Next Business Day with accidental damage protection 43R8884
- ⇨ **24x7¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686**



Type-model	Proc- essor	GHz	Memory	Widescreen display	Camera	Graphics controller	SATA disk(s)	EIDE optical	Mini PCIe 802.11 wireless	Blue- tooth	Keypad / Game Zone	Vista preload	Avail date
4054-2CU	T5550	1.83	2GB	17.0" WXGA+	Camera	HD 2600 256M	1 x 250GB ⁸	DVD±RW	*Intel 11n ²⁸	Blue	Keypad	Home Prem	May 08
4054-2DU	T5750	2.00	2GB	17.0" WXGA+	Camera	HD 2600 256M	1 x 250GB	DVD±RW	*Intel 11n	Blue	Keypad	Home Prem	Aug 08
4054-2AU	T8100	2.10	4GB	17.0" WUXGA	Camera	HD 2600 512M	1 x 250GB	DVD±RW	*Intel 11n	Blue	Game	Home Prem	May 08
4054-2BU	X9000	2.80	4GB	17.0" WUXGA	Camera	HD 2600 512M	2 x 250GB	Blu-ray	*Intel 11n	Blue	Game	Home Prem	May 08

- **17.0" widescreen, glossy display**
- **Frameless screen (no plastic frame) to extend to the edges of the PC**
- **Blue metallic 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**
- **HDMI port, HDCP-compliant**
- **Hot-swap secondary disk capability on select models**



Positioning Processor	Widescreen flexibility Intel® Core™ 2 Duo processor T5550 or T5750 with dual-core, Intel 64 Technology, 667MHz system bus, and 2MB L2 cache or Intel Core 2 Duo processor T8100 with dual-core, Intel 64 Technology, Intel Dynamic Acceleration, 800MHz bus, and 3MB L2 cache or Intel Core 2 Extreme processor X9000 with dual-core, Intel 64 Technology, 800MHz bus, and 6MB L2 cache										Preloaded operating system²⁰ - Microsoft® Windows® Vista® Home Premium Edition (32-bit) ♦ Vista Premium logo Preloaded applications¹⁴ <ul style="list-style-type: none"> • Lenovo™ OneKey Recovery • Norton® AntiVirus 2007 (90 days of virus definitions) • Adobe® Reader • Windows Live™ Toolbar • Easy Capture • Microsoft Office 2007 Trial (60-day) • VeriFace™ Facial Recognition • EarthLink® • Energy Cut • Lenovo Shuttle Center (DVD±RW, Blu-ray) • Cyberlink Power2Go (DVD±RW, Blu-ray) 			
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													
Diskette drive	None (use optional USB-based diskette drive)													
EIDE DVD±RW	<i>Some:</i> DVD burner, dual-layer support, fixed, not removable, 12.7mm, tray-in													
EIDE Blu-ray™	<i>Some:</i> Blu-ray Disc reader (no Blu-ray media burning), BD-ROM, no HD-DVD playback, DVD and CD recordable, not removable, 12.7mm high, tray-in													
SATA disk	250GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable and upgradable													
Secondary disk	<i>Some:</i> 250GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable and upgradable, hot-swap support, external support via USB cable													
Widescreen display	<i>Some:</i> 17.0" (431.8mm) WXGA+ (1440x900) TFT color , 200 nits <i>Some:</i> 17.0" (431.8mm) WUXGA (1920x1200) TFT color , 300 nits <i>All:</i> VibrantView (glossy), CCFL backlight, 16:10 aspect ratio, 500:1 contrast ratio, frameless screen													
Camera	Camera on top of screen, 1.3-megapixel, fixed focus													
Graphics	ATI™ Mobility Radeon™ HD 2600 , PCI Express® x16, DirectX® 10, ATI Avivo™, VGA connector (with VGA-in support), HDMI connector, HDCP-compliant, 256MB or 512MB graphic memory													
Keyboard	Full-size keyboard, 6-row, 84-key, multimedia Fn keys													
Numeric keypad	<i>Some:</i> Numeric keypad on right of keyboard													
Game Zone	<i>Some:</i> 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 1.02" to 1.53"; 395mm x 285mm x 26 to 39mm													
Weight ²	with optical drive and battery: 7.9 lb (3.6 kg)													
Case color	Blue top, black bottom													
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 GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, USB 2.0, PCI Express 1.1, PCI 2.3), LPC bus													
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)													
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)													
Ports	Four USB 2.0, external monitor (VGA DB-15, HDMI), S-video, modem (RJ-11), 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 11n ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)													
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator													
Modem	56K V.92 ⁶ modem													
Ethernet	10/100 ethernet, Broadcom® BCM5906M, PCI 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 / stereo microphone, microphone input jack (3.5 mm), stereo headphone jack (3.5 mm)													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Fingerprint reader	None													

Available at these retailers

- lenovo.com

135-watt AC adapter
Wireless on/off switch
VGA in/out switch
ENERGY STAR® 4.0-compliant
RoHS-compliant

Limited Warranty¹²

- ⇒ **1-year parts and labor**
- ⇒ **Depot repair service¹⁹**
- ⇒ **Service upgrade options (in eligible locations):⁹**
 - **1-year accidental damage protection via depot** 43R8885
 - **3-year Lenovo Onsite Repair¹³** 43R8883
 - **9x5 Next Business Day**
 - **3-year Lenovo Onsite Repair¹³** 43R8883
 - **9x5 Next Business Day with accidental damage protection** 43R8884
- ⇒ **24x7¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686**

See footnotes for important warranty information

* Intel Centrino® processor technology

† US model announced August 12, 2008; previous models on April 29, 2008

© Lenovo
(MB1-3) August 2008



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	Proc- essor	GHz	Memory	Widescreen display	Cam- era	Integrated graphics	SATA disk(s)	SATA optical	Mini PCIe 802.11 wireless	Top color	Blue- tooth	Keypad / Game Zone	Vista preload	Avail date
4053-2DU	T3200	2.00	2GB	17.0" WXGA+	Cam	GMA	1 x 160GB ⁸	DVD±RW	Intel 5100 ²⁸	Blue	None	Keypad	Prem 32	Sep 08
<ul style="list-style-type: none">• 17.0" widescreen, glossy display• Integrated 1.3 megapixel camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face.• Dolby[®] Home Theater™ premium audio system with four speakers and one subwoofer• HDMI port, HDCP-compliant• Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows														

See footnotes for important warranty information
 US model announced September 16, 2008

© Lenovo
 (MB2-2) September 2008

Part number	Processor	GHz	Memory	Widescreen display	Camera	Discrete graphics	SATA disk(s)	SATA optical	Mini PCIe 802.11 wireless	Top color	Keypad / Game Zone	ENERGY STAR 4.0	Vista preload	Avail date
59016615	T3200	2.00	2GB	17.0" WXGA+	Cam	HD 3650	1 x 250GB ⁸	DVD±RW	Intel 5100 ²⁸	Blue	Keypad		Prem 32	Nov 08
59016609	T3200	2.00	3GB	17.0" WXGA+	Cam	HD 3650	1 x 160GB	DVD±RW	Intel 5100	Blue	Keypad		Prem 32	Nov 08
59016799	T3200	2.00	3GB	17.0" WXGA+	Cam	HD 3650	1 x 160GB	DVD±RW	Intel 5100	Blue	Keypad		Prem 32	Nov 08
59016821	T5800	2.00	4GB	17.0" WXGA+	Cam	HD 3650	1 x 250GB	DVD±RW *	Intel 5100	Blue	Keypad		Prem 64	Nov 08
59016620	T5800	2.00	4GB	17.0" WXGA+	Cam	HD 3650	1 x 250GB	DVD±RW *	Intel 5100	Blue	Keypad		Prem 64	Dec 08
59016437	P8400	2.26	4GB	17.0" WXGA+	Cam	HD 3650	1 x 320GB	DVD±RW ↗	Intel 5100	Blue	Keypad	ES40	Prem 64	Oct 08

- 17.0" widescreen, glossy display
- Halo lighting that changes color based on processor speed or customer preferences
- Dark blue color with glossy piano finish
- Integrated 1.3 megapixel camera and Lenovo's VeriFace face recognition software helps control access to your notebook by recognizing your face.
- Dolby® Home Theater™ premium audio system with four speakers and one subwoofer
- Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows

Processor	Intel® Pentium® dual-core processor T3200 with dual-core, 667MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo processor T5800 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core 2 Duo processor P8400 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache		Preloaded operating system ²⁰ <ul style="list-style-type: none">- Some: Microsoft® Windows® Vista® Home Premium Edition (32-bit)- Some: Microsoft Windows Vista Home Premium Edition (64-bit) ✧ Vista Premium logo
Memory	2GB, 3GB, or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available		
SATA DVD±RW	DVD burner, dual-layer support, fixed, not removable, 12.7mm, tray-in		
Primary SATA disk	160 (5400 rpm), 250 (5400 rpm), or 320GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable		
Second SATA disk	None		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™ Facial Recognition• Lenovo Energy Management Software• Cyberlink Power2Go (DVD±RW, Blu-ray)
Disk bays	Two internal disk bays, 9.5mm high		
Widescreen display	17.0" (431.8mm) WXGA+ (1440x900) TFT color, VibrantView (glossy), CCFL backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio, frameless screen		
Camera	Camera on top of screen, 1.3-megapixel, fixed focus		
Discrete graphics	ATI™ Mobility Radeon™ HD 3650, PCI Express® x16, 512MB memory, DirectX® 10, ATI Avivo™ HD, VGA connector (with VGA-in support), HDMI connector, HDCP-compliant		Available at these retailers <ul style="list-style-type: none">• B&H™• J&R™• TigerDirect• Supercom (Canada)
Keyboard	Full-size keyboard, 6-row, 84-key, multimedia Fn keys		
Numeric keypad	Numeric keypad on right of keyboard		
Multimedia controls	Touch-sensitive audio-video control panel, Shuttle Key		
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®)		135-watt AC adapter Wireless on/off switch VGA in/out switch Some: ENERGY STAR® 4.0-compliant RoHS-compliant
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, glossy finish; Bottom: black		
Case material	ABS plastic		Limited Warranty ¹² <ul style="list-style-type: none">➤ 1-year parts and labor➤ Depot repair service¹⁹➤ Service upgrade options (in eligible locations):⁹<ul style="list-style-type: none">• 1-year accidental damage protection via depot 43R8885• 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day 43R8883• 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day with accidental damage protection 43R8884➤ 24x7¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686
Battery - type	Lithium Ion 6-cell, 5200 mAh, smart battery, 5-bar battery indicator		
Battery - life ¹⁰	Up to 3.5 hr		
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express 1.1, PCI 2.3, ethernet MAC)		
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)		
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)		
Ports	Four USB 2.0, external monitor (VGA DB-15, HDMI), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		
TV tuner	None		
Mini PCI Express	Three Mini PCI Express slots		
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)		
Bluetooth™	Bluetooth 2.1 wireless, USB 2.0 interface via ICH9M, LED indicator		
Modem	56K V.92 ⁶ modem		
Ethernet	10/100 ethernet, Broadcom® BCM5906M, PCI 2.3		
Audio support	Intel High Definition (HD) Audio, RealTek® ALC888S codec / two main speakers (2 watt), two secondary speakers (1.5 watt) and subwoofer (3 watt), Dolby Home Theater Speaker System / dual array microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Fingerprint reader	None		

See footnotes for important warranty information

US model announced December 10, 2008;
previous models on October 22 or November 12, 2008

* Intel Centrino® processor technology

↗ Intel Centrino 2 processor technology

© Lenovo
(MB2-3) December 2008

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 4.0	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	ES40	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	ES40	Prem 64	Aug 08
4053-2AU	P8400	2.26	4GB	17.0" WUXGA	HD 3650		1 x 320GB	DVD±RW	÷ Intel 5100	Orange	Game	ES40	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 system²⁰ - Some: Microsoft® Windows® Vista® Home Premium Edition (32-bit) - Some: Microsoft Windows Vista Home Premium Edition (64-bit) ♦ Vista Premium logo 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™ Facial Recognition • Lenovo Energy Management Software • Cyberlink Power2Go (DVD±RW, Blu-ray) 				
Memory	2GB, 3GB, or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available														
SATA DVD±RW 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														
Primary SATA disk	320GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable														
Second SATA disk	<i>Some:</i> 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	<i>Some:</i> 17.0" (431.8mm) WXGA+ (1440x900) TFT color , 200 nits <i>Some:</i> 17.0" (431.8mm) WUXGA (1920x1200) TFT color , 300 nits <i>All:</i> 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	Full-size keyboard, 6-row, 84-key, multimedia Fn keys														
Numeric keypad	<i>Some:</i> Numeric keypad on right of keyboard														
Game Zone	<i>Some:</i> 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; <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 Elite Pro Card, xD-Picture Card™)														
Ports	Four USB 2.0, external monitor (VGA DB-15, HDMI), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
TV tuner	None														
Mini PCI Express	Three Mini PCI Express slots														
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)														
Bluetooth™	Bluetooth 2.1 wireless, USB 2.0 interface via ICH9M, LED indicator														
Modem	56K V.92 ⁶ modem														
Ethernet	10/100 ethernet, Broadcom® BCM5906M, PCI 2.3														
Audio support	Intel High Definition (HD) Audio, RealTek® ALC888S codec / two main speakers (2 watt), two secondary speakers (1.5 watt) and subwoofer (3 watt), Dolby Home Theater Speaker System / dual array microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Fingerprint reader	None														

See footnotes for important warranty information
 ‡ US models announced September 16, 2008;
 previous models on August 19, 2008

* Intel Centrino® processor technology
 ‡ Intel Centrino 2 processor technology

© Lenovo
 (MB2-1) September 2008

Limited Warranty¹²
 ⇨ **1-year parts and labor**
 ⇨ **Depot repair service¹⁹**
 ⇨ **Service upgrade options (in eligible locations):⁹**
 • **1-year accidental damage protection via depot** 43R8885
 • **3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day** 43R8883
 • **3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day with accidental damage protection** 43R8884
 ⇨ **24x7¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686**

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 4.0	Vista preload	Avail date
4053-2MU	T6400	2.00	2GB	17.0" WXGA+	HD 3650		1 x 320GB ⁸	DVD±RW	* Intel 5100 ²⁸	Blue	Keypad	ES40	Prem 32	Mar 08
4053-33U	P7350	2.00	4GB	17.0" WUXGA	HD 3650		1 x 320GB	DVD±RW	† Intel 5100	Orange	Game	ES40	Prem 64	Nov 08
4053-2LU	P7450	2.13	3GB	17.0" WXGA+	HD 3650		1 x 320GB	DVD±RW	† Intel 5100	Blue	Keypad	ES40	Prem 64	Mar 08
4053-35U	P8400	2.26	4GB	17.0" WXGA+	HD 3650	VGA-in	1 x 320GB	DVD±RW	† Intel 5100	Blue	Keypad	ES40	Prem 64	Nov 08
4053-32U	P8600	2.40	3GB	17.0" WUXGA	HD 3650		1 x 320GB	DVD±RW	† Intel 5100	Orange	Game	ES40	Prem 32	Nov 08
4053-2HU	P8600	2.40	4GB	17.0" WUXGA	HD 3650		1 x 320GB	DVD±RW	† Intel 5100	Orange	Game	ES40	Prem 64	Mar 08
4053-34U	T9400	2.53	4GB	17.0" WUXGA	HD 3650		2 x 320GB	Blu-ray	† Intel 5100	Orange	Game	ES40	Prem 64	Nov 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 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: Microsoft® Windows® Vista® Home Premium Edition (32-bit)- Some: Microsoft Windows Vista Home Premium Edition (64-bit) ✧ Vista Premium logo
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	
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	
Primary SATA disk	320GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable	
Second SATA disk	<i>Some:</i> 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	<i>Some:</i> 17.0" (431.8mm) WXGA+ (1440x900) TFT color , 200 nits <i>Some:</i> 17.0" (431.8mm) WUXGA (1920x1200) TFT color , 300 nits <i>All:</i> 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	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™ Facial Recognition• Lenovo Energy Management Software• Cyberlink Power2Go (DVD±RW, Blu-ray)
Numeric keypad	<i>Some:</i> Numeric keypad on right of keyboard	
Game Zone	<i>Some:</i> 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	<i>Top:</i> dark blue or valencia orange, glossy finish; <i>Bottom:</i> black	
Case material	ABS plastic	
Battery - type	Lithium Ion 6-cell , 5200 mAh, smart battery, 5-bar battery indicator	
Battery - life ¹⁰	Up to 3.5 hr	
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express 1.1, PCI 2.3, ethernet MAC)	Available at these retailers <ul style="list-style-type: none">• lenovo.com
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)	135-watt AC adapter Wireless on/off switch <i>Some:</i> VGA in/out switch ENERGY STAR® 4.0-compliant RoHS-compliant
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)	
Ports	Four USB 2.0, external monitor (VGA DB-15, HDMI), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
TV tuner	None	
Mini PCI Express	Three Mini PCI Express slots	
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)	
Bluetooth™	Bluetooth 2.1 wireless, USB 2.0 interface via ICH9M, LED indicator	
Modem	56K V.92 ⁶ modem	
Ethernet	10/100 ethernet, Broadcom® BCM5906M, PCI 2.3	
Audio support	Intel High Definition (HD) Audio, RealTek® ALC888S codec / two main speakers (2 watt), two secondary speakers (1.5 watt) and subwoofer (3 watt), Dolby Home Theater Speaker System / dual array microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)	
Security	Power-on password, hard disk password, supervisor password, security keyhole,	Limited Warranty¹² <ul style="list-style-type: none">⇒ 1-year parts and labor⇒ Depot repair service¹⁹⇒ Service upgrade options (in eligible locations):⁹<ul style="list-style-type: none">• 1-year accidental damage protection via depot 43R8885• 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day 43R8883• 3-year Lenovo Onsite Repair¹³ 9x5 Next Business Day with accidental damage protection 43R8884⇒ 24x7¹⁶ toll-free support for warranty issues during the warranty period¹² via 877-453-6686
Fingerprint reader	None	

See footnotes for important warranty information

US models announced March 17, 2009
 previous models on November 12, 2008

* Intel Centrino® processor technology
 † Intel Centrino 2 processor technology

© Lenovo
 (MB2-4) March 2009

**Partial list of accessories supported on:
IdeaPad S10, U110, U330, Y430, Y510, Y530, Y710, and Y730**
Storage and removable storage

USB 2.0 MyKey E10 Flash Drive 1GB	45J7701	ann 04/29/08
USB 2.0 MyKey E10 Flash Drive 2GB	45J7702	ann 04/29/08
USB 2.0 MyKey E10 Flash Drive 4GB	45J7703	ann 04/29/08
USB 2.0 MiniKey M10D1 Flash 2GB (gray)	45J7752	ann 05/20/08
USB 2.0 MiniKey M10D2 Flash 2GB (black)	45J7754	ann 05/20/08
USB 2.0 MiniKey M10E1 Flash 2GB (teal)	45J7756	ann 05/20/08
USB 2.0 MiniKey M10E2 Flash 2GB (pink)	45J7758	ann 05/20/08
USB 2.0 Essential Memory Key 2GB	41U4944	ann 01/23/07
USB 2.0 Essential Memory Key 4GB	45J7904	ann 06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann 07/15/08
USB 2.0 Security Memory Key 4GB	41U5120	ann 07/17/07
USB 2.0 DataSlim E16 Portable HD 160GB	45J7700	ann 04/29/08
USB 2.0 Portable 160GB Hard Disk	43R1784	ann 09/23/08
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann 11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08

Keyboard

Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann 12/07/04
USB Keyboard with UltraNav	31P8950	ann 01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann 04/27/04

Mouse

Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	ann 01/23/07
IdeaPad Mini Optical Mouse M10 (black)	47J7729	ann 06/17/08
IdeaPad Mini Optical Mouse M10A (black)	45J7730	ann 07/15/08
Lenovo® Mini Optical Mouse M30 (black)	47J7735	ann 06/17/08
Lenovo Mini Optical Mouse M30 (white)	47J7736	ann 06/17/08
Lenovo Mini Optical Mouse M30 (red)	47J7737	ann 06/17/08
Lenovo Mini Optical Mouse M30 (blue)	47J7738	ann 06/17/08
Mini Wireless Laser Mouse N10 (black)	45J7731	ann 06/17/08
Mini Wireless Laser Mouse N10 (red)	45J7732	ann 06/17/08

Batteries**S10**

IdeaPad S9/S10 Li-Ion Battery 6-cell (white)	45K2177	ann 12/16/08
IdeaPad S9/S10 Li-Ion Battery 6-cell (black)	45K2178	ann 12/16/08

Y510, Y530, Y710, and Y730

Lenovo Y510/Y710 Li-Ion Battery 6-cell	45J7706	ann 04/29/08
--	---------	--------------

S10

IdeaPad S9/S10 40W AC Adapter (white)	45K2200	ann 11/18/08
IdeaPad S9/S10 40W AC Adapter (black)	45K2209	ann 11/18/08

U110 and Y510

IdeaPad 90W Slim AC/DC Combo Adapter	41N8460	ann 12/18/07
--------------------------------------	---------	--------------

U330, Y430, Y510, Y530, and Y730⁴⁵

Lenovo 90W AC Adapter	45J7717	ann 08/12/08
-----------------------	---------	--------------

⁴⁵ Only compatible with the integrated graphic models of Y730

Carrying Cases**S10**

IdeaPad 10" Sleeve S110 (pink and gray)	45K2171	ann 10/14/08
---	---------	--------------

S10, U110 and U330

Women's Executive Red Leather Tote	22P8858	
Lenovo Women's Tote L34 (brown)	45J7728	ann 06/03/08

S10, U110, U330, Y430, Y510, and Y530

IdeaPad Wenger® Backpack	45K1397	ann 10/14/08
IdeaPad B450 Backpack (pink)	55Y2034	ann 01/06/09
Lenovo Entry 15" Backpack B10	45J5468	ann 07/15/08
Lenovo 15" Top Loader T35 (black)	45J7726	ann 06/03/08
Lenovo Carrying Case - Backpack	40Y8603	ann 05/01/07
Lenovo Carr Case - Performance Backpack	41U5254	ann 05/01/07
ThinkPad Sleek Backpack	41A4277	
Lenovo Standard Case	45K1697	ann 11/25/08
Lenovo Standard Backpack	45K1698	ann 11/25/08

Monitors

Lenovo® D185 Wide 18.5" Monitor	6318HB1	ann 01/27/09
Lenovo L215 Wide 21.5" Monitor	6325HB1	ann 01/27/09
Lenovo L215p Wide 21.5" Monitor	6325HC1	ann 01/27/09
ThinkVision® L174 17" Monitor	9227AE1	ann 04/15/08
ThinkVision L1700p 17" Monitor	9417HE2	ann 09/17/08
ThinkVision L1940p Wide 19" Monitor	4424HB6	ann 09/17/08
ThinkVision L200p Wide 20.1" Monitor	4438HB6	ann 04/15/08
ThinkVision L2240p Wide 22" Monitor	4422HB6	ann 09/17/08
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann 09/17/08
ThinkVision L2440x Wide 24" Monitor	4421HB2	ann 09/17/08

Monitor Accessories⁴⁶

ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington Cable Lock from Lenovo	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
ThinkPad Convertible Monitor Stand	40Y7620	ann 01/05/06
Radial Arm	19K4464	ann 05/05/00

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

Lenovo L195 Wide 19" LCD Monitor	4418HC1	ann 09/02/08
Lenovo L222 Wide 22" LCD Monitor	4432HF1	ann 09/02/08

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

Availability: All offers subject to availability. Lenovo reserves the right to alter product offerings and specifications at any time, without notice. Lenovo is not responsible for photographic or typographic errors.

Warranty: For a copy of applicable product warranties, write to: Warranty Information, P.O. Box 12195, RTP, NC, 27709, Attn: Dept ZPYA/B676. Lenovo makes no representation or warranty regarding third party products or services.

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 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 Windows XP Professional 64-bit and Windows Vista 64-bit Editions.
- ⁸ **Hard drive:** GB = billion bytes, TB = trillion bytes. Accessible capacity is less; up to 4GB is service partition.
- ⁸ **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 not been finalized and is currently in draft release. The Lenovo 11a/b/g/n (11n) Wireless LAN Mini PCI Express Adapters are based on the Draft Release, Version 1.0, of the IEEE 802.11n specification. 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, or 11a/b/g/n can communicate on any of its supported formats.



This publication was developed for products and services offered in the United States. Lenovo may not offer the products, services or features discussed in this document in other countries. Lenovo may withdraw an offering at any time. Information is subject to change without notice. Consult your local representative for information on offerings available in your area.

Lenovo reserves the right to change specifications or other product information without notice. Lenovo is not responsible for photographic or typographical errors. **LENOVO PROVIDES THIS PUBLICATION "AS IS," WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** Some jurisdictions do not allow disclaimer of express or implied warranties in certain transactions, therefore this disclaimer may not apply to you.

Trademarks: Lenovo, the Lenovo logo, New World. New Thinking., Access Connections, Rescue and Recovery, ThinkVantage, and ThinkVision are trademarks of Lenovo. Microsoft, Windows, and Vista are registered trademarks of Microsoft Corporation. Intel, the Intel logo, Intel Inside logo, Intel Atom, Intel Core and Core Inside are trademarks of Intel Corporation in the US and other countries. Other company, product, or service names may be trademarks or service marks of others.

ENERGY STAR: As an ENERGY STAR Partner, Lenovo has determined that this product meets the ENERGY STAR guidelines for energy efficiency.

Visit www.lenovo.com/safecomputing periodically for the latest information on safe and effective computing.

Visit www.lenovo.com/psref for the latest version of Personal Systems Reference.

© Lenovo, 2009.
All rights reserved.

Lenovo
1009 Think Place
Morrisville, NC 27560
U.S.A.

April 2009
ipbook.pdf



Personal Systems Reference Lenovo IdeaCentre Desktops

April 2009 - Version 354




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

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
<ul style="list-style-type: none">• 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														
Memory	1GB, 2GB, 3GB, or 4GB std, 4GB max³, 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	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									Lenovo L222 Wide <ul style="list-style-type: none">• Widescreen 22-inch flat panel monitor• Active Matrix TFT LCD screen• Supports WSXGA+ 1680x1050 resolution• 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	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									<i>Lenovo L222 Wide Monitor is only bundled with some models</i>					
Keyboard	104-key antibacterial keyboard (PS/2 connector)														
Mouse	Optical Wheel Mouse (USB connector), 400 dpi														
Power supply	280 watts, universal, manual switch														
Preloaded operating system²⁰ <ul style="list-style-type: none">- <i>Some:</i> Microsoft® Windows® Vista® Home Basic Edition (32-bit)- <i>Some:</i> Microsoft Windows Vista Home Premium Edition (32-bit) ◇ 57-076245: Vista Basic logo ◇ <i>Others:</i> 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™ Facial Recognition™• 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 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 (43R8882)⇒ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686															

Part number	Slot x bay	Processor	L2 cache	GHz	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

- **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® Core™ 2 Duo Processor E4600 with dual-core Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 2MB L2 cache or Intel Core 2 Duo Processor E7200 with dual-core , Intel 64 Technology, Execute Disable Bit, EIST, 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Quad Processor Q6600 with quad-core (dual-core on dual-die), Intel 64 Technology, Virtualization Technology, Execute Disable Bit, EIST, 1066MHz system bus, and 8MB L2 cache		Tower <ul style="list-style-type: none">• Black and silver bezel• 7.1" W X 17.0" D X 15.0" H• 180mm W X 432mm D X 380mm H• 21.5 lb (9.75 kg)• Toolless cover removal• Toolless disk, optical drive removal• Toolless adapter retention		
Implementation	Processor in FC-LGA6 package in LGA775 socket		Bay ① 5.25", 1.6" high, access, standard optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.0", 1" high, access, 16-in-1 media reader Bay ④ 3.5", 1" high, no access, standard disk Bay ⑤ 3.5", 1" high, no access, optional disk		
Memory	3GB or 4GB std , 4GB max ⁸ , PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, two 240-pin DIMM sockets <i>Italics:</i> standard memory in both sockets; no sockets available				
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 3100 (GMA 3100) , integrated graphics in G31, uses main memory, one 15-pin analog D-sub connector <i>Some:</i> ATI™ Radeon™ HD 2600 PRO , PCI Express x16, 256MB memory, DirectX® 10, ATI Avivo™, one D-sub connector and one DVI-D connector, HDCP-compliant <i>Some:</i> NVIDIA® GeForce® 9300 GE , PCI Express x16, 256MB memory, DirectX® 10, TurboCache, PureVideo™ HD technology, S-video out, VGA connector, DVI-I connector, HDCP-compliant		Slot 1: half-length, full-height, PCI Express x1 Ver 1.1 Slot 2: half-length, full-height, PCI Express x16 Ver 1.1** Slot 3: half-length, full-height, 32-bit PCI Ver 2.3 * Slot 4: half-length, full-height, 32-bit PCI Ver 2.3 * modem in slot ** used in some models		
SATA disk	500GB , SATA 3.0Gb/s, 7200 rpm				
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7DH				
SATA DVD±RW	<i>Some:</i> Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive				
SATA Blu-ray™	<i>Some:</i> Blu-ray Disc reader (no Blu-ray media burning), supports HD-DVD playback, DVD and CD recordable				
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors				
EIDE controller	One		Available at these retailers <ul style="list-style-type: none">• B&H™• J&R™• MICROCENTER®• Newegg®• TigerDirect		
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)		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 (43R8882)⇨ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686		
Rear ports	Four USB 2.0, one serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (DB-15, DVI-D in some models)				
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)				
Audio	High Definition (HD) audio, ALC662 codec				
External speakers	None				
Internal speaker	None				
Ethernet	10/100 ethernet on planar, Intel 82562GZ (PHY/MAC)				
Modem	<i>Some:</i> 56K ¹⁰ V.92 data/fax soft modem, PCI adapter				
Security chip	None				
TV tuner	None				
Camera	<i>Some:</i> Lenovo Bright Eye camera, 0.3-megapixel, fixed focus				
Keyboard	104-key anti-bacterial keyboard (PS/2 connector)				
Mouse	Optical Wheel Mouse (USB connector), 400 dpi				
Power supply	280 watts, universal, manual switch				
Preloaded operating system²⁰ <ul style="list-style-type: none">- Microsoft® Windows® Vista® Home Premium Edition (32-bit)⇨ 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™ Facial Recognition™• Corel® WinDVD® (DVD±RW, Blu-ray)• CyberLink Power2Go (DVD±RW, Blu-ray)			


See footnotes for important warranty information

US models announced July 15, 2008; previous models on May 12, 2008

Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ³	Media reader	SATA disk	SATA optical	Graphics	Modem	Monitor	Camera	Vista preload	Avail date
5313-3AU	4x5	Celeron E1200	1.60	512KB	2	1GB		160GB ²	DVD	GMA 3100		None		Home Basic	Jul 08
5313-3BU	4x5	Celeron E1200	1.60	512KB	2	1GB	16-in-1	250GB	DVD±RW	GMA 3100	Mod	None		Home Prem	Jul 08
5313-4AU	4x5	Pentium E2180	2.00	1MB	2	2GB	16-in-1	320GB	DVD±RW	GMA 3100	Mod	None	Camera	Home Prem	Jul 08
5313-4BU	4x5	Pentium E2180	2.00	1MB	2	3GB	16-in-1	500GB	DVD±RW	GMA 3100		None	Camera	Home Prem	Jul 08
5313-4DU	4x5	Pentium E2200	2.20	1MB	2	2GB		250GB	DVD±RW	GMA 3100		None		Home Prem	Oct 08
5313-4EU	4x5	Pentium E2200	2.20	1MB	2	3GB		320GB	DVD±RW	GMA 3100		None		Home Prem	Oct 08
5313-4CU	4x5	Pentium E2200	2.20	1MB	2	4GB	16-in-1	500GB	DVD±RW	GMA 3100		None	Camera	Home Prem	Jul 08
5313-5CU	4x5	Pentium E5200	2.50	2MB	2	4GB	16-in-1	640GB	DVD±RW	GMA 3100		None		Home Prem	Nov 08

- **Antibacterial keyboard uses special material on the surface of the keys to restrain bacterial growth**
- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**
- **(Select models) Healthcare eyesight protection software detect distance between user and monitor and adjusts monitor brightness based on environment**
- **(Select models) Lenovo Bright Eye camera and VeriFace face recognition software help control access to your computer by recognizing your face**


Processor	Intel® Celeron® Dual-Core Processor E1200 with dual-core , Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 512KB L2 cache or Intel Pentium® Dual-Core Processor E2180, E2200, or E5200 with dual-core , Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus; <i>E2180/E2200:</i> 1MB L2 cache; <i>E5200:</i> 2MB L2 cache 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 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 max⁸, 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	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 system²⁰ <ul style="list-style-type: none">- <i>Some:</i> Microsoft® Windows® Vista® Home Basic Edition (32-bit)- <i>Some:</i> Microsoft Windows Vista Home Premium Edition (32-bit) ◇ 5313-3AU/3BU: Vista Basic logo ◇ <i>Others:</i> 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™ Facial Recognition™• Corel® WinDVD® (DVD, DVD±RW)• CyberLink Power2Go (DVD, DVD±RW)
		Available at these retailers <ul style="list-style-type: none">• lenovo.com• Fry's
		Limited Warranty¹ <ul style="list-style-type: none">⇒ 1-year parts and labor⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Service upgrade options (in eligible locations):⁹<ul style="list-style-type: none">• 3-year Lenovo Onsite Repair 9x5 Next Business Day (43R8882)⇒ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686





	Slot x		L2		Media	SATA	SATA				Cam-	Vista	Avail	
Type-model	bay	Processor	GHz	cache Cores	Memory ⁸	reader	disk	optical	Graphics	Modem	Monitor	era	preload	date
5313-1FU	4x5	Core 2 Duo E7200	2.53	3MB	2	4GB	16-in-1	640GB ²	DVD±RW	GMA 3100	None	None	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	Cam 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
5313-2FU	4x5	Core 2 Quad Q6600	2.40	8MB	4	4GB	16-in-1	1TB	Blu-ray	9300 GE	None	None	Home Prem	Oct 08

- **Antibacterial keyboard uses special material on the surface of the keys to restrain bacterial growth**
- **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® Core 2 Duo™ Processor E7200 with dual-core, Intel 64 Technology, Execute Disable Bit, EIST, 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Quad Processor Q6600 with quad-core (dual-core on dual-die), Intel 64 Technology, Virtualization Technology, Execute Disable Bit, EIST, 1066MHz system bus, and 8MB L2 cache		Tower <ul style="list-style-type: none">• Black and silver bezel• 7.1" W X 17.0" D X 15.0" H• 180mm W X 432mm D X 380mm H• 21.5 lb (9.75 kg)• Toolless cover removal• Toolless disk, optical drive removal• Toolless adapter retention
Implementation	Processor in FC-LGA6 package in LGA775 socket		Bay ① 5.25", 1.6" high, access, standard optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.0", 1" high, access, 16-in-1 media reader Bay ④ 3.5", 1" high, no access, standard disk Bay ⑤ 3.5", 1" high, no access, optional disk 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 ** used in some models
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">- Microsoft® Windows® Vista® Home Premium Edition (32-bit)♦ 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™ Facial Recognition™• Corel® WinDVD® (DVD±RW, Blu-ray)• CyberLink Power2Go (DVD±RW, Blu-ray)	Limited Warranty ¹ <ul style="list-style-type: none">⇒ 1-year parts and labor⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Service upgrade options (in eligible locations):⁹<ul style="list-style-type: none">• 3-year Lenovo Onsite Repair 9x5 Next Business Day (43R8882)⇒ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686

See footnotes for important warranty information

US models announced October 22, 2008; previous models on July 15, 2008

© Lenovo

(KW1-4) February 2009

Part number	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	Media reader	SATA disk	SATA optical	Graphics	Monitor	Camera	802.11 wireless	Vista preload	Vista logo	Avail date
57092255	4x5	E5200	2.50	2MB	2	4GB	16-in-1	500GB ²	Blu-ray	GMA 4500			None	Prem 64	Basic	Jan 09
57094704	4x5	E5200	2.50	2MB	2	4GB	16-in-1	640GB	DVD±RW	GMA 4500	L222 HD	Camera	None	Prem 64	Basic	Jan 09
57092262	4x5	Q8200	2.33	4MB	4	4GB	16-in-1	1TB	Blu-ray	GMA 4500			11b/g	Prem 64	Basic	Mar 09

- **Antibacterial keyboard uses special material on the surface of the keys to restrain bacterial growth**
- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**

Processor	Intel® Pentium® Dual-Core Processor E5200 with dual-core , Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, and 2MB L2 cache or Intel Core 2 Quad Processor Q8200 with quad-core (dual-core on dual-die), Intel 64 Technology, Execute Disable Bit, EIST, 1333MHz system bus, and 4MB L2 cache Processor in FC-LGA6 package in LGA775 socket	Tower <ul style="list-style-type: none">• Black bezel• 7.1" W X 17.0" D X 15.0" H• 180mm W X 432mm D X 380mm H• 21.5 lb (9.75 kg)• Toolless cover removal• Toolless disk, optical drive removal• Toolless adapter retention
Implementation		Bay ① 5.25", 1.6" high, access, standard optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.0", 1" high, access, 16-in-1 media reader Bay ④ 3.5", 1" high, no access, standard disk Bay ⑤ 3.5", 1" high, no access, optional disk
Memory	4GB std , 4GB max ⁸ , PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 240-pin DIMM sockets <i>Italics:</i> standard memory in both sockets; no sockets available	Slot 1: half-length, full-height, PCI Express x16 Ver 2.0 Slot 2: half-length, full-height, PCI Express x1 Ver 2.0 * Slot 3: half-length, full-height, 32-bit PCI Ver 2.3 Slot 4: half-length, full-height, 32-bit PCI Ver 2.3 * Wireless adapter in slot in some models
Graphics	Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in G43, uses main memory, DirectX® 10, one 15-pin analog VGA DB-15 connector	
SATA disk	500GB , 640GB , or 1TB SATA 3Gb/s, 7200 rpm	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10	
SATA DVD±RW	<i>Some:</i> Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive	
SATA Blu-ray™	<i>Some:</i> Blu-ray Disc reader (no Blu-ray media burning), BD-ROM, DVD and CD recordable	
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors	
EIDE controller	None	
Diskette drive	None	
Media reader	16-in-1 media reader, internal USB 2.0	
Chipset	Intel G43 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 [ICH10] (SATA 3.0Gb/s, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5147-NW Super I/O	Lenovo L222 Wide (HD) <ul style="list-style-type: none">• Widescreen 22-inch flat panel monitor• Active Matrix TFT LCD screen• Supports WUXGA 1920x1200 resolution• High Definition (HD) ready; supports 1080p video• 16:10 aspect ratio• 22.0" (559mm) viewable image size (diagonal)• 300 nits brightness (typical)• 1000:1 contrast ratio (typical)• 5ms pixel response time• Dual video input: one analog D-sub connector and one digital DVI-D connector• HDCP-compliant• Ergonomic stand tilts and swivels• High-gloss black case• Touch-sensitive control button• Soundbar with speakers included
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	<i>Lenovo L222 Wide (HD) Monitor is only bundled with some models</i>
Preloaded operating system ²⁰ - Microsoft® Windows® Vista® Home Premium Edition (64-bit)		Available at these retailers <ul style="list-style-type: none">• Newegg®• TigerDirect
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)		Limited Warranty ¹ <ul style="list-style-type: none">➤ 1-year parts and labor➤ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)➤ Service upgrade options (in eligible locations):⁹<ul style="list-style-type: none">• 3-year Lenovo Onsite Repair 9x5 Next Business Day (43R8882)➤ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686

See footnotes for important warranty information

US model announced March 17, 2009; previous models on January 27, 2009

© Lenovo
(KW2-1) March 2009

Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	Media reader	SATA disk	SATA optical	Graphics	Monitor	Camera	802.11 wireless	Vista preload	Vista logo	Avail date
5358-4AU	4x5	E2220	2.40	1MB	2	2GB	16-in-1	250GB ²	Blu-ray	GMA 4500	None	None		Prem 64	Basic	Jan 09
5358-4BU	4x5	E2220	2.40	1MB	2	4GB	16-in-1	640GB	Blu-ray	GMA 4500	None	None		Prem 64	Basic	Jan 09
5358-1FU	4x5	E5200	2.50	2MB	2	4GB	16-in-1	500GB	DVD±RW	GMA 4500	None	None		Prem 64	Basic	Jan 09
5358-1BU	4x5	E5200	2.50	2MB	2	4GB	16-in-1	640GB	DVD±RW	9300 GE	None	None	11b/g	Prem 64	Prem	Jan 09
5358-2CU	4x5	Q8200	2.33	4MB	4	4GB	16-in-1	640GB	DVD±RW	9300 GE	None	None		Prem 64	Prem	Jan 09
5358-2DU	4x5	Q8200	2.33	4MB	4	4GB	16-in-1	1TB	Blu-ray	9300 GE	None	None	11b/g	Prem 64	Prem	Jan 09

- **Antibacterial keyboard uses special material on the surface of the keys to restrain bacterial growth**
- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**

Processor	Intel® Pentium® Dual-Core Processor E2220 or E5200 with dual-core , Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus; <i>E2220:</i> 1MB L2 cache; <i>E5200:</i> 2MB L2 cache or Intel Core™ 2 Quad Processor Q8200 with quad-core (dual-core on dual-die), Intel 64 Technology, Execute Disable Bit, EIST, 1333MHz system bus, and 4MB L2 cache Processor in FC-LGA6 package in LGA775 socket		Tower <ul style="list-style-type: none">• Black bezel• 7.1" W X 17.0" D X 15.0" H• 180mm W X 432mm D X 380mm H• 21.5 lb (9.75 kg)• Toolless cover removal• Toolless disk, optical drive removal• Toolless adapter retention
Implementation			Bay ① 5.25", 1.6" high, access, standard optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.0", 1" high, access, 16-in-1 media reader Bay ④ 3.5", 1" high, no access, standard disk Bay ⑤ 3.5", 1" high, no access, optional disk Slot 1: half-length,full-height, PCI Express x16 Ver 2.0 ** Slot 2: half-length,full-height, PCI Express x1 Ver 2.0 * Slot 3: half-length,full-height, 32-bit PCI Ver 2.3 Slot 4: half-length,full-height, 32-bit PCI Ver 2.3 * Wireless adapter in slot in some models ** used in some models
Memory	2GB or 4GB std, 4GB max⁸, PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 240-pin DIMM sockets <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; 1 socket available		
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 4500 (GMA 4500) , integrated graphics in G43, uses main memory, DirectX® 10, one 15-pin analog VGA DB-15 connector <i>Some:</i> NVIDIA® GeForce® 9300 GE , PCI Express® x16, 512MB memory, DirectX® 10, TurboCache, PureVideo™ HD technology, S-video out for TV-out, VGA DB-15 connector, DVI-I connector, HDCP-compliant		
SATA disk	250GB, 500GB, 640GB or 1TB SATA 3Gb/s, 7200 rpm		
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10		
SATA DVD±RW	<i>Some:</i> Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		
SATA Blu-ray™	<i>Some:</i> Blu-ray Disc reader (no Blu-ray media burning), BD-ROM, DVD and CD recordable		
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors		
EIDE controller	None		
Diskette drive	None		
Media reader	16-in-1 media reader, internal USB 2.0		
Chipset	Intel G43 Express Chipset (PCI Express® 2.0 x16), I/O Controller Hub 10 [ICH10] (SATA 3.0Gb/s, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5147-NW Super I/O		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		
Rear ports	Six USB 2.0, one serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), 1BU/2CU/2DU: monitor (VGA DB-15, DVI-I), S-Video out; <i>Others:</i> monitor (VGA DB-15)		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)		
Audio	High Definition (HD) audio, ALC662 codec		
External speakers	None		
Internal speaker	None		
Wireless	<i>Some:</i> 11b/g wireless ⁴ , Broadcom BCM4312, PCIe x1 adapter		
Ethernet	10/100 ethernet on planar, Realtek® RTL8102E		
Modem	None		
Security chip	None		
TV tuner	None		Available at these retailers
Camera	None		<ul style="list-style-type: none">• lenovo.com• Fry's
Keyboard	104-key antibacterial keyboard (PS/2 connector)		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 (43R8882)➤ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686
Mouse	Optical Wheel Mouse (USB connector), 400 dpi		
Power supply	280 watts, universal, manual switch		
Preloaded operating system²⁰ - Microsoft® Windows® Vista® Home Premium Edition (64-bit)			
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)			

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	4GB, 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		
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">- Microsoft® Windows® Vista® Home Premium Edition (64-bit)♦ Vista Basic logo		Preloaded applications⁵ <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)	
			Available at these retailers <ul style="list-style-type: none">• 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 (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

© Lenovo
(KW3-1) March 2009

Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	DIMM capacity	Media reader	SATA disk	SATA optical	Graphics	TV tuner	Remote control	802.11 wireless	Vista preload	Avail date
5359-1BU	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	4GB, 5GB, 6GB, or 8GB std , 8GB max ⁸ , PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, four 240-pin DIMM sockets	Bay ① 5.25", 1.6" high, access, standard optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.0", 1" high, access, 16-in-1 media reader Bay ④ 3.5", 1" high, no access, standard disk Bay ⑤ 3.5", 1" high, no access, optional disk
Graphics	<i>Some</i> : Intel Graphics Media Accelerator 3100 (GMA 3100) , integrated graphics in G33, uses main memory, one 15-pin analog VGA DB-15 connector <i>Some</i> : NVIDIA® GeForce® 9300 GE , PCI Express® x16, 512MB memory, DirectX® 10, TurboCache, PureVideo™ HD technology, S-video out for TV-out, VGA DB-15 connector, DVI-I connector, HDCP-compliant	Slot 1: half-length,full-height, PCI Express x16 Ver 1.1 ** Slot 2: half-length,full-height, PCI Express x1 Ver 1.1 * Slot 3: half-length,full-height, PCI Express x1 Ver 1.1 * Slot 4: half-length,full-height, 32-bit PCI Ver 2.3
SATA disk	500GB, 640GB, or 1TB SATA 3Gb/s, 7200 rpm	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH9DH	
SATA DVD±RW	<i>Some</i> : Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive	
SATA Blu-ray™	<i>Some</i> : Blu-ray Disc reader (no Blu-ray media burning), BD-ROM, DVD and CD recordable	
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors	
EIDE controller	None	
Diskette drive	None	
Media reader	16-in-1 media reader, internal USB 2.0	
Chipset	Intel G33 Express Chipset (PCI Express® x16), I/O Controller Hub 9 Digital Home [ICH9DH] (SATA 3.0Gb/s, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O	
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)	
Rear ports	Four USB 2.0, one serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), <i>4DU/5AU</i> : monitor (VGA DB-15, DVI-I), S-Video out; <i>Others</i> : monitor (VGA DB-15)	
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm), SPDIF-out	
Audio	High Definition (HD) audio, ADI1988 codec	
External speakers	None	
Internal speaker	None	
Ethernet	Gigabit ethernet on planar, Intel 82256GC	
Wireless	<i>Some</i> : 11b/g wireless ⁴ , Broadcom® BCM4312, PCIe x1 adapter	
Modem	None	
Security chip	None	
TV tuner	<i>Some</i> : Hybrid tuner, support analog (NTSC) and digital (ATSC) signal , Hauppauge WinTV-HVR-1250,PCIe x 1	
Remote control	<i>Some</i> : Philips® Vista MCE remote control (40-button), IR receiver via USB	
Camera	None	
Keyboard	104-key antibacterial keyboard (PS/2 connector)	
Mouse	Optical Wheel Mouse (USB connector), 400 dpi	
Power supply	280 watts, universal, manual switch	
Preloaded operating system ²⁰ <ul style="list-style-type: none">- Microsoft® Windows® Vista® Home Premium Edition (64-bit)✧ <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



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

© Lenovo
(KW3-2) March 2009



Lenovo IdeaCentre A600
(Remote control and wireless
keyboard/mouse on select models)



Lenovo IdeaCentre A600
(Remote control and wireless
keyboard/mouse on select models)



Lenovo IdeaCentre A600



Lenovo IdeaCentre A600



Lenovo IdeaCentre A600



Lenovo IdeaCentre A600

Type-model	Processor	GHz	Memory	Widescreen display	Camera (mega-pixel)	Graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	TV tuner	Remote control	Microphone	Bluetooth	KBD/Mouse	Vista preload	Availability
3011-2AU	T4200	2.00	2GB	21.5" WUXGA	1.3	GMA	320GB ⁸	DVD±RW	11b/g ²⁸					USB	Prem 64	Apr 09
3011-2BU	T4200	2.00	3GB	21.5" WUXGA	1.3	GMA	500GB	DVD±RW	Intel 5100					USB	Prem 64	Apr 09
3011-2CU	T4200	2.00	4GB	21.5" WUXGA	1.3	GMA	640GB	DVD±RW	Intel 5100					USB	Prem 64	Apr 09
3011-3AU	T6400	2.00	3GB	21.5" WUXGA	1.3	GMA	640GB	DVD±RW	* Intel 5100					USB	Prem 64	Apr 09
3011-3CU	T6400	2.00	4GB	21.5" WUXGA	2.0	HD 3650	1TB	DVD±RW	* Intel 5100	TV	Remote	Array	Blue	Wireless	Prem 64	Apr 09
3011-4AU	P7450	2.13	4GB	21.5" WUXGA	2.0	HD 3650	1TB	BD player	* Intel 5100			Array	Blue	Wireless	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

- **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 system²⁰ - Microsoft® Windows® Vista® Home Premium Edition (64-bit) ♦ Vista Premium logo Preloaded applications¹⁴ <ul style="list-style-type: none"> • Lenovo™ OneKey Recovery • Driver and Application Installation • Lenovo Recovery Disk Maker • Lenovo Healthcare Software • VeriFace™ Facial Recognition • 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) 					
Memory	2GB, 3GB, or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available <i>Non-italics:</i> standard memory in one socket; one socket available															
SATA DVD±RW	<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 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	<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 ²⁸	<i>Some:</i> 11b/g wireless ⁴ , Mini PCIe adapter, Broadcom® BCM4312															
TV tuner	<i>Some:</i> AverMedia® Hybrid tuner, support analog and digital signal, Mini PCIe adapter															
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless + EDR, USB 2.0 interface via ICH9M, LED indicator															
Modem	None															
Ethernet	Gigabit ethernet on planar, Broadcom BCM5784															
Audio support	High Definition (HD) Audio, RealTek® ALC272 codec / two speakers (3 watt) and subwoofer (8 watt), Dolby Home Theater Speaker System / mono microphone or dual array microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)															
Security	Power-on password, hard disk password, supervisor password															
Keyboard	<i>Some:</i> Wireless RF 2.4 GHz keyboard with touch pad, 6-row, 84-key, touch-sensitive multimedia keys and shortcut keys <i>Some:</i> USB full-size keyboard with USB hub (two USB ports)															
Mouse	<i>Some:</i> Wireless RF 2.4 GHz Laser Wheel Mouse, 800/1600 dpi (user switchable) <i>Some:</i> USB Optical Wheel Mouse															
Remote control	<i>Some:</i> 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	(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 07, 2009

* Intel Centrino® processor technology
♦ Intel Centrino 2 processor technology

© Lenovo
(BL1-1) April 2009

Available at these retailers
• lenovo.com

Some: 130-watt (GMA graphics) AC adapter
Some: 150-watt (ATI graphics) AC adapter
RoHS-compliant

Limited Warranty¹²

- ⇒ **1-year parts and labor**
- ⇒ **Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)**
- ⇒ **Service upgrade options (in eligible locations):⁹**
 - 3-year Lenovo Onsite Repair
 - 9x5 Next Business Day (43R8882)
 - 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686

**Partial list of accessories supported on:
IdeaCentre K210, K220, and K230****Storage and removable storage**

USB 2.0 MyKey E10 Flash Drive 1GB	45J7701	ann	04/29/08
USB 2.0 MyKey E10 Flash Drive 2GB	45J7702	ann	04/29/08
USB 2.0 MyKey E10 Flash Drive 4GB	45J7703	ann	04/29/08
USB 2.0 MiniKey M10D1 Flash 2GB (gray)	45J7752	ann	05/20/08
USB 2.0 MiniKey M10D2 Flash 2GB (black)	45J7754	ann	05/20/08
USB 2.0 MiniKey M10E1 Flash 2GB (teal)	45J7756	ann	05/20/08
USB 2.0 MiniKey M10E2 Flash 2GB (pink)	45J7758	ann	05/20/08
USB 2.0 Essential Memory Key 4GB	45J7904	ann	06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann	07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann	10/28/08
USB 2.0 Security Memory Key 4GB	41U5120	ann	07/17/07
USB 2.0 DataSlim E16 Portable HD 160GB	45J7700	ann	04/29/08
USB 2.0 Portable 160GB Hard Disk	43R1784	ann	09/23/08
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann	11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann	11/18/08

Keyboard

Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann	12/07/04
USB Keyboard with UltraNav	31P8950	ann	01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann	04/27/04

Mouse

Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	ann	01/23/07
IdeaPad Mini Optical Mouse M10 (black)	47J7729	ann	06/17/08
IdeaPad Mini Optical Mouse M10A (black)	45J7730	ann	07/15/08
Lenovo Mini Optical Mouse M30 (black)	47J7735	ann	06/17/08
Lenovo Mini Optical Mouse M30 (white)	47J7736	ann	06/17/08
Lenovo Mini Optical Mouse M30 (red)	47J7737	ann	06/17/08
Lenovo Mini Optical Mouse M30 (blue)	47J7738	ann	06/17/08
Mini Wireless Laser Mouse N10 (black)	45J7731	ann	06/17/08
Mini Wireless Laser Mouse N10 (red)	45J7732	ann	06/17/08

Monitors

Lenovo® D185 Wide 18.5" Monitor	6318HB1	ann	01/27/09
Lenovo L215 Wide 21.5" Monitor	6325HB1	ann	01/27/09
Lenovo L215p Wide 21.5" Monitor	6325HC1	ann	01/27/09
ThinkVision® L174 17" Monitor	9227AE1	ann	04/15/08
ThinkVision L1700p 17" Monitor	9417HE2	ann	09/17/08
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1940p Wide 19" Monitor	4424HB6	ann	09/17/08
ThinkVision L200p Wide 20.1" Monitor	4438HB6	ann	04/15/08
ThinkVision L2240p Wide 22" Monitor	4422HB6	ann	09/17/08
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08
ThinkVision L2440x Wide 24" Monitor	4421HB2	ann	09/17/08

Monitor Accessories⁴⁶

ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar (L1900p, 24" Wide)	45K1263	ann	09/16/08
Kensington Cable Lock from Lenovo	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
ThinkPad Convertible Monitor Stand	40Y7620	ann	01/05/06
Radial Arm	19K4464	ann	05/05/00

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

Lenovo L195 Wide 19" LCD Monitor	4418HC1	ann	09/02/08
Lenovo L222 Wide 22" LCD Monitor	4432HF1	ann	09/02/08

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

Availability: All offers subject to availability. Lenovo reserves the right to alter product offerings and specifications at any time, without notice. Lenovo is not responsible for photographic or typographic errors.

Warranty: For a copy of applicable product warranties, write to: Warranty Information, P.O. Box 12195, RTP, NC, 27709, Attn: Dept ZPYA/B676. Lenovo makes no representation or warranty regarding third party products or services.

¹ **Limited warranty:** Support unrelated to a warranty issue may be subject to additional charges.

² **Hard disk drive:** GB = billion bytes, TB = trillion bytes. Accessible capacity is less; up to 4GB is service partition.

³ **Customer Replacement Units (CRUs)** are designed to be replaced by customers during the applicable warranty period. Lenovo will send a technician onsite to perform a repair if remote telephone diagnosis does not isolate the problem, if customer replaceable parts are unable to resolve the problem, or at the request of the customer. For a list of customer replaceable parts, contact Lenovo. Support unrelated to a warranty issue may be subject to additional charges.

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.

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.



This publication was developed for products and services offered in the United States. Lenovo may not offer the products, services or features discussed in this document in other countries. Lenovo may withdraw an offering at any time. Information is subject to change without notice. Consult your local representative for information on offerings available in your area.

Lenovo reserves the right to change specifications and other product information at any time without prior notice. Lenovo is not responsible for photographic or typographical errors. LENOVO PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some jurisdictions do not allow disclaimer of express or implied warranties in certain transactions; therefore this disclaimer may not apply to you.

Trademarks: Lenovo, the Lenovo logo, New World. New Thinking., Access Connections, Rescue and Recovery, ThinkVantage, and ThinkVision are trademarks of Lenovo. Microsoft, Windows, and Vista are registered trademarks of Microsoft Corporation. Intel, the Intel logo, Intel Inside logo, Intel Core and Core Inside are trademarks of Intel Corporation in the US and other countries. AMD, the AMD logo, AMD Athlon, AMD Sempron, and combinations thereof, are trademarks of Advanced Micro Devices, Inc. PCI Express is a trademark of PCI-SIG. Other company, product, or service names may be trademarks or service marks of others.

Visit www.lenovo.com/safecomputing periodically for the latest information on safe and effective computing.

Visit www.lenovo.com/psref for the latest version of Personal Systems Reference.

© Lenovo, 2009.
All rights reserved.

Lenovo
1009 Think Place
Morrisville, NC 27560
U.S.A.

April 2009
icbook.pdf




Personal Systems Reference Lenovo® Consumer Monitors

January 2009 - Version 350



Lenovo L222 Wide Monitor

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

Flat Panel Monitors - US model		FEATURES
Name Case color Part number Stand Screen Viewable image size Aspect ratio Pixel pitch (mm) Max view area (inches) Max view area (mm) Viewing angle at 5:1 CR Viewing angle at 10:1 CR Video input Dual input Rotating screen Soundbar	Lenovo L195 Wide Flat Panel Monitor High gloss black 18002904 Tilt stand LCD Active Matrix TFT (Thin Film Transistor) 19.0" / 481mm (diagonal) 16:10 0.282mm 16.2" x 10.1" (horizontal x vertical) 410mm x 257mm (horizontal x vertical) 176° vertical, 176° horizontal 160° vertical, 160° horizontal Digital or analog (two separate connectors) Dual input (two different PCs attach to two different connectors; one PC shows image; select via button) None Installed on bottom of monitor, volume control knob, two stereo speakers (3 watts), powered by monitor, microphone input jack, headphone jack	<ul style="list-style-type: none"> • All-purpose 19-inch wide flat panel LCD monitor • View images in a 16x10 wide aspect ratio • Slim 14.3mm (0.56") side bezel • High-bandwidth Digital Content Protection (HDCP)-compliant • Resolution of 1440x900 provides crisp screen images • Stand tilts for comfortable viewing • Rear stand cover to hide cables for easy cable management • Soundbar with stereo speakers for daily audio usage • Direct access for automatic image setup, input selection, and NovoVision • NovoVision offers four modes (text, Internet, video, and split demo) and provides automatic contrast, brightness, color correction, and color enhancement • Integrated power supply eliminates the bulky power adapter for improved cable management • Matching design to IdeaCentre® systems • Microsoft® Windows® Vista™ Premium certified
Optimum resolution Maximum resolution Vertical frequency Horizontal frequency Display colors (maximum) Preset display modes Presets / user settings Brightness Contrast ratio Pixel response time Scaling	1440x900 at 60Hz 1440x900 at 75Hz (137MHz maximum pixel rate) 50 to 76Hz 30 to 81kHz 16.7 million simultaneous colors VGA: 640x480 60, 72, 75Hz SVGA: 800x600 56, 60, 72, 75Hz XGA: 1024x768 60, 70, 75Hz SXGA: 1280x1024 60, 70, 72, 76Hz WXGA+: 1440x900 60, 75Hz Standard presets: 17; user settings: 15 300 nits or cd/m ² (typical) 1000:1 (typical) 5ms (typical) Automatically expands image of lower resolution to full screen of 1440x900	 <p>Lenovo L195 Wide</p>
On screen display Control features Monitor connectors Signal cable Anti-reflective / anti-glare Dimensions Weight Viewing adjustments Mounting features Security	On screen display with digital user controls (7 languages) Direct access (buttons on front) for auto adjustment, input select, and NovoVision (4 preload modes, optimize visual experience for different usages); brightness; contrast; image horizontal and vertical position; user color settings (3 preset + 1 user); on screen display (OSD) language selection; menu position; information screen; image setup; reset of geometry and color point to factory default settings; lockable settings Two connectors: (1) analog 15-pin D-shell [blue] (2) Digital Visual Interface (DVI-D) for digital attach [white], HDCP-compliant Two cables: (1) detachable, 15-pin D-shell at each end (for analog connector), 1.8 meter, matches color of monitor (2) detachable, DVI-D at each end (for digital connector), 1.8 meter, matches color of monitor Anti-reflective / anti-glare 14.67" H x 17.36" W x 7.09" D / 373mm height x 441mm width x 180mm depth 10.2 lb / 4.6 kg Tilt: 20° back, 5° forward / no swivel / no lift / detachable stand None Security keyhole for attachment of optional cable lock (such as Kensington® Microsaver® lock)	
VESA DDC ² VESA DPMS-compliant Power management Ergonomics Pixel defect Emission standards Environmental label Ship group Power supply Limited warranty ⁴ Available date	DDC/CI DPMS ENERGY STAR® 4.0 ISO 13406 Part 2 ¹ ISO 13406-2 Class II pixel defect standard MPR-2 / MPR-3A / FCC Class B WEEE / RoHS (EU Directive 2002/95/EC) Monitor, attached stand, customer installable base, soundbar, 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 100-240Vac (universal) / integrated (no external brick-like power supply) / 48 watts maximum (with soundbar), <2 watts for "active off" 1 year (includes backlight) August 2008	
LIMITED WARRANTY		
⇨ 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 claims⁶ ⇨ 24x7⁵ day toll-free support for warranty issues during the warranty period⁴		


See footnotes for important warranty information
 US model announced August 5, 2008

© Lenovo
 (L195-1) August 2008

Flat Panel Monitors - US model		FEATURES
Name	Lenovo L195 Wide Flat Panel Monitor	<ul style="list-style-type: none">• All-purpose 19-inch wide flat panel LCD monitor• View images in a 16x10 wide aspect ratio• Slim 14.3mm (0.56") side bezel• High-bandwidth Digital Content Protection (HDCP)-compliant• Resolution of 1680x1050 provides crisp screen images• Stand tilts for comfortable viewing• Rear stand cover to hide cables for easy cable management• Soundbar with stereo speakers for daily audio usage• Direct access for automatic image setup, input selection, and NovoVision• NovoVision offers four modes (text, Internet, video, and split demo) and provides automatic contrast, brightness, color correction, and color enhancement• Integrated power supply eliminates the bulky power adapter for improved cable management• Matching design to IdeaCentre® systems• Microsoft® Windows® Vista™ Premium certified
Case color	High gloss black	
Type-model	4418-HC1	
Stand	Tilt stand	
Screen	LCD Active Matrix TFT (Thin Film Transistor)	
Viewable image size	19.0" / 481mm (diagonal)	
Aspect ratio	16:10	
Pixel pitch (mm)	0.243mm	
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 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	None	
Soundbar	Installed on bottom of monitor, volume control knob, two stereo speakers (3 watts), powered by monitor, microphone input jack, headphone jack	
Optimum resolution	1680x1050 at 60Hz	
Maximum resolution	1680x1050 at 60Hz (137MHz maximum pixel rate)	
Vertical frequency	50 to 76Hz	
Horizontal frequency	30 to 81kHz	
Display colors (maximum)	16.7 million simultaneous colors	
Preset display modes	640x350 70Hz PAL VGA: 640x480 50Hz VGA: 640x480 60, 66, 72, 75Hz 720x400 70Hz SVGA: 800x600 56, 60, 72, 75Hz 832x624 75Hz XGA: 1024x768 60, 70, 75Hz 1152x864 75Hz 1280x720 60Hz 1280x768 60Hz 1280x960 60Hz SXGA: 1280x1024 60, 70, 75, 76Hz WXGA+: 1440x900 60, 75Hz WSXGA+: 1680x1050 60Hz	
Presets / user settings	Standard presets: 26; user settings: 27	
Brightness	300 nits or cd/m ² (typical)	
Contrast ratio	1000:1 (typical)	
Pixel response time	5ms (typical)	
Scaling	Automatically expands image of lower resolution to full screen of 1680x1050	
On screen display	On screen display with digital user controls (7 languages)	
Control features	Direct access (buttons on front) for auto adjustment, input select, and NovoVision (4 preload modes, optimize visual experience for different usages); brightness; contrast; image horizontal and vertical position; user color settings (3 preset + 1 user); on screen display (OSD) language selection; menu position; information screen; image setup; reset of geometry and color point to factory default settings; lockable settings	
Monitor connectors	Two connectors: (1) analog 15-pin D-shell [blue] (2) Digital Visual Interface (DVI-D) for digital attach [white], HDCP-compliant	
Signal cable	Two cables: (1) detachable, 15-pin D-shell at each end (for analog connector), 1.8 meter, matches color of monitor (2) detachable, DVI-D at each end (for digital connector), 1.8 meter, matches color of monitor	
Anti-reflective / anti-glare	Anti-reflective / anti-glare	
Dimensions	14.67" H x 17.36" W x 7.09" D / 373mm height x 441mm width x 180mm depth	
Weight	10.1 lb / 4.6 kg	
Viewing adjustments	Tilt: 20° back, 5° forward / no swivel / no lift / detachable stand	
Mounting features	None	
Security	Security keyhole for attachment of optional cable lock (such as Kensington® Microsaver® lock)	
VESA DDC ²	DDC/CI	
VESA DPMS-compliant	DPMS	
Power management	ENERGY STAR ^{®3} 4.0	
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 label	WEEE / RoHS (EU Directive 2002/95/EC)	
Ship group	Monitor, attached stand, customer installable base, soundbar, 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	100-240Vac (universal) / integrated (no external brick-like power supply) / 48 watts maximum (with soundbar), <2 watts for "active off"	
Limited warranty ⁴	1 year (includes backlight)	
Available date	September 2008	
LIMITED WARRANTY		
<ul style="list-style-type: none">➤ 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 claims⁶➤ 24x7⁸ day toll-free support for warranty issues during the warranty period⁴		

A black Samsung monitor with a slim bezel and a black soundbar below it. The monitor is tilted slightly to the right. The soundbar is positioned directly in front of the bottom of the monitor. The entire setup is on a black stand.

Lenovo L222 Wide

Flat Panel Monitors - US model		FEATURES
Name Case color Type-model Stand Screen Viewable image size Aspect ratio Pixel pitch (mm) Max view area (inches) Max view area (mm) Viewing angle at 10:1 CR Video input Dual input Rotating screen Soundbar	Lenovo L222 Wide Flat Panel Monitor High gloss black 4432-HF1 Tilt and swivel stand LCD Active Matrix TFT (Thin Film Transistor) 22.0" / 559mm (diagonal) 16:10 0.247mm 18.7" x 11.6" (horizontal x vertical) 474mm x 296mm (horizontal x vertical) 160° vertical, 170° horizontal Digital or analog (two separate connectors) Dual input (two different PCs attach to two different connectors; one PC shows image; select via button) None Installed on bottom of monitor, volume control knob, two stereo speakers (3 watts), powered by monitor, microphone input jack, headphone jack	<ul style="list-style-type: none"> • All-purpose 22-inch wide flat panel LCD monitor • View images in a 16x10 wide aspect ratio • Slim 15 mm (0.59") side bezel • High-bandwidth Digital Content Protection (HDCP)-compliant • Resolution of 1920x1200 provides crisp screen images • High Definition (HD) ready; supports 1080p video • Stand tilts and swivels for comfortable viewing • Rear stand cover to hide cables for easy cable management • One key release stand for wall mounting • Touch-sensitive buttons for all monitor control features • Direct access for automatic image setup, input selection, and NovoVision • NovoVision offers four modes (text, Internet, video, and split demo) and provides automatic contrast, brightness, color correction, and color enhancement • Matching design to IdeaCentre® systems • Microsoft® Windows® Vista™ Premium certified
Optimum resolution Maximum resolution Vertical frequency Horizontal frequency Display colors (maximum) Preset display modes Presets / user settings Brightness Contrast ratio Pixel response time Scaling	1920x1200 at 60Hz 1920x1200 at 60Hz (205MHz maximum pixel rate) 50 to 75Hz 30 to 83kHz 16.7 million simultaneous colors VGA: 640x480 60Hz SVGA: 800x600 56, 60Hz XGA: 1024x768 60Hz SXGA: 1280x1024 60Hz WXGA+: 1440 x 900 60Hz WSXGA+: 1680x1050 60Hz WSXGA+: 1680x1050 60Hz WUXGA: 1920x1200 60Hz Standard presets: 8; user settings: 10 300 nits or cd/m ² (typical) 1000:1 (typical) 5ms (typical) Automatically expands image of lower resolution to full screen of 1920x1200	 <p>Lenovo L222 Wide</p>
On screen display Control features Monitor connectors Signal cable Anti-reflective / anti-glare Dimensions Weight Viewing adjustments Mounting features Security	On screen display with digital user controls (7 languages), touch-sensitive control buttons Direct access (touch buttons on front) for auto adjustment, input select, and NovoVision (4 preload modes, optimize visual experience for different usages); brightness; contrast; image horizontal and vertical position; user color settings (3 preset + 1 user); on screen display (OSD) language selection; menu position; information screen; image setup; reset of geometry and color point to factory default settings; lockable settings Two connectors: (1) analog 15-pin D-shell [blue], (2) Digital Visual Interface (DVI-D) for digital attach [white], HDCP-compliant Two cables: (1) detachable, 15-pin D-shell at each end (for analog connector), 1.8 meter, matches color of monitor (2) detachable, DVI-D at each end (for digital connector), 1.8 meter, matches color of monitor Anti-reflective / anti-glare 16.13" H x 19.89" W x 7.48" D / 410mm height x 505mm width x 190mm depth 12.8 lb / 5.8 kg Tilt: 20° back, 5° forward / swivel: +/-175° / no lift / detachable stand Wall or desk mounting using or third-party accessories meeting the VESA FPMPI® (100mm mount) Security keyhole for attachment of optional cable lock (such as Kensington® Microsaver® lock)	
VESA DDC ² VESA DPMS-compliant Power management Ergonomics Pixel defect Emission standards Environmental label Ship group Power supply Limited warranty ⁴ Available date	DDC/CI DPMS ENERGY STAR ^{®3} 4.0 ISO 13406 Part 2 ¹ ISO 13406-2 Class II pixel defect standard MPR-2 / MPR-3A / FCC Class B WEEE / RoHS (EU Directive 2002/95/EC) Monitor, attached stand, customer installable base, soundbar, 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 100-240Vac (universal) / integrated (no external brick-like power supply) / 56 watts maximum (with soundbar), <2 watts for "active off" 1 year (includes backlight) September 2008	
LIMITED WARRANTY		
➤ 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 claims⁶ ➤ 24x7[®] day toll-free support for warranty issues during the warranty period⁴		

See footnotes for important warranty information
 US model announced September 2, 2008

© Lenovo
 (L222-2) August 2008

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.
- ⁶ **Lenovo pays all shipping costs** for warranty repairs during limited warranty period.
- ⁸ **Telephone support** may be subject to additional charges, even during the limited warranty period. In the United States call 877-453-6686. Response times may vary. May exclude some holidays.



Trademarks: Lenovo, the Lenovo logo, New World. New Thinking., Access Connections, Rescue and Recovery, ThinkCentre, ThinkPad, ThinkStation, ThinkVantage, and ThinkVision are trademarks of Lenovo. Microsoft, Windows, and Vista are registered trademarks of Microsoft Corporation. Other company, product, or service names may be trademarks or service marks of others.

This publication was developed for products and services offered in the United States. Lenovo may not offer the products, services or features discussed in this document in other countries. Lenovo may withdraw an offering at any time. Information is subject to change without notice. Consult your local representative for information on offerings available in your area.

Lenovo reserves the right to alter specifications and other product information at any time without prior notice. Lenovo is not responsible for photographic or typographical errors. **LENOVO PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** Some jurisdictions do not allow disclaimer of express or implied warranties in certain transactions; therefore this disclaimer may not apply to you. This publication was developed in the US.

Visit www.lenovo.com/safecomputing periodically for the latest information on safe and effective computing.

Visit www.lenovo.com/psref for the latest version of Personal Systems Reference.

© Lenovo, 2009.
All rights reserved.

Lenovo
1009 Think Place
Morrisville, NC 27560
U.S.A.

January 2009
cmbook.pdf



Personal Systems Reference Lenovo® Value Line Notebooks

April 2009 - Version 354



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

Type-model	Processor	GHz	Memory	Widescreen display	Camera	Graphics controller	SATA disk	EIDE optical	Mini PCIe 802.11 wireless	Bluetooth	Fingerprint reader	Chip-set	Preload	Avail date
✕ 0769-ALU	Celeron 530	1.73	512MB	15.4" WXGA		GMA	80GB ⁸	Combo	Lenovo 11b/g ¹¹			GM	Home Basic	Oct 07
✕ 0769-AMU	Celeron 530	1.73	512MB	15.4" WXGA		GMA	80GB	Combo	Lenovo 11b/g			GM	XP Pro	Oct 07
✕ 0769-ANU	Pentium T2310	1.46	1GB	15.4" WXGA		GMA	120G	DVD±RW	Lenovo 11b/g		Finger	GM	XP Pro	Oct 07
✕ 0769-APU	Pentium T2310	1.46	1GB	15.4" WXGA	Cam	GMA	160G	DVD±RW	Lenovo 11b/g	Blue	Finger	GM	XP Pro	Oct 07
0769-ASU	Celeron 540	1.86	512MB	15.4" WXGA		GMA	80GB	Combo	Lenovo 11b/g			GM	Home Basic	Dec 07
0769-ATU	Celeron 540	1.86	512MB	15.4" WXGA		GMA	80GB	Combo	Lenovo 11b/g			GM	XP Pro	Dec 07
✕ 0769-AUU	Pentium T2330	1.60	1GB	15.4" WXGA		GMA	120G	DVD±RW	Lenovo 11b/g		Finger	GM	XP Pro	Dec 07
0769-AVU	Pentium T2330	1.60	1GB	15.4" WXGA	Cam	GMA	120G	DVD±RW	Lenovo 11b/g	Blue	Finger	GM	Home Prem	Dec 07
0769-F8U	Celeron 550	2.00	1GB	15.4" WXGA		GMA	80GB	Combo	Intel 11a/b/g ¹¹			GM	Home Basic	Apr 08
0769-F9U	Pentium T2390	1.86	1GB	15.4" WXGA	Cam	GMA	120G	DVD±RW	Intel 11a/b/g	Blue	Finger	GM	Home Prem	Apr 08
0769-FAU	Pentium T2390	1.86	1GB	15.4" WXGA		GMA	120G	DVD±RW	Intel 11a/b/g		Finger	GM	Business 32	Apr 08
0769-FBU	Celeron 550	2.00	1GB	15.4" WXGA		GMA	80GB	Combo	Lenovo 11b/g			GM	Business 32	May 08
✕ 0769-FCU	Pentium T2390	1.86	1GB	15.4" WXGA		GMA	160G	DVD±RW	Intel 11n ²⁸		Finger	GM	XP Pro	Jun 08

These Lenovo N200 models use a 15.4" widescreen display

Positioning Processor	Widescreen flexibility; two-spindle Intel® Celeron® Processor 530, 540, or 550 with single-core, Execute Disable Bit, Intel 64 Technology, 533MHz system bus, and 1MB L2 cache or Intel Pentium® Processor T2310, T2330, or T2390 with dual-core, Intel 64 Technology, Execute Disable Bit, EIST, 533MHz system bus, and 1MB shared L2 cache			Preloaded operating system ²⁰ - <i>Some:</i> Microsoft Windows XP Professional with Vista® COA - <i>Some:</i> Microsoft Windows Vista Home Basic Edition (32-bit) - <i>Some:</i> Microsoft Windows Vista Home Premium Ed (32-bit) - <i>Some:</i> Microsoft Windows Vista Business Edition (32-bit) ✧ <i>Vista models:</i> Vista Basic logo Preloaded applications ¹⁴ (all OSes) • Lenovo Care SM Tools – Rescue and Recovery TM – System Update – Password Manager – Access Connections TM • Norton Internet Security TM (90 days of virus definitions) • Softex OmniPass (on fingerprint models) • PC-Doctor TM (diagnostics) • Adobe® Reader • Picasa from Google • Diskeeper® Lite (XP models) • Diskeeper Home (Vista models) • Corel® Small Business Center TM with WordPerfect® Office 12 • QuickBooks Financial Center • Network Magic TM (Vista only) • Windows Live TM Toolbar • Windows Live Search • QuickBooks Financial Center (Vista only) • Microsoft Office 2007 Trial (60-day) • EarthLink (Vista Home Basic models only)		
Memory	512MB or 1GB std / 4GB max ^{7/} PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available					
Diskette drive	None (use optional USB-based diskette drive)					
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed, fixed, not removable, 12.7mm					
EIDE DVD±RW	<i>Some:</i> DVD burner, dual-layer support, fixed, not removable, 12.7mm high					
SATA disk	80GB ⁸ (5400 rpm), 120GB (5400 rpm), or 160GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable and upgradable					
Widescreen display	15.4" (391.1mm) WXGA (1280x800) TFT color, VibrantView (glossy), CCFL backlight, 185 nits, 16:10 aspect ratio, 400:1 contrast ratio <i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus, internal USB 2.0					
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus, internal USB 2.0					
Graphics	Intel Graphics Media Accelerator X3100 , in GM965					
Keyboard	Full-size keyboard, 6-row, 84-key, multimedia Fn keys, Lenovo Care SM button					
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®)					
Dimensions ³	6-cell (WxDxH): 14.2"x 10.5"x 1.2" to 1.5"; 360.1mm x 266.7mm x 31.4 to 38.6mm; 9-cell (WxDxH): 14.2"x 11.3"x 1.2" to 1.5"; 360.1mm x 286.6mm x 31.4 to 38.6mm with optical drive and battery: 6-cell: 6.02 lb to 6.34 lb (2.73 to 2.88 kg)					
Weight ²	Silver top; silver bottom					
Case color	Silver top; silver bottom					
Case material	ABS plastic					
Battery - type	Lithium Ion 6-cell , smart battery					
Battery - life ¹⁰	6-cell: up to 3.5 hr; <i>optional 9-cell:</i> up to 4.9 hr					
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, USB 2.0, PCI Express® 1.1, PCI 2.3), LPC bus (ENE KB925 Super I/O) One slot (ExpressCard/34, ExpressCard/54)					
ExpressCard/54	5-in-1 reader (MultiMedia Card, Memory Stick®, Memory Stick PRO TM , Secure Digital, xD-Picture Card TM)					
Multicard Reader	Secure Digital, xD-Picture Card TM)					
Ports	Four USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), S-video out port (TV out; one 7-pin industry standard connector), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)					
Mini PCI Express	One Mini PCI Express slot, not customer upgradable					
Lenovo 11b/g ¹¹	<i>Some:</i> 11b/g wireless ⁴ , Lenovo 11b/g Mini PCI Express Adapter, Broadcom® chipset					
Intel 11a/b/g ¹¹	<i>Some:</i> 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG					
Intel 11n ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)					
Bluetooth TM	<i>Some:</i> Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator					
Modem	56K V.92 ⁶ modem, not customer accessible					
Ethernet	10/100 ethernet, Broadcom® BCM5906M, PCI 2.3					
Audio support	Intel High Definition (HD) Audio, RealTek® ALC861VD codec / stereo speakers, 1.5 watt / volume, up, down, mute button / stereo microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)					
Security	Power-on password, hard disk password, supervisor password, security keyhole					
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest , swipe sensor, no preboot support					
Limited warranty ¹²	1-year - EasyServ ^{TM,19} depot repair service / service upgrades ²² available					
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	Lenovo C200/N200 15W Battery 6-cell	40Y8322			
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	Lenovo N200 15W Li-Ion Battery 9-cell	41U5027			
USB 2.0 Essential Memory Key 32GB	45K1258	ThinkPad® and Lenovo 65W AC Adapter	40Y7696			
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	90W Slim AC/DC Combo Adapter	41N8460			
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkVision® L2240p Wide 22" Monitor	4422HB6			
USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ThinkVision L2440p Wide 24" Monitor	4420HB2			
Lenovo Laser Mouse (USB, PS/2)	41U3074	Lenovo Carrying Case - Messenger Max	41U5253			
ExpressCard Gemplus Smart Card Reader	41N3043	Lenovo Case - Performance Backpack	41U5254			
Other accessories on O-N200 sheet		Others at http://lenovo.com/accessories				
65-watt AC adapter (GMA X3100 graphics models) Wireless on/off switch RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378						
Lenovo Care SM 1-year LOR 9x5 NBD 41K0547						
Lenovo Care 2-year LOR 9x5 NBD 41K0548						
Lenovo Care 2-year P&L PU Depot 41K0545						
Lenovo Care 3-year LOR 9x5 NBD 41K0549						
Lenovo Care 3-year P&L PU Depot 41K0546						

See footnotes for important warranty information

✕ US model announced June 24, 2008; previous models on Oct 2, Dec 4, 2007, Apr 8, or May 6, 2008

✕ US models withdrawn effective December 2007

Partial list of accessories supported on:

- **Lenovo N200 14W originally announced on May 22, 2007**
- **Lenovo N200 15W originally announced on May 9, 2007**

Memory

1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	ann 03/25/08
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	ann 03/25/08

Storage and removable storage

USB 2.0 Essential Memory Key 2GB	41U4944	ann 01/23/07
USB 2.0 Essential Memory Key 4GB	45J7904	ann 06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann 07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann 10/28/08
USB 2.0 Security Memory Key 4GB	41U5120	ann 07/17/07
USB 2.0 Ultra Secure Memory Key 1GB	45J5915	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann 08/26/08
USB 2.0 Super Multi-Burner Drive	41N5565	ann 01/23/07

Expansion

USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ann 02/26/08
ThinkPad Adjustable Notebook Stand	40Y7676	ann 09/20/05

Keyboard

USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann 12/07/04
USB Keyboard with UltraNav	31P8950	ann 01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann 04/27/04

Mouse

Optical Wheel Mouse (USB)	06P4069	ann 05/21/03
Optical ScrollPoint® Mouse (USB, PS/2)	31P7405	ann 08/27/02
Optical Wheel Travel Mouse (USB, PS/2)	31P7410	ann 06/04/02
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	ann 01/23/07
Lenovo Wireless Laser Mouse (blk, via USB)	45K1696	ann 11/25/08
Lenovo Wireless Laser Mouse (red, via USB)	51J0198	ann 11/25/08
Laser Tilt Wheel Travel Mouse (Bluetooth)	41U5008	ann 01/22/08
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann 12/07/04

Security

Kensington® Cable Lock from Lenovo	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06
<i>ExpressCard/54 slot:</i>		
ExpressCard Gemplus Smart Card Reader	41N3043	ann 06/27/06

Multimedia

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann 06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann 08/29/06

Power Accessories
N200 14W (0687) only:

Lenovo N200 14W Li-Ion Battery 6-cell	41U5025	ann 05/22/07
Lenovo N200 14W Li-Ion Battery 9-cell	41U5026	ann 05/22/07

N200 15W (0769) only:

Lenovo C200/N200 15W Li-Ion Battery 6-cell	40Y8322	ann 10/17/06
Lenovo N200 15W Li-Ion Battery 9-cell	41U5027	ann 05/09/07

All models:

ThinkPad and Lenovo 65W AC Adapter ⁴⁵	40Y7696	ann 09/20/05
⁴⁵ Only compatible with the 945GM and GM965 chipset models.		
ThinkPad and Lenovo 90W AC Adapter	40Y7659	ann 09/20/05
Lenovo 90W Slim AC/DC Combo Adapter	41N8460	ann 11/27/07
Belkin Surge Protector	31P7659	
Belkin 1 outlet Notebook Surge	31P7658	

Carrying Cases

Lenovo Carrying Case - Messenger Max	41U5253	ann 05/01/07
Lenovo Carry Case - Performance Backpack	41U5254	ann 05/01/07
Lenovo Standard Case	45K1697	ann 11/25/08
Lenovo Standard Backpack	45K1698	ann 11/25/08

Monitors

ThinkVision® L174 17" Monitor	9227AE1	ann 04/15/08
ThinkVision L1700p 17" Monitor	9417HE2	ann 09/17/08
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1940p Wide 19" Monitor	4424HB6	ann 09/17/08
ThinkVision L200p Wide 20.1" Monitor	4438HB6	ann 04/15/08
ThinkVision L2240p Wide 22" Monitor	4422HB6	ann 09/17/08
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann 09/17/08
ThinkVision L2440x Wide 24" Monitor	4421HB2	ann 09/17/08

Monitor Accessories⁴⁶

ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington Cable Lock from Lenovo	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
ThinkPad Convertible Monitor Stand	40Y7620	ann 01/05/06
Radial Arm	19K4464	ann 05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

 Other accessories at www.lenovo.com/accessories

 Accessories Guide pdf at www.lenovo.com/accessoriesguide
Lenovo CareSM maintenance services

 Warranty service upgrade:²²

1-year Lenovo Onsite Repair (LOR) 9x5 Next Business Day	41K0547
2-year Lenovo Onsite Repair (LOR) 9x5 Next Business Day	41K0548
2-year Parts and Labor (P&L) Pickup Depot	41K0545
3-year Lenovo Onsite Repair (LOR) 9x5 Next Business Day	41K0549
3-year Parts and Labor (P&L) Pickup Depot	41K0546

 Post-warranty maintenance services:⁵

1-year maintenance Parts and Labor Pickup Depot SBD	41K0550
1-year maintenance 9x5 Next Business Day response	41K0551
2-year maintenance Parts and Labor Pickup Depot SBD	41K0552
2-year maintenance 9x5 Next Business Day response	41K0553

[SBD=Second Business Day average response]

 Lenovo Care maintenance services at www.lenovo.com/warranty

lenovo



Lenovo N500



Lenovo N500



Lenovo N500



Lenovo N500

Type-model	Processor	GHz	Memory	Wide-screen display	Screen type	Camera	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bluetooth	Battery cells	Vista preload	Availability
4233-52U	Cel 575	2.00	1GB	15.4"	WXGA	Glossy	Cam	GMA	160G 5400	DVD±RW	Lenovo 11b/g ¹¹	None	None	No	6 Home B	Nov 08
4233-53U	T3200	2.00	1GB	15.4"	WXGA	Glossy	Cam	GMA	160G 5400	DVD±RW	Lenovo 11b/g	None	None	No	6 Bus 32	Nov 08
4233-54U	T3400	2.16	2GB	15.4"	WXGA	Glossy	Cam	GMA	250G 5400	DVD±RW	Lenovo 11b/g	None	None	No	6 Bus 32	Nov 08
4233-62U	T3200	2.00	1GB	15.4"	WXGA	Glossy	Cam	GMA	160G 5400	DVD±RW	Lenovo 11b/g	None	None	No	6 XP Pro	Nov 08
4233-63U	T3400	2.16	2GB	15.4"	WXGA	Glossy	Cam	GMA	250G 5400	DVD±RW	Lenovo 11b/g	None	None	No	6 XP Pro	Nov 08
4233-6BU	T3400	2.16	1GB	15.4"	WXGA	Glossy	Cam	GMA	160G 5400	DVD±RW	Lenovo 11b/g	None	None	No	6 XP Pro	Jan 09

• **These Lenovo N500 models use a 15.4" widescreen display**

Processor	Intel® Celeron® Processor 575 with single-core, 667MHz system bus, and 1MB L2 cache or Intel Pentium® processor T3200 or T3400 with dual-core, 667MHz system bus, and 1MB L2 cache			Preloaded operating system ²⁰ <ul style="list-style-type: none">- <i>Some:</i> Microsoft® Windows® XP Professional with Vista® COA- <i>Some:</i> Microsoft Windows Vista Home Basic Edition (32-bit)- <i>Some:</i> Microsoft Windows Vista Business Edition (32-bit) ✧ Vista Basic logo Preloaded applications ¹⁴ <ul style="list-style-type: none">• Lenovo Care™ Tools• Rescue and Recovery™• Access Connections™• System Update• Norton Internet Security™ (90 days of virus definitions)• PC-Doctor™ (diagnostics)• ThinkPad Utilities (Power Manager and Presentation Director)• Adobe® Reader• Windows Live™ Toolbar• Windows Live Search• Microsoft Office 2007 Trial (60-day)• Roxio® Creator® Small Business Edition• Corel WinDVD® (DVD±RW)		
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	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 Camera	15.4" (391.2mm) WXGA (1280x800) color, VibrantView (glossy), CCFL backlight, 185 nits, 16:10 aspect ratio, 400:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus					
Integrated graphics	Intel Graphics Media Accelerator 4500M (GMA 4500M), in GL40, HDMI port supporting HDCP to output protected content <i>Max external resolution:</i> 2048x1536@75Hz (DB-15 port); 1920x1080 (HDMI port)					
Keyboard Touch controls Touch pad	Full-size keyboard, 6-row, Lenovo Care button, multimedia Fn keys, Windows/Appl keys Touch-sensitive audio control panel (Mute, vol up, vol down, enable/disable touchpad) Two-button touch pad with scroll feature (no TrackPoint®)					
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	6-cell 15.4W" (WxDxH): 14.1" x 10.1" x 1.22–1.46"; 358.5 x 256.5mm x 31–37mm 6-cell: starting at 5.95 lb (2.7kg) Silver top cover; black bottom Scratch-resistant ABS plastic Lithium Ion 6-cell 6-cell: up to 3.8 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, security chip, ethernet MAC)					
ExpressCard/54 Multicard reader PC Card Smart Card read Ports	One slot (ExpressCard/34, ExpressCard/54) 4-in-1 reader (MultiMedia Card, Memory Stick, Memory Stick PRO™, Secure Digital) None None Four USB 2.0, external monitor (VGA DB-15, HDMI), modem (RJ-11), ethernet (RJ-45)					
Mini PCI Express Lenovo 11b/g ¹¹ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	One Mini PCI Express slot 11b/g wireless ⁴ , Lenovo 11b/g Mini PCI Express Adapter, Broadcom® chipset None None None None 56K V.92 ⁶ modem None 10/100 ethernet, Broadcom® BCM5906M None High Definition (HD) Audio, CX20561-15Z codec / stereo speakers, 2 watt / volume up, down, mute buttons / microphone, mic input jack, headphone jack					
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole None None					
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available					
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	N500 Series Li-Ion Battery 6-cell	51J0226			
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	Lenovo 90W AC Adapter for N500 Series	41R4515			
USB 2.0 Essential Memory Key 8GB	45J7905	Lenovo 90W AC Adapter for Y Series	41R4322			
USB 2.0 Essential Memory Key 32GB	45K1258	Business Topload Case	43R2476			
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	Deluxe Expander Case	43R2478			
USB 2.0 Lenovo Webcam	40Y8519	ThinkVision® L2240p Wide 22" Monitor	4422HB6			
USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ThinkVision L2440x Wide 24" Monitor	4421HB2			
Lenovo Wireless Laser Mouse (blk, USB)	45K1696	Other accessories at lenovo.com/accessories				

See footnotes for important warranty information

US model announced January 6, 2009; previous models on November 11 or November 25, 2008

US models withdrawn effective January 2009

© Lenovo
(DOV-1) February 2009

Type-model	Processor	GHz	Memory	Widescreen display	Screen type	Cam- era	Inte- grated graphics	SATA disk	EIDE optical	Mini PCIe 802.11 wireless	Finger- bat- tery reader	Preload	Avail date								
* 0764-2BU	Core 2 Duo T7100	1.80	1GB	12.1"	WXGA	Glossy	Cam	GMA	160GB	DVD±RW	*Intel 11a/b/g ¹¹	Blue	Fing	3	Home Prem	May 07					
* 0764-2CU	Core 2 Duo T7300	2.00	1GB	12.1"	WXGA	Glossy	Cam	GMA	160GB	DVD±RW	*Intel 11a/b/g	Blue	Fing	6	Business 32	May 07					
* 0764-2DU	Core 2 Duo T7300	2.00	2GB	12.1"	WXGA	Glossy	Cam	GMA	160GB	DVD±RW	*Intel 11n ²⁸	Blue	Fing	6	Ultimate 32	May 07					
* 0764-2NU	Core 2 Duo T5250	1.50	2GB	12.1"	WXGA	Glossy	Cam	GMA	160GB	DVD±RW	*Intel 11n	Blue	Fing	6	Ultimate 32	July 07					
* 0764-2PU	Core 2 Duo T5250	1.50	1GB	12.1"	WXGA	Glossy	Cam	GMA	160GB	DVD±RW	*Intel 11a/b/g	Blue	Fing	6	XP Pro	Oct 07					
0764-2WU	Core 2 Duo T5550	1.83	1GB	12.1"	WXGA	Glossy	Cam	GMA	160GB	DVD±RW	*Intel 11a/b/g	Blue	Fing	3	XP Pro	Jan 08					
0764-2XU	Core 2 Duo T5550	1.83	2GB	12.1"	WXGA	Glossy	Cam	GMA	160GB	DVD±RW	*Intel 11n	Blue	Fing	6	Business 32	Jan 08					
0764-2YU	Core 2 Duo T5750	2.00	1GB	12.1"	WXGA	Glossy	Cam	GMA	160GB	DVD±RW	*Intel 11a/b/g	Blue	Fing	3	Business 32	Mar 08					
<ul style="list-style-type: none">• These models use a 12.1" widescreen display• Two-spindle (disk and optical) in an ultraportable• Multimedia ready: press button to load InterVideo InstantON music and movie player without loading OS																					
Positioning Processor	Widescreen ultraportable; two spindles Intel® Core™ 2 Duo processor T5250, T5550, or T5750 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache or Intel Core 2 Duo processor T7100 or T7300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, and 800MHz system bus; T7100: 2MB L2 cache (shared); T7300: 4MB L2 cache (shared)											Preloaded operating system ²⁰ <ul style="list-style-type: none">- Some: Microsoft® Windows® XP Professional with Vista® COA- Some: Microsoft Windows Vista Home Premium Ed (32-bit)- Some: Microsoft Windows Vista Business Edition (32-bit)- Some: Microsoft Windows Vista Ultimate Edition (32-bit) ◇ 2YU model: Vista Basic logo ◇ Other Vista models: Vista Premium logo									
Memory	1GB or 2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available																				
Diskette drive	None (use optional USB-based diskette drive)											Preloaded applications ¹⁴ (all OSES) <ul style="list-style-type: none">• Lenovo CareSM Tools<ul style="list-style-type: none">– Rescue and Recovery™– System Update– Password Manager– Access Connections™• Lenovo Multimedia Center (Vista)• Norton Internet Security™ (90 days of virus definitions)• Softex OmniPass (on fingerprint models)• PC-Doctor™ (diagnostics)• Network Magic™• Windows Live™ Toolbar• Windows Live Search• Adobe® Reader• Picasa from Google• Diskeeper® Home• Corel® Small Business Center™ with WordPerfect® Office 12• QuickBooks Financial Center• Microsoft Office 2007 Trial• EarthLink (Vista Home Basic and Home Premium models only)• InterVideo InstantON• Roxio Digital Media LE (DVD±RW for XP only)• Corel WinDVD® (DVD±RW for XP only)• Corel WinDVD Creator (DVD±RW for XP only) Universal 65-watt AC adapter Wireless on/off switch RoHS-compliant ENERGY STAR® 4.0-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378									
EIDE DVD±RW	DVD burner, DL support, fixed, not removable, 12.7mm high																				
SATA disk	160GB ⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable and upgradable																				
Widescreen display	12.1" (307.3mm) WXGA (1280x800) TFT color, VibrantView (glossy), CCFL backlight, 180 nits, 16:9 aspect ratio, 400:1 contrast ratio, no latch open-close mechanism																				
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, internal USB 2.0																				
Graphics	Intel Graphics Media Accelerator X3100 , in GM965																				
Keyboard	Full-size keyboard, 6-row, 84-key, multimedia Fn keys; <i>Buttons across top:</i> on-off, Lenovo CareSM, instant on, mute, volume down, volume up																				
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®)																				
InstantON	Press button to load InterVideo InstantON music and movie player without loading OS																				
Dimensions ³	<i>3-cell (WxDxH):</i> 12.01"x 8.94"x 1.25"; 305.1mm x 227.0mm x 31.7mm <i>6-cell (WxDxH):</i> 12.01"x 9.68"x 1.25"; 305.1mm x 246.0mm x 31.7mm																				
Weight ²	with optical drive and battery: 4.0 lb (1.81kg) to 4.4 lb (1.99kg)																				
Case color	Silver top; black bottom																				
Case material	ABS plastic																				
Battery - type	Lithium Ion 3-cell or 6-cell, 2600 mAH, smart battery																				
Battery - life ¹⁰	<i>3-cell:</i> up to 2.1 hr; <i>6 cell:</i> up to 4.2 hr																				
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, USB 2.0, PCI Express® 1.1, PCI 2.3), LPC bus (ENE KB925 Super I/O)																				
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)																				
Multicard reader	5-in-1 reader (MultiMedia Card, Memory Stick®, Memory Stick PRO™, Secure Digital, xD-Picture Card™)																				
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)																				
Mini PCI Express	One Mini PCI Express slot, not customer upgradable																				
Intel 11a/b/g ¹¹	Some: 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG																				
Intel 11n ²⁸	Some: 11a/b/g/n wireless ⁴ , Mini PCI Express adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)																				
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator																				
Modem	56K V.92 ⁶ modem																				
Ethernet	10/100 ethernet, Broadcom® BCM5906M, PCI Express x1																				
Audio support	Intel High Definition (HD) Audio, Conexant® CX20549 codec / stereo speakers, 1 watt / volume, up, down, mute button / stereo microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm)																				
Security	Power-on password, hard disk password, supervisor password, security keyhole																				
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, no preboot support																				
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available																				
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	V100 Series Li-Ion Battery 3-cell	40Y8319	Lenovo CareSM 1-year LOR 9x5 NBD																	
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	V100 Series Li-Ion Battery 6-cell	40Y8321	41K0547																	
USB Portable Diskette Drive	05K9276	ThinkPad and Lenovo 65W AC Adapter	40Y7696	Lenovo Care 2-year LOR 9x5 NBD																	
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad and Lenovo 90W AC Adapter	40Y7659	41K0548																	
USB 2.0 Essential Memory Key 8GB	45J7905	90W Slim AC/DC Combo Adapter	41N8460	Lenovo Care 2-year P&L PU Depot																	
USB 2.0 Lenovo Enhanced Port Replicator	43R8770	Lenovo Carrying Case - Messenger Max	41U5253	41K0545																	
USB 2.0 Super Multi-Burner Drive	41N5565	Lenovo Case - Performance Backpack	41U5254	Lenovo Care 3-year LOR 9x5 NBD																	
160GB Disk 9.5mm SATA 1.5Gb/s (5400 rpm)	41N5692	ThinkVision® L2240p Wide 22" Monitor	4422HB6	41K0549																	
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	ThinkVision L2440x Wide 24" Monitor	4421HB2	Lenovo Care 3-year P&L PU Depot																	
Kensington® MicroSaver® Security Cable	73P2582	Others at http://lenovo.com/accessories		41K0546																	

See footnotes for important warranty information

* Intel Centrino® processor technology

© Lenovo

US model announced March 18, 2008; previous models on May 22, July 17, October 2, 2007, or January 8, 2008

(FS-2-1) February 2009

US models withdrawn effective December 2007 or May 2008

Partial list of accessories supported on:
• Lenovo V200 announced on May 22, 2007

Memory

1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	ann 03/25/08
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	ann 03/25/08

Storage and removable storage

USB 2.0 Essential Memory Key 2GB	41U4944	ann 01/23/07
USB 2.0 Essential Memory Key 4GB	45J7904	ann 06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann 07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann 10/28/08
USB 2.0 Security Memory Key 4GB	41U5120	ann 07/17/07
USB 2.0 Ultra Secure Memory Key 1GB	45J5915	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann 08/26/08
USB Portable Diskette Drive	05K9276	ann 06/05/00
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann 01/05/06
USB 2.0 Portable 160GB Hard Disk	43R1784	ann 09/23/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
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
USB 2.0 Super Multi-Burner Drive	41N5565	ann 01/23/07
160GB Disk 9.5mm SATA 1.5Gb/s (5400 rpm)	41N5692	ann 03/20/07

Expansion

USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ann 02/26/08
ThinkPad Adjustable Notebook Stand	40Y7676	ann 09/20/05

Keyboard

USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann 12/07/04
USB Keyboard with UltraNav	31P8950	ann 01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann 04/27/04

Mouse

Optical Wheel Mouse (USB)	06P4069	ann 05/21/03
Optical ScrollPoint® Mouse (USB, PS/2)	31P7405	ann 08/27/02
Optical Wheel Travel Mouse (USB, PS/2)	31P7410	ann 06/04/02
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	ann 01/23/07
Lenovo Wireless Laser Mouse (blk, via USB)	45K1696	ann 11/25/08
Lenovo Wireless Laser Mouse (red, via USB)	51J0198	ann 11/25/08
Laser Tilt Wheel Travel Mouse (Bluetooth)	41U5008	ann 01/22/08
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann 12/07/04

Security

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

ExpressCard/54 slot:

ExpressCard Gemplus Smart Card Reader	41N3043	ann 06/27/06
---------------------------------------	---------	--------------

Multimedia

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann 06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann 08/29/06

Power Accessories

Lenovo V100 Series Li-Ion Battery 3-cell	40Y8319	ann 05/16/06
Lenovo V100 Series Li-Ion Battery 6-cell	40Y8321	ann 05/16/06
ThinkPad and Lenovo 65W AC Adapter	40Y7696	ann 09/20/05
ThinkPad and Lenovo 90W AC Adapter	40Y7659	ann 09/20/05
Lenovo 90W Slim AC/DC Combo Adapter	41N8460	ann 11/27/07
Belkin Surge Protector	31P7659	
Belkin 1 outlet Notebook Surge	31P7658	

Carrying Cases

Lenovo Carrying Case - Messenger Max	41U5253	ann 05/01/07
Lenovo Carry Case - Performance Backpack	41U5254	ann 05/01/07
Lenovo Standard Case	45K1697	ann 11/25/08
Lenovo Standard Backpack	45K1698	ann 11/25/08

Monitors

ThinkVision® L174 17" Monitor	9227AE1	ann 04/15/08
ThinkVision L1700p 17" Monitor	9417HE2	ann 09/17/08
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1940p Wide 19" Monitor	4424HB6	ann 09/17/08
ThinkVision L200p Wide 20.1" Monitor	4438HB6	ann 04/15/08
ThinkVision L2240p Wide 22" Monitor	4422HB6	ann 09/17/08
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann 09/17/08
ThinkVision L2440x Wide 24" Monitor	4421HB2	ann 09/17/08

Monitor Accessories⁴⁶

ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington Cable Lock from Lenovo	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
ThinkPad Convertible Monitor Stand	40Y7620	ann 01/05/06
Radial Arm	19K4464	ann 05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

Medialess License Key (MLK)

Microsoft® Office 2007 Basic, English	43R1528	ann 01/31/07
Microsoft Office 2007 Small Business, Engl	43R1534	ann 01/31/07
Microsoft Office 2007 Professional, English	43R1531	ann 01/31/07

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide

Lenovo CareSM maintenance services**Warranty service upgrade:²²**

1-year Lenovo Onsite Repair (LOR) 9x5 Next Business Day	41K0547
2-year Lenovo Onsite Repair (LOR) 9x5 Next Business Day	41K0548
2-year Parts and Labor (P&L) Pickup Depot	41K0545
3-year Lenovo Onsite Repair (LOR) 9x5 Next Business Day	41K0549
3-year Parts and Labor (P&L) Pickup Depot	41K0546

Post-warranty maintenance services:⁵

1-year maintenance Parts and Labor Pickup Depot SBD	41K0550
1-year maintenance 9x5 Next Business Day response	41K0551
2-year maintenance Parts and Labor Pickup Depot SBD	41K0552
2-year maintenance 9x5 Next Business Day response	41K0553

[SBD=Second Business Day average response]

Lenovo Care maintenance services at www.lenovo.com/warranty

Part number	Processor	GHz	Memory	Widescreen display	Camera	Integrated graphics	SATA disk	EIDE optical	Mini PCIe 802.11 wireless	Finger-print reader	Chip-set	Vista preload	Avail date
59-011896	Pentium T2310	1.46	1GB	14.1" WXGA	Cam	GMA	160G ⁸	DVD±RW	Intel 11a/b/g ¹¹	None	None	GM Home Prem	Oct 07
59-011843	Core 2 Duo T5250	1.50	2GB	14.1" WXGA	Cam	GMA	160G	DVD±RW	*Intel 11a/b/g	None	None	GM Home Prem	Oct 07
59-011897	Core 2 Duo T5450	1.66	2GB	14.1" WXGA	Cam	GMA	160G	DVD±RW	*Intel 11a/b/g	None	None	GM Home Prem	Oct 07
<ul style="list-style-type: none">• 14.1" widescreen display• Dolby Home Theater premium audio system with subwoofer• Audio DJ plays CDs without booting the system• Shuttle Center offers a one-stop, total entertainment environment with Shuttle Key that puts volume and equalizer controls on the keyboard													
Positioning Processor	Widescreen flexibility; two-spindle Intel® Pentium® Processor T2310 with dual-core, Enhanced Intel SpeedStep® technology ¹ , Execute Disable Bit, 533MHz system bus, and 1MB shared L2 cache or Intel Core™ 2 Duo processor T5250 or T5450 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache									Preloaded operating system ²⁰ - Microsoft® Windows® Vista™ Home Premium Edition (32-bit) ♦ Vista Premium logo Preloaded applications ¹⁴ <ul style="list-style-type: none">• OneKey Recovery• Norton Internet Security™ (90 days of virus definitions)• Power 2Go (DVD±RW)• Adobe® Reader• Windows Live™ Toolbar• Picasa from Google• Shuttle Center (DVD±RW)• EasyCapture• Microsoft Office 2007 Trial (60-day)• VeriFace• Earth Link• Lenovo AnyComm			
Memory	1GB or 2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; Italics: standard memory in both sockets; no sockets available												
Diskette drive	None (use optional USB-based diskette drive)												
EIDE DVD±RW	DVD burner, dual-layer support, fixed, not removable, 12.7mm high												
SATA disk	160GB ⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable and upgradable												
Widescreen display	14.1" (358.1mm) WXGA (1280x800) TFT color, VibrantView (glossy), CCFL backlight, 185 nits, 16:10 aspect ratio, 400:1 contrast ratio												
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, internal USB 2.0												
Graphics	Intel Graphics Media Accelerator X3100, in GM965												
Keyboard	Full-size keyboard, 6-row, 84-key, multimedia Fn keys,												
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®)												
Dimensions ³	(WxDxH): 13.4" x 10.0" x 1.1" to 1.5"; 340mm x 253mm x 27 to 37mm												
Weight ²	with optical drive and battery: 6-cell: 5.2 lb (2.4 kg)												
Case color	Silver top; silver bottom												
Case material	ABS plastic												
Battery - type	Lithium Ion 6-cell, smart battery												
Battery - life ¹⁰	Up to 3.5 hr												
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, USB 2.0, PCI Express® 1.1, PCI 2.3), LPC bus (ENE KB925 Super I/O)												
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)												
Multicard reader	6-in-1 reader (MultiMedia Card, Memory Stick®, Memory Stick PRO™, Secure Digital Card, Secure Digital Elite Pro Card, xD-Picture Card™)												
Ports	Three USB 2.0, external monitor (VGA DB-15), S-video out port (TV-out), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)												
InstantON	Press button to support instant on CD play without loading OS												
Video out	S-video out port (TV-out), one 7-pin industry standard connector												
Mini PCI Express	One Mini PCI Express slot, not customer upgradable												
Intel 11a/b/g	11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG												
Bluetooth™	None												
Modem	56K V.92 ⁶ modem, not customer accessible												
Ethernet	10/100 ethernet, Broadcom® BCM5906M, PCI 2.3												
Audio support	Intel High Definition (HD) Audio, RealTek® ALC262 codec / two stereo speakers, 2 watt, and subwoofer, 2 watt, Dolby Home Theater Technology / Audio DJ button, mute button / stereo microphone, microphone input jack (3.5 mm), stereo headphone jack (3.5 mm)												
Security	Power-on password, hard disk password, supervisor password, security lockhole												
Fingerprint reader	None												
Limited warranty ¹²	1-year - Depot Service ¹⁹ , onsite ¹³ pickup and delivery via 1-877-453-6686												
1GB PC2-5300 DDR2 SODIMM (TopSeller)				43R1999	Lenovo Y410 Battery 6-Cell				43R1955				
2GB PC2-5300 DDR2 SODIMM (TopSeller)				43R2000	Lenovo Y Series 90W AC Adapter				41R4322				
USB Portable Diskette Drive				05K9276	Lenovo 90W AC Adapter				45J7717				
USB 2.0 Essential Memory Key 4GB				45J7904	Lenovo Carrying Case - Messenger				41N5677				
USB 2.0 Essential Memory Key 8GB				45J7905	Lenovo Carrying Case - Messenger Max				41U5253				
USB 2.0 Essential Memory Key 32GB				45K1258	Lenovo Case - Performance Backpack				41U5254				
USB 2.0 Security Memory Key 4GB				41U5120	ThinkVision® L1940p Wide 19" Monitor				4424HB6				
USB 2.0 Lenovo Multimedia Headset				41N5678	ThinkVision L2240p Wide 22" Monitor				4422HB6				
USB 2.0 Lenovo Webcam				41N5679	ThinkVision L2440x Wide 24" Monitor				4421HB2				
USB 2.0 Portable 160GB Hard Disk				43R1784	Kensington® Cable Lock from Lenovo				73P2582				
Enh Perf Wireless Keyboard and Mouse				41N5672	Others at http://lenovo.com/accessories								
										65-watt AC adapter (GMA X3100 graphics models) Wireless on/off switch RoHS-compliant ENERGY STAR® 4.0-compliant			

See footnotes for important warranty information
 US models announced October 9, 2007

* Intel Centrino® processor technology

© Lenovo
 (ALK2-1) February 2009

lenovo



Lenovo G530



Lenovo G530



Lenovo G530



Lenovo G530

Type-model	Processor	GHz	Memory	Widescreen display	Camera	Integrated graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	Top color	Blue-tooth	Battery cells	Vista preload	Avail date
4151-X2U	T3400	2.16	2GB	15.4" WXGA	Cam	GMA	160GB ⁸	DVD±RW	Lenovo 11b/g ¹¹	Black	None	6-cell	Basic	Mar 09
✕ 4151-38U	T3400	2.16	3GB	15.4" WXGA	Cam	GMA	160GB	DVD±RW	Lenovo 11b/g	Black	None	4-cell	Prem 32	Jan 09
4151-3BU	T3400	2.16	3GB	15.4" WXGA	Cam	GMA	250GB	DVD±RW	Lenovo 11b/g	Black	None	4-cell	Prem 32	Mar 09
4151-X3U	T3400	2.16	3GB	15.4" WXGA	Cam	GMA	250GB	DVD±RW	Lenovo 11b/g	Black	None	6-cell	Prem 32	Mar 09

- **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 Processo	<i>Widescreen flexibility; two-spindle</i> Intel® Pentium® Processor T3400 with dual-core, 667MHz system bus, and 1MB L2 cache		Preloaded operating system ²⁰ - <i>Some:</i> Microsoft® Windows® Vista® Home Basic Edition (32-bit) - <i>Some:</i> Microsoft Windows Vista Home Premium Edition (32-bit) ✧ 4151-X2U: Vista Basic logo ✧ <i>Others:</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 • VeriFace™ Facial Recognition • Lenovo Energy Management Software • Cyberlink Power2Go (DVD±RW) Available at these retailers • lenovo.com • Fry's
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		
Diskette drive SATA DVD±RW SATA disk	None (use optional USB-based diskette drive) 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		
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)		65-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 accidental damage protection via depot 43R8885 • 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day 43R8883 • 3-year Lenovo Onsite Repair ¹³ 9x5 Next Business Day with accidental damage protection 43R8884 ⇨ 24x7 ¹⁶ toll-free support for warranty issues during the warranty period ¹² via 877-453-6686
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	<i>(WxDxH):</i> 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: <i>6-cell:</i> 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 <i>4-cell:</i> Up to 2.5 hr; <i>6-cell:</i> 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 Bluetooth™ Modem Ethernet Audio support	None One Mini PCI Express slot 11b/g wireless ⁴ , Lenovo 11b/g Mini PCI Express Adapter, Broadcom® BCM4312 None 56K ⁶ V.92 ¹⁵ modem 10/100 ethernet, Broadcom® BCM5906M High Definition (HD) Audio, CX20561-15Z codec / two main speakers (2 watt) / microphone, microphone input jack (3.5 mm), headphone jack (3.5 mm) Power-on password, hard disk password, supervisor password, security lockhole, Fingerprint reader None		

See footnotes for important warranty information

⚡ US models announced March 17, 2001; previous model on January 27, 2009

✕ US model withdrawn effective March 2009

 © Lenovo
(ACN1-1) March 2009

Type-model	Proc- essor	GHz	Memory	Widescreen display	Camera (mega- pixel)	Integrated graphics	Chipset	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Blue- tooth	Battery cells	Preload	Avail date
4446-23U	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
4446-25U	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

- **15.4" widescreen, glossy display**
- **Matte black finish**

Processor	Intel® Pentium® Processor T3400 with dual-core, 667MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo processor T6400 with dual-core, 800MHz system bus, and 2MB L2 cache			Preloaded operating system²⁰ - <i>Some:</i> Microsoft® Windows® XP Professional with Vista® COA - <i>Some:</i> Microsoft Windows Vista Home Basic Edition (32-bit) - <i>Some:</i> Microsoft Windows Vista Home Premium Edition (32-bit) ✧ 4446-25U: Vista Premium logo ✧ <i>Others:</i> Vista Basic logo Preloaded applications¹⁴ <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• Windows Live Search• 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 160GB⁸ (5400 rpm) or 250GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable					
Widescreen display Camera	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					
Integrated graphics	<i>Some:</i> Intel Graphics Media Accelerator 4500M (GMA 4500M) , in GL40 <i>Some:</i> Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, <i>All:</i> Max external resolution: 2048x1536 @ 75Hz (DB-15 port)					
Keyboard	Full-size keyboard, 6-row, Lenovo Care button, multimedia Fn keys, Windows/Appl keys					
Touch controls	Touch-sensitive volume control panel with one user defined button					
Touch pad	Two-button touch pad with scroll feature (no TrackPoint®)					
Dimensions ³	6-cell 15.4W" (WxDxH): 14.1" x 10.1" x 1.22–1.46"; 358.5 x 256.5mm x 31–37mm					
Weight ²	6-cell: starting at 5.95 lb (2.7kg)					
Case color	Matte black finish					
Case material	ABS plastic					
Battery - type	Lithium Ion 6-cell					
Battery - life ¹⁰	6-cell: up to 4.5 hr					
Chipset	Mobile Intel GL40/GM45 Express Chipset (Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, ethernet MAC)					
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)					
Multicard reader	4-in-1 reader (Memory Stick, Memory Stick PRO™, Secure Digital, xD-Picture Card™)					
PC Card	None					
Smart Card read	None					
Ports	Four USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)					
Mini PCI Express	One Mini PCI Express slot					
RealTek b/g ¹¹	<i>Some:</i> 11b/g wireless ⁴ , Mini PCI Express Adapter, RealTek chipset					
Intel 5100 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)					
WWAN upg	None					
UWB	None					
Modem	56K V.92 ⁶ modem					
Bluetooth™	None					
Ethernet	10/100 ethernet, Broadcom® BCM5906M					
Intel AMT	None					
Audio support	High Definition (HD) Audio, CX20561-15Z codec / stereo speakers, 2 watt / volume up, down, mute buttons / microphone, mic input jack, headphone jack					
Security	Power-on password, hard disk password, supervisor password, security keyhole					
Security chip	None					
Fingerprint reader	None					
1GB PC2-5300 DDR2 SODIMM (TopSeller) 43R1999						
2GB PC2-5300 DDR2 SODIMM (TopSeller) 43R2000						
USB 2.0 Essential Memory Key 4GB 45J7904						
USB 2.0 Essential Memory Key 32GB 45K1258						
USB 2.0 Lenovo Multimedia Headset 40Y8518						
USB 2.0 Lenovo Webcam 40Y8519						
USB 2.0 Lenovo Enhanced Port Replicator 43R8770						
Optical Wheel Travel Mouse (USB, PS/2) 31P7410						
Lenovo Wireless Laser Mouse (blk, USB) 45K1696						
Lenovo Wireless Laser Mouse (red, USB) 51J0198						
N500/G530 Series Li-Ion Battery 6-cell 51J0226						
Lenovo 90W AC Adapter 41R4515						
Lenovo Carrying Case - Messenger Max 41U5253						
Lenovo Case - Performance Backpack 41U5254						
Kensington® Cable Lock from Lenovo 73P2582						
Kensington Twin Head Cable Lock 45K1620						
ThinkVision® L2240p Wide 22" Monitor 4422HB6						
ThinkVision L2440x Wide 24" Monitor 4421HB2						
Other accessories at lenovo.com/accessories						
65-watt (GMA graphics) AC adapter						
Wireless on/off switch						
RoHS-compliant						
Limited Warranty¹²						
✧ 1-year warranty*:						
* 1-year on major electronic components (including battery), 90-day on keyboard, hinges, plastics, power cord, AC adapter						
✧ Mail In repair service						
✧ Service upgrade options (in eligible locations):⁹						
• 2-year Mail In warranty 9x5 55Y2506						
• 2-year Lenovo Onsite Repair warranty 9x5 55Y2509						
• 2-year Lenovo Onsite Repair warranty 9x5 with ADP 55Y2515						
✧ 24x7x365 warranty support via 877-453-6886						

See footnotes for important warranty information
US models announced March 31, 2009

* Intel Centrino® processor technology

© Lenovo
(DOV2-1) April 2009

Partial list of Lenovo® Care Services²²
for Lenovo Value Line 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 Depod warranty

Mail in = Mail In repair, ADP = Accidental Damage Protection

2-year Mail In warranty 9x5	55Y2506
3-year Mail In warranty 9x5	55Y2507
1-year Mail In warranty 9x5 with ADP	55Y2511
2-year Mail In warranty 9x5 with ADP	55Y2512
3-year Mail In warranty 9x5 with ADP	55Y2513

LOR = Lenovo Onsite Repair, ADP = Accidental Damage Protection

1-year LOR warranty 9x5	55Y2508
2-year LOR warranty 9x5	55Y2509
3-year LOR warranty 9x5	55Y2510
1-year LOR warranty 9x5 with ADP	55Y2514
2-year LOR warranty 9x5 with ADP	55Y2515
3-year LOR warranty 9x5 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. 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 Windows XP Professional 64-bit and Windows Vista 64-bit Editions.
- 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 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.
- 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 **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.
- 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 not been finalized and is currently in draft release. The Lenovo 11a/b/g/n (11n) Wireless LAN Mini PCI Express Adapters are based on the Draft Release, Version 1.0, of the IEEE 802.11n specification. 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, or 11a/b/g/n can communicate on any of its supported formats.

This publication was developed for products and services offered in the United States. Lenovo may not offer the products, services or features discussed in this document in other countries. Lenovo may withdraw an offering at any time. Information is subject to change without notice. Consult your local representative for information on offerings available in your area.

Lenovo reserves the right to change specifications or other product information without notice. Lenovo is not responsible for photographic or typographical errors. **LENOVO PROVIDES THIS PUBLICATION "AS IS," WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** Some jurisdictions do not allow disclaimer of express or implied warranties in certain transactions, therefore this disclaimer may not apply to you.



Trademarks: Lenovo, the Lenovo logo, New World. New Thinking., Access Connections, Rescue and Recovery, ThinkCentre, ThinkPad, ThinkStation, ThinkVantage, and ThinkVision are trademarks of Lenovo. Microsoft, Windows, and Vista are registered trademarks of Microsoft Corporation. Intel, the Intel logo, Intel Inside logo, Intel Core and Core Inside are trademarks of Intel Corporation in the US and other countries. Other company, product, or service names may be trademarks or service marks of others.

ENERGY STAR: As an ENERGY STAR Partner, Lenovo has determined that this product meets the ENERGY STAR guidelines for energy efficiency.

Visit www.lenovo.com/safecomputing periodically for the latest information on safe and effective computing.

Visit www.lenovo.com/psref for the latest version of Personal Systems Reference.

© Lenovo, 2009.
All rights reserved.

Lenovo
1009 Think Place
Morrisville, NC 27560
U.S.A.

April 2009
3book.pdf



Personal Systems Reference Lenovo® Value Line Desktops

? SdJZ 2009 - Version 35%




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

Part number	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	Media reader	SATA disk	SATA optical	Graphics	Modem	Monitor	Camera	Preload	Avail date
57091128	1x4	Atom 230	1.60	512KB	1	1GB	16-in-1	160GB ²	DVD±RW	GMA 950	None	L195 HD	None	Home Basic	Jan 09
57099437	1x4	Atom 230	1.60	512KB	1	1GB		160GB	DVD±RW	GMA 950	None	D185 HD	None	XP Home	Mar 09

- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**

Processor	Intel® Atom™ Processor N230 with single-core, Hyper-Threading technology, Intel 64 Technology, Execute Disable Bit, 533MHz system bus, and 512KB L2 cache	Tower <ul style="list-style-type: none">• Black bezel with glossy finish• 6.9" W X 16.1" D X 14.2" H• 175mm W X 409mm D X 360mm H• 20.1 lb (9.1 kg) in max configuration Bay ① 5.25", 1.6" high, access, standard optical Bay ② 3.0", 1" high, access, media reader* Bay ③ 3.5", 1" high, no access, standard disk Bay ④ 3.5", 1" high, no access, optional disk * 16-in-1 media reader in some models Slot 1: half-length,full-height, 32-bit PCI Ver 2.3
Implementation	Processor in Micro-FCBGA package in BGA437 socket	
Memory	1GB std , 2GB max ⁸ , one 240-pin DIMM socket 57099437: PC2-6400 800MHz DDR2 , non-parity; 57091128: PC2-5300 667MHz DDR2 , non-parity	
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) , integrated graphics in 945GC, uses main memory, one 15-pin analog VGA DB-15 connector	
SATA disk	160GB , SATA 3.0Gb/s, 7200 rpm	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7	
SATA DVD±RW	Multi-Burner DL DVD±RW SATA 3.0Gb/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	<i>Some:</i> 16-in-1 media reader	
Chipset	Intel 945GC Express Chipset , I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, ethernet MAC, PCI 2.3, USB, LPC bus), ITE Tech® IT8718 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), 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	
Modem	None	
Security chip	None	
TV tuner	None	
Camera	None	
Keyboard	104-key standard 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> Microsoft® Windows® XP Home Edition- <i>Some:</i> Microsoft Windows Vista® Home Basic Edition (32-bit) ✧ <i>Vista model:</i> Vista Basic logo		Preloaded applications ⁵ <ul style="list-style-type: none">• Lenovo™ Rescue System• Driver and Application Installation• Trend Micro™ PC-cillin™ Internet Security 2008• Windows Live™ Toolbar• Microsoft Office 2007 Trial (60-day) (Vista model only)• Corel® WinDVD® (DVD±RW)• CyberLink Power2Go (DVD±RW)
		Available at these retailers <ul style="list-style-type: none">• Newegg®• TigerDirect
		Limited Warranty ¹ <ul style="list-style-type: none">✧ 1-year parts and labor✧ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)✧ Service upgrade options (in eligible locations):⁹<ul style="list-style-type: none">• 3-year Lenovo Onsite Repair 9x5 Next Business Day (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 March 17, 2009; previous model on Jan 13, 2009

© Lenovo (SCL2-1) March 2009

Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ⁸	Media reader	SATA disk	SATA optical	Graphics	Modem	Camera	Preload	Avail date
5357-1VU	1x4	Atom 230	1.60	512KB	1	1GB		160GB ²	DVD±RW	GMA 950	None	None	XP Home	Mar 09
5357-1WU	1x4	Atom 230	1.60	512KB	1	1GB		160GB	DVD±RW	GMA 950	None	None	XP Home	Mar 09
5357-1FU	1x4	Atom 230	1.60	512KB	1	1GB	16-in-1	160GB	DVD	GMA 950	None	None	Home Basic	Jan 09
5357-1KU	1x4	Atom 230	1.60	512KB	1	2GB		1TB	DVD±RW	GMA 950	None	None	Home Basic	Mar 09
5357-1GU	1x4	Atom 230	1.60	512KB	1	2GB	16-in-1	320GB	DVD±RW	GMA 950	None	None	Home Basic	Jan 09

- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**

Processor	Intel® Atom™ Processor N230 with single-core, Hyper-Threading technology, Intel 64 Technology, Execute Disable Bit, 533MHz system bus, and 512KB L2 cache	Tower <ul style="list-style-type: none">• Black bezel with glossy finish• 6.9" W X 16.1" D X 14.2" H• 175mm W X 409mm D X 360mm H• 20.1 lb (9.1 kg) in max configuration <div>Bay ① 5.25", 1.6" high, access, standard optical</div> <div>Bay ② 3.0", 1" high, access, 16-in-1 media reader</div> <div>Bay ③ 3.5", 1" high, no access, standard disk</div> <div>Bay ④ 3.5", 1" high, no access, optional disk</div> <div>Slot 1: half-length,full-height, 32-bit PCI Ver 2.3</div>
Implementation	Processor in Micro-FCBGA package in BGA437 socket	
Memory	1GB or 2GB std. , 2GB max ⁸ , one 240-pin DIMM socket; <i>1VU/1WU:</i> PC2-6400 800MHz DDR2 , non-parity; <i>Others:</i> PC2-5300 667MHz DDR2 , non-parity	
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) , integrated graphics in 945GC, uses main memory, one 15-pin analog VGA DB-15 connector	
SATA disk	160GB, 320GB, or 1TB , SATA 3.0Gb/s, 7200 rpm	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7	
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16X-48X Max	
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), two SATA connectors	
EIDE controller	None	
EIDE cables	None	
Diskette drive	None	
Media reader	<i>Some:</i> 16-in-1 media reader	
Chipset	Intel 945GC Express Chipset , I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, ethernet MAC, PCI 2.3, USB, LPC bus), ITE Tech® IT8718 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), 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	
Modem	None	
Security chip	None	
TV tuner	None	
Camera	None	
Keyboard	104-key standard keyboard (PS/2 connector)	
Mouse	Optical Wheel Mouse (USB connector), 400 dpi	
Power supply	280 watts, universal, manual switch	
<div>Preloaded operating system²⁰<ul style="list-style-type: none">- <i>Some:</i> Microsoft® Windows® XP Home Edition- <i>Some:</i> Microsoft Windows Vista® Home Basic Edition (32-bit)✧ <i>Vista models:</i> Vista Basic logo</div> <div>Preloaded applications⁵<ul style="list-style-type: none">• Lenovo™ Rescue System• Driver and Application Installation• Trend Micro™ PC-cillin™ Internet Security 2008• Windows Live™ Toolbar• Microsoft Office 2007 Trial (60-day) (Vista models only)• Corel® WinDVD® (Combo, DVD±RW)• CyberLink Power2Go (DVD±RW)</div>		
Available at these retailers <ul style="list-style-type: none">• Lenovo.com• Fry's		
<div>Limited Warranty¹<ul style="list-style-type: none">⇨ 1-year parts and labor⇨ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇨ Service upgrade options (in eligible locations):⁹<ul style="list-style-type: none">• 3-year Lenovo Onsite Repair 9x5 Next Business Day (43R8882)⇨ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686</div>		


See footnotes for important warranty information

US models announced March 17, 2009; previous models on Jan 13, 2009

 © Lenovo
(SCL2-2) March 2009

Part number	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ^a	Media reader	SATA disk	SATA optical	Graphics	Modem	Camera	Vista preload	Avail date
57088764	4x4	Pentium E2200	2.20	1MB	2	2GB		500GB ²	DVD±RW	GMA 3100	None	None	Prem 32	Oct 08
57088788	4x4	Pentium E2200	2.20	1MB	2	4GB	16-in-1	640GB	DVD±RW	GMA 3100	None	None	Prem 32	Oct 08
57094408	4x4	Pentium E2220	2.40	1MB	2	3GB	16-in-1	320GB	DVD±RW	GMA 3100	None	None	Prem 32	Jan 09
57098997	4x4	Pentium E5200	2.50	2MB	2	4GB		640GB	DVD±RW	GMA 3100	None	None	Prem 64	Mar 09
57088774	4x4	Core 2 Duo E7200	2.53	3MB	2	4GB	16-in-1	640GB	DVD±RW	GMA 3100	None	None	Prem 32	Oct 08
57098966	4x4	Core 2 Duo E7400	2.80	3MB	2	4GB	16-in-1	500GB	DVD±RW	GMA 3100	None	None	Prem 64	Mar 09

- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**


Processor	Intel® Pentium® Processor E2200, E2220, or E5200 with dual-core , Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, <i>E2200/E2220</i> : 1MB L2 cache; <i>E5200</i> : 2MB L2 cache or Intel Core™ 2 Duo Processor E7200 or E7400 with dual-core , Intel 64 Technology, Execute Disable Bit, EIST, and 1066MHz system bus with 3MB L2 cache	Tower <ul style="list-style-type: none">• Black bezel with glossy finish• 6.9" W X 16.1" D X 14.2" H• 175mm W X 409mm D X 360mm H• 20.1 lb (9.1 kg) in max configuration Bay ① 5.25", 1.6" high, access, standard optical Bay ② 3.0", 1" high, access, media reader * Bay ③ 3.5", 1" high, no access, standard disk Bay ④ 3.5", 1" high, no access, optional disk * 16-in-1 media reader in some models 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
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket	
Memory	2GB, 3GB, or 4GB std , 4GB max ⁸ , two 240-pin DIMM sockets; <i>Italics</i> : standard memory in both sockets; no sockets available; 57098966/57098997: PC2-6400 800MHz DDR2 , non-parity, dual-channel capable; <i>Others</i> : PC2-5300 667MHz DDR2 , non-parity, dual-channel capable	
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, 500GB, or 640GB , SATA 3.0Gb/s, 7200 rpm	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7	
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	<i>Some</i> : 16-in-1 media reader	
Chipset	Intel G31 Express Chipset (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), Winbond® W83627DHG or ITE Tech® IT8718F 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), 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	None	
Security chip	None	
TV tuner	None	
Camera	None	
Keyboard	104-key standard 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>: Microsoft® Windows® Vista® Home Premium Edition (32-bit)- <i>Some</i>: Microsoft Windows Vista Home Premium Edition (64-bit) ♦ Vista Basic logo		Preloaded applications ⁵ <ul style="list-style-type: none">• Lenovo™ Rescue System• Lenovo Healthcare Software (Premium 32-bit models only)• Driver and Application Installation• Trend Micro™ PC-cillin™ Internet Security• Windows Live™ Toolbar• Microsoft Office 2007 Trial (60-day)• VeriFace™ Facial Recognition™ (Premium 32-bit models only)• Corel® WinDVD® (DVD±RW)• CyberLink Power2Go (DVD±RW)
		Available at these retailers <ul style="list-style-type: none">• Newegg®• TigerDirect
		Limited Warranty ¹ <ul style="list-style-type: none">⇒ 1-year parts and labor⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)⇒ Service upgrade options (in eligible locations):⁹<ul style="list-style-type: none">• 3-year Lenovo Onsite Repair 9x5 Next Business Day (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 October 22, 2008 or Jan 13, 2009

Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory ^a	Media reader	SATA disk	SATA optical	Graphics	Modem	Cam-era	Vista preload	Avail date
5355-1EU	4x4	Pentium E2200	2.20	1MB	2	2GB		500GB ²	DVD±RW	GMA 3100	None	None	Prem 32	Oct 08
5355-1FU	4x4	Pentium E2200	2.20	1MB	2	3GB	16-in-1	320GB	DVD±RW	GMA 3100	None	None	Prem 32	Nov 08
5355-ADU	4x4	Pentium E2220	2.40	1MB	2	2GB	16-in-1	250GB	DVD±RW	GMA 3100	None	None	Prem 32	Jan 09
5355-1VU	4x4	Pentium E2220	2.40	1MB	2	3GB		320GB	DVD±RW	GMA 3100	None	None	Prem 32	Jan 09
5355-AEU	4x4	Pentium E2220	2.40	1MB	2	3GB	16-in-1	320GB	DVD±RW	GMA 3100	None	None	Prem 32	Jan 09
5355-AFU	4x4	Pentium E2220	2.60	1MB	2	3GB	16-in-1	500GB	DVD±RW	GMA 3100	None	None	Prem 32	Jan 09
5355-2JU	4x4	Pentium E5200	2.50	2MB	2	3GB	16-in-1	500GB	DVD±RW	GMA 3100	None	None	Prem 32	Jan 09
5355-2DU	4x4	Pentium E5200	2.50	2MB	2	4GB	16-in-1	500GB	DVD±RW	GMA 3100	None	None	Prem 32	Nov 08
5355-2MU	4x4	Pentium E5300	2.60	2MB	2	4GB	16-in-1	640GB	DVD±RW	GMA 3100	None	None	Prem 64	Mar 09
5355-3HU	4x4	Core 2 Duo E7400	2.80	3MB	2	4GB	16-in-1	640GB	DVD±RW	GMA 3100	None	None	Prem 32	Feb 09
5355-3OU	4x4	Core 2 Duo E7400	2.80	3MB	2	4GB	16-in-1	1TB	DVD±RW	GMA 3100	None	None	Prem 64	Mar 09

- **Lenovo Rescue System provides OneKey recovery and OneKey Antivirus without booting into Windows**

Processor	Intel® Pentium® Processor E2200, E2220, E5200, or E5300 with dual-core , Intel 64 Technology, Execute Disable Bit, EIST, 800MHz system bus, <i>E2200/E2220</i> : 1MB L2 cache; <i>E5200/E5300</i> : 2MB L2 cache or Intel Core™ 2 Duo Processor E7400 with dual-core , Intel 64 Technology, Execute Disable Bit, EIST, 1066MHz system bus, and 3MB L2 cache	Tower <ul style="list-style-type: none">• Black bezel with glossy finish• 6.9" W X 16.1" D X 14.2" H• 175mm W X 409mm D X 360mm H• 20.1 lb (9.1 kg) in max configuration Bay ① 5.25", 1.6" high, access, standard optical Bay ② 3.0", 1" high, access, media reader * Bay ③ 3.5", 1" high, no access, standard disk Bay ④ 3.5", 1" high, no access, optional disk * 16-in-1 media reader in some models 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
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket	
Memory	2GB, 3GB, or 4GB std , 4GB max ⁸ , 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; <i>2MU/2OU</i> : PC2-6400 800MHz DDR2 , non-parity, dual-channel capable; <i>Others</i> : PC2-5300 667MHz DDR2 , non-parity, dual-channel capable	
Graphics	Intel Graphics Media Accelerator 3100 (GMA 3100) , integrated graphics in G31, uses main memory, one 15-pin analog D-sub connector	
SATA disk	250GB, 320GB, 500GB, 640GB, or 1TB , SATA 3.0Gb/s, 7200 rpm	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7	
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	<i>Some</i> : 16-in-1 media reader	
Chipset	Intel G31 Express Chipset (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), Winbond® W83627DHG or ITE Tech® IT8718F 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), 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	None	
Security chip	None	
TV tuner	None	Available at these retailers <ul style="list-style-type: none">• lenovo.com• Fry's
Camera	None	
Keyboard	104-key standard keyboard (PS/2 connector)	
Mouse	Optical Wheel Mouse (USB connector), 400 dpi	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 (43R8882)↪ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 877-453-6686
Power supply	280 watts, universal, manual switch	
Preloaded operating system²⁰ <ul style="list-style-type: none">- <i>Some</i>: Microsoft® Windows® Vista® Home Premium Edition (32-bit)- <i>Some</i>: Microsoft Windows Vista Home Premium Edition (64-bit) ♦ Vista Basic logo		
Preloaded applications⁵ <ul style="list-style-type: none">• Lenovo™ Rescue System• Lenovo Healthcare Software (Premium 32-bit models only)• Driver and Application Installation• Trend Micro™ PC-cillin™ Internet Security• Windows Live™ Toolbar• Microsoft Office 2007 Trial (60-day)• VeriFace™ Facial Recognition™ (Premium 32-bit models only)• Corel® WinDVD® (DVD±RW)• CyberLink Power2Go (DVD±RW)		



See footnotes for important warranty information

 US models announced March 17, 2009;
 previous models on October 22, 2008 or Jan 13 or February 24, 2009

 © Lenovo
 (SCL1-2) March 2009

Partial list of Lenovo® Care Services²²
for Lenovo Value Line desktops

For more information see:
http://www.lenovo.com/services_warranty/us/en/index.html

Lenovo Care service upgrade options

Lenovo Value Line desktops with 1-year Depod warranty

Mail in = Mail In repair, ADP = Accidental Damage Protection

2-year Mail In warranty 9x5	55Y2506
3-year Mail In warranty 9x5	55Y2507
1-year Mail In warranty 9x5 with ADP	55Y2511
2-year Mail In warranty 9x5 with ADP	55Y2512
3-year Mail In warranty 9x5 with ADP	55Y2513

LOR = Lenovo Onsite Repair, ADP = Accidental Damage Protection

1-year LOR warranty 9x5	55Y2508
2-year LOR warranty 9x5	55Y2509
3-year LOR warranty 9x5	55Y2510
1-year LOR warranty 9x5 with ADP	55Y2514
2-year LOR warranty 9x5 with ADP	55Y2515
3-year LOR warranty 9x5 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.

- 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.
- 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 **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.
- ⁷ **Lenovo Care Services:** 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 at your discretion, will be express shipped to you for quick replacement. See Lenovo Care terms and conditions for complete details and restrictions.
- ⁸ **Memory:** For PCs without a separate video card, memory supports both system and video. Accessible system memory is up to 64MB less than the amount stated, depending on video mode.
- ⁹ **International Warranty Service** is available for most models 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.
- 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.



This publication was developed for products and services offered in the United States. Lenovo may not offer the products, services or features discussed in this document in other countries. Lenovo may withdraw an offering at any time. Information is subject to change without notice. Consult your local representative for information on offerings available in your area.

Lenovo reserves the right to change specifications and other product information at any time without prior notice. Lenovo is not responsible for photographic or typographical errors. LENOVO PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some jurisdictions do not allow disclaimer of express or implied warranties in certain transactions; therefore this disclaimer may not apply to you.

Trademarks: Lenovo, the Lenovo logo, New World. New Thinking., Access Connections, Rescue and Recovery, ThinkVantage, and ThinkVision are trademarks of Lenovo. Microsoft, Windows, and Vista are registered trademarks of Microsoft Corporation. Intel, the Intel logo, Intel Inside logo, Intel Core and Core Inside are trademarks of Intel Corporation in the US and other countries. AMD, the AMD logo, AMD Athlon, AMD Sempron, and combinations thereof, are trademarks of Advanced Micro Devices, Inc. PCI Express is a trademark of PCI-SIG. Other company, product, or service names may be trademarks or service marks of others.

Visit www.lenovo.com/safecomputing periodically for the latest information on safe and effective computing.

Visit www.lenovo.com/psref for the latest version of Personal Systems Reference.

© Lenovo, 2009.
All rights reserved.

Lenovo
1009 Think Place
Morrisville, NC 27560
U.S.A.

F ZK\ a 2009
jbook.pdf

Personal Systems Reference Intel® PC Processors

January 2009 - Version 351



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

<i>Intel® Celeron® M processor for mobile systems</i>	Clock Perf Mode	Clock Battery Mode	L2 cache	System bus MHz	Core	Hyper-Threading Technology	Virtualization Tech	Execute Disable Bit	Enhanced Intel SpeedStep™ Technology	Intel 64 Tech (EM64T)	Available date
Ultra Low Voltage											
Intel Celeron M Processor 523	933MHz	N/A	1MB	533MHz	Single	No	No	Yes	No	Yes	Sep 2007
Standard Voltage											
Intel Celeron M Processor 520	1.6GHz	N/A	1MB	533MHz	Single	No	No	Yes	No	Yes	Jan 2007
Intel Celeron M Processor 530	1.73GHz	N/A	1MB	533MHz	Single	No	No	Yes	No	Yes	Apr 2007
<div> <div>Processor generation</div> <div>Marketing name</div> <div>Core</div> <div>Branding</div> <div>Micro-architecture</div> <div>MMX™ / Streaming SIMD</div> <div>SSE2</div> <div>SSE3</div> <div>Hyper-Threading</div> <div>Total threads</div> <div>Execute Disable (XD) Bit</div> <div>Intel 64 Technology¹</div> <div>Virtualization Technology</div> </div> <div> Merom Intel Celeron M Processor Single-core Not part of the Intel Centrino® Processor Technology or Intel Centrino with vPro Processor Technology Intel Core™ Micro-architecture MMX™ (57 new instructions), Streaming SIMD Extensions (70 new instructions) Streaming SIMD Extensions 2 (144 new instructions) Streaming SIMD Extensions 3 (13 new instructions) None One thread (one cores with no Hyper-Threading support provides one logical processor) Protects memory data areas from malicious software execution None None </div>											
<div> <div>L1 cache</div> <div>L1 data cache</div> <div>L1 instruction cache</div> </div> <div> 256-bit data path, full speed 32KB data cache, integrated 32KB instruction cache, integrated </div>											
<div> <div>L2 cache - size</div> <div>L2 cache - data path</div> <div>L3 cache</div> </div> <div> 1MB, full speed 256-bit data path (32 bytes), 64 byte cache line size, 8-way set associative, integrated, unified (on die) None </div>											
<div> <div>System bus</div> <div>System bus - width</div> </div> <div> 533MHz (transfers data 4 times per clock), address bus transfers at 2 times per clock 64-bit data path </div>											
<div> <div>Execution units</div> <div>Math coprocessor</div> <div>Compatibility</div> </div> <div> 2 integer units, 1 floating point units, 1 load unit, 1 store unit Pipelined floating point unit Compatible with IA-32 software </div>											
<div> <div>Process technology</div> <div>Thermal Design Power</div> <div>Package and connector</div> </div> <div> 65nm or 0.065u <i>Ultra Low Voltage</i>: 5 watts; <i>Standard Voltage</i>: 30 watts All: Socket M 520/530: Micro Flip-Chip Pin Grid Array (Micro-FCPGA) requires 479-pin surface mount Zero Insertion Force (ZIF) socket (mPGA479M socket) 523: Micro Flip-Chip Ball Grid Array (Micro-FCBGA) for surface mount (479-ball) </div>											
<div> <div>Chipset support</div> </div> <div> Mobile Intel 945 Express Chipset family; other compatible chipsets </div>											

Intel® Celeron® mobile processor	Clock Perf Mode	Clock Battery Mode	L2 cache	System bus MHz	Core	Thermal Design Power	Hyper-Threading Technology	Virtualization Tech	Enhanced Intel SpeedStep™ Technology	Intel 64 Tech	Available date
Intel Celeron Processor 530	1.73GHz	N/A	1MB	533MHz	Single	31W	No	No	No	Yes	Sep 2007
Intel Celeron Processor 540	1.86GHz	N/A	1MB	533MHz	Single	31W	No	No	No	Yes	Jun 2007
Intel Celeron Processor 550	2.00GHz	N/A	1MB	533MHz	Single	31W	No	No	No	Yes	Jun 2007
Intel Celeron Processor 560	2.13GHz	N/A	1MB	533MHz	Single	31W	No	No	No	Yes	Jan 2008
Intel Celeron Processor 570	2.26GHz	N/A	1MB	533MHz	Single	31W	No	No	No	Yes	Apr 2008
Intel Celeron Processor 575	2.00GHz	N/A	1MB	667MHz	Single	31W	No	No	No	Yes	Aug 2008
Intel Celeron Processor 585	2.16GHz	N/A	1MB	667MHz	Single	31W	No	No	No	Yes	Aug 2008
Intel Celeron Processor 723	1.20GHz	N/A	1MB	800MHz	Single	10W	No	No	No	Yes	Aug 2008

Processor generation	5xx: Merom ; 7xx: Penryn
Marketing name	Intel Celeron mobile processor
Core	Single-core
Branding	Not part of the Intel Centrino® Processor Technology or Intel Centrino with vPro Processor Technology
Micro-architecture	Intel Core™ Micro-architecture
MMX™ / Streaming SIMD	MMX™ (57 new instructions), Streaming SIMD Extensions (70 new instructions)
SSE2	Streaming SIMD Extensions 2 (144 new instructions)
SSE3	Streaming SIMD Extensions 3 (13 new instructions)
Hyper-Threading	None
Total threads	One thread (one cores with no Hyper-Threading support provides one logical processor)
Execute Disable (XD) Bit	Protects memory data areas from malicious software execution
Intel 64 Technology¹	None
Virtualization Technology	None
L1 cache	256-bit data path, full speed
L1 data cache	32KB data cache, integrated
L1 instruction cache	32KB instruction cache, integrated
L2 cache - size	1MB , full speed
L2 cache - data path	256-bit data path (32 bytes), 64 byte cache line size, 8-way set associative, integrated, unified (on die)
L3 cache	None
System bus	533MHz, 667MHz, or 800MHz (transfers data 4 times per clock), address bus transfers at 2 times per clock
System bus - width	64-bit data path
Execution units	2 integer units, 1 floating point units, 1 load unit, 1 store unit
Math coprocessor	Pipelined floating point unit
Compatibility	Compatible with IA-32 software
Process technology	65nm or 0.065u
Thermal Design Power	5xx: 27-31 watts @ 0.95-1.3 volts 7xx: 10 watts (Ultra Low Voltage)
Package and connector	5xx: Socket P / Micro Flip-Chip Pin Grid Array (Micro-FCPGA) requires 479-pin surface mount Zero Insertion Force (ZIF) socket (mPGA479M socket) 7xx: Socket P / Micro Flip-Chip Ball Grid Array (Micro-FCBGA) for surface mount (479-ball)
Chipset support	5xx: Mobile Intel 965 Express Chipset family ; other compatible chipsets 7xx: Mobile Intel 4 Series Express Chipset family ; other compatible chipsets

[Notebook] Intel Celeron Processor

Personal Systems Reference (PSREF)

Intel® Celeron® mobile processor	Clock Perf Mode	Shared L2 cache	System bus MHz	Core	HD Boost	Virtualization Tech	Execute Disable Bit	Enhanced Intel SpeedStep™ Technology	Intel 64 Tech (EM64T)	Trusted Execution Tech	Available date
Intel Celeron processor T1600	1.66GHz	1MB	667MHz	Dual	No	No	Yes	Yes	Yes	No	Oct 2008
Intel Celeron processor T1700	1.86GHz	1MB	667MHz	Dual	No	No	Yes	Yes	Yes	No	Oct 2008
Processor generation	Montevina										
Marketing name	Intel Celeron mobile processor										
Core	Dual-core										
Branding	Value or essential mobile processor										
Micro-architecture	Intel Core Micro-architecture										
Intel Wide Dynamic Execution	Each core can complete up to four full instructions simultaneously using 14-stage pipeline										
Intel Smart Memory Access	Hides memory latency										
Intel Advanced Digital Media Boost	Accelerates execution of Streaming SIMD Extension (SSE2/3) instructions used in multimedia applications										
Power mgmt technology	Enhanced Intel SpeedStep™ technology (EIST)										
Hyper-Threading	No										
Execute Disable (XD) Bit	Protects memory data areas from malicious software execution										
Intel 64 Technology¹ (EM64T)	Intel 64 Technology (an extension to the IA-32 instruction set which adds 64 bit extensions to the x86 architecture)										
Intel Virtualization Technology	No										
Intel Trusted Execution Technology	No										
L1 cache	64KB per core split between data cache (32KB) and instruction cache (32KB)										
L1 data cache	2x32KB data cache / integrated										
L1 instruction cache	2x32KB instruction cache / integrated										
L2 cache - size	1MB / full speed / shared between both cores (Intel Advanced Smart Cache)										
L2 cache - data path	256-bit data path (32 bytes) / 64 byte cache line size / 8-way set associative / integrated / unified (on die)										
System bus	667MHz (transfers data 4 times per clock) / address bus transfers at 2 times per clock										
Memory addressability	64GB memory addressability (but limited by chipset) / 36-bit addressing										
System bus - width	64-bit data path										
Execution units	2 integer units, 1 floating point units, 1 load unit, 1 store unit										
Math coprocessor	Pipelined floating point unit										
Compatibility	Compatible with IA-32 software										
Process technology	65nm or 0.065u										
Thermal Design Power	35 watts										
Package and connector	Socket P / Micro Flip-Chip Ball Grid Array (Micro-FCBGA)										
Chipset support	Mobile Intel 4 Series Chipset family ; other compatible chipsets										

All trademarks are the property of their respective owners
© Lenovo

(DCELM) Compiled by Roger Dodson, Lenovo. January 2009

Intel® Pentium® Processor	Clock Perf Mode	Shared L2 cache	System bus MHz	Hyper-Threading Core Technology	Virtualization Tech	Execute Disable Bit	Enhanced Intel SpeedStep™ Technology	Intel 64 Tech (EM64T)	Trusted Execution Tech	Intel Dynamic Acceleration	Available date
Intel Pentium Processor T2060	1.60GHz	1MB	533MHz	Dual	No	No	Yes	Yes	No	No	Jan 2007
Intel Pentium Processor T2080	1.70GHz	1MB	533MHz	Dual	No	No	Yes	Yes	No	No	Jan 2007
Intel Pentium Processor T2130	1.86GHz	1MB	533MHz	Dual	No	No	Yes	Yes	No	No	Oct 2007
Intel Pentium Processor T2310	1.46GHz	1MB	533MHz	Dual	No	No	Yes	Yes	Yes	No	July 2007
Intel Pentium Processor T2330	1.60GHz	1MB	533MHz	Dual	No	No	Yes	Yes	Yes	No	July 2007
Intel Pentium Processor T2370	1.73GHz	1MB	533MHz	Dual	No	No	Yes	Yes	Yes	No	Jan 2008
Intel Pentium Processor T2390	1.86GHz	1MB	533MHz	Dual	No	No	Yes	Yes	Yes	No	Jan 2008
Intel Pentium Processor T3200	2.00GHz	1MB	667MHz	Dual	No	No	Yes	Yes	Yes	No	Nov 2008
Intel Pentium Processor T3400	2.16GHz	1MB	667MHz	Dual	No	No	Yes	Yes	Yes	No	Nov 2008
Processor generation	T2060/T2080/T2130: Yonah ; T2310/T2330/T2370/T2390/T3200/T3400: Merom										
Marketing name	Intel Pentium Processor										
Core	Dual-core										
Branding	Value or essential mobile processor										
Micro-architecture	Intel Core Micro-architecture										
Intel Wide Dynamic Execution	Each core can complete up to four full instructions simultaneously using 14-stage pipeline;										
Intel Smart Memory Access	Hides memory latency										
Intel Advanced Digital Media Boost	Accelerates execution of Streaming SIMD Extension (SSE2/3) instructions used in multimedia applications										
Power mgmt technology	Enhanced Intel SpeedStep™ technology										
Thermal management	Digital thermal sensor										
Hyper-Threading	No										
Total threads	Two threads (two cores with no Hyper-Threading support provide two logical processors)										
Execute Disable (XD) Bit	Protects memory data areas from malicious software execution										
Intel 64 Technology¹ (EM64T)	Some: Intel 64 Technology (an extension to the IA-32 instruction set which adds 64 bit extensions to the x86 architecture)										
Intel Virtualization Technology	No										
Intel Trusted Execution Technology	No										
Intel Dynamic Accerlation	No										
L1 cache	64KB per core split between data cache (32KB) and instuction cache (32KB)										
L1 data cache	2x32KB data cache / integrated										
L1 instruction cache	2x32KB instruction cache / integrated										
L2 cache - size	1MB / full speed, shared between both cores (Intel Advanced Smart Cache)										
L2 cache - data path	256-bit data path (32 bytes), 64 byte cache line size, 8-way set associative, integrated, unified (on die)										
L3 cache	None										
System bus	533MHz or 667MHz (transfers data 4 times per clock), address bus transfers at 2 times per clock										
Memory addressability	64GB memory addressability (but limited by chipset) / 36-bit addressing										
System bus - width	64-bit data path										
Execution units	2 integer units, 1 floating point units, 1 load unit, 1 store unit										
Math coprocessor	Pipelined floating point unit										
Compatibility	Compatible with IA-32 software										
Process technology	65nm or 0.065u										
Package and connector	T2060/T2080/T2130: Micro Flip-Chip Pin Grid Array (Micro-FCPGA) requires 479-pin surface mount Zero Insertion Force (ZIF) socket (mPGA479M socket) or Micro Flip-Chip Ball Grid Array (Micro-FCBGA) for surface mount (479-ball) T2310/T2330/T2370/T2390/T3200/T3400: Socket P / Micro Flip-Chip Pin Grid Array (Micro-FCPGA) requires 479-pin surface mount Zero Insertion Force (ZIF) socket (mPGA479M socket) or Micro Flip-Chip Ball Grid Array (Micro-FCBGA) for surface mount (479-ball)										

Intel® Core™ 2 Solo processor for mobile systems	Clock Perf Mode	L2 cache	System bus MHz	Core	Hyper- Threading Technology	Virtual- ization Tech	Intel 64 Tech (EM64T)	Intel HD Boost	Intel Dynamic Acceleration	Trusted Execution Tech (TXT)	Avail- able date
Ultra Low Voltage											
Intel Core 2 Solo processor U2100	1.06GHz	1MB	533MHz	Single	No	Yes	Yes	No	No	No	Sep 2007
Intel Core 2 Solo processor U2200	1.20GHz	1MB	533MHz	Single	No	Yes	Yes	No	No	No	Sep 2007
Intel Core 2 Solo processor SU3300	1.20GHz	3MB	800MHz	Single	No	Yes	Yes	Yes	No	Yes	Aug 2008
Intel Core 2 Solo processor SU3500	1.30GHz	3MB	800MHz	Single	No	Yes	Yes	Yes	No	Yes	Aug 2008
Processor generation	Uxxxx: Merom (Napa Refresh) ; SUxxxx: Penryn (Montevina)										
Marketing name	Intel Core 2 Solo mobile processor										
Core	Single-core										
Micro-architecture	Intel Core Micro-architecture										
Intel Wide Dynamic Execution	Each core can complete up to four full instructions simultaneously using 14-stage pipeline										
Intel Smart Memory Access	Hides memory latency										
Intel Advanced Digital Media Boost	Accelerates execution of Streaming SIMD Extension (SSE2/3) instructions used in multimedia applications										
Intel HD Boost	Some: Streaming SIMD Extensions 4 (SSE4) and faster Super Shuffle Engine										
Power management technology	Enhanced Intel SpeedStep® technology										
Intel Dynamic Power Coordination	Coordinates Enhanced Intel SpeedStep Technology and idle power-management state transitions independently per core to help save power										
Intel Dynamic Bus Parking	Enables platform power savings and improved battery life by allowing the chipset to power down with the processor in low-frequency mode										
Enhanced Intel Deeper Sleep with Dynamic Cache Sizing	Saves power by flushing cache data to system memory during periods of inactivity to lower CPU voltage										
Thermal management	Digital thermal sensor										
Hyper-Threading	No										
Execute Disable (XD) Bit	Protects memory data areas from malicious software execution										
Intel 64 Technology¹ (EM64T)	Intel 64 Technology (an extension to the IA-32 instruction set which adds 64-bit extensions to the x86 architecture)										
Virtualization Technology	Intel Virtualization Technology										
Intel Dynamic Acceleration	None										
Intel Trusted Execution Tech (TXT)	Some: Provides a more secure platform from software-based attacks with TXT-enabled OS or appl										
L1 cache	64KB per core split between data cache (32KB) and instnction cache (32KB)										
L1 data cache	32KB data cache / integrated										
L1 instruction cache	32KB instruction cache / integrated										
L2 cache - size	1MB or 3MB / full speed										
L2 cache - data path	256-bit data path (32 bytes) / 64 byte cache line size / 8-way set associative / integrated / unified (on die)										
L3 cache	None										
System bus	533MHz or 800MHz (transfers data 4 times per clock) / address bus transfers at 2 times per clock										
Memory addressability	64GB memory addressability (but limited by chipset) / 36-bit addressing										
System bus - width	64-bit data path										
Execution units per core	2 integer units, 1 floating point units, 1 load unit, 1 store unit										
Math coprocessor	Pipelined floating point unit										
Compatibility	Compatible with IA-32 software										
Process technology	Uxxxx: 65nm; SUxxxx: 45nm										
Thermal Design Power	5.5 watts										
Package and connector	Uxxxx: Socket M / Micro Flip-Chip Ball Grid Array (Micro-FCBGA) SUxxxx: Socket P / Micro Flip-Chip Ball Grid Array (Micro-FCBGA)										
Chipset support	Uxxxx: Mobile Intel 945GM and 945GMS Express Chipset ; other compatible chipsets SUxxxx: Mobile Intel 4 Series Express Chipset ; other compatible chipsets										

[Notebook] Intel Core 2 Duo Processor (Socket M)

Personal Systems Reference (PSREF)

<i>Intel® Core™ 2 Duo processor for mobile systems</i>	Clock Perf Mode	Clock Battery Mode	Shared L2 cache	System bus MHz	Hyper-Threading Core	Virtualization Tech	Execute Disable Bit	Enhanced Intel SpeedStep™ Technology	Intel 64 Tech (EM64T)	Intel Dynamic Acceleration	Available date
Intel Core 2 Duo processor U7500	1.06GHz	800MHz	2MB	533MHz	Dual	No	Yes	Yes	Yes	No	Apr 2007
Intel Core 2 Duo processor U7600	1.20GHz	800MHz	2MB	533MHz	Dual	No	Yes	Yes	Yes	No	Apr 2007
Intel Core 2 Duo processor U7700	1.33GHz	800MHz	2MB	533MHz	Dual	No	Yes	Yes	Yes	No	Jun 2007
Intel Core 2 Duo processor L7200	1.33GHz	1.0GHz	4MB	667MHz	Dual	No	Yes	Yes	Yes	No	Jan 2007
Intel Core 2 Duo processor L7400	1.50GHz	1.0GHz	4MB	667MHz	Dual	No	Yes	Yes	Yes	No	Jan 2007
Intel Core 2 Duo processor T5200	1.60GHz	1.0GHz	2MB	533MHz	Dual	No	No	Yes	Yes	No	Jan 2007
Intel Core 2 Duo processor T5300	1.73GHz	1.0GHz	2MB	533MHz	Dual	No	No	Yes	Yes	No	Oct 2006
Intel Core 2 Duo processor T5500	1.66GHz	1.0GHz	2MB	667MHz	Dual	No	No	Yes	Yes	No	July 2006
Intel Core 2 Duo processor T5600	1.83GHz	1.0GHz	2MB	667MHz	Dual	No	Yes	Yes	Yes	No	July 2006
Intel Core 2 Duo processor T7200	2.00GHz	1.0GHz	4MB	667MHz	Dual	No	Yes	Yes	Yes	No	July 2006
Intel Core 2 Duo processor T7400	2.16GHz	1.0GHz	4MB	667MHz	Dual	No	Yes	Yes	Yes	No	July 2006
Intel Core 2 Duo processor T7600	2.33GHz	1.0GHz	4MB	667MHz	Dual	No	Yes	Yes	Yes	No	July 2006

U (Ultra Low Voltage)=<14 watts; L (Low Voltage)=15-24 watts; T (Standard Voltage)=25-49 watts; E=>50 watts

Processor generation	Merom
Marketing name	Intel Core 2 Duo mobile processor
Core	Dual-core
Micro-architecture	Intel Core Micro-architecture
Intel Wide Dynamic Execution	Each core can complete up to four full instructions simultaneously using 14-stage pipeline
Intel Smart Memory Access	Hides memory latency
Intel Advanced Digital Media Boost	Accelerates execution of Streaming SIMD Extension (SSE2/3) instructions used in multimedia applications
Power management technology	Enhanced Intel SpeedStep® technology
Intel Dynamic Power Coordination	Coordinates Enhanced Intel SpeedStep Technology and idle power-management state transitions independently per core to help save power
Intel Dynamic Bus Parking	Enables platform power savings and improved battery life by allowing the chipset to power down with the processor in low-frequency mode
Enhanced Intel Deeper Sleep with Dynamic Cache Sizing	Saves power by flushing cache data to system memory during periods of inactivity to lower CPU voltage
Thermal management	Digital thermal sensor
Hyper-Threading	No
Total threads	Two threads (two cores with no Hyper-Threading support provide two logical processors)
Execute Disable (XD) Bit	Protects memory data areas from malicious software execution
Intel 64 Technology¹ (EM64T)	Intel 64 Technology (an extension to the IA-32 instruction set which adds 64-bit extensions to the x86 architecture)
Virtualization Technology	<i>Some:</i> Intel Virtualization Technology
Intel Dynamic Acceleration	<i>Some:</i> Intel Dynamic Acceleration (IDA) allows one core to deliver extra performance when other core is idle
L1 cache	64KB per core split between data cache (32KB) and instruction cache (32KB)
L1 data cache	2x32KB data cache / integrated
L1 instruction cache	2x32KB instruction cache / integrated
L2 cache - size	2MB or 4MB / full speed / shared between both cores (Intel Advanced Smart Cache)
L2 cache - data path	256-bit data path (32 bytes) / 64 byte cache line size / 8-way set associative / integrated / unified (on die)
L3 cache	None
System bus	533MHz, 667MHz, or 800MHz (transfers data 4 times per clock) / address bus transfers at 2 times per clock
Memory addressability	64GB memory addressability (but limited by chipset) / 36-bit addressing
System bus - width	64-bit data path
Execution units per core	2 integer units, 1 floating point units, 1 load unit, 1 store unit
Math coprocessor	Pipelined floating point unit
Compatibility	Compatible with IA-32 software
Process technology	65nm or 0.065u
Thermal Design Power	<i>U7xxx:</i> 10 watts; <i>L7xxx:</i> 17 watts; <i>Txxxx:</i> 34 watts
Package and connector	Socket M / Micro Flip-Chip Pin Grid Array (Micro-FCPGA) requires 479-pin surface mount Zero Insertion Force (ZIF) socket (mPGA479M socket) or Micro Flip-Chip Ball Grid Array (Micro-FCBGA) for surface mount (479-ball)
Chipset support	Mobile Intel 945 Express Chipset family; other compatible chipsets

[Notebook] Intel Core 2 Duo Processor (Socket P)

Personal Systems Reference (PSREF)

Intel® Core™ 2 Duo processor for mobile systems	Clock Perf Mode	Clock Battery Mode	Shared L2 cache	System bus MHz	Core	Virtualization Tech	Execute Disable Bit	Enhanced Intel SpeedStep™ Technology	Intel 64 Tech (EM64T)	Intel Dynamic Acceleration	Available date
Intel Core 2 Duo processor U7500	1.06GHz	800MHz	2MB	533MHz	Dual	Yes	Yes	Yes	Yes	Yes	Jun 2007
Intel Core 2 Duo processor U7600	1.20GHz	800MHz	2MB	533MHz	Dual	Yes	Yes	Yes	Yes	Yes	Jun 2007
Intel Core 2 Duo processor U7700	1.33GHz	800MHz	2MB	533MHz	Dual	Yes	Yes	Yes	Yes	Yes	Jan 2008
Intel Core 2 Duo processor SL7100	1.2GHz	800MHz	4MB	800MHz	Dual	Yes	Yes	Yes	Yes	Yes	Feb 2008
Intel Core 2 Duo processor L7300	1.4GHz	800MHz	4MB	800MHz	Dual	Yes	Yes	Yes	Yes	Yes	May 2007
Intel Core 2 Duo processor L7500	1.6GHz	800MHz	4MB	800MHz	Dual	Yes	Yes	Yes	Yes	Yes	May 2007
Intel Core 2 Duo processor L7700	1.8GHz	800MHz	4MB	800MHz	Dual	Yes	Yes	Yes	Yes	Yes	Sep 2007
Intel Core 2 Duo processor T5250	1.50GHz	667MHz	2MB	667MHz	Dual	No	Yes	Yes	Yes	No	July 2007
Intel Core 2 Duo processor T5270	1.40GHz	1.0GHz	2MB	800MHz	Dual	No	Yes	Yes	Yes	Yes	Aug 2007
Intel Core 2 Duo processor T5450	1.66GHz	667MHz	2MB	667MHz	Dual	No	Yes	Yes	Yes	No	July 2007
Intel Core 2 Duo processor T5470	1.60GHz	1.0GHz	2MB	800MHz	Dual	No	Yes	Yes	Yes	Yes	Aug 2007
Intel Core 2 Duo processor T5550	1.83GHz	667MHz	2MB	667MHz	Dual	No	Yes	Yes	Yes	No	July 2007
Intel Core 2 Duo processor T5670	1.80GHz	800MHz	2MB	800MHz	Dual	No	Yes	Yes	Yes	Yes	July 2008
Intel Core 2 Duo processor T5750	2.00GHz	667MHz	2MB	667MHz	Dual	No	Yes	Yes	Yes	No	Feb 2008
Intel Core 2 Duo processor T5850	2.16GHz	667MHz	2MB	667MHz	Dual	No	Yes	Yes	Yes	No	Feb 2008
Intel Core 2 Duo processor T5870	2.00GHz	800MHz	2MB	800MHz	Dual	No	Yes	Yes	Yes	Yes	Oct 2008
Intel Core 2 Duo processor T7100	1.8GHz	800MHz	2MB	800MHz	Dual	Yes	Yes	Yes	Yes	Yes	May 2007
Intel Core 2 Duo processor T7250	2.0GHz	800MHz	2MB	800MHz	Dual	Yes	Yes	Yes	Yes	Yes	Sep 2007
Intel Core 2 Duo processor T7300	2.0GHz	800MHz	4MB	800MHz	Dual	Yes	Yes	Yes	Yes	Yes	May 2007
Intel Core 2 Duo processor T7500	2.2GHz	800MHz	4MB	800MHz	Dual	Yes	Yes	Yes	Yes	Yes	May 2007
Intel Core 2 Duo processor T7700	2.4GHz	800MHz	4MB	800MHz	Dual	Yes	Yes	Yes	Yes	Yes	May 2007
Intel Core 2 Duo processor T7800	2.6GHz	800MHz	4MB	800MHz	Dual	Yes	Yes	Yes	Yes	Yes	Sep 2007

U (Ultra Low Voltage)=<14 watts; L (Low Voltage)=15-24 watts; T (Standard Voltage)=25-49 watts; E=>50 watts

Processor generation	Merom
Marketing name	Intel Core 2 Duo mobile processor
Core	Dual-core
Micro-architecture	Intel Core Micro-architecture
Intel Wide Dynamic Execution	Each core can complete up to four full instructions simultaneously using 14-stage pipeline
Intel Smart Memory Access	Hides memory latency
Intel Advanced Digital Media Boost	Accelerates execution of Streaming SIMD Extension (SSE2/3) instructions used in multimedia applications
Power management technology	Enhanced Intel SpeedStep® technology
Intel Dynamic Power Coordination	Coordinates Enhanced Intel SpeedStep Technology and idle power-management state transitions independently per core to help save power
Intel Dynamic Bus Parking	Enables platform power savings and improved battery life by allowing the chipset to power down with the processor in low-frequency mode
Enhanced Intel Deep Sleep with Dynamic Cache Sizing	Saves power by flushing cache data to system memory during periods of inactivity to lower CPU voltage
Dynamic Front Side Bus Frequency Switching	<i>Some (not T5xxx):</i> Changes the bus clock frequency allowing a reduction in core voltage enabling a lower power active state called super LFM
Thermal management	Digital thermal sensor
Hyper-Threading	No
Execute Disable (XD) Bit	Protects memory data areas from malicious software execution
Intel 64 Technology¹ (EM64T)	Intel 64 Technology (an extension to the IA-32 instruction set which adds 64-bit extensions to the x86 architecture)
Virtualization Technology	<i>Some:</i> Intel Virtualization Technology (VT)
Intel Dynamic Acceleration	<i>Some:</i> Intel Dynamic Acceleration (IDA) allows one core to deliver extra performance when other core is idle
L1 cache	64KB per core split between data cache (32KB) and instruction cache (32KB)
L1 data cache	2x32KB data cache, integrated
L1 instruction cache	2x32KB instruction cache, integrated
L2 cache - size	2MB or 4MB , full speed, shared between both cores (Intel Advanced Smart Cache)
L2 cache - data path	256-bit data path (32 bytes), 64 byte cache line size, 8-way set associative, integrated, unified (on die)
System bus (front side bus)	533MHz, 667MHz, or 800MHz (transfers data 4 times per clock) / address bus transfers at 2 times per clock
Memory addressability	64GB memory addressability (but limited by chipset), 36-bit addressing
System bus - width	64-bit data path
Execution units per core	2 integer units, 1 floating point units, 1 load unit, 1 store unit
Math coprocessor	Pipelined floating point unit
Process technology	65nm or 0.065u
Thermal Design Power	<i>U7xxx:</i> 10 watts; <i>L7xxx:</i> 17 watts; <i>Txxxx:</i> 35 watts
Package and connector	Socket P / Micro Flip-Chip Pin Grid Array (Micro-FCPGA) requires 479-pin surface mount Zero Insertion Force (ZIF) socket (mPGA479M socket) or Micro Flip-Chip Ball Grid Array (Micro-FCBGA) for surface mount (479-ball)
Chipset support	Mobile Intel 965 Express Chipset family ; other compatible chipsets

[Notebook] Intel Core 2 Duo Processor (Penryn)

Personal Systems Reference (PSREF)

Intel® Core™ 2 Duo processor for notebook systems	Clock Perf Mode	Shared L2 cache	System bus MHz	Core	Thermal Design Power	Virtualization Tech	Intel 64 Tech	Intel Dynamic Acceleration	Trusted Execution Tech (TXT)	Available date
Intel Core 2 Duo processor T6400	2.0GHz	2MB	800MHz	Dual	35W	Yes	Yes	Yes	No	Jan 2009
Intel Core 2 Duo processor T6600	2.2GHz	2MB	800MHz	Dual	35W	Yes	Yes	Yes	No	Jan 2009
Intel Core 2 Duo processor T8100	2.1GHz	3MB	800MHz	Dual	35W	Yes	Yes	Yes	No	Jan 2008
Intel Core 2 Duo processor T8300	2.4GHz	3MB	800MHz	Dual	35W	Yes	Yes	Yes	No	Jan 2008
Intel Core 2 Duo processor T9300	2.5GHz	6MB	800MHz	Dual	35W	Yes	Yes	Yes	No	Jan 2008
Intel Core 2 Duo processor T9500	2.6GHz	6MB	800MHz	Dual	35W	Yes	Yes	Yes	No	Jan 2008
Intel Core 2 Duo processor P7370	2.00GHz	3MB	1066MHz	Dual	25W	Yes	Yes	Yes	Yes	Sep 2008
Intel Core 2 Duo processor P7450	2.13GHz	3MB	1066MHz	Dual	25W	Yes	Yes	Yes	Yes	Jan 2009
Intel Core 2 Duo processor P8400	2.26GHz	3MB	1066MHz	Dual	25W	Yes	Yes	Yes	Yes	July 2008
Intel Core 2 Duo processor P8600	2.4GHz	3MB	1066MHz	Dual	25W	Yes	Yes	Yes	Yes	July 2008
Intel Core 2 Duo processor P8700	2.53GHz	3MB	1066MHz	Dual	25W	Yes	Yes	Yes	Yes	Dec 2008
Intel Core 2 Duo processor P9500	2.53GHz	6MB	1066MHz	Dual	25W	Yes	Yes	Yes	Yes	July 2008
Intel Core 2 Duo processor P9600	2.66GHz	6MB	1066MHz	Dual	25W	Yes	Yes	Yes	Yes	Dec 2008
Intel Core 2 Duo processor T9400	2.53GHz	6MB	1066MHz	Dual	35W	Yes	Yes	Yes	Yes	July 2008
Intel Core 2 Duo processor T9550	2.66GHz	6MB	1066MHz	Dual	35W	Yes	Yes	Yes	Yes	Dec 2008
Intel Core 2 Duo processor T9600	2.8GHz	6MB	1066MHz	Dual	35W	Yes	Yes	Yes	Yes	July 2008
Intel Core 2 Duo processor T9800	2.93GHz	6MB	1066MHz	Dual	35W	Yes	Yes	Yes	Yes	Dec 2008
U (Ultra Low Voltage)=<12 watts; L (Low Voltage)=12-19 watts; P =20-29 watts; T (Standard Voltage)=30-39 watts; X or QX=>40 watts										
Processor generation	T8100/T8300/T9300/T9500: Penryn (Santa Rosa Refresh); Others: Penryn (Montevina)									
Marketing name	Intel Core 2 Duo mobile processor									
Core	Dual-core									
Branding	Supports Intel Centrino® 2 Processor Technology or Intel Centrino 2 with vPro Processor Technology when hardware and software requirements met									
Micro-architecture	Intel Core Micro-architecture									
Intel Wide Dynamic Execution	Each core can complete up to four full instructions simultaneously using 14-stage pipeline									
Intel Smart Memory Access	Hides memory latency									
Intel Advanced Digital Media Boost	Accelerates execution of Streaming SIMD Extension (SSE2/3) instructions used in multimedia applications									
Intel HD Boost	Streaming SIMD Extensions 4 (SSE4) and faster Super Shuffle Engine									
Power management technology	Enhanced Intel SpeedStep® technology									
Intel Dynamic Power Coordination	Coordinates Enhanced Intel SpeedStep™ Technology and idle power-management state transitions independently per core to help save power									
Intel Deep Power Down Technology	Low-power state that allows both cores and L2 cache to be powered down when processor idle									
Thermal management	Digital thermal sensor									
Hyper-Threading	No									
Total threads	Two threads (two cores with no Hyper-Threading support provide two logical processors)									
Execute Disable (XD) Bit	Protects memory data areas from malicious software execution									
Intel 64 Technology¹	Intel 64 Technology (an extension to the IA-32 instruction set which adds 64-bit extensions to the x86 architecture)									
Virtualization Technology	Intel Virtualization Technology (VT)									
Intel Dynamic Acceleration	Intel Dynamic Acceleration (IDA) allows one core to deliver extra performance when other core is idle									
Intel Trusted Execution Tech (TXT)	Provides a more secure platform with protection from software-based attacks with TXT-enabled OS or appl									
L1 cache	64KB per core split between data cache (32KB) and instruction cache (32KB)									
L1 data cache	2x32KB data cache, integrated									
L1 instruction cache	2x32KB instruction cache, integrated									
L2 cache - size	2MB, 3MB, or 6MB , full speed, shared between both cores (Intel Advanced Smart Cache)									
L2 cache - data path	256-bit data path (32 bytes), 64 byte cache line size, 8-way set associative, integrated, unified (on die)									
System bus (front side bus)	800MHz or 1066MHz (transfers data 4 times per clock), address bus transfers at 2 times per clock									
Memory addressability	64GB memory addressability (but limited by chipset), 36-bit addressing									
System bus - width	64-bit data path									
Execution units per core	2 integer units, 1 floating point units, 1 load unit, 1 store unit									
Math coprocessor	Pipelined floating point unit									
Compatibility	Compatible with IA-32 software									
Process technology	45nm									
Thermal Design Power	Pxxxx : 25 watts; Txxxx : 35 watts									
Package and connector	Socket P / Micro Flip-Chip Pin Grid Array (Micro-FCPGA) requires 479-pin surface mount Zero Insertion Force (ZIF) socket (mPGA479M socket) or Micro Flip-Chip Ball Grid Array (Micro-FCBGA) for surface mount (479-ball)									
Chipset support	Mobile Intel 965 Express Chipset family; Mobile Intel 4 Series Chipset family ; other compatible chipsets									

[Notebook] Intel Core 2 Duo Processor (SFF)

Personal Systems Reference (PSREF)

Intel® Core™ 2 Duo processor Small Form Factor (SFF) for notebook systems	Clock Perf Mode	Shared L2 cache	System bus MHz	Core	Thermal Design Power	Intel HD Boost	Intel 64 Tech	Intel Dynamic Acceleration	Trusted Execution Tech (TXT)	Avail- able date
Intel Core 2 Duo processor SU9300	1.20GHz	3MB	800MHz	Dual	10W	Yes	Yes	Yes	Yes	Aug 2008
Intel Core 2 Duo processor SU9400	1.40GHz	3MB	800MHz	Dual	10W	Yes	Yes	Yes	Yes	Aug 2008
Intel Core 2 Duo processor SL9300	1.60GHz	6MB	1066MHz	Dual	17W	Yes	Yes	Yes	Yes	Aug 2008
Intel Core 2 Duo processor SL9400	1.86GHz	6MB	1066MHz	Dual	17W	Yes	Yes	Yes	Yes	Aug 2008
Intel Core 2 Duo processor SP9300	2.26GHz	6MB	1066MHz	Dual	25W	Yes	Yes	Yes	Yes	Aug 2008
Intel Core 2 Duo processor SP9400	2.40GHz	6MB	1066MHz	Dual	25W	Yes	Yes	Yes	Yes	Aug 2008

• Small Form Factor (SFF) notebook processors

- **SUxxxx** = Ultra Low Voltage
- **SLxxxx** = Low Voltage
- **SPxxxx** = Power Optimized Performance

Processor generation	Penryn (Montevina)
Marketing name	Intel Core 2 Duo mobile processor
Core	Dual-core
Branding	Supports Intel Centrino® 2 Processor Technology or Intel Centrino 2 with vPro Processor Technology when hardware and software requirements met
Micro-architecture	Intel Core Micro-architecture
Intel Wide Dynamic Execution	Each core can complete up to four full instructions simultaneously using 14-stage pipeline
Intel Smart Memory Access	Hides memory latency
Intel Advanced Digital Media Boost	Accelerates execution of Streaming SIMD Extension (SSE2/3) instructions used in multimedia applications
Intel HD Boost	Streaming SIMD Extensions 4 (SSE4) and faster Super Shuffle Engine
Power management technology	Enhanced Intel SpeedStep® technology
Intel Dynamic Power Coordination	Coordinates Enhanced Intel SpeedStep™ Technology and idle power-management state transitions independently per core to help save power
Intel Dynamic Bus Parking	Enables platform power savings and improved battery life by allowing the chipset to power down with the processor in low-frequency mode
Enhanced Intel Deep Sleep with Dynamic Cache Sizing	Saves power by flushing cache data to system memory during periods of inactivity to lower CPU voltage
Intel Deep Power Down Technology	Low-power state that allows both cores and L2 cache to be powered down when processor idle
Thermal management	Digital thermal sensor
Hyper-Threading	No
Total threads	Two threads (two cores with no Hyper-Threading support provide two logical processors)
Execute Disable (XD) Bit	Protects memory data areas from malicious software execution
Intel 64 Technology¹	Intel 64 Technology (an extension to the IA-32 instruction set which adds 64-bit extensions to the x86 architecture)
Virtualization Technology	Intel Virtualization Technology (VT)
Intel Dynamic Acceleration	Intel Dynamic Acceleration (IDA) allows one core to deliver extra performance when other core is idle
Intel Trusted Execution Tech (TXT)	Provides a more secure platform with protection from software-based attacks with TXT-enabled OS or appl
L1 cache	64KB per core split between data cache (32KB) and instruction cache (32KB)
L1 data cache	2x32KB data cache, integrated
L1 instruction cache	2x32KB instruction cache, integrated
L2 cache - size	3MB or 6MB , full speed, shared between both cores (Intel Advanced Smart Cache)
L2 cache - data path	256-bit data path (32 bytes), 64 byte cache line size, 8-way set associative, integrated, unified (on die)
L3 cache	None
System bus (front side bus)	800MHz or 1066MHz (transfers data 4 times per clock), address bus transfers at 2 times per clock
Memory addressability	64GB memory addressability (but limited by chipset), 36-bit addressing
System bus - width	64-bit data path
Execution units per core	2 integer units, 1 floating point units, 1 load unit, 1 store unit
Math coprocessor	Pipelined floating point unit
Compatibility	Compatible with IA-32 software
Process technology	45nm
Thermal Design Power	SUxxxx : 10 watts; SLxxxx : 17 watts; SUxxxx : 25 watts
Package and connector	Socket P / Micro Flip-Chip Ball Grid Array (Micro-FCBGA) for surface mount (479-ball)
Chipset support	Mobile Intel 4 Series Chipset family ; other compatible chipsets

[Notebook] Intel Core 2 Quad Processor

Personal Systems Reference (PSREF)

Intel® Core™ 2 Quad processor for notebook systems	Clock Perf Mode	Shared L2 cache	System bus MHz	Core	Thermal Design Power	Virtualization Tech	Intel 64 Tech	Intel Dynamic Acceleration	Trusted Execution Tech (TXT)	Available date
Intel Core 2 Quad processor Q9000	2.00GHz	6MB	1066MHz	Quad	45W	Yes	Yes	Yes	No	Dec 2008
Intel Core 2 Quad processor Q9100	2.26GHz	12MB	1066MHz	Quad	45W	Yes	Yes	Yes	No	Aug 2008
Processor generation	Penryn (Montevina)									
Marketing name	Intel Core 2 Quad mobile processor									
Core	Quad-core									
Branding	Supports Intel Centrino® 2 Processor Technology or Intel Centrino 2 with vPro Processor Technology when hardware and software requirements met									
Micro-architecture	Intel Core micro-architecture									
Intel Wide Dynamic Execution	Each core can complete up to four full instructions simultaneously using 14-stage pipeline									
Intel Smart Memory Access	Hides memory latency									
Intel Advanced Digital Media Boost	Accelerates execution of Streaming SIMD Extension (SSE2/3) instructions used in multimedia applications									
Intel HD Boost	Streaming SIMD Extensions 4 (SSE4) and faster Super Shuffle Engine									
Power management technology	Enhanced Intel SpeedStep® technology									
Intel Dynamic Power Coordination	Coordinates Enhanced Intel SpeedStep™ Technology and idle power-management state transitions independently per core to help save power									
Intel Dynamic Bus Parking	Enables platform power savings and improved battery life by allowing the chipset to power down with the processor in low-frequency mode									
Enhanced Intel Deeper Sleep with Dynamic Cache Sizing	Saves power by flushing cache data to system memory during periods of inactivity to lower CPU voltage									
Intel Deep Power Down Technology	Low-power state that allows both cores and L2 cache to be powered down when processor idle									
Thermal management	Digital thermal sensor									
Hyper-Threading	No									
Total threads	Two threads (two cores with no Hyper-Threading support provide two logical processors)									
Execute Disable (XD) Bit	Protects memory data areas from malicious software execution									
Intel 64 Technology¹	Intel 64 Technology (an extension to the IA-32 instruction set which adds 64-bit extensions to the x86 architecture)									
Virtualization Technology	Intel Virtualization Technology (VT)									
Intel Dynamic Acceleration	Intel Dynamic Acceleration (IDA) allows one core to deliver extra performance when other core is idle									
Intel Trusted Execution Tech (TXT)	Provides a more secure platform with protection from software-based attacks with TXT-enabled OS or appli									
L1 cache	64KB per core split between data cache (32KB) and instruction cache (32KB)									
L1 data cache	2x32KB data cache, integrated									
L1 instruction cache	2x32KB instruction cache, integrated									
L2 cache - size	6MB or 12MB , full speed, shared between cores (Intel Advanced Smart Cache)									
L2 cache - data path	256-bit data path (32 bytes), 64 byte cache line size, 8-way set associative, integrated, unified (on die)									
L3 cache	None									
System bus (front side bus)	1066MHz (transfers data 4 times per clock), address bus transfers at 2 times per clock									
Memory addressability	64GB memory addressability (but limited by chipset), 36-bit addressing									
System bus - width	64-bit data path									
Execution units per core	2 integer units, 1 floating point units, 1 load unit, 1 store unit									
Math coprocessor	Pipelined floating point unit									
Compatibility	Compatible with IA-32 software									
Process technology	45nm									
Thermal Design Power	45 watts									
Package and connector	Socket P / Micro Flip-Chip Pin Grid Array (Micro-FCPGA) requires 479-pin surface mount Zero Insertion Force (ZIF) socket (mPGA479M socket) or Micro Flip-Chip Ball Grid Array (Micro-FCBGA) for surface mount (479-ball)									
Chipset support	Mobile Intel 4 Series Chipset family ; other compatible chipsets									

All trademarks are the property of their respective owners
© Lenovo

(C2QUAD) Compiled by Roger Dodson, Lenovo. December 2008

[Notebook] Intel Core 2 Extreme Processor

Personal Systems Reference (PSREF)

Intel® Core™ 2 Extreme processor for notebook systems	Clock Perf Mode	Shared L2 cache	System bus MHz	Core	HD Boost	Virtualization Tech	Enhanced Intel SpeedStep™ Technology	Intel 64 Tech (EM64T)	Intel Dynamic Acceleration	Trusted Execution Tech (TXT)	Available date
Intel Core 2 Extreme processor X7800	2.60GHz	4MB	800MHz	Dual	No	Yes	Yes	Yes	No	No	July 2007
Intel Core 2 Extreme processor X7900	2.80GHz	4MB	800MHz	Dual	No	Yes	Yes	Yes	No	No	Aug 2007
Intel Core 2 Extreme processor X9000	2.80GHz	6MB	800MHz	Dual	Yes	Yes	Yes	Yes	No	Yes	Jan 2008
Intel Core 2 Extreme processor X9100	3.06GHz	6MB	1066MHz	Dual	Yes	Yes	Yes	Yes	No	Yes	July 2008
Intel Core 2 Extreme processor QX9300	2.53GHz	12MB	1066MHz	Quad	Yes	Yes	Yes	Yes	Yes	No	Aug 2008
Processor generation	<i>X7800/X7900: Merom (Santa Rosa); X9000/X9100: Penryn (Santa Rosa Refresh); QX9300: Penryn</i>										
Marketing name	Intel Core 2 Extreme processor										
Core(s)	Dual-core or quad-core										
Branding	Intel's highest performance brand for processors										
Micro-architecture	Intel Core micro-architecture										
Intel Wide Dynamic Execution	Each core can complete up to four full instructions simultaneously using 14-stage pipeline										
Intel Smart Memory Access	Hides memory latency										
Intel Advanced Digital Media Boost	Accelerates execution of Streaming SIMD Extension (SSE2/3) instructions used in multimedia applications										
Intel HD Boost	<i>X9000/X9100/QX9300: Streaming SIMD Extensions 4 (SSE4) and faster Super Shuffle Engine</i>										
Power mgmt technology	Enhanced Intel SpeedStep™ technology										
Thermal management	Digital thermal sensor										
Hyper-Threading	No										
Total threads	Two threads (two cores with no Hyper-Threading support provide two logical processors)										
Execute Disable (XD) Bit	Protects memory data areas from malicious software execution										
Intel 64 Technology¹ (EM64T)	Intel 64 Technology (an extension to the IA-32 instruction set which adds 64 bit extensions to the x86 architecture)										
Virtualization Technology	Intel Virtualization Technology										
Intel Dynamic Acceleration	<i>Some: Intel Dynamic Acceleration (IDA) allows one core to deliver extra performance when other core is idle</i>										
Intel Trusted Execution Tech (TXT)	<i>Some: Provides a more secure platform from software-based attacks with TXT-enabled OS or appl</i>										
L1 cache	64KB per core split between data cache (32KB) and instruction cache (32KB)										
L1 data cache	2x32KB data cache, integrated										
L1 instruction cache	2x32KB instruction cache, integrated										
L2 cache - size	4MB, 6MB, or 12MB , full speed, shared between both cores (Intel Advanced Smart Cache)										
L2 cache - data path	256-bit data path (32 bytes), 64 byte cache line size, 8-way set associative, integrated, unified (on die)										
L3 cache	None										
System bus	800MHz or 1066MHz (transfers data 4 times per clock), address bus transfers at 2 times per clock										
Memory addressability	64GB memory addressability (but limited by chipset), 36-bit addressing										
System bus - width	64-bit data path										
Execution units per core	2 integer units, 1 floating point units, 1 load unit, 1 store unit										
Math coprocessor	Pipelined floating point unit										
Compatibility	Compatible with IA-32 software										
Process technology	<i>X7800/X7900: 65nm; X9000/X9100/QS9300: 45nm</i>										
Thermal Design Power	44 or 45 watts										
Package and connector	Socket P / Micro Flip-Chip Pin Grid Array (Micro-FCPGA) requires 479-pin surface mount Zero Insertion Force (ZIF) socket (mPGA479M socket) or Micro Flip-Chip Ball Grid Array (Micro-FCBGA) for surface mount (479-ball)										
Chipset support	Mobile Intel 965 Express Chipset family ; other compatible chipsets										

All trademarks are the property of their respective owners
© Lenovo

(XM) Compiled by Roger Dodson, Lenovo. August 2008

[Desktop] Intel Celeron Processor 4xx

Personal Systems Reference (PSREF)

<i>Intel® Celeron® Processor</i>	Clock Perf Mode	L2 cache	System bus MHz	Hyper- Threading Core Technology	Total threads (logical)	Virtual- ization Tech	Execute Disable Bit	Enhanced Intel SpeedStep™ Technology	Intel 64 Tech (EM64T)	Trusted Execution Tech	Avail- able date	
Intel Celeron Processor 420	1.60GHz	512KB	800MHz	Single	No	1	No	Yes	No	Yes	No	Jun 2007
Intel Celeron Processor 430	1.80GHz	512KB	800MHz	Single	No	1	No	Yes	No	Yes	No	Jun 2007
Intel Celeron Processor 440	2.00GHz	512KB	800MHz	Single	No	1	No	Yes	No	Yes	No	Jun 2007
Intel Celeron Processor 450	2.20GHz	512KB	800MHz	Single	No	1	No	Yes	No	Yes	No	Aug 2008
Processor generation	Conroe-L											
Marketing name	Intel Celeron Processor											
Core	Single-core											
Branding	Value or essential desktop processor											
Micro-architecture	Intel Core Micro-architecture											
Intel Wide Dynamic Execution	Each core can complete up to four full instructions simultaneously using 14-stage pipeline;											
Intel Smart Memory Access	Hides memory latency											
Intel Advanced Digital Media Boost	Accelerates execution of Streaming SIMD Extension (SSE2/3) instructions used in multimedia applications											
Power mgmt technology	No Enhanced Intel SpeedStep™ technology											
Thermal management	Digital thermal sensor											
Hyper-Threading	No											
Total threads	One thread											
Execute Disable (XD) Bit	Protects memory data areas from malicious software execution											
Intel 64 Technology¹ (EM64T)	Intel 64 Technology (an extension to the IA-32 instruction set which adds 64 bit extensions to the x86 architecture)											
Intel Virtualization Technology	No											
Intel Trusted Execution Technology	No											
L1 cache	64KB per core split between data cache (32KB) and instnction cache (32KB)											
L1 data cache	2x32KB data cache / integrated											
L1 instruction cache	2x32KB instruction cache / integrated											
L2 cache - size	512KB / full speed											
L2 cache - data path	256-bit data path (32 bytes) / 64 byte cache line size / 8-way set associative / integrated / unified (on die)											
L3 cache	None											
System bus	800MHz (transfers data 4 times per clock) / address bus transfers at 2 times per clock											
Memory addressability	64GB memory addressability (but limited by chipset) / 36-bit addressing											
System bus - width	64-bit data path											
Execution units	2 integer units, 1 floating point units, 1 load unit, 1 store unit											
Math coprocessor	Pipelined floating point unit											
Compatibility	Compatible with IA-32 software											
Process technology	65nm or 0.065u											
Thermal Design Power	65 watts											
Package and connector	775-land Flip-Chip Land Grid Array (FC-LGA6) package requires LGA775 socket (socket also called Socket T)											
Chipset support	Intel 3 Series Express Chipset family ; Intel 945 and 965 Express Chipset family; other compatible chipsets											

All trademarks are the property of their respective owners
© Lenovo

(CEL4) Compiled by Roger Dodson, Lenovo. September 2008

[Desktop] Intel Celeron Processor

Personal Systems Reference (PSREF)

Intel® Celeron® Processor	Clock Perf Mode	Shared L2 cache	System bus MHz	Core	HD Boost	Virtualization Tech	Execute Disable Bit	Enhanced Intel SpeedStep™ Technology	Intel 64 Tech (EM64T)	Trusted Execution Tech	Available date
Intel Celeron Processor E1200	1.60GHz	512KB	800MHz	Dual	No	No	Yes	Yes	Yes	No	Jan 2008
Intel Celeron Processor E1400	2.00GHz	512KB	800MHz	Dual	No	No	Yes	Yes	Yes	No	Apr 2008
Intel Celeron Processor E1500	2.20GHz	512KB	800MHz	Dual	No	No	Yes	Yes	Yes	No	Dec 2008
<div> <div>Processor generation</div> <div>Marketing name</div> <div>Core</div> <div>Branding</div> </div> <div> Conroe Intel Celeron Processor Dual-core Value or essential desktop processor </div>											
<div> <div>Micro-architecture</div> <div>Intel Wide Dynamic Execution</div> <div>Intel Smart Memory Access</div> <div>Intel Advanced Digital Media Boost</div> <div>Power mgmt technology</div> <div>Hyper-Threading</div> <div>Execute Disable (XD) Bit</div> <div>Intel 64 Technology¹ (EM64T)</div> <div>Intel Virtualization Technology</div> <div>Intel Trusted Execution Technology</div> </div> <div> Intel Core Micro-architecture Each core can complete up to four full instructions simultaneously using 14-stage pipeline; Hides memory latency Accelerates execution of Streaming SIMD Extension (SSE2/3) instructions used in multimedia applications Enhanced Intel SpeedStep™ technology (EIST) No Protects memory data areas from malicious software execution Intel 64 Technology (an extension to the IA-32 instruction set which adds 64 bit extensions to the x86 architecture) No No </div>											
<div> <div>L1 cache</div> <div>L1 data cache</div> <div>L1 instruction cache</div> </div> <div> 64KB per core split between data cache (32KB) and instruction cache (32KB) 2x32KB data cache / integrated 2x32KB instruction cache / integrated </div>											
<div> <div>L2 cache - size</div> <div>L2 cache - data path</div> </div> <div> 512KB / full speed / shared between both cores (Intel Advanced Smart Cache) 256-bit data path (32 bytes) / 64 byte cache line size / 8-way set associative / integrated / unified (on die) </div>											
<div> <div>System bus</div> <div>Memory addressability</div> <div>System bus - width</div> </div> <div> 800MHz (transfers data 4 times per clock) / address bus transfers at 2 times per clock 64GB memory addressability (but limited by chipset) / 36-bit addressing 64-bit data path </div>											
<div> <div>Execution units</div> <div>Math coprocessor</div> <div>Compatibility</div> </div> <div> 2 integer units, 1 floating point units, 1 load unit, 1 store unit Pipelined floating point unit Compatible with IA-32 software </div>											
<div> <div>Process technology</div> <div>Thermal Design Power</div> <div>Package and connector</div> <div>Chipset support</div> </div> <div> 65nm or 0.065u 65 watts 775-land Flip-Chip Land Grid Array (FC-LGA6) package requires LGA775 socket (socket also called Socket T) Intel G31 Express Chipset families; other compatible chipsets </div>											

All trademarks are the property of their respective owners
© Lenovo

(DCEL) Compiled by Roger Dodson, Lenovo. January 2009

[Desktop] Intel Pentium Processor

Personal Systems Reference (PSREF)

<i>Intel® Pentium® Processor</i>	Clock Perf Mode	Shared L2 cache	System bus MHz	Hyper- Threading Core Technology	Total threads (logical)	Virtual- ization Tech	Execute Disable Bit	Enhanced Intel SpeedStep™ Technology	Intel 64 Tech (EM64T)	Trusted Execution Tech	Avail- able date	
Intel Pentium Processor E2140	1.60GHz	1MB	800MHz	Dual	No	2	No	Yes	Yes	Yes	No	Jun 2007
Intel Pentium Processor E2160	1.80GHz	1MB	800MHz	Dual	No	2	No	Yes	Yes	Yes	No	Jun 2007
Intel Pentium Processor E2180	2.00GHz	1MB	800MHz	Dual	No	2	No	Yes	Yes	Yes	No	Aug 2007
Intel Pentium Processor E2200	2.20GHz	1MB	800MHz	Dual	No	2	No	Yes	Yes	Yes	No	Dec 2007
Intel Pentium Processor E2220	2.40GHz	1MB	800MHz	Dual	No	2	No	Yes	Yes	Yes	No	Mar 2008
Intel Pentium Processor E5200	2.50GHz	2MB	800MHz	Dual	No	2	No	Yes	Yes	Yes	No	Aug 2008
Intel Pentium Processor E5300	2.60GHz	2MB	800MHz	Dual	No	2	No	Yes	Yes	Yes	No	Dec 2008
Processor generation	<i>E2xxx: Conroe; E5xxx: Wolfdale</i>											
Marketing name	Intel Pentium Processor											
Core	Dual-core											
Branding	Value or essential desktop processor											
Micro-architecture	Intel Core Micro-architecture											
Intel Wide Dynamic Execution	Each core can complete up to four full instructions simultaneously using 14-stage pipeline;											
Intel Smart Memory Access	Hides memory latency											
Intel Advanced Digital Media Boost	Accelerates execution of Streaming SIMD Extension (SSE2/3) instructions used in multimedia applications											
Power mgmt technology	Enhanced Intel SpeedStep™ technology											
Thermal management	Digital thermal sensor											
Hyper-Threading	No											
Total threads	Two threads (two cores with no Hyper-Threading support provide two logical processors)											
Execute Disable (XD) Bit	Protects memory data areas from malicious software execution											
Intel 64 Technology¹ (EM64T)	Intel 64 Technology (an extension to the IA-32 instruction set which adds 64 bit extensions to the x86 architecture)											
Intel Virtualization Technology	No											
Intel Trusted Execution Technology	No											
L1 cache	64KB per core split between data cache (32KB) and instnction cache (32KB)											
L1 data cache	2x32KB data cache / integrated											
L1 instruction cache	2x32KB instruction cache / integrated											
L2 cache - size	1MB or 2MB / full speed / shared between both cores (Intel Advanced Smart Cache)											
L2 cache - data path	256-bit data path (32 bytes) / 64 byte cache line size / 8-way set associative / integrated / unified (on die)											
L3 cache	None											
System bus	800MHz (transfers data 4 times per clock) / address bus transfers at 2 times per clock											
Memory addressability	64GB memory addressability (but limited by chipset) / 36-bit addressing											
System bus - width	64-bit data path											
Execution units	2 integer units, 1 floating point units, 1 load unit, 1 store unit											
Math coprocessor	Pipelined floating point unit											
Compatibility	Compatible with IA-32 software											
Process technology	<i>E2xxx: 65nm; E5xxx: 45nm</i>											
Thermal Design Power	65 watts											
Package and connector	775-land Flip-Chip Land Grid Array (FC-LGA6) package requires LGA775 socket (socket also called Socket T)											
Chipset support	Intel G31 Express Chipset; Intel 4 Series Express Chipset family; other compatible chipsets											

All trademarks are the property of their respective owners
© Lenovo

(E2) Compiled by Roger Dodson, Lenovo. January 2009

[Desktop] Intel Core 2 Duo Processor

Personal Systems Reference (PSREF)

Intel® Core™ 2 Duo processor for desktop systems	Clock Perf Mode	Shared L2 cache	System bus MHz	Hyper- Threading Core Technology	Virtual- ization Tech	Execute Disable Bit	Enhanced Intel SpeedStep™ Technology	Intel 64 Tech (EM64T)	Trusted Execution Tech	Avail- able date
Intel Core 2 Duo processor E4300	1.80GHz	2MB	800MHz	Dual	No	No	Yes	Yes	No	Jan 2007
Intel Core 2 Duo processor E4400	2.00GHz	2MB	800MHz	Dual	No	No	Yes	Yes	No	Apr 2007
Intel Core 2 Duo processor E4500	2.20GHz	2MB	800MHz	Dual	No	No	Yes	Yes	No	July 2007
Intel Core 2 Duo processor E4600	2.40GHz	2MB	800MHz	Dual	No	No	Yes	Yes	No	Oct 2007
Intel Core 2 Duo processor E4700	2.60GHz	2MB	800MHz	Dual	No	No	Yes	Yes	No	Mar 2008
Intel Core 2 Duo processor E6300	1.86GHz	2MB	1066MHz	Dual	No	Yes	Yes	Yes	No	July 2006
Intel Core 2 Duo processor E6320	1.86GHz	4MB	1066MHz	Dual	No	Yes	Yes	Yes	No	Apr 2007
Intel Core 2 Duo processor E6400	2.13GHz	2MB	1066MHz	Dual	No	Yes	Yes	Yes	No	July 2006
Intel Core 2 Duo processor E6420	2.13GHz	4MB	1066MHz	Dual	No	Yes	Yes	Yes	No	Apr 2007
Intel Core 2 Duo processor E6540	2.33GHz	4MB	1333MHz	Dual	No	Yes	Yes	Yes	No	July 2007
Intel Core 2 Duo processor E6550	2.33GHz	4MB	1333MHz	Dual	No	Yes	Yes	Yes	Yes	July 2007
Intel Core 2 Duo processor E6600	2.40GHz	4MB	1066MHz	Dual	No	Yes	Yes	Yes	No	July 2006
Intel Core 2 Duo processor E6700	2.66GHz	4MB	1066MHz	Dual	No	Yes	Yes	Yes	No	July 2006
Intel Core 2 Duo processor E6750	2.66GHz	4MB	1333MHz	Dual	No	Yes	Yes	Yes	Yes	July 2007
Intel Core 2 Duo processor E6850	3.00GHz	4MB	1333MHz	Dual	No	Yes	Yes	Yes	Yes	July 2007
Processor generation	Conroe									
Marketing name	Intel Core 2 Duo desktop processor									
Core	Dual-core									
Branding	Part of the Intel Viiv™ technology for the home and Intel vPro™ technology for business									
Micro-architecture	Intel Core Micro-architecture									
Intel Wide Dynamic Execution	Each core can complete up to four full instructions simultaneously using 14-stage pipeline									
Intel Smart Memory Access	Hides memory latency									
Intel Advanced Digital Media Boost	Accelerates execution of Streaming SIMD Extension (SSE2/3) instructions used in multimedia applications									
Power mgmt technology	Enhanced Intel SpeedStep™ technology									
Thermal management	Digital thermal sensor									
Hyper-Threading	No									
Total threads	Two threads (two cores with no Hyper-Threading support provide two logical processors)									
Execute Disable (XD) Bit	Protects memory data areas from malicious software execution									
Intel 64 Technology¹ (EM64T)	Intel 64 Technology (an extension to the IA-32 instruction set which adds 64 bit extensions to the x86 architecture)									
Virtualization Technology	<i>Some:</i> Intel Virtualization Technology									
Intel Trusted Execution Technology	<i>Some:</i> enables more secure platforms from software-based attacks with appropriate software									
Intel Dynamic Acceleration	No									
L1 cache	64KB per core split between data cache (32KB) and instruction cache (32KB)									
L1 data cache	2x32KB data cache, integrated									
L1 instruction cache	2x32KB instruction cache, integrated									
L2 cache - size	2MB or 4MB , full speed, shared between both cores (Intel Advanced Smart Cache)									
L2 cache - data path	256-bit data path (32 bytes), 64 byte cache line size, 8-way set associative, integrated, unified (on die)									
L3 cache	None									
System bus	800MHz, 1066MHz, or 1333MHz (transfers data 4 times per clock) / address bus transfers at 2 times per clock									
Memory addressability	64GB memory addressability (but limited by chipset), 36-bit addressing									
System bus - width	64-bit data path									
Execution units	2 integer units, 1 floating point units, 1 load unit, 1 store unit									
Math coprocessor	Pipelined floating point unit									
Compatibility	Compatible with IA-32 software									
Process technology	65nm									
Thermal Design Power	65 watts									
Package and connector	775-land Flip-Chip Land Grid Array (FC-LGA6) package requires LGA775 socket (socket also called Socket T)									
Chipset support	Intel Q963, Q965, G965, P965, 946, 975X Express Chipset families; other compatible chipsets									

All trademarks are the property of their respective owners
© Lenovo

(C2DE) Compiled by Roger Dodson, Lenovo. March 2008

[Desktop] Intel Core 2 Duo Processor (Wolfdale)

Personal Systems Reference (PSREF)

Intel® Core™ 2 Duo processor for desktop systems	Clock Perf Mode	Shared L2 cache	System bus MHz	Core	Virtualization Tech	Execute Disable Bit	Enhanced Intel SpeedStep™ Technology	Intel 64 Tech	Trusted Execution Tech	Intel Dynamic Acceleration	Available date
Intel Core 2 Duo processor E7200	2.53GHz	3MB	1066MHz	Dual	No	Yes	Yes	Yes	No	No	Apr 2008
Intel Core 2 Duo processor E7300	2.66GHz	3MB	1066MHz	Dual	No	Yes	Yes	Yes	No	No	Aug 2008
Intel Core 2 Duo processor E7400	2.80GHz	3MB	1066MHz	Dual	No	Yes	Yes	Yes	No	No	Oct 2008
Intel Core 2 Duo processor E7500	2.93GHz	3MB	1066MHz	Dual	No	Yes	Yes	Yes	No	No	Jan 2009
Intel Core 2 Duo processor E8190	2.66GHz	6MB	1333MHz	Dual	No	Yes	Yes	Yes	No	No	Jan 2008
Intel Core 2 Duo processor E8200	2.66GHz	6MB	1333MHz	Dual	Yes	Yes	Yes	Yes	Yes	No	Jan 2008
Intel Core 2 Duo processor E8300	2.83GHz	6MB	1333MHz	Dual	Yes	Yes	Yes	Yes	Yes	No	Apr 2008
Intel Core 2 Duo processor E8400	3.00GHz	6MB	1333MHz	Dual	Yes	Yes	Yes	Yes	Yes	No	Jan 2008
Intel Core 2 Duo processor E8500	3.16GHz	6MB	1333MHz	Dual	Yes	Yes	Yes	Yes	Yes	No	Jan 2008
Intel Core 2 Duo processor E8600	3.33GHz	6MB	1333MHz	Dual	Yes	Yes	Yes	Yes	Yes	No	May 2008
Processor generation	Wolfdale										
Marketing name	Intel Core 2 Duo desktop processor										
Core	Dual-core										
Branding	Supports Intel Core 2 Processor with Viiv™ technology and Intel Core 2 Processor with vPro™ technology when hardware and software requirements met										
Micro-architecture	Intel Core Micro-architecture										
Intel Wide Dynamic Execution	Each core can complete up to four full instructions simultaneously using 14-stage pipeline										
Intel Smart Memory Access	Hides memory latency										
Intel Advanced Digital Media Boost	Accelerates execution of Streaming SIMD Extension (SSE2/3) instructions used in multimedia applications										
Intel HD Boost	Streaming SIMD Extensions 4 (SSE4) and faster Super Shuffle Engine										
Power mgmt technology	Enhanced Intel SpeedStep™ technology										
Hyper-Threading	No										
Total threads	Two threads (two cores with no Hyper-Threading support provide two logical processors)										
Execute Disable (XD) Bit	Protects memory data areas from malicious software execution										
Intel 64 Technology¹	Intel 64 Technology (an extension to the IA-32 instruction set which adds 64 bit extensions to the x86 architecture)										
Virtualization Technology	Some: Intel Virtualization Technology										
Intel Trusted Execution Technology	Some: Enables more secure platforms from software-based attacks with appropriate software										
Intel Dynamic Acceleration	None										
L1 cache	64KB per core split between data cache (32KB) and instruction cache (32KB)										
L1 data cache	2x32KB data cache, integrated										
L1 instruction cache	2x32KB instruction cache, integrated										
L2 cache - size	3MB or 6MB , full speed, shared between both cores (Intel Advanced Smart Cache)										
L2 cache - data path	256-bit data path (32 bytes), 64 byte cache line size, 8-way set associative, integrated, unified (on die)										
L3 cache	None										
System bus (front side bus)	1066MHz or 1333MHz (transfers data 4 times per clock), address bus transfers at 2 times per clock										
Memory addressability	64GB memory addressability (but limited by chipset), 36-bit addressing										
System bus - width	64-bit data path										
Execution units	2 integer units, 1 floating point units, 1 load unit, 1 store unit										
Math coprocessor	Pipelined floating point unit										
Compatibility	Compatible with IA-32 software										
Process technology	45nm										
Thermal Design Power	65 watts										
Package and connector	775-land Flip-Chip Land Grid Array (FC-LGA8) package requires LGA775 socket (socket also called Socket T)										
Chipset support	Intel 3 Series and Intel 4 Series Express Chipset families; other compatible chipsets										

All trademarks are the property of their respective owners
© Lenovo

(WOLF) Compiled by Roger Dodson, Lenovo. January 2009

[Desktop] Intel Core 2 Extreme Processor Personal Systems Reference (PSREF)

Personal Systems Reference (PSREF)

Intel® Core™ 2 Extreme processor for desktop systems		Clock Perf Mode	L2 cache	System bus MHz	Core	Thermal Design Power	Socket	Virtual- ization Tech	Execute Disable Bit	Enhanced Intel SpeedStep™ Technology	Intel 64 Tech (EM64T)	Avail- able date
Intel Core 2 Extreme processor X6800		2.93GHz	4MB	1066MHz	Dual	75W	LGA775	Yes	Yes	Yes	Yes	July 2006
Intel Core 2 Extreme processor QX6700		2.66GHz	8MB	1066MHz	Quad	75W	LGA775	Yes	Yes	Yes	Yes	Apr 2007
Intel Core 2 Extreme processor QX6800		2.93GHz	8MB	1066MHz	Quad	75W	LGA775	Yes	Yes	Yes	Yes	Apr 2007
Intel Core 2 Extreme processor QX6850		3.00GHz	8MB	1333MHz	Quad	75W	LGA775	Yes	Yes	Yes	Yes	July 2007
Intel Core 2 Extreme processor QX9650		3.00GHz	12MB	1333MHz	Quad	130W	LGA775	Yes	Yes	Yes	Yes	Nov 2007
Intel Core 2 Extreme processor QX9770		3.20GHz	12MB	1600MHz	Quad	136W	LGA775	Yes	Yes	Yes	Yes	Nov 2007
Intel Core 2 Extreme processor QX9775		3.20GHz	12MB	1600MHz	Quad	150W	LGA771	Yes	Yes	Yes	Yes	Feb 2008
Processor generation		Conroe (X6800) or Kentsfield (QX6xxx) or Yorkfield-XE (QX9xxx)										
Marketing name		Intel Core 2 Extreme processor										
Core		Dual-core or quad-core										
Branding		Part of the Intel Viiv™ technology for the home and Intel vPro™ processor technology for business										
Micro-architecture		Intel Core micro-architecture										
Intel Wide Dynamic Execution		Each core can complete up to four full instructions simultaneously using 14-stage pipeline;										
Intel Smart Memory Access		Hides memory latency										
Intel Advanced Digital Media Boost		Accelerates execution of Streaming SIMD Extension (SSE2/3) instructions used in multimedia applications										
Intel HD Boost		QX9xxx: Streaming SIMD Extensions 4 (SSE4) and faster Super Shuffle Engine										
Power mgmt technology		Enhanced Intel SpeedStep™ technology										
Thermal management		Digital thermal sensor										
Hyper-Threading		No										
Total threads		Two or four threads (two or four cores with no Hyper-Threading)										
Execute Disable (XD) Bit		Protects memory data areas from malicious software execution										
Intel 64 Technology¹ (EM64T)		Intel 64 Technology (an extension to the IA-32 instruction set which adds 64 bit extensions to the x86 architecture)										
Virtualization Technology		Intel Virtualization Technology										
L1 cache		64KB per core split between data cache (32KB) and instuction cache (32KB)										
L1 data cache		2x32KB data cache / integrated										
L1 instruction cache		2x32KB instruction cache / integrated										
L2 cache - size		X6800: 4MB / full speed / shared between both cores (Intel Advanced Smart Cache) QX6xxx: 8MB / full speed / 2 x 4MB shared cache on each die [dual-die] (Intel Advanced Smart Cache) QX9xxx: 12MB / full speed / 2 x 6MB shared cache on each die [dual-die] (Intel Advanced Smart Cache)										
L2 cache - data path		256-bit data path (32 bytes) / 64 byte cache line size / 8-way set associative / integrated / unified (on die)										
L3 cache		None										
System bus		1066MHz or 1333MHz (transfers data 4 times per clock) / address bus transfers at 2 times per clock										
Memory addressability		64GB memory addressability (but limited by chipset) / 36-bit addressing										
System bus - width		64-bit data path										
Execution units per core		2 integer units, 1 floating point units, 1 load unit, 1 store unit										
Math coprocessor		Pipelined floating point unit										
Compatibility		Compatible with IA-32 software										
Process technology		Others: 65nm or 0.065u QX9xxx: 45nm or 0.045u										
Package and connector		775-land Flip-Chip Land Grid Array (FC-LGA6) package requires LGA771 or LGA775 socket (also called Socket T)										
Chipset support		Intel Q963, Q965, G965, P965, 975X Express Chipset families; Intel 3 Series; other compatible chipsets										

All trademarks are the property of their respective owners
© Lenovo

(C2DX) Compiled by Roger Dodson, Lenovo, February 2008

[Desktop] Intel Core 2 Quad Processor

Personal Systems Reference (PSREF)

Intel® Core™ 2 Quad processor for desktop systems	Clock Perf Mode	L2 cache	System bus MHz	Cores	Hyper-Threading Technology	Total threads (logical)	Virtualization Tech	Enhanced Intel SpeedStep™ Technology	Intel 64 Tech	Trusted Execution Tech	Available date
Intel Core 2 Quad processor Q6600	2.40GHz	8MB	1066MHz	Quad	No	4	Yes	Yes	Yes	No	Jan 2007
Intel Core 2 Quad processor Q6700	2.66GHz	8MB	1066MHz	Quad	No	4	Yes	Yes	Yes	No	July 2007
Intel Core 2 Quad processor Q8200	2.33GHz	4MB	1333MHz	Quad	No	4	No	Yes	Yes	No	Aug 2008
Intel Core 2 Quad processor Q8300	2.50GHz	4MB	1333MHz	Quad	No	4	No	Yes	Yes	No	Dec 2008
Intel Core 2 Quad processor Q9300	2.50GHz	6MB	1333MHz	Quad	No	4	Yes	Yes	Yes	Yes	Mar 2008
Intel Core 2 Quad processor Q9400	2.66GHz	6MB	1333MHz	Quad	No	4	Yes	Yes	Yes	Yes	Aug 2008
Intel Core 2 Quad processor Q9450	2.66GHz	12MB	1333MHz	Quad	No	4	Yes	Yes	Yes	Yes	Mar 2008
Intel Core 2 Quad processor Q9550	2.83GHz	12MB	1333MHz	Quad	No	4	Yes	Yes	Yes	Yes	Mar 2008
Intel Core 2 Quad processor Q9650	3.00GHz	12MB	1333MHz	Quad	No	4	Yes	Yes	Yes	Yes	Aug 2008
Processor generation	Kentsfield (Q6xxx) or Yorkfield (Q8xxx, Q9xxx)										
Marketing name	Intel Core 2 Quad desktop processor										
Core	Quad-core (dual-core on dual-die so essentially two Core 2 Duo processors joined together)										
Branding	Supports Intel Core 2 Processor with Viiv™ technology and Intel Core 2 Processor with vPro™ technology when hardware and software requirements met										
Micro-architecture	Intel Core Micro-architecture										
Intel Wide Dynamic Execution	Each core can complete up to four full instructions simultaneously using 14-stage pipeline;										
Intel Smart Memory Access	Hides memory latency										
Intel Advanced Digital Media Boost	Accelerates execution of Streaming SIMD Extension (SSE2/3) instructions used in multimedia applications										
Intel HD Boost	Q8xxx/Q9xxx: Streaming SIMD Extensions 4 (SSE4) and faster Super Shuffle Engine										
Power mgmt technology	Enhanced Intel SpeedStep™ technology										
Thermal management	Digital thermal sensor										
Hyper-Threading	No										
Total threads	Two threads (two cores with no Hyper-Threading support provide two logical processors)										
Execute Disable (XD) Bit	Protects memory data areas from malicious software execution										
Intel 64 Technology¹ (EM64T)	Intel 64 Technology (an extension to the IA-32 instruction set which adds 64 bit extensions to the x86 architecture)										
Virtualization Technology	Some: Intel Virtualization Technology										
Intel Trusted Execution Technology	Some: Enables more secure platforms from software-based attacks with appropriate software										
Intel Dynamic Acceleration	No										
L1 cache	Four 32KB per core, integrated										
L2 cache - size	4MB, 6MB, 8MB, or 12MB / full speed, 2 x 3MB/4MB/6MB shared cache on each die [dual-die] (Intel Advanced Smart Cache)										
L2 cache - data path	256-bit data path (32 bytes), 64 byte cache line size, 8-way set associative, integrated										
L3 cache	None										
System bus	1066MHz or 1333MHz (transfers data 4 times per clock), address bus transfers at 2 times per clock										
Memory addressability	64GB memory addressability (but limited by chipset), 36-bit addressing										
System bus - width	64-bit data path										
Execution units per core	2 integer units, 1 floating point units, 1 load unit, 1 store unit										
Math coprocessor	Pipelined floating point unit										
Compatibility	Compatible with IA-32 software										
Process technology	Q6xxx: 65nm; Q8xxx/Q9xxx: 45nm										
Thermal Design Power	Q6xxx: 65 watts; Q8xxx/Q9xxx: 95 watts										
Package and connector	Q6xxx: 775-land Flip-Chip Land Grid Array (FC-LGA6) package requires LGA775 socket (socket also called Socket T) Q8xxx/Q9xxx: 775-land Flip-Chip Land Grid Array (FC-LGA8) package requires LGA775 socket (socket also called Socket T)										
Chipset support	Intel 3 Series and Intel 4 Series desktop chipset; other compatible chipsets										

[Desktop] Intel Core i7 Processor

Personal Systems Reference (PSREF)

<i>Intel® Core™ i7 processor for desktops</i>	Clock speed	Shared L3 cache	Quick Path Interconnect	Core	Virtual- ization Tech	Hyper- Threading Tech	Intel 64 Tech	Intel Turbo Boost	Avail- able date
Intel Core i7-920 Processor	2.66GHz	8MB	4.8GT/s	Quad	Yes	Yes	Yes	Yes	Jan 2009
Intel Core i7-940 Processor	2.93GHz	8MB	4.8GT/s	Quad	Yes	Yes	Yes	Yes	Jan 2009

Processor generation	Bloomfield (Nehalem)
Marketing name	Intel Core i7 processor
Core	Quad-core
Micro-architecture	Intel Core Micro-architecture
Intel Wide Dynamic Execution	Each core can complete up to four full instructions simultaneously using 14-stage pipeline
Intel Smart Memory Access	Hides memory latency
Intel Advanced Digital Media Boost	Streaming SIMD Extensions (SSE2, SSE3)
Intel HD Boost	Streaming SIMD Extensions 4 (SSE4), Super Shuffle Engine, SSE4.2
Power mgmt technology	Enhanced Intel SpeedStep™ technology, power management capabilities, multiple low-power states
Hyper-Threading	Intel Hyper-Threading Technology ²
Total threads	Eight threads (four cores with Hyper-Threading support provide eight threads)
Execute Disable Bit	Protects memory data areas from malicious software execution
Intel 64 Technology ¹	Intel 64 Technology (extension to IA-32 instruction set adding 64-bit extensions)
Virtualization Technology	Intel Virtualization Technology
Intel Trusted Execution Technology	None
Intel Dynamic Acceleration	None
Turbo Boost	Intel Turbo Boost Technology ³ (scales processor frequency higher)
L1 cache	64KB per core, split between data cache (32KB) and instruction cache (32KB), 8-way set associative
L2 cache	256KB per core, unified, 8-way set associative
L3 cache	8MB shared among all cores (Intel Smart Cache), 16-way set associative
Memory controller	Integrated memory controller
Memory support	DDR3, three channels max, two DIMMs per channel max, 24GB max, 800/1066MHz
System bus (front side bus)	None
QuickPath Interconnect	Intel QuickPath Interconnect, point-to-point link between processor and chipset, 4.8GT/sec max
Compatibility	Compatible with IA-32 software
Process technology	45nm
Thermal Design Power	130 watts
Package and connector	1366-land Flip-Chip Land Grid Array (FC-LGA8) package requires LGA1366 socket
Chipset support	Intel X58 Express Chipset families; other compatible chipsets

All trademarks are the property of their respective owners
© Lenovo

(17) Compiled by Roger Dodson, Lenovo. December 2008

[Desktop] Intel Core i7 Processor Extreme Edition

Personal Systems Reference (PSREF)

Intel® Core™ i7 processor Extreme Edition for desktops and workstations		Clock speed	Shared L3 cache	Quick Path Interconnect	Core	Virtualization Tech	Hyper-Threading Tech	Intel 64 Tech	Intel Turbo Boost	Available date
Intel Core i7-965 Processor Extreme Edition		3.2GHz	8MB	6.4GT/s	Quad	Yes	Yes	Yes	Yes	Jan 2009
Processor generation		Bloomfield (Nehalem)								
Marketing name		Intel Core i7 processor Extreme Edition								
Core		Quad-core								
Micro-architecture		Intel Core Micro-architecture								
Intel Wide Dynamic Execution		Each core can complete up to four full instructions simultaneously using 14-stage pipeline								
Intel Smart Memory Access		Hides memory latency								
Intel Advanced Digital Media Boost		Streaming SIMD Extensions (SSE2, SSE3)								
Intel HD Boost		Streaming SIMD Extensions 4 (SSE4), Super Shuffle Engine, SSE4.2								
Power mgmt technology		Enhanced Intel SpeedStep™ technology, power management capabilities, multiple low-power states								
Hyper-Threading		Intel Hyper-Threading Technology ²								
Total threads		Eight threads (four cores with Hyper-Threading support provide eight threads)								
Execute Disable Bit		Protects memory data areas from malicious software execution								
Intel 64 Technology ¹		Intel 64 Technology (extension to IA-32 instruction set adding 64-bit extensions)								
Virtualization Technology		Intel Virtualization Technology								
Intel Trusted Execution Technology		None								
Intel Dynamic Acceleration		None								
Turbo Boost		Intel Turbo Boost Technology ³ (scales processor frequency higher)								
L1 cache		64KB per core, split between data cache (32KB) and instruction cache (32KB), 8-way set associative								
L2 cache		256KB per core, unified, 8-way set associative								
L3 cache		8MB shared among all cores (Intel Smart Cache), 16-way set associative								
Memory controller		Integrated memory controller								
Memory support		DDR3, three channels max, two DIMMs per channel max, 24GB max, 800/1066MHz								
System bus (front side bus)		None								
QuickPath Interconnect		Intel QuickPath Interconnect, point-to-point link between processor and chipset, 6.4GT/sec max								
Compatibility		Compatible with IA-32 software								
Process technology		45nm								
Thermal Design Power		130 watts								
Package and connector		1366-land Flip-Chip Land Grid Array (FC-LGA8) package requires LGA1366 socket								
Chipset support		Intel X58 Express Chipset families; other compatible chipsets								

All trademarks are the property of their respective owners
© Lenovo

(ITE) Compiled by Roger Dodson, Lenovo. December 2008

This publication could include technical inaccuracies or typographical errors. References herein to Lenovo products and services do not imply that Lenovo intends to make them available in other countries. LENOVO PROVIDES THIS PUBLICATION AS IS WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some jurisdictions do not allow disclaimer of express or implied warranties; therefore this disclaimer may not apply to you.

¹ **Intel 64 Technology (formerly EM64T):**

Intel 64 Technology (formerly Intel EM64T) requires a computer system with a processor, chipset, BIOS, operating system, device drivers, and applications enabled for Intel 64 Technology. Processor will not operate (including 32-bit operation) without an Intel 64 Technology-enabled BIOS. Performance will vary depending on your hardware and software configurations.

² **Intel Hyper-Threading Technology (HT Technology):**

Intel Hyper-Threading Technology requires a computer system with a processor supporting HT Technology and an HT Technology-enabled chipset, BIOS, and operating system. Performance will vary depending on the specific hardware and software you use. For more information, including details on which processors support HT Technology, see www.intel.com/info/hyperthreading.

³ **Intel Turbo Boost Technology:** Intel Turbo Boost Technology requires a PC with a processor with Intel Turbo Boost Technology capability. Intel Turbo Boost Technology performance varies depending on hardware, software, and overall system configuration. Check with your PC manufacturer on whether your system delivers Intel Turbo Boost Technology. See www.intel.com/info/technology/turbo-boost for more information.

Trademarks: Lenovo, the Lenovo logo, New World. New Thinking., Access Connections, Rescue and Recovery, ThinkCentre, ThinkPad, ThinkStation, ThinkVantage, and ThinkVision are trademarks of Lenovo.

Intel logo, Intel Inside logo, Intel Core and Core Inside, Pentium, Celeron and Intel SpeedStep are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

Other company, product and service names may be trademarks or service marks of others.

ThinkPad® | ThinkCentre®

Visit www.lenovo.com/safecomputing periodically for the latest information on safe and effective computing.

Visit www.lenovo.com/psref for the latest version of Personal Systems Reference.

© Lenovo, 2009.
All rights reserved.

Lenovo
1009 Think Place
Morrisville, NC 27560
U.S.A.

January 2009
tecbook.pdf