



Personal Systems Reference Lenovo® ThinkPad® Notebooks

March 2011 - Version 395



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



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



ThinkPad Mini Dock Plus Series 3
433810U



USB 2.0 Portable Secure Hard Disk
320GB 43R2019



ThinkPad Bluetooth Laser Mouse
41U5008



ThinkPad 65W AC Adapter with USB Hub
57Y4600



90W UltralSlim AC/DC Combo Adapter
41R4493



Lenovo® ThinkPad L412



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



Lenovo ThinkPad L412



Lenovo ThinkPad L412



Lenovo ThinkPad L412



Lenovo ThinkPad L412

ThinkPad® L412 4403 (TopSeller) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue-tooth	Preload	Avail date
4403-33U	i3-350M	2.26		2GB	14.0" HD	2.0M	160G 7200	Intel 6200 ²⁸	WWAN upg	None		Blue	Pro 64	May 10
4403-34U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	320G 7200	Intel 6200	WWAN upg	None	Finger	Blue	Pro 64	May 10
4403-69U	i3-370M	2.40		2GB	14.0" HD	2.0M	160G 7200	Intel 6200	WWAN upg	None		Blue	Pro 64	Jul 10
4403-75U	i5-480M	2.66	2.93	2GB	14.0" HD	2.0M	320G 7200	11b/g/n	WWAN upg	None			Pro 64	Jan 11

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

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3 processor i3-350M or i3-370M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache or Intel Core i5 processor i5-480M or i5-520M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB ⁸ (7200 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™	
Widescreen display Camera	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	Supports ThinkVantage® technologies 65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch None	
Dimensions ³ Weight ²	14.0W" (WxDxH): 13.5" x 9.2" x 1.26–1.42"; 344mm x 233mm x 32–36mm 4-cell: from 4.92 lb (2.23kg); 6-cell: from 5.11 lb (2.32kg); 9-cell: from 5.45 lb (2.47kg)	
Case color Case material Battery - type Battery - life ¹⁰	black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell 4-cell: up to 2.8 hr; 6-cell: up to 5.0 hr; 9-cell: up to 8.1 hr	
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)	
PCIe Mini Card 11b/g/n Intel 6200 ²⁶ WWAN upg	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable	
Modem Bluetooth™ Ethernet Intel AMT Audio support	None <i>Some:</i> Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK fingerprint reader on palm rest, swipe sensor, supports the security chip	
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

See footnotes for important warranty information

US model announced January 11, 2011; previous models on May 11 or July 6, 2010

© Lenovo
(DMD3-7) January 2011

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Avail date
4404-32U	i3-350M	2.26		2GB	14.0" HD	2.0M	160G 7200	11b/g/n	WWAN upg		Blue	6	Pro 64	May 10
4404-33U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	160G 7200	Intel 6200 ²⁸	WWAN upg		Blue	6	Pro 64	May 10
4404-34U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	320G 7200	Intel 6200	WWAN upg		Blue	6	Pro 64	May 10
4404-35U	i5-540M	2.53	3.06	2GB	14.0" HD	2.0M	320G 7200	Intel 6200	WWAN upg	Finger	Blue	6	Pro 64	May 10
4404-4LU	i3-370M	2.40		2GB	14.0" HD	2.0M	160G 7200	Intel 6200	WWAN upg		Blue	6	Pro 64	Jul 10

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

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3 processor i3-350M or i3-370M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache or Intel Core i5 processor i5-520M or i5-540M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Adobe® Reader® • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (7200 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™	
Widescreen display Camera	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch None	
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	14.0W" (WxDxH): 13.5" x 9.2" x 1.26–1.42"; 344mm x 233mm x 32–36mm <i>4-cell:</i> from 4.92 lb (2.23kg); <i>6-cell:</i> from 5.11 lb (2.32kg); <i>9-cell:</i> from 5.45 lb (2.47kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell <i>4-cell:</i> up to 2.8 hr; <i>6-cell:</i> up to 5.0 hr; <i>9-cell:</i> up to 8.1 hr	
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)	
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable None Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole	
Security Security chip Fingerprint reader	Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK fingerprint reader on palm rest, swipe sensor, supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
		ThinkPlus™. ²² 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information

US model announced July 6, 2010; previous models on May 11, 2010

© Lenovo
(DMD3-8) July 2010

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

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue-tooth	Preload	Avail date
4403-58U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	160G 7200	Intel 6200 ²⁸	WWAN upg	None	None	Blue	Pro 64	Jun 10

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

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i5 processor i5-520M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage Toolbox • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB ⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™	
Widescreen display Camera	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus	
Discrete graphics	ATI™ Mobility Radeon™ HD 5145 graphics, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch None	Supports ThinkVantage® technologies 90-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	14.0W" (WxDxH): 13.5" x 9.2" x 1.26–1.42"; 344mm x 233mm x 32–36mm 4-cell: from 5.09 lb (2.31kg); 6-cell: from 5.28 lb (2.40kg); 9-cell: from 5.62 lb (2.55kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 9-cell 4-cell: up to 2.5 hr; 6-cell: up to 4.5 hr; 9-cell: up to 7.4 hr	
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)	
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable None Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole	
Security Security chip Fingerprint reader	Trusted Platform Module, TCG 1.2-compliant None	
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

See footnotes for important warranty information
US model announced June 22, 2010

© Lenovo
(DMD3-9) June 2010

ThinkPad® L412 4404 (Discrete) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Avail date
4404-3GU	i3-370M	2.40		2GB	14.0" HD	2.0M	160G 7200	Intel 6200 ²⁸	WWAN upg		Finger	Blue	9	Pro 64	Jun 10
4404-3HU	i3-370M	2.40		2GB	14.0" HD	2.0M	320G 7200	Intel 6200	Gobi 2000	AT&T ²³		Blue	9	Pro 64	Jun 10
4404-3JU	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	320G 7200	Intel 6200	WWAN upg		Finger	Blue	9	Pro 64	Jun 10
4404-3KU	i3-350M	2.26		2GB	14.0" HD	2.0M	160G 7200	Intel 6200	WWAN upg			Blue	9	Pro 64	Jun 10
4404-3LU	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	320G 7200	Intel 6200	WWAN upg			Blue	9	Pro 64	Jun 10

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

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3 processor i3-350M or i3-370M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache or Intel Core i5 processor i5-520M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Windows Live™ Toolbar • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)				
Memory	2GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available														
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (7200 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™														
Widescreen display Camera	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus														
Discrete graphics	ATI™ Mobility Radeon™ HD 5145 graphics , 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)														
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch None														
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	14.0W" (WxDxH): 13.5" x 9.2" x 1.26–1.42"; 344mm x 233mm x 32–36mm 4-cell: from 5.09 lb (2.31kg); 6-cell: from 5.28 lb (2.40kg); 9-cell: from 5.62 lb (2.55kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 9-cell 4-cell: up to 2.5 hr; 6-cell: up to 4.5 hr; 9-cell: up to 7.4 hr										Supports ThinkVantage® technologies				
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)										90-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider														
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> AT&T®, contract required with service provider None Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack														
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK fingerprint reader on palm rest, swipe sensor, supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				

See footnotes for important warranty information
US models announced June 22, 2010

© Lenovo
(DMD3-10) June 2010

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue-tooth	Preload	Avail date
0530-63U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	160G 7200	Intel 6200 ²⁸	Gobi 2000	AT&T ²³	None	Blue	Pro 32	Apr 10
0530-6LU	i3-370M	2.40		2GB	14.0" HD		160G 7200	Intel 6200			None		Pro 64	Jul 10
0530-6MU	i5-520M	2.40	2.93	2GB	14.0" HD		160G 7200	Intel 6200	WWAN upg		None		Pro 64	Jul 10

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

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3 processor i3-370M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache or Intel Core i5 processor i5-520M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system ²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • ThinkVantage Toolbox • Adobe® Reader® • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB ⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™	
Widescreen display Camera	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)	Supports ThinkVantage® technologies 65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch None	
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	14.0W" (WxDxH): 13.5" x 9.2" x 1.26–1.42"; 344mm x 233mm x 32–36mm <i>4-cell:</i> from 4.92 lb (2.23kg); <i>6-cell:</i> from 5.11 lb (2.32kg); <i>9-cell:</i> from 5.45 lb (2.47kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell <i>4-cell:</i> up to 2.8 hr; <i>6-cell:</i> up to 5.0 hr; <i>9-cell:</i> up to 8.1 hr	
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)	
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider	
Carrier Modem	<i>Some:</i> AT&T®, contract required with service provider None	
Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None	
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

See footnotes for important warranty information

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

© Lenovo
(DMD3-3) July 2010

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue-tooth	Preload	Workhorse (W) Gbl (G) Educ	Avail date
0553-35U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	320G 7200	Intel 6200 ²⁸	Gobi 2000	Verizon ¹⁶	Finger	Blue	Pro 32		Apr 10
0553-36U	i5-540M	2.53	3.06	4GB	14.0" HD	2.0M	320G 7200	Intel 6200	Gobi 2000	Verizon	Finger	Blue	Pro 64		Apr 10
0553-42U	i5-520M	2.40	2.93	2GB	14.0" HD		160G 7200	11b/g/n	WWAN upg			Blue	Pro 32	W G	Apr 10
0553-43U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	160G 7200	Intel 6200	WWAN upg			Blue	Pro 32	W G	Apr 10
0553-44U	i5-540M	2.53	3.06	3GB	14.0" HD	2.0M	320G 7200	Intel 6200	WWAN upg		Finger	Blue	Pro 32	W G	Apr 10
0553-55U	i5-520M	2.40	2.93	2GB	14.0" HD		250G 5400	Intel 6200	WWAN upg			Blue	Pro 32		Apr 10
0553-56U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	320G 7200	Intel 6200	Gobi 2000	AT&T ²³	Finger	Blue	Pro 32		Apr 10
0553-57U	i5-540M	2.53	3.06	3GB	14.0" HD	2.0M	160G 7200	Intel 6200	Gobi 2000	Verizon	Finger	Blue	Pro 32		Apr 10
0553-58U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	160G 7200	11b/g/n	WWAN upg			Blue	Pro 32	Edu	Apr 10
0553-59U	i5-540M	2.53	3.06	3GB	14.0" HD	2.0M	320G 7200	Intel 6200	Gobi 2000	AT&T	Finger	Blue	Pro 32	Edu	Apr 10
0553-6TU	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	160G 7200	Intel 6200	Gobi 2000	AT&T		Blue	Pro 32		Apr 10
0553-7YU	i3-370M	2.40		2GB	14.0" HD	2.0M	160G 7200	Intel 6200	WWAN upg		Finger	Blue	Pro 64		Jul 10
0553-7ZU	i5-520M	2.40	2.93	4GB	14.0" HD	2.0M	320G 7200	Intel 6200	WWAN upg		Finger	Blue	Pro 64		Jul 10

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

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3 processor i3-370M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache or Intel Core i5 processor i5-520M or i5-540M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64 Preloaded applications¹⁴ (only some listed) • Some: Education software - Adobe Digital School Collection - Instructor Resources (and DVD) - Learning Creative Suite 4 (DVD) - Photoshop Elements 7 (DVD) - Premiere Elements 7 (and DVD) - Acrobat 9 Professional (DVD) - Contribute CS4 (and DVD) - Soundbooth CS4 (and DVD) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)				
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available														
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (7200 rpm), 250GB (5400 rpm), or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™														
Widescreen display Camera	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus														
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)														
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch None														
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	14.0W" (WxDxH): 13.5" x 9.2" x 1.26–1.42"; 344mm x 233mm x 32–36mm <i>4-cell:</i> from 4.92 lb (2.23kg); <i>6-cell:</i> from 5.11 lb (2.32kg); <i>9-cell:</i> from 5.45 lb (2.47kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell <i>4-cell:</i> up to 2.8 hr; <i>6-cell:</i> up to 5.0 hr; <i>9-cell:</i> up to 8.1 hr														
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)										65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider														
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> AT&T® or Verizon®, contract required with service provider None Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack														
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK fingerprint reader on palm rest, swipe sensor, supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				

See footnotes for important warranty information

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

ThinkPad® L412 0553 (Discrete) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Workhorse (W) Gbl (G) Educ	Avail date
0553-6XU	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	160G 7200	11b/g/n	WWAN upg			Blue	9	Pro 64	W G	Jun 10
0553-6YU	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	160G 7200	Intel 6200 ²⁸	WWAN upg			Blue	9	Pro 64	W G	Jun 10
0553-6ZU	i5-540M	2.53	3.06	2GB	14.0" HD	2.0M	320G 7200	Intel 6200	WWAN upg		Finger	Blue	9	Pro 64	W G	Jun 10
0553-72U	i5-520M	2.40	2.93	2GB	14.0" HD		160G 7200	11b/g/n	WWAN upg			Blue	9	Pro 64		Jun 10
0553-73U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	320G 7200	Intel 6200	Gobi 2000	AT&T ²³	Finger	Blue	9	Pro 64		Jun 10
≡ 0553-74U	i3-350M	2.26		2GB	14.0" HD		160G 7200	11b/g/n	WWAN upg			Blue	6	Pro 32	W G	Jun 10
0553-75U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	320G 5400	Intel 6200	WWAN upg			Blue	9	Pro 64	W G	Jun 10
0553-76U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	160G 7200	Intel 6200	WWAN upg		Finger	Blue	6	Pro 64	W G	Jun 10

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

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3 processor i3-350M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache or Intel Core i5 processor i5-520M or i5-540M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache		Preloaded operating system ²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Windows Live™ Toolbar • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)	
Memory	2GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available			
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB ⁸ (7200 rpm) or 320GB (5400 or 7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™			
Widescreen display Camera	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus			
Discrete graphics	ATI™ Mobility Radeon™ HD 5145 graphics , 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)			
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch None			
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	14.0W" (WxDxH): 13.5" x 9.2" x 1.26–1.42"; 344mm x 233mm x 32–36mm <i>4-cell:</i> from 5.09 lb (2.31kg); <i>6-cell:</i> from 5.28 lb (2.40kg); <i>9-cell:</i> from 5.62 lb (2.55kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell or 9-cell <i>4-cell:</i> up to 2.5 hr; <i>6-cell:</i> up to 4.5 hr; <i>9-cell:</i> up to 7.4 hr			
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)		Supports ThinkVantage® technologies	
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider		90-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> AT&T®, contract required with service provider None Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant		ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK fingerprint reader on palm rest, swipe sensor, supports the security chip		Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available			

See footnotes for important warranty information

US models announced June 22, 2010

≡ US model withdrawn effective September 2010

© Lenovo
(DMD3-11) June 2010

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

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

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i5 processor i5-520M or i5-540M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 32 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Windows Live™ Toolbar • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available		
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB ⁸ (7200 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™		
Widescreen display	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus		
Camera			
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @ 60Hz; 2048x1536 (VGA) @ 75Hz; 1920x1200 @ 60Hz (single-link DVI-D via cable 45J7915)		
Keyboard	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass		
Touch pad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch		
ThinkLight™	None		
Dimensions ³	14.0W" (WxDxH): 13.5" x 9.2" x 1.26–1.42"; 344mm x 233mm x 32–36mm		
Weight ²	<i>4-cell:</i> from 4.92 lb (2.23kg); <i>6-cell:</i> from 5.11 lb (2.32kg); <i>9-cell:</i> from 5.45 lb (2.47kg)		
Case color	black		
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic		
Battery - type	Lithium Ion 6-cell		
Battery - life ¹⁰	<i>4-cell:</i> up to 2.8 hr; <i>6-cell:</i> up to 5.0 hr; <i>9-cell:</i> up to 8.1 hr		
Chipset	Mobile Intel HM55 Express Chipset		
ExpressCard/34	One slot (ExpressCard/34)		
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)		
Ports	Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)		
PCIe Mini Card 11b/g/n	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card		
Intel 6200 ²⁸	<i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2		
WWAN upg	Wireless WAN upgradable		
Modem	None		
Bluetooth™	Bluetooth 2.1 wireless, LED indicator		
Ethernet	Realtek® RTL8111DL Gigabit Network Connection		
Intel AMT	None		
Audio support	High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	<i>Some:</i> UPEK fingerprint reader on palm rest, swipe sensor, supports the security chip		
Limited warranty ¹²	3-years /1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available		
			Supports ThinkVantage® technologies
			65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
			ThinkPlus™. ²² 4-year LOR ²⁴ 9x5 NBD 45K6038
			Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

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

© Lenovo
(DMD3-5) April 2010

ThinkPad® L412 0585 (Discrete) - Onsite (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Workhorse (W) Global (G) GMP (P)	Avail date
0585-6XU	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	160G 7200	11b/g/n	WWAN upg		Blue	9	Pro 64	W G P	Jun 10
0585-6YU	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	160G 7200	Intel 6200 ²⁸	WWAN upg		Blue	9	Pro 64	W G P	Jun 10
0585-6ZU	i5-540M	2.53	3.06	2GB	14.0" HD	2.0M	320G 7200	Intel 6200	WWAN upg	Finger	Blue	9	Pro 64	W G P	Jun 10
➤ 0585-74U	i3-350M	2.26		2GB	14.0" HD		160G 7200	11b/g/n	WWAN upg		Blue	6	Pro 32	W G P	Jun 10
0585-75U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	320G 5400	Intel 6200	WWAN upg		Blue	9	Pro 64	W G P	Jun 10
0585-76U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	160G 7200	Intel 6200	WWAN upg	Finger	Blue	6	Pro 64	W G P	Jun 10

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

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3 processor i3-350M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache or Intel Core i5 processor i5-520M or i5-540M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache		Preloaded operating system ²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Windows Live™ Toolbar • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available		
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB ⁸ (7200 rpm) or 320GB (5400 or 7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™		
Widescreen display Camera	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus		
Discrete graphics	ATI™ Mobility Radeon™ HD 5145 graphics , 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)		
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch None		
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	14.0W" (WxDxH): 13.5" x 9.2" x 1.26–1.42"; 344mm x 233mm x 32–36mm <i>4-cell:</i> from 5.09 lb (2.31kg); <i>6-cell:</i> from 5.28 lb (2.40kg); <i>9-cell:</i> from 5.62 lb (2.55kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell or 9-cell <i>4-cell:</i> up to 2.5 hr; <i>6-cell:</i> up to 4.5 hr; <i>9-cell:</i> up to 7.4 hr		
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)		
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable None Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK fingerprint reader on palm rest, swipe sensor, supports the security chip		
Security Security chip Fingerprint reader	ThinkPlus™, ²² 4-year LOR ²⁴ 9x5 NBD 45K6038		
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available		

See footnotes for important warranty information
US Model announced June 22, 2010

➤ US model withdrawn effective September 2010

© Lenovo
(DMD3-12) June 2010

Memory

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

Storage and removable storage

SL410/510 500GB Disk SATA 3G/s (5400 rpm)	43N3422	ann	10/22/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann	05/26/09
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann	11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann	01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann	01/05/10

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

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

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann	05/12/09
USB Port Replicator with Digital Video	45K1610	ann	07/28/09
ThinkPad Port Replicator Series 3	433610W	ann	06/23/09
ThinkPad Mini Dock Series 3 ⁶¹	433710U	ann	06/23/09
ThinkPad Mini Dock Plus Series 3 ⁶²	433810U	ann	06/23/09
ThinkPad Mini Dock Plus Series 3 - Mobile WS	433820U	ann	01/07/10
⁶¹ When docked, ThinkPad Mini Dock Series 3 (433710U) Audio ports are inactive, ThinkPad Audio ports are active.			
⁶² When docked, ThinkPad Mini Dock Plus Series 3 (433810U) eSATA & Audio ports are inactive, ThinkPad eSATA & Audio ports are active.			

Keyboard

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

Mouse

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

Multimedia

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

Modem

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

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06

Batteries

ThinkPad Battery 55+ (6-cell)	57Y4185	ann	03/30/10
ThinkPad Battery 55++ (9-cell)	57Y4186	ann	03/30/10
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann	09/20/05
⁴⁴ Requires the <i>ThinkPad 90W AC Adapter</i> 40Y7659 or the adapter provided with the system.			

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter ⁴⁵	40Y7696	ann	01/05/06
⁴⁵ Only compatible with the integrated graphics models.			
ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
ThinkPad 65W AC Adapter with USB Hub	57Y4600	ann	09/07/10
90W Ultralim AC/DC Combo Adapter	41R4493	ann	09/22/09

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

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

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

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

Up to 14" widescreen models:

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

Up to 15.6" widescreen models:

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

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

Lenovo L2230x Wide 21.5" Monitor	5453HB1	ann	06/10/10
ThinkVision® L1711p 17" Monitor	5047HB2	ann	10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann	10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann	10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann	10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann	10/20/09
ThinkVision L2321x Wide 23" Monitor	4014HB6	ann	06/10/10
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann	05/12/09
Lenovo DisplayPort to VGA Monitor Cable	57Y4393	ann	08/04/09
ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09

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

For more information on ThinkPad accessories, please visit:

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

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

ThinkPad®



Lenovo® ThinkPad L420



Lenovo ThinkPad L420 with
ThinkPad Battery 55++ (9-cell)
57Y4186



Lenovo ThinkPad L420



Lenovo ThinkPad L420



Lenovo ThinkPad L420



Lenovo ThinkPad L420

ThinkPad® L420 7854 (TopSeller)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Bat-tery cells	Preload
7854-34U	i5-2520M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205 ²⁸	WWAN upg	Finger	Blue	9	Pro 64
7854-37U	i5-2410M	4GBx1	14.0" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	Finger	Blue	6	Pro 64
7854-38U	i3-2310M	4GBx1	14.0" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	Finger	Blue	6	Pro 64

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

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3-2310M processor (dual-core, 2.10GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), HT technology Intel Core i5-2410M processor (dual-core, 2.30GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology Intel Core i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology		Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications ¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high, removable, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™		
mSATA™ SSD	None		
Widescreen display	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio		
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus		
Integrated graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)		
Keyboard	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass		
Touch pad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch		
ThinkLight™	None		
Dimensions ³	14.0W" (WxDxH): 13.5" x 9.2" x 1.26–1.42"; 344mm x 233mm x 32–36mm		
Weight ²	4-cell: from 4.94 lb (2.24kg); 6-cell: from 5.14 lb (2.33kg); 9-cell: from 5.47 lb (2.48kg)		
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic		
Battery - type	Lithium Ion 4-cell, 6-cell, or 9-cell		
Battery - life ¹⁰	4-cell: up to 3.9 hr; 6-cell: up to 7.0 hr; 9-cell: up to 11.5 hr		
Chipset	Mobile Intel HM65 Express Chipset		
ExpressCard	One slot (ExpressCard/34, ExpressCard/54)		
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)		
Ports	Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
WLAN ⁴	<i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2		
WWAN	Wireless WAN upgradable		
Modem	None		
Bluetooth™	Bluetooth 3.0 wireless, LED indicator		
Ethernet	Realtek® RTL8111DL Gigabit Network Connection		
Intel AMT	None		
Audio support	High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, supports the TPM		
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available		

Supports ThinkVantage® technologies		
65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378		
For compatible accessories, please go to O-L420 sheet;		
For ThinkPlus™, ²² service upgrade options, please go to S-TA sheet		

See footnotes for more detailed information
US models announced February 22, 2011

© Lenovo
(DMD4-1) February 2011

ThinkPad® L420 7856 (TopSeller)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Bat-tery cells	Preload
7856-34U	i5-2520M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205 ²⁸	WWAN upg	Finger	Blue	9	Pro 64
7856-37U	i5-2410M	4GBx1	14.0" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	Finger	Blue	6	Pro 64
7856-38U	i3-2310M	4GBx1	14.0" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	Finger	Blue	6	Pro 64

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

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3-2310M processor (dual-core, 2.10GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), HT technology Intel Core i5-2410M processor (dual-core, 2.30GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology Intel Core i5-2520M processor (dual-core, 2.50GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology		Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications ¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high, removable, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™		
mSATA™ SSD	None		
Widescreen display	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio		Supports ThinkVantage® technologies 65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus		
Integrated graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)		
Keyboard	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass		
Touch pad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch		
ThinkLight™	None		
Dimensions ³	14.0W" (WxDxH): 13.5" x 9.2" x 1.26–1.42"; 344mm x 233mm x 32–36mm		
Weight ²	<i>4-cell:</i> from 4.94 lb (2.24kg); <i>6-cell:</i> from 5.14 lb (2.33kg); <i>9-cell:</i> from 5.47 lb (2.48kg)		
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic		
Battery - type	Lithium Ion 4-cell, 6-cell, or 9-cell		
Battery - life ¹⁰	<i>4-cell:</i> up to 3.9 hr; <i>6-cell:</i> up to 7.0 hr; <i>9-cell:</i> up to 11.5 hr		
Chipset	Mobile Intel HM65 Express Chipset		
ExpressCard	One slot (ExpressCard/34, ExpressCard/54)		
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)		
Ports	Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)		
PCIe Mini Card WLAN ⁴	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2		For compatible accessories, please go to O-L420 sheet; For ThinkPlus™, ²² service upgrade options, please go to S-TA sheet
WWAN	Wireless WAN upgradable		
Modem	None		
Bluetooth™	Bluetooth 3.0 wireless, LED indicator		
Ethernet	Realtek® RTL8111DL Gigabit Network Connection		
Intel AMT	None		
Audio support	High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, supports the TPM		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for more detailed information
US models announced February 22, 2011

© Lenovo
(DMD4-2) February 2011

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Bat-tery cells	Workhorse (W) Global (G)	Preload
7827-5HU	i5-2520M	2GBx1	14.0" HD	720p	320G 7200	TP 11b/g/n	WWAN upg			6		Pro 64
7827-5GU	i5-2540M	2+1GB	14.0" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	Finger	Blue	6		Pro 64
7827-44U	i5-2520M	2+1GB	14.0" HD		320G 7200	Intel 6205 ²⁸	WWAN upg	Finger	Blue	6		Pro 64
7827-43U	i5-2520M	2+1GB	14.0" HD		320G 7200	Intel 6205	WWAN upg			6		Pro 64
7827-42U	i5-2540M	2+1GB	14.0" HD		500G 7200	Intel 6205	WWAN upg			6		Pro 64
7827-5DU	i5-2540M	2+1GB	14.0" HD		500G 7200	Intel 6205	WWAN upg			6		Pro 32
7827-5EU	i5-2520M	2+1GB	14.0" HD		320G 7200	Intel 6205	WWAN upg			6		Pro 32
7827-5FU	i5-2520M	2+1GB	14.0" HD		320G 7200	Intel 6205	WWAN upg	Finger	Blue	6		Pro 32
7827-45U	i5-2540M	4GBx1	14.0" HD		500G 7200	TP 11b/g/n	WWAN upg			9		Pro 64
7827-46U	i5-2540M	4GBx1	14.0" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	Finger	Blue	9		Pro 64
7827-47U	i5-2540M	2+1GB	14.0" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	Finger	Blue	6		Pro 32
7827-48U	i5-2520M	2GBx1	14.0" HD	720p	320G 7200	TP 11b/g/n	WWAN upg			6		Pro 32
7827-34U	i5-2520M	2GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	Finger	Blue	6	W G	Pro 64
7827-33U	i5-2540M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	Finger	Blue	6	W G	Pro 64
7827-32U	i5-2520M	2+1GB	14.0" HD		320G 7200	TP 11b/g/n	WWAN upg		Blue	6	W G	Pro 64

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

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology		Preloaded operating system ²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64 Ready to install applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications ¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high, removable, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™		
mSATA™ SSD	None		
Widescreen display	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> HD720p resolution, wider view angle, low light sensitive, fixed focus		Supports ThinkVantage® technologies 65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 For compatible accessories, please go to O-L420 sheet; For ThinkPlus™, ²² service upgrade options, please go to S-TA sheet
Camera			
Integrated graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)		
Keyboard	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass		
Touch pad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch		
ThinkLight™	None		
Dimensions ³	14.0W" (WxDxH): 13.5" x 9.2" x 1.26–1.42"; 344mm x 233mm x 32–36mm		
Weight ²	4-cell: from 4.94 lb (2.24kg); 6-cell: from 5.14 lb (2.33kg); 9-cell: from 5.47 lb (2.48kg)		
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic		
Battery - type	Lithium Ion 4-cell, 6-cell, or 9-cell		
Battery - life ¹⁰	4-cell: up to 3.9 hr; 6-cell: up to 7.0 hr; 9-cell: up to 11.5 hr		
Chipset	Mobile Intel HM65 Express Chipset		
ExpressCard	One slot (ExpressCard/34, ExpressCard/54)		
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)		
Ports	Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)		
PCIe Mini Card WLAN ⁴	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2		
WWAN	Wireless WAN upgradable		
Modem	None		
Bluetooth™	<i>Some:</i> Bluetooth 3.0 wireless, LED indicator		
Ethernet	Realtek® RTL8111DL Gigabit Network Connection		
Intel AMT	None		
Audio support	High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, supports the TPM		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for more detailed information
US models announced February 22, 2011

© Lenovo
(DMD4-3) February 2011

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Bat-tery cells	Workhorse (W) Global (G) GMP (P)	Preload
7829-48U	i5-2520M	2GBx1	14.0" HD	720p	320G 7200	TP 11b/g/n	WWAN upg			6		Pro 64
7829-47U	i5-2540M	2+1GB	14.0" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	Finger	Blue	6		Pro 64
7829-44U	i5-2520M	2+1GB	14.0" HD		320G 7200	Intel 6205 ²⁸	WWAN upg	Finger	Blue	6		Pro 64
7829-43U	i5-2520M	2+1GB	14.0" HD		320G 7200	Intel 6205	WWAN upg			6		Pro 64
7829-42U	i5-2540M	2+1GB	14.0" HD		500G 7200	Intel 6205	WWAN upg			6		Pro 64
7829-4QU	i5-2540M	2+1GB	14.0" HD		500G 7200	Intel 6205	WWAN upg			6		Pro 32
7829-4RU	i5-2520M	2+1GB	14.0" HD		320G 7200	Intel 6205	WWAN upg			6		Pro 32
7829-4SU	i5-2520M	2+1GB	14.0" HD		320G 7200	Intel 6205	WWAN upg	Finger	Blue	6		Pro 32
7829-45U	i5-2540M	4GBx1	14.0" HD		500G 7200	TP 11b/g/n	WWAN upg			9		Pro 64
7829-46U	i5-2540M	4GBx1	14.0" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	Finger	Blue	9		Pro 64
7829-4TU	i5-2540M	2+1GB	14.0" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	Finger	Blue	6		Pro 32
7829-4UU	i5-2520M	2GBx1	14.0" HD	720p	320G 7200	TP 11b/g/n	WWAN upg			6		Pro 32
7829-34U	i5-2520M	2GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	Finger	Blue	6	W G P	Pro 64
7829-33U	i5-2540M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	Finger	Blue	6	W G P	Pro 64
7829-32U	i5-2520M	2+1GB	14.0" HD		320G 7200	TP 11b/g/n	WWAN upg		Blue	6	W G P	Pro 64

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

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology		Preloaded operating system²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64	
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		Ready to install applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox	
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high, removable, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™		Preloaded applications¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)	
mSATA™ SSD	None			
Widescreen display	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> HD720p resolution, wider view angle, low light sensitive, fixed focus			
Camera				
Integrated graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)			
Keyboard	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys			
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass			
Touch pad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch			
ThinkLight™	None			
Dimensions ³	14.0W" (WxDxH): 13.5" x 9.2" x 1.26–1.42"; 344mm x 233mm x 32–36mm			
Weight ²	4-cell: from 4.94 lb (2.24kg); 6-cell: from 5.14 lb (2.33kg); 9-cell: from 5.47 lb (2.48kg)			
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic			
Battery - type	Lithium Ion 4-cell, 6-cell, or 9-cell			
Battery - life ¹⁰	4-cell: up to 3.9 hr; 6-cell: up to 7.0 hr; 9-cell: up to 11.5 hr			
Chipset	Mobile Intel HM65 Express Chipset			
ExpressCard	One slot (ExpressCard/34, ExpressCard/54)			
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)			
Ports	Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)			
PCIe Mini Card WLAN ⁴	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2		Supports ThinkVantage® technologies	
WWAN	Wireless WAN upgradable		65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
Modem	None			
Bluetooth™	<i>Some:</i> Bluetooth 3.0 wireless, LED indicator			
Ethernet	Realtek® RTL8111DL Gigabit Network Connection			
Intel AMT	None			
Audio support	High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack			
Security	Power-on password, hard disk password, supervisor password, security keyhole		For compatible accessories, please go to O-L420 sheet;	
Security chip	Trusted Platform Module, TCG 1.2-compliant			
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, supports the TPM			
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		For ThinkPlus™, ²² service upgrade options, please go to S-TA sheet	

See footnotes for more detailed information
US models announced February 22, 2011

Memory

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

Storage and removable storage

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

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann	05/12/09
ThinkPad Port Replicator Series 3 ⁶³	433610W	ann	06/23/09
ThinkPad Mini Dock Series 3 ^{61, 63}	433710U	ann	06/23/09
ThinkPad Mini Dock Plus Series 3 ^{62, 63}	433810U	ann	06/23/09

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

⁶² When docked, ThinkPad Mini Dock Plus Series 3 (433810U) eSATA & Audio ports are inactive, ThinkPad eSATA & Audio ports are active.

⁶³ Not supported on ThinkPad L421 systems.

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

Mouse

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

Multimedia

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

Modem

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

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06
ExpressCard Gemplus Smart Card Reader ⁵⁷	41N3043	ann	06/27/06

Batteries

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

⁴⁴ Requires the *ThinkPad 90W AC Adapter*

40Y7659 or the adapter provided with the system.

More information at www.lenovo.com/alldaycomputing

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

⁴⁵ Only compatible with the integrated graphics models.

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

ThinkPad 65W AC Adapter with USB Hub	57Y4600	ann	09/07/10
--------------------------------------	---------	-----	----------

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

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

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

• iPod and iPhone Charge Tip (L10a)	41R4481	ann	12/18/07
-------------------------------------	---------	-----	----------

• Generic Micro USB charge tip (L18)	41R4490	ann	01/06/09
--------------------------------------	---------	-----	----------

More information at www.lenovopowertips.com

Carrying Cases

Up to 14" widescreen models:

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

Up to 15.6" widescreen models:

ThinkPad 15W Case Sleeve	51J0477	ann	08/18/09
Lenovo Business Messenger Case	51J0475	ann	08/18/09
Lenovo Messenger Max	41U5253	ann	05/01/07
Lenovo Performance Backpack	41U5254	ann	05/01/07
ThinkPad Business 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
Wenger Backpack for Lenovo	57Y4271	ann	01/07/10
Wenger Slim Case for Lenovo	57Y4272	ann	01/07/10
Wenger Deluxe Slim Case for Lenovo	57Y4273	ann	01/07/10

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

Monitors

Lenovo L2230x Wide 21.5" Monitor	5453HB1	ann	06/10/10
ThinkVision® L1711p 17" Monitor	5047HB2	ann	10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann	10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann	10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann	10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann	10/20/09
ThinkVision L2321x Wide 23" Monitor	4014HB6	ann	06/10/10
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann	05/12/09
Lenovo DisplayPort to VGA Monitor Cable	57Y4393	ann	08/04/09
DisplayPort to Single-link DVI-D Cable	45J7915	ann	08/05/08
ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

For more information on ThinkPad accessories, please visit:

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

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad®



Lenovo® ThinkPad L512



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



Lenovo ThinkPad L512



Lenovo ThinkPad L512



Lenovo ThinkPad L512



Lenovo ThinkPad L512

Type-model	Processor	GHz	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Battery cells	Preload	Avail date
4444-32U	i3-350M	2.26		2GB	15.6" HD	2.0M	160G 7200	11b/g/n	WWAN upg		Blue	6	Pro 32	May 10
4444-33U	i3-350M	2.26		2GB	15.6" HD	2.0M	160G 7200	Intel 6200 ²⁸	WWAN upg		Blue	6	Pro 64	May 10
4444-34U	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	320G 7200	Intel 6200	WWAN upg	Finger	Blue	6	Pro 64	May 10
4444-4EU	i3-370M	2.40		2GB	15.6" HD	2.0M	160G 7200	11b/g/n	WWAN upg		Blue	6	Pro 64	Jul 10
4444-4FU	i3-370M	2.40		2GB	15.6" HD	2.0M	160G 7200	Intel 6200	WWAN upg		Blue	6	Pro 64	Jul 10
4444-4VU	i5-560M	2.66	3.20	2GB	15.6" HD	2.0M	320G 7200	Intel 6200	WWAN upg	Finger	Blue	6	Pro 64	Sep 10

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

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3 processor i3-350M or i3-370M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache or Intel Core i5 processor i5-520M or i5-560M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64 Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)			
Memory	2GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available													
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (7200 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™													
Widescreen display Camera	15.6" (395mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus													
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)										Supports ThinkVantage® technologies			
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch None										65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 15" x 9.7" x 1.26–1.42"; 380mm x 247mm x 32–36mm <i>4-cell:</i> from 5.48 lb (2.49kg); <i>6-cell:</i> from 5.67 lb (2.57kg); <i>9-cell:</i> from 6.01 lb (2.73kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell <i>4-cell:</i> up to 2.8 hr; <i>6-cell:</i> up to 4.9 hr; <i>9-cell:</i> up to 8.0 hr										ThinkPlus™. ²² 1-year LOR ²⁴ 9x5 NBD 45K5968			
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)										ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970			
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable None Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole										ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976			
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK fingerprint reader on palm rest, swipe sensor, supports the security chip										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available													

See footnotes for important warranty information

US model announced September 28, 2010; previous models on May 11 or July 6, 2010

© Lenovo
(RUB3-5) October 2010

ThinkPad® L512 4447 (TopSeller) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Avail date
4447-32U	i3-350M	2.26		2GB	15.6" HD	2.0M	160G 7200	11b/g/n	WWAN upg		Blue	6	Pro 32	May 10
4447-33U	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	160G 7200	Intel 6200 ²⁸	WWAN upg	Finger	Blue	6	Pro 64	May 10
4447-3EU	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	160G 7200	Intel 6200	WWAN upg		Blue	6	Pro 32	Jul 10
4447-3HU	i3-370M	2.40		2GB	15.6" HD	2.0M	160G 7200	11b/g/n	WWAN upg		Blue	6	Pro 64	Jul 10

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

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3 processor i3-350M or i3-370M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache or Intel Core i5 processor i5-520M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64 Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)			
Memory	2GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Supports ThinkVantage® technologies			
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™										65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Widescreen display Camera	15.6" (395mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus										ThinkPlus™. 22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch None													
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 15" x 9.7" x 1.26–1.42"; 380mm x 247mm x 32–36mm <i>4-cell:</i> from 5.48 lb (2.49kg); <i>6-cell:</i> from 5.67 lb (2.57kg); <i>9-cell:</i> from 6.01 lb (2.73kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell <i>4-cell:</i> up to 2.8 hr; <i>6-cell:</i> up to 4.9 hr; <i>9-cell:</i> up to 8.0 hr													
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)													
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable None Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole													
Security Security chip Fingerprint reader	Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK fingerprint reader on palm rest, swipe sensor, supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available													

See footnotes for important warranty information

US models announced July 6, 2010; previous models on May 11, 2010

© Lenovo
(RUB3-6) July 2010

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue-tooth	Preload	Avail date
2597-5YU	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	160G 7200	Intel 6200 ²⁸	Gobi 2000	AT&T ²³	None	Blue	Pro 32	Apr 10
2597-6PU	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	160G 7200	Intel 6200	WWAN upg		None	Blue	Pro 64	Jul 10
2597-6QU	i3-370M	2.40		2GB	15.6" HD	2.0M	160G 7200	Intel 6200	WWAN upg		None	Blue	Pro 64	Jul 10

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

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3 processor i3-370M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache or Intel Core i5 processor i5-520M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system ²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage Toolbox • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB ⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™	
Widescreen display Camera	15.6" (395mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	Supports ThinkVantage® technologies
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch None	
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 15" x 9.7" x 1.26–1.42"; 380mm x 247mm x 32–36mm <i>4-cell:</i> from 5.48 lb (2.49kg); <i>6-cell:</i> from 5.67 lb (2.57kg); <i>9-cell:</i> from 6.01 lb (2.73kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell <i>4-cell:</i> up to 2.8 hr; <i>6-cell:</i> up to 4.9 hr; <i>9-cell:</i> up to 8.0 hr	65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)	ThinkPlus™. ²² 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider	
Carrier Modem	<i>Some:</i> AT&T®, contract required with service provider None	
Bluetooth™ Ethernet Intel AMT	Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None	
Audio support	High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None	
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

See footnotes for important warranty information

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

© Lenovo
(RUB3-3) July 2010

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

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

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i5 processor i5-520M or i5-540M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64				
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Some: Education software - Adobe Digital School Collection - Instructor Resources (and DVD) - Learning Creative Suite 4 (DVD) - Photoshop Elements 7 (DVD) - Premiere Elements 7 (and DVD) - Acrobat 9 Professional (DVD) - Contribute CS4 (and DVD) - Soundbooth CS4 (and DVD) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)				
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (7200 rpm), 250GB (5400 rpm), or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™														
Widescreen display	15.6" (395mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio														
Camera	<i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus														
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)														
Keyboard	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys														
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass														
Touchpad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch														
ThinkLight™	None														
Dimensions ³	15.6" W (WxDxH): 15" x 9.7" x 1.26–1.42"; 380mm x 247mm x 32–36mm														
Weight ²	4-cell: from 5.48 lb (2.49kg); 6-cell: from 5.67 lb (2.57kg); 9-cell: from 6.01 lb (2.73kg)														
Case color	black														
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic														
Battery - type	Lithium Ion 6-cell														
Battery - life ¹⁰	4-cell: up to 2.8 hr; 6-cell: up to 4.9 hr; 9-cell: up to 8.0 hr														
Chipset	Mobile Intel HM55 Express Chipset														
ExpressCard/34	One slot (ExpressCard/34)														
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)														
Ports	Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)														
PCIe Mini Card	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider														
Carrier	<i>Some:</i> AT&T® or Verizon®, contract required with service provider														
Modem	None														
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator														
Ethernet	Realtek® RTL8111DL Gigabit Network Connection														
Intel AMT	None														
Audio support	High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module, TCG 1.2-compliant														
Fingerprint reader	<i>Some:</i> UPEK fingerprint reader on palm rest, swipe sensor, supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available														

See footnotes for important warranty information

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

© Lenovo
(RUB3-1) May 2010

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

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

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i5 processor i5-520M or i5-540M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64			
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Windows Live™ Toolbar • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)			
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (7200 rpm), 250GB (5400 rpm), or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™													
Widescreen display	15.6" (395mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio													
Camera	<i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus													
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @ 60Hz; 2048x1536 (VGA) @ 75Hz; 1920x1200 @ 60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch None													
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 15" x 9.7" x 1.26–1.42"; 380mm x 247mm x 32–36mm <i>4-cell:</i> from 5.48 lb (2.49kg); <i>6-cell:</i> from 5.67 lb (2.57kg); <i>9-cell:</i> from 6.01 lb (2.73kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell <i>4-cell:</i> up to 2.8 hr; <i>6-cell:</i> up to 4.9 hr; <i>9-cell:</i> up to 8.0 hr													
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)													
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable None Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack										Supports ThinkVantage® technologies 65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK fingerprint reader on palm rest, swipe sensor, supports the security chip										ThinkPlus™.22 4-year LOR ²⁴ 9x5 NBD 45K6038 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available													

See footnotes for important warranty information

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

© Lenovo
(RUB3-4) May 2010

Memory

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

Storage and removable storage

SL410/510 500GB Disk SATA 3G/s (5400 rpm)	43N3422	ann	10/22/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann	05/26/09
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann	11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann	01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann	01/05/10

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

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

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann	05/12/09
USB Port Replicator with Digital Video	45K1610	ann	07/28/09
ThinkPad Port Replicator Series 3	433610W	ann	06/23/09
ThinkPad Mini Dock Series 3 ⁶¹	433710U	ann	06/23/09
ThinkPad Mini Dock Plus Series 3 ⁶²	433810U	ann	06/23/09
ThinkPad Mini Dock Plus Series 3 - Mobile WS	433820U	ann	01/07/10

⁶¹ When docked, ThinkPad Mini Dock Series 3 (433710U) Audio ports are inactive, ThinkPad Audio ports are active.
⁶² When docked, ThinkPad Mini Dock Plus Series 3 (433810U) eSATA & Audio ports are inactive, ThinkPad eSATA & Audio ports are active.

Keyboard

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

⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.
 ThinkPad USB Keyboard with TrackPoint 55Y9003 ann 08/18/09
 Lenovo® USB Fingerprint Keyboard 73P4730 ann 02/22/05
 Lenovo USB Smartcard Keyboard 51J0155 ann 03/24/09

Mouse

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

Multimedia

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

Modem

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

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06

Batteries

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

⁴⁴ Requires the *ThinkPad 90W AC Adapter* 40Y7659 or the adapter provided with the system.

More information at www.lenovo.com/alldaycomputing

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

⁴⁵ Only compatible with the integrated graphics models.

ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
ThinkPad 65W AC Adapter with USB Hub	57Y4600	ann	09/07/10
90W Ultralim AC/DC Combo Adapter	41R4493	ann	09/22/09

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

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

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

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

Up to 15.6" widescreen models:

ThinkPad 15W Case Sleeve	51J0477	ann	08/18/09
Lenovo Business Messenger Case	51J0475	ann	08/18/09
Lenovo Messenger Max	41U5253	ann	05/01/07
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08

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

Lenovo L2230x Wide 21.5" Monitor	5453HB1	ann	06/10/10
ThinkVision® L1711p 17" Monitor	5047HB2	ann	10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann	10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann	10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann	10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann	10/20/09
ThinkVision L2321x Wide 23" Monitor	4014HB6	ann	06/10/10
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann	05/12/09
Lenovo DisplayPort to VGA Monitor Cable	57Y4393	ann	08/04/09
ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

For more information on ThinkPad accessories, please visit:

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

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

ThinkPad®



Lenovo® ThinkPad L520



Lenovo ThinkPad L520 with
ThinkPad Battery 55++ (9-cell)
57Y4186



Lenovo ThinkPad L520



Lenovo ThinkPad L520



Lenovo ThinkPad L520



Lenovo ThinkPad L520

ThinkPad® L520 7859 (TopSeller)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Bat-tery cells	Preload
7859-35U	i5-2520M	4GBx1	15.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	Finger	Blue	6	Pro 64
7859-36U	i5-2410M	4GBx1	15.6" HD+	720p	320G 7200	TP 11b/g/n	WWAN upg	Finger	Blue	6	Pro 64
7859-38U	i3-2310M	4GBx1	15.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	Finger	Blue	6	Pro 64

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

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3-2310M processor (dual-core, 2.10GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), HT technology Intel Core i5-2410M processor (dual-core, 2.30GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology Intel Core i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications ¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)	
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high, removable, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™		
mSATA™ SSD	None		
Widescreen display	<i>Some:</i> 15.6" (395mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> 15.6" (395mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio		
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus		
Integrated graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)		
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch None		
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 15" x 9.7" x 1.26–1.42"; 380mm x 247mm x 32–36mm 4-cell: from 5.54 lb (2.51kg); 6-cell: from 5.75 lb (2.61kg); 9-cell: from 6.07 lb (2.75kg) Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 4-cell, 6-cell, or 9-cell 4-cell: up to 3.6 hr; 6-cell: up to 6.6 hr; 9-cell: up to 10.8 hr		
Chipset ExpressCard Multicard Reader Ports	Mobile Intel HM65 Express Chipset One slot (ExpressCard/34, ExpressCard/54) 4-in-1 reader (MMC, SD, SDHC, SDXC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)		
PCIe Mini Card WLAN ⁴ WWAN Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1 Wireless WAN upgradable None Bluetooth 3.0 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack	65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, supports the TPM		For compatible accessories, please go to O-L520 sheet; For ThinkPlus™, ²² service upgrade options, please go to S-TA sheet
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available		

See footnotes for more detailed information
US models announced February 22, 2011

© Lenovo
(RUB4-1) February 2011

ThinkPad® L520 7860 (TopSeller)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Bat-tery cells	Preload
7860-35U	i5-2520M	4GBx1	15.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	Finger	Blue	6	Pro 64
7860-36U	i5-2410M	4GBx1	15.6" HD+	720p	320G 7200	TP 11b/g/n	WWAN upg	Finger	Blue	6	Pro 64
7860-38U	i3-2310M	4GBx1	15.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	Finger	Blue	6	Pro 64

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

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3-2310M processor (dual-core, 2.10GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), HT technology Intel Core i5-2410M processor (dual-core, 2.30GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology Intel Core i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology		Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications ¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high, removable, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™		
mSATA™ SSD	None		
Widescreen display	<i>Some:</i> 15.6" (395mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> 15.6" (395mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio		
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus		
Integrated graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)		
Keyboard	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass		
Touch pad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch		
ThinkLight™	None		
Dimensions ³	15.6W" (WxDxH): 15" x 9.7" x 1.26–1.42"; 380mm x 247mm x 32–36mm		
Weight ²	4-cell: from 5.54 lb (2.51kg); 6-cell: from 5.75 lb (2.61kg); 9-cell: from 6.07 lb (2.75kg)		
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic		
Battery - type	Lithium Ion 4-cell, 6-cell, or 9-cell		
Battery - life ¹⁰	4-cell: up to 3.6 hr; 6-cell: up to 6.6 hr; 9-cell: up to 10.8 hr		
Chipset	Mobile Intel HM65 Express Chipset		
ExpressCard	One slot (ExpressCard/34, ExpressCard/54)		
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)		
Ports	Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
WLAN ⁴	11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1		
WWAN	Wireless WAN upgradable		
Modem	None		
Bluetooth™	Bluetooth 3.0 wireless, LED indicator		
Ethernet	Realtek® RTL8111DL Gigabit Network Connection		
Intel AMT	None		
Audio support	High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, supports the TPM		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

Supports ThinkVantage® technologies		
65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378		
For compatible accessories, please go to O-L520 sheet; For ThinkPlus™, ²² service upgrade options, please go to S-TA sheet		

See footnotes for more detailed information
US models announced February 22, 2011

© Lenovo
(RUB4-2) February 2011

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Bat- tery cells	Workhorse (W) Global (G) Preload
5016-43U	i5-2520M	2+1GB	15.6" HD		500G 7200	Intel 6205 ²⁸	WWAN upg			9	Pro 64
5016-46U	i5-2540M	2GBx1	15.6" HD+	720p	320G 7200	Intel 6205	WWAN upg			9	Pro 64
5016-42U	i5-2520M	2+1GB	15.6" HD		500G 7200	Intel 6205	WWAN upg			9	Pro 32
5016-44U	i5-2520M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	Finger	Blue	9	Pro 64
5016-45U	i5-2540M	2GBx1	15.6" HD+	720p	320G 7200	Intel 6205	WWAN upg			9	Pro 32
5016-47U	i5-2540M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205	WWAN upg	Finger	Blue	9	Pro 64
5016-48U	i5-2520M	2+1GB	15.6" HD		320G 7200	Intel 6205	WWAN upg			6	Pro 64
5016-49U	i5-2520M	2+1GB	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	Finger	Blue	6	Pro 64
5016-33U	i5-2540M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	Finger	Blue	6	W G Pro 64
5016-32U	i5-2520M	2+1GB	15.6" HD		320G 7200	TP 11b/g/n	WWAN upg		Blue	6	W G Pro 64

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

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology	Preloaded operating system ²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64 Ready to install applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications ¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high, removable, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™	
mSATA™ SSD	None	
Widescreen display	<i>Some:</i> 15.6" (395mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> 15.6" (395mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio	
Camera	<i>Some:</i> HD720p resolution, wider view angle, low light sensitive, fixed focus	
Integrated graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys	
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass	
Touch pad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch	
ThinkLight™	None	
Dimensions ³	<i>15.6W"</i> (WxDxH): 15" x 9.7" x 1.26–1.42"; 380mm x 247mm x 32–36mm	
Weight ²	<i>4-cell:</i> from 5.54 lb (2.51kg); <i>6-cell:</i> from 5.75 lb (2.61kg); <i>9-cell:</i> from 6.07 lb (2.75kg)	
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic	
Battery - type	Lithium Ion 4-cell, 6-cell, or 9-cell	
Battery - life ¹⁰	<i>4-cell:</i> up to 3.6 hr; <i>6-cell:</i> up to 6.6 hr; <i>9-cell:</i> up to 10.8 hr	
Chipset	Mobile Intel HM65 Express Chipset	
ExpressCard	One slot (ExpressCard/34, ExpressCard/54)	
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)	
Ports	Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)	
PCIe Mini Card	Two PCI Express Mini Card slots	
WLAN ⁴	<i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2	
WWAN	Wireless WAN upgradable	
Modem	None	
Bluetooth™	<i>Some:</i> Bluetooth 3.0 wireless, LED indicator	
Ethernet	Realtek® RTL8111DL Gigabit Network Connection	
Intel AMT	None	
Audio support	High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	Trusted Platform Module, TCG 1.2-compliant	
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, supports the TPM	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	
		Supports ThinkVantage® technologies
		65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
		For compatible accessories, please go to O-L520 sheet;
		For ThinkPlus™, 22 service upgrade options, please go to S-TA sheet

See footnotes for more detailed information
US models announced February 22, 2011

© Lenovo
(RUB4-3) February 2011

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Bat-tery cells	Workhorse (W) Global (G) GMP (P)	Preload
5017-46U	i5-2540M	2GBx1	15.6" HD+	720p	320G 7200	Intel 6205 ²⁸	WWAN upg			9		Pro 64
5017-43U	i5-2520M	2+1GB	15.6" HD		500G 7200	Intel 6205	WWAN upg			9		Pro 64
5017-42U	i5-2520M	2+1GB	15.6" HD		500G 7200	Intel 6205	WWAN upg			9		Pro 32
5017-44U	i5-2520M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	Finger	Blue	9		Pro 64
5017-45U	i5-2540M	2GBx1	15.6" HD+	720p	320G 7200	Intel 6205	WWAN upg			9		Pro 32
5017-47U	i5-2540M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205	WWAN upg	Finger	Blue	9		Pro 64
5017-48U	i5-2520M	2+1GB	15.6" HD		320G 7200	Intel 6205	WWAN upg			6		Pro 64
5017-49U	i5-2520M	2+1GB	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	Finger	Blue	6		Pro 64
5017-33U	i5-2540M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	Finger	Blue	6	W G P	Pro 64
5017-32U	i5-2520M	2+1GB	15.6" HD		320G 7200	TP 11b/g/n	WWAN upg		Blue	6	W G P	Pro 64

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

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology	Preloaded operating system ²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64 Ready to install applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications ¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high, removable, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™	
mSATA™ SSD	None	
Widescreen display	<i>Some:</i> 15.6" (395mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> 15.6" (395mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio	
Camera	<i>Some:</i> HD720p resolution, wider view angle, low light sensitive, fixed focus	
Integrated graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch None	
Dimensions ³ Weight ²	15.6W" (WxDxH): 15" x 9.7" x 1.26–1.42"; 380mm x 247mm x 32–36mm <i>4-cell:</i> from 5.54 lb (2.51kg); <i>6-cell:</i> from 5.75 lb (2.61kg); <i>9-cell:</i> from 6.07 lb (2.75kg)	
Case material Battery - type Battery - life ¹⁰	Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 4-cell, 6-cell, or 9-cell <i>4-cell:</i> up to 3.6 hr; <i>6-cell:</i> up to 6.6 hr; <i>9-cell:</i> up to 10.8 hr	
Chipset ExpressCard Multicard Reader Ports	Mobile Intel HM65 Express Chipset One slot (ExpressCard/34, ExpressCard/54) 4-in-1 reader (MMC, SD, SDHC, SDXC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)	
PCIe Mini Card WLAN ⁴ WWAN Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None <i>Some:</i> Bluetooth 3.0 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole	Supports ThinkVantage® technologies 65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Security Security chip Fingerprint reader	Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, supports the TPM	For compatible accessories, please go to O-L520 sheet;
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	For ThinkPlus™, ²² service upgrade options, please go to S-TA sheet

See footnotes for more detailed information
US models announced February 22, 2011

© Lenovo
(RUB4-4) February 2011

Memory

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

Storage and removable storage

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

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann	05/12/09
ThinkPad Port Replicator Series 3	433610W	ann	06/23/09
ThinkPad Mini Dock Series 3 ⁶¹	433710U	ann	06/23/09
ThinkPad Mini Dock Plus Series 3 ⁶²	433810U	ann	06/23/09

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

⁶² When docked, ThinkPad Mini Dock Plus Series 3 (433810U) eSATA & Audio ports are inactive, ThinkPad eSATA & Audio ports are active.

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

Mouse

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

Multimedia

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

Modem

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

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06
ExpressCard Gemplus Smart Card Reader ⁵⁷	41N3043	ann	06/27/06

Batteries

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

⁴⁴ Requires the *ThinkPad 90W AC Adapter*

40Y7659 or the adapter provided with the system.

More information at www.lenovo.com/alldaycomputing

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

⁴⁵ Only compatible with the integrated graphics models.

ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
ThinkPad 65W AC Adapter with USB Hub	57Y4600	ann	09/07/10
90W Ultraslim AC/DC Combo Adapter	41R4493	ann	09/22/09

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

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

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

More information at www.lenovopowertips.com

Carrying Cases

Up to 15.6" widescreen models:

ThinkPad 15W Case Sleeve	51J0477	ann	08/18/09
Lenovo Business Messenger Case	51J0475	ann	08/18/09
Lenovo Messenger Max	41U5253	ann	05/01/07
Lenovo Performance Backpack	41U5254	ann	05/01/07
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
Wenger Backpack for Lenovo	57Y4271	ann	01/07/10
Wenger Slim Case for Lenovo	57Y4272	ann	01/07/10
Wenger Deluxe Slim Case for Lenovo	57Y4273	ann	01/07/10

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

Monitors

Lenovo L2230x Wide 21.5" Monitor	5453HB1	ann	06/10/10
ThinkVision® L1711p 17" Monitor	5047HB2	ann	10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann	10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann	10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann	10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann	10/20/09
ThinkVision L2321x Wide 23" Monitor	4014HB6	ann	06/10/10
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann	05/12/09
Lenovo DisplayPort to VGA Monitor Cable	57Y4393	ann	08/04/09
DisplayPort to Single-link DVI-D Cable	45J7915	ann	08/05/08
ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

For more information on ThinkPad accessories, please visit:

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

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad®



Lenovo® ThinkPad T410



Lenovo ThinkPad T410



Lenovo ThinkPad T410



Lenovo ThinkPad T410



ThinkPad triple external monitor configuration
using NVIDIA's Optimus technology



ThinkPad Mini Dock Series 3
433710U

ThinkPad® T410 2516 (TopSeller) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base (GHz)	turbo (GHz)	Memory (MHz)	Wide-screen display	Cam-era	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery Intel vPro	Preload	Avail date
2516-ADU	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA	2.0M	250G 5400	11b/g/n		None	None	6	No	Pro 32 Jan 10
2516-DCU	i5-560M	2.66	3.20	2GBx1 1066	14.1" WXGA	2.0M	320G 7200	11b/g/n		None	None	6	No	Pro 64 Sep 10
2516-F9U	i5-480M	2.66	2.93	4GBx1 1333	14.1" WXGA	2.0M	320G 7200	Intel 1000	WWAN upg	None	None	6	No	Pro 64 Jan 11

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-480M, i5-520M, or i5-560M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64 Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™. ²² 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 250GB⁸ (5400 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display Camera	14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm 6-cell: starting at 5.0 lb (2.27kg); 9-cell: starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom 6-cell: up to 6.6 hr; 9-cell: up to 11 hr; 9-cell plus Slice battery: up to 22 hr	
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
PCIe Mini Card 11b/g/n Intel 1000 WWAN upg	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 <i>Some:</i> Wireless WAN upgradable	
Modem Bluetooth™ Ethernet Intel AMT Audio support	56K V.92 ⁶ modem None Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None	
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

See footnotes for important warranty information

US model announced January 11, 2011; previous models on January 7 or September 28, 2010

© Lenovo
(NZ1-1) January 2011

ThinkPad® T410 2518 (TopSeller) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Bat- Blue- tery Intel vPro Preload	Avail date
2518-C2U	i5-520M	2.40	2.93	2GB	14.1" WXGA	2.0M	250G 5400	Intel 6200 ²⁸	Gobi 2000	AT&T ²³	Finger	Blue 6 vPro Pro 32 Jan 10
2518-F3U	i5-520M	2.40	2.93	2GB	14.1" WXGA	2.0M	250G 5400	11b/g/n	WWAN upg		Blue 6 Pro 32 Jan 10	
2518-F6U	i5-520M	2.40	2.93	4GB	14.1" WXGA+	2.0M	80G SSD	Intel 6200	WWAN upg	Finger	Blue 9 vPro Pro 32 Jan 10	
2518-4HU	i5-520M	2.40	2.93	2GB	14.1" WXGA	2.0M	320G 7200	Intel 6200	WWAN upg	Finger	Blue 6 vPro Pro 32 Mar 10	
< 2518-QBU	i5-540M	2.53	3.06	4GB	14.1" WXGA	2.0M	160G SSD	Intel 6200	WWAN upg	Finger	Blue 6 vPro Pro 64 Jul 10	
2518-AHU	i5-560M	2.66	3.20	2GB	14.1" WXGA	2.0M	320G 7200	Intel 6200	WWAN upg		Blue 6 vPro Pro 64 Sep 10	

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M, i5-540M, or i5-560M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64 Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 80GB⁸ or 160GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 250GB (5400 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive	
Widescreen display	<i>Some:</i> 14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio	
Camera	Camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm <i>6-cell:</i> starting at 5.0 lb (2.27kg); <i>9-cell:</i> starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery <i>6-cell:</i> up to 6.6 hr; <i>9-cell:</i> up to 11 hr; <i>9-cell plus Slice battery:</i> up to 22 hr	
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider	
Carrier Modem Bluetooth™ Ethernet	<i>Some:</i> AT&T®, contract required with service provider 56K V.92 ⁶ modem <i>Some:</i> Bluetooth 2.1 wireless, LED indicator <i>Non-vPro model:</i> Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 <i>vPro model:</i> Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1	
Intel AMT Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades²² available	

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

See footnotes for important warranty information

US model announced September 28, 2010; previous models on January 7, March 2, or July 6, 2010

US model withdrawn effective February 2011

© Lenovo
(NZ1-3) October 2010

ThinkPad® T410 2518 (TopSeller) - Windows 7 (January 2011)

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory (MHz)	Wide-screen display	Disk SATA GB ⁸ rpm	PCle Mini Card 802.11	PCle Mini Card WWAN	Carrier	Battery cells	Power Adapter (watt)	Intel vPro	Preload	Avail date
2518-BGU	i7-620M	2.66 3.33	4GBx1 1333	14.1" WXGA+	500G 7200	Intel 1000			9	90W		Pro 64	Jan 11
2518-BJU	i5-560M	2.66 3.20	2GBx1 1066	14.1" WXGA+	320G 7200	WiMAX	Gobi 2000	selectable	6	65W	vPro	Pro 64	Jan 11

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

Positioning Processor	Premiere performance; two spindles Intel® Core™ i5 processor i5-560M with dual-core , or Intel Core i7 processor i7-620M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; <i>i5-560M: 3MB cache; i7-620M: 4MB cache</i>	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 320GB ⁸ (7200 rpm) or 500GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display Camera	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)</i>	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm 6-cell: starting at 5.0 lb (2.27kg); 9-cell: starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery 6-cell: up to 6.6 hr; 9-cell: up to 11 hr; 9-cell plus Slice battery: up to 22 hr	
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
PCle Mini Card Intel 1000 WiMAX Gobi™ 2000 Carrier	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , PCle Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 <i>Some:</i> 11a/b/g/n and WiMAX wireless, PCle Half Mini Card, Intel Centrino Advanced-N + WiMAX 6250, 2x2 AGN + 1x2 WiMAX <i>Some:</i> Wireless WAN, Qualcomm chipset, PCle Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider <i>Some:</i> User selectable at first boot, AT&T®, Verizon®, or Sprint®, contract required with service provider	
Modem Bluetooth™ Ethernet Intel AMT Audio support	56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator <i>Non-vPro model:</i> Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCle x1 <i>vPro model:</i> Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCle x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	Supports ThinkVantage® technologies 65-watt or 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™. ²² 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
 US models announced January 11, 2011

© Lenovo
 (NZ1-19) February 2011

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

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Intel vPro	Preload	Avail date
2518-AJU	i5-560M	2.66	3.20	2GB	14.1" WXGA+	2.0M	320G 7200	Intel 6200 ²⁸	WWAN upg	None	Blue	vPro	Pro 64	Sep 10

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-560M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio	
Camera	Camera on top of screen, 2.0-megapixel, fixed focus	
Optimus graphics ³⁷	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics in processor, and NVIDIA Quadro® NVS3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint®	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys	
Touchpad	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
ThinkLight™	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm	
Weight ²	6-cell: starting at 5.0 lb (2.27kg); 9-cell: starting at 5.35 lb (2.43kg)	
Case color	Black	
Case material	<i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type	Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom	
Battery - life ¹⁰	6-cell: up to 6.5 hr; 9-cell: up to 10.9 hr; 9-cell plus Slice battery: up to 21.9 hr	
Chipset	Mobile Intel QM57 Express Chipset	
ExpressCard/34	One slot (ExpressCard/34)	
Smart Card read	None	
Multicard reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)	
Ports	Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
PCIe Mini Card	Two PCI Express Mini Card slots	
Intel 6200 ²⁸	11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2	
WWAN upg	Wireless WAN upgradable	
Modem	56K V.92 ⁶ modem	
Bluetooth™	Bluetooth 2.1 wireless, LED indicator	
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1	
Intel AMT	Intel Active Management Technology (iAMT)	
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	Trusted Platform Module, TCG 1.2-compliant	
Fingerprint reader	None	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	Supports ThinkVantage® technologies 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

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

© Lenovo
(NZ1-17) December 2010

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

Personal Systems Reference (PSREF)

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

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 32 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) Supports ThinkVantage® technologies
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 320GB® (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio	
Camera	Camera on top of screen, 2.0-megapixel, fixed focus	
Discrete graphics	NVIDIA® Quadro® NVS3100M , PCI Express® x16, 256MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Touchpad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm	
Weight ²	6-cell: starting at 5.0 lb (2.27kg); 9-cell: starting at 5.35 lb (2.43kg)	
Case color	Black	
Case material	<i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type	Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom	
Battery - life ¹⁰	6-cell: up to 5.0 hr; 9-cell: up to 8.3 hr; 9-cell plus Slice battery: up to 16.6 hr	
Chipset	Mobile Intel QM57 Express Chipset	
ExpressCard/34	One slot (ExpressCard/34)	
Smart Card read	None	
Multicard reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)	
Ports	Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
PCIe Mini Card	Two PCI Express Mini Card slots	
11b/g/n	11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card	
WWAN upg	None	
Modem	56K V.92® modem	
Bluetooth™	Bluetooth 2.1 wireless, LED indicator	
Ethernet	Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1	
Intel AMT	Intel Active Management Technology (iAMT)	
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	Trusted Platform Module, TCG 1.2-compliant	
Fingerprint reader	None	
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

| | | ThinkPlus™.²² 1-year LOR²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at **lenovo.com/thinkplus/warranty** |

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

© Lenovo
(NZ1-4) January 2010

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

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base (GHz)	turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue-tooth	Intel vPro	Preload	Avail date
2518-C4U	i5-520M	2.40	2.93	2GB	14.1" WXGA+	2.0M	320G 7200	11b/g/n	Gobi 2000	Verizon ¹⁶	Fing	Blue		Pro 32	Jan 10
2518-F5U	i5-540M	2.53	3.06	4GB	14.1" WXGA+	2.0M	500G 7200	WiMAX	WWAN upg		Fing	Blue	vPro	Pro 32	Jan 10
2518-4KU	i5-520M	2.40	2.93	4GB	14.1" WXGA+	2.0M	320G 7200	Intel 6200 ²⁸	Gobi 2000	Verizon	Fing	Blue	vPro	Pro 64	Mar 10
2518-4LU	i5-540M	2.53	3.06	4GB	14.1" WXGA+	2.0M	320G 7200	WiMAX	WWAN upg		Fing	Blue	vPro	Pro 64	Mar 10
≧ 2518-QCU	i5-540M	2.53	3.06	4GB	14.1" WXGA+	2.0M	160G SSD	Intel 6200	WWAN upg			Blue	vPro	Pro 64	Jul 10

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-540M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64				
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)				
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 160GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 320GB (7200 rpm) or 500GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive														
Widescreen display	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus														
Discrete graphics	NVIDIA® Quadro® NVS3100M , PCI Express® x16, 256MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touchpad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm														
Weight ²	6-cell: starting at 5.0 lb (2.27kg); 9-cell: starting at 5.35 lb (2.43kg)														
Case color	Black														
Case material	<i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic														
Battery - type	Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom														
Battery - life ¹⁰	6-cell: up to 5.0 hr; 9-cell: up to 8.3 hr; 9-cell plus Slice battery: up to 16.6 hr														
Chipset	Mobile Intel QM57 Express Chipset														
ExpressCard/34	One slot (ExpressCard/34)														
Smart Card read	None														
Multicard reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)														
Ports	Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
PCIe Mini Card	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> 11a/b/g/n and WiMAX wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N + WiMAX 6250, 2x2 AGN + 1x2 WiMAX														
WWAN upg	<i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider														
Gobi™ 2000	<i>Some:</i> Verizon®, contract required with service provider														
Carrier	56K V.92 ⁶ modem														
Modem	Bluetooth 2.1 wireless, LED indicator														
Bluetooth™	<i>Non-vPro model:</i> Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 <i>vPro model:</i> Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1														
Ethernet	Intel Active Management Technology (iAMT)														
Intel AMT	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack														
Audio support	Power-on password, hard disk password, supervisor password, security keyhole														
Security	Trusted Platform Module, TCG 1.2-compliant														
Security chip	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip														
Fingerprint reader															
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available														

See footnotes for important warranty information

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

US model withdrawn effective February 2011

© Lenovo
(NZ1-6) July 2010

ThinkPad® T410 2519 (Windows 7)

Personal Systems Reference (PSREF)

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

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 32 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 250GB® (5400 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display Camera	14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	Supports ThinkVantage® technologies
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm 6-cell: starting at 5.0 lb (2.27kg); 9-cell: starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom 6-cell: up to 6.6 hr; 9-cell: up to 11 hr; 9-cell plus Slice battery: up to 22 hr	
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	ThinkPlus™. ²² 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None	
Limited warranty ¹² 1-year - depot repair service / service upgrades ²² available		

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

© Lenovo
(NZ1-7) January 2010

Type-model	Proc- essor	Max Base turbo (GHz)(GHz)	Memory (MHz)	Wide- screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue- tooth	Bat- tery cells	Intel vPro	Workhorse (W) Global (G) Avail date
2522-60U	i5-540M	2.53	3.06	2GBx1 1066	14.1" WXGA+	2.0M 320G 7200	Intel 6200 ²⁸	Gobi	AT&T ²³	Fing	Blue	6	vPro	Pro 32 Jan 10
2522-22U	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA	320G 7200	Intel 6200	upg		Fing	Blue	6	vPro	Pro 32 G Jan 10
2522-2AU	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA	2.0M 250G 5400	Intel 6200	upg		Fing	Blue	6	vPro	Pro 32 Jan 10
2522-25U	i5-540M	2.53	3.06	2GBx2 1066	14.1" WXGA+	320G 7200	Intel 6200	upg		Fing	Blue	6	vPro	Pro 32 W G Jan 10
2522-48U	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA	2.0M 320G 7200	Intel 6200	Gobi	AT&T	Fing		6	vPro	Pro 32 Jan 10
2522-49U	i5-520M	2.40	2.93	2+1GB 1066	14.1" WXGA	2.0M 80G SSD	Intel 6300 ²⁸	upg		Fing	Blue	6	vPro	Pro 32 Jan 10
2522-27U	i5-540M	2.53	3.06	4GBx1 1333	14.1" WXGA	250G FDE	Intel 6200	upg		Fing	Blue	6	vPro	Pro 64 G Mar 10
2522-28U	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA	250G 5400	Intel 6200	upg			Blue	9	vPro	Pro 64 G Mar 10
2522-4CU	i5-540M	2.53	3.06	2GBx1 1066	14.1" WXGA	2.0M 320G 7200	WiMAX	upg			Blue	6	vPro	Pro 32 Mar 10
2522-4DU	i5-540M	2.53	3.06	2GBx2 1066	14.1" WXGA	2.0M 320G 7200	Intel 6200	upg			Blue	6	vPro	Pro 64 Mar 10
2522-29U	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA	2.0M 160G 7200	Intel 6200	upg			Blue	6	vPro	Pro 32 G Apr 10

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-540M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system ²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 80GB ⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 160GB (7200 rpm), 250GB (5400 rpm), 320GB (7200 rpm), or 250GB (7200 rpm) Full Disk Encryption [FDE] / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive	
Widescreen display	<i>Some:</i> 14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio	
Camera	<i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm <i>6-cell:</i> starting at 5.0 lb (2.27kg); <i>9-cell:</i> starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery <i>6-cell:</i> up to 6.6 hr; <i>9-cell:</i> up to 11 hr; <i>9-cell plus Slice battery:</i> up to 22 hr	
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	Supports ThinkVantage® technologies
PCIe Mini Card Intel 6200 ²⁸ WiMAX Intel 6300 ²⁸ WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots <i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> 11a/b/g/n and WiMAX wireless, PCIe Half Mini Card, Intel Centrino Advanced-N + WiMAX 6250, 2x2 AGN + 1x2 WiMAX <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider	65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> AT&T®, contract required with service provider 56K V.92 ⁶ modem <i>Some:</i> Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades²² available	

See footnotes for important warranty information

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

ThinkPad® T410 2522 (Windows 7) - July 2010

Personal Systems Reference (PSREF)

	Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory (MHz)	Wide-screen display	Camera	Disk SATA GB/s	rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery cells	Intel vPro	Preload	Avail date
🔪	2522-KGU	i5-520M	2.40	2.93	2GBx2 1066	14.1" WXGA	2.0M	160G	7200	Intel 6200 ²⁸	WWAN upg	Fing	Blue	9	vPro	Pro 64	Jul 10
	2522-KHU	i5-540M	2.53	3.06	2GBx2 1066	14.1" WXGA	2.0M	160G SSD	Intel 6200	WWAN upg	Fing	Blue	9	vPro	Pro 64	Jul 10	
	2522-57U	i5-560M	2.66	3.20	2GBx2 1066	14.1" WXGA	2.0M	320G	7200	Intel 6200	WWAN upg	Fing	Blue	6	vPro	Pro 64	Jan 11

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M, i5-540M, or i5-560M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 160GB ⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 160GB (7200 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive	
Widescreen display Camera	14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case color Case material	<i>14.1W" (WxDxH):</i> 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm <i>6-cell:</i> starting at 5.0 lb (2.27kg); <i>9-cell:</i> starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery <i>6-cell:</i> up to 6.6 hr; <i>9-cell:</i> up to 11 hr; <i>9-cell plus Slice battery:</i> up to 22 hr	
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
PCle Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁵ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

Supports ThinkVantage® technologies

65-watt AC adapter
ThinkPad Roll Cage (one-piece magnesium frame)
EPEAT™ Gold rating
ENERGY STAR® 5.0-compliant
RoHS-compliant
International Warranty Service¹⁷
24 hour x 7 day¹⁸ toll-free support during the warranty period¹²
via 800-426-7378

ThinkPlus™. ²² 3-year LOR²⁴ 9x5 NBD 45K6021
ThinkPlus 4-year LOR 9x5 NBD 45K6022
ThinkPlus 5-year LOR 9x5 NBD 45K6024
ThinkPlus 4-year P&L P/U Depot 45K6023
ThinkPlus 5-year P&L P/U Depot 45K6025
Post-warranty annual maintenance agreements at
lenovo.com/thinkplus/warranty

See footnotes for important warranty information

US model announced January 11, 2011; previous models on July 6, 2010

✂ US model withdrawn effective February 2011

© Lenovo
(NZ1-16) January 2011

ThinkPad® T410 2522 (Optimus) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory (MHz)	Wide-screen display	Graphics controller memory	Disk SATA GB ³ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Intel vPro	Preload	Avail date
2522-88U	i5-560M	2.66	3.20	2GBx1 1066	14.1" WXGA	512MB	320G 7200	Intel 6200 ²⁸	WWAN upg	None	vPro	Pro 64	Sep 10

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-560M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus	
Camera		
Optimus graphics ³⁷	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics in processor, and NVIDIA Quadro® NVS3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm 6-cell: starting at 5.0 lb (2.27kg); 9-cell: starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery 6-cell: up to 6.5 hr; 9-cell: up to 10.9 hr; 9-cell plus Slice battery: up to 21.9 hr	
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades²² available	

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

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

© Lenovo
 (NZ1-18) December 2010

ThinkPad® T410 2519 (Discrete) - Windows 7

Personal Systems Reference (PSREF)

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

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32		
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)		
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™												
Widescreen display	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio												
Camera	Camera on top of screen, 2.0-megapixel, fixed focus												
Discrete graphics	NVIDIA® Quadro® NVS3100M , PCI Express® x16, 256MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)												
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Touchpad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm												
Weight ²	6-cell: starting at 5.0 lb (2.27kg); 9-cell: starting at 5.35 lb (2.43kg)												
Case color	Black												
Case material	<i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic												
Battery - type	Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom												
Battery - life ¹⁰	6-cell: up to 5.0 hr; 9-cell: up to 8.3 hr; 9-cell plus Slice battery: up to 16.6 hr												
Chipset	Mobile Intel QM57 Express Chipset												
ExpressCard/34	One slot (ExpressCard/34)												
Smart Card read	None												
Multicard reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)												
Ports	Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)												
PCIe Mini Card	Two PCI Express Mini Card slots												
Intel 6200 ²⁸	11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2												
WWAN upg	None												
Modem	56K V.92 ⁶ modem												
Bluetooth™	Bluetooth 2.1 wireless, LED indicator												
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1												
Intel AMT	Intel Active Management Technology (iAMT)												
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, TCG 1.2-compliant												
Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip												
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available												

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

© Lenovo
(NZ1-9) January 2010

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

ThinkPad® T410 2522 (Discrete) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Bat-tery cells	Intel vPro	Workhorse (W) Global (G) Avail date
2522-23U	i5-520M	2.40	2.93	2GB	14.1" WXGA	320G 7200	Intel 6200 ²⁸	WWAN upg		Finger	9	vPro	Pro 32 G Jan 10
2522-24U	i5-540M	2.53	3.06	2GB	14.1" WXGA+	128G SSD	Intel 6200	WWAN upg		Finger	9	vPro	Pro 32 G Jan 10
2522-2BU	i5-520M	2.40	2.93	2GB	14.1" WXGA+	2.0M 320G 7200	Intel 6200	Gobi 2000	Verizon ¹⁶	Finger	9	vPro	Pro 32 Jan 10
2522-26U	i5-520M	2.40	2.93	2GB	14.1" WXGA+	2.0M 80G SSD	Intel 6200	WWAN upg		Finger	6	vPro	Pro 32 G Jan 10
2522-4AU	i5-520M	2.40	2.93	2GB	14.1" WXGA	250G 5400	Intel 6200	WWAN upg		Finger	9	vPro	Pro 32 Jan 10
2522-4BU	i5-520M	2.40	2.93	2GB	14.1" WXGA+	2.0M 320G 7200	Intel 6200	WWAN upg		Finger	6	vPro	Pro 32 Jan 10
2522-4EU	i5-540M	2.53	3.06	4GB	14.1" WXGA	320G 7200	Intel 6200	WWAN upg		Finger	6	vPro	Pro 64 Mar 10
2522-4FU	i5-540M	2.53	3.06	2GB	14.1" WXGA+	2.0M 320G 7200	Intel 6200	Gobi 2000	AT&T ²³		6	vPro	Pro 32 Mar 10
2522-4TU	i5-520M	2.40	2.93	2GB	14.1" WXGA	160G 7200	Intel 6200	WWAN upg		Finger	6	vPro	Pro 32 Apr 10
2522-KJU	i5-540M	2.53	3.06	4GB	14.1" WXGA	2.0M 160G SSD	Intel 6200	WWAN upg		Finger	9	vPro	Pro 64 Jul 10

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

Positioning Processor	Premiere performance; two spindles Intel® Core™ i5 processor i5-520M or i5-540M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 80GB⁸, 128GB, or 160GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 160GB (7200 rpm), 250GB (5400 rpm), or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive	
Widescreen display	<i>Some:</i> 14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio	
Camera	<i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus	
Discrete graphics	NVIDIA® Quadro® NVS3100M , PCI Express® x16, 256MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm <i>6-cell:</i> starting at 5.0 lb (2.27kg); <i>9-cell:</i> starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery <i>6-cell:</i> up to 5.0 hr; <i>9-cell:</i> up to 8.3 hr; <i>9-cell plus Slice battery:</i> up to 16.6 hr	
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	Supports ThinkVantage® technologies
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider	90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> AT&T® or Verizon®, contract required with service provider 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Limited warranty ¹² 3-years/1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for important warranty information

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

⚡ US model withdrawn effective February 2011

© Lenovo
(NZ1-10) July 2010

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

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Processor (GHz)	Memory (MHz)	Wide-screen display	Graphics controller memory	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Intel vPro	Workhorse (W) Global (G) Preload	Avail date
2522-K2U	i5-520M	2.40	2.93	2GBx1	1066	14.1" WXGA	512MB 160G 7200	Intel 6200 ²⁸	WWAN upg		vPro	Pro 64	G May 10
2522-K3U	i5-540M	2.53	3.06	4GBx1	1333	14.1" WXGA+	512MB 320G 7200	Intel 6200	WWAN upg	Finger	vPro	Pro 64	G May 10
2522-K4U	i7-620M	2.66	3.33	4GBx1	1333	14.1" WXGA+	512MB 320G 7200	Intel 6200	WWAN upg	Finger	vPro	Pro 64	G May 10
2522-K5U	i5-540M	2.53	3.06	2GBx1	1066	14.1" WXGA+	512MB 160G 7200	Intel 6200	WWAN upg	Finger	vPro	Pro 64	May 10
• These models have a depot repair service 3-year limited warranty • These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)													
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-540M with dual-core , or Intel Core i7 processor i7-620M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; <i>i5-520M/ i5-540M: 3MB cache; i7-620M: 4MB cache</i>									Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)			
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets									Supports ThinkVantage® technologies 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™, 22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 160GB⁸ (7200 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™												
Widescreen display	<i>Some: 14.1" (358mm) WXGA (1280x800) color</i> , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some: 14.1" (358mm) WXGA+ (1440x900) color</i> , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio												
Camera	Camera on top of screen, 2.0-megapixel, fixed focus												
Discrete graphics	NVIDIA® Quadro® NVS3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)</i>												
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm 6-cell: starting at 5.0 lb (2.27kg); 9-cell: starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic												
Battery - type Battery - life ¹⁰	Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery 6-cell: up to 5.0 hr; 9-cell: up to 8.3 hr; 9-cell plus Slice battery: up to 16.6 hr												
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)												
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack												
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some: UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip</i>												
Limited warranty¹² 3-years/1-yr battery - depot repair service / service upgrades²² available													

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

© Lenovo
 (NZ1-15) May 2010

ThinkPad® T410 2537 (Onsite) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory (MHz)	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger-print reader	Bat-tery cells	Intel vPro	Workhorse (W) Global (G) Preload GMP (P)	Avail date
2537-22U	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA		320G 7200	Intel 6200 ²⁸	WWAN upg	Finger	6	vPro	Pro 32	G P Jan 10
2537-25U	i5-540M	2.53	3.06	2GBx2 1066	14.1" WXGA+		320G 7200	Intel 6200	WWAN upg	Finger	6	vPro	Pro 32	W G P Jan 10
2537-27U	i5-540M	2.53	3.06	4GBx1 1333	14.1" WXGA		250G FDE	Intel 6200	WWAN upg	Finger	6	vPro	Pro 64	G P Mar 10
2537-28U	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA		250G 5400	Intel 6200	WWAN upg		9	vPro	Pro 64	G P Mar 10
2537-29U	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA	2.0M	160G 7200	Intel 6200	WWAN upg		6	vPro	Pro 32	G P Apr 10

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-540M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache		Preloaded operating system ²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 160GB ⁸ (7200 rpm), 250GB (5400 rpm), 320GB (7200 rpm), or 250GB (7200 rpm) Full Disk Encryption [FDE] / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™		
Widescreen display	<i>Some:</i> 14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio		
Camera	<i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus		
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)		
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm 6-cell: starting at 5.0 lb (2.27kg); 9-cell: starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic		
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery 6-cell: up to 6.6 hr; 9-cell: up to 11 hr; 9-cell plus Slice battery: up to 22 hr		
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack		
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available		

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

See footnotes for important warranty information

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

© Lenovo
(NZ1-11) April 2010

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

Personal Systems Reference (PSREF)

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

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

Positioning Processor	Premiere performance; two spindles Intel® Core™ i5 processor i5-520M or i5-540M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32				
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)				
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 80GB® or 128GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive														
Widescreen display	<i>Some:</i> 14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio														
Camera	<i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus														
Discrete graphics	NVIDIA® Quadro® NVS3100M , PCI Express® x16, 256MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)														
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm 6-cell: starting at 5.0 lb (2.27kg); 9-cell: starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic														
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery 6-cell: up to 5.0 hr; 9-cell: up to 8.3 hr; 9-cell plus Slice battery: up to 16.6 hr														
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁵ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack										Supports ThinkVantage® technologies				
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available										ThinkPlus™. 22 4-year LOR ²⁴ 9x5 NBD 45K6038 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				

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

© Lenovo
 (NZ1-12) January 2010

ThinkPad® T410 2522 (Education) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory	Wide-screen display	CCFL or LED	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Bat- tery Intel vPro	Preload	Avail date			
2522-52U	i5-520M	2.40	2.93	2GB	14.1" WXGA	LED	2.0M	250G 5400	Intel 6200 ²⁸		6	vPro	Pro 32	Jan 10		
2522-53U	i5-520M	2.40	2.93	2GB	14.1" WXGA	LED	2.0M	320G 5400	Intel 6200	Finger	Blue	6	vPro	Pro 32	Jan 10	
2522-54U	i5-520M	2.40	2.93	3GB	14.1" WXGA+	LED	2.0M	320G 7200	Intel 6200	WWAN upg	Finger	Blue	6	vPro	Pro 32	Jan 10
• These models have a depot repair service 3-year limited warranty • These systems are Microsoft® Office 2010 Product Key Ready (O10PKR) • Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers. • Microsoft Office Ultimate 2007 Academic Edition: Only valid for sale to students, faculty and staff of accredited educational institutions in the United States.																
Positioning Processor	Premiere performance; two spindles Intel® Core™ i5 processor i5-520M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32					
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • 54U model: Education software - Microsoft® Office Ultimate 2007 Academic Edition (and CD) • Education software - Microsoft® Office OneNote® 2007 (and CD) - Adobe Digital School Collection – Instructor Resources (and DVD) – Learning Creative Suite 4 (DVD) – Photoshop Elements 7 (DVD) – Premiere Elements 7 (and DVD) – Acrobat 9 Professional (DVD) – Contribute CS4 (and DVD) – Soundbooth CS4 (and DVD) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)					
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 250GB⁸ (5400 rpm) or 320GB (5400 or 7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™															
Widescreen display	<i>Some:</i> 14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio															
Camera	Camera on top of screen, 2.0-megapixel, fixed focus															
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)															
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm															
Weight ²	6-cell: starting at 5.0 lb (2.27kg); 9-cell: starting at 5.35 lb (2.43kg)															
Case color	Black															
Case material	<i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic															
Battery - type	Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom															
Battery - life ¹⁰	6-cell: up to 6.6 hr; 9-cell: up to 11 hr; 9-cell plus Slice battery: up to 22 hr															
Chipset	Mobile Intel QM57 Express Chipset															
ExpressCard/34	One slot (ExpressCard/34)															
Smart Card read	None															
Multicard reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)															
Ports	Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)															
PCIe Mini Card	Two PCI Express Mini Card slots															
Intel 6200 ²⁸	11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2															
WWAN upg	<i>Some:</i> Wireless WAN upgradable															
Modem	56K V.92 ⁶ modem															
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator															
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1															
Intel AMT	Intel Active Management Technology (iAMT)															
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack															
Security	Power-on password, hard disk password, supervisor password, security keyhole															
Security chip	Trusted Platform Module, TCG 1.2-compliant															
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip															
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available															
											Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty					

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

© Lenovo
 (NZ1-13) January 2010

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

Personal Systems Reference (PSREF)

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

- *These models have an depot repair service 3-year limited warranty*
- *These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)*
- *Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.*
- *Microsoft Office Ultimate 2007 Academic Edition: Only valid for sale to students, faculty and staff of accredited educational institutions in the United States.*

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 32 Preloaded applications ¹⁴ (only some listed) • <i>56U model:</i> Education software - Microsoft® Office Ultimate 2007 Academic Edition (and CD) • Education software - Microsoft® Office OneNote® 2007 (and CD) - Adobe Digital School Collection - Instructor Resources (and DVD) - Learning Creative Suite 4 (DVD) - Photoshop Elements 7 (DVD) - Premiere Elements 7 (and DVD) - Acrobat 9 Professional (DVD) - Contribute CS4 (and DVD) - Soundbooth CS4 (and DVD) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 320GB ⁸ (5400 or 7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	<i>Some:</i> 14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio	
Camera	Camera on top of screen, 2.0-megapixel, fixed focus	
Discrete graphics	NVIDIA® Quadro® NVS3100M , PCI Express® x16, 256MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@85Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm <i>6-cell:</i> starting at 5.0 lb (2.27kg); <i>9-cell:</i> starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery <i>6-cell:</i> up to 6.6 hr; <i>9-cell:</i> up to 11 hr; <i>9-cell plus Slice battery:</i> up to 22 hr	
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

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

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

© Lenovo
(NZ1-14) January 2010

ThinkPad® T410i 2516 (TopSeller) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue-tooth	Battery Intel cells vPro	Preload	Avail date
2516-AQU	i3-330M	2.13	2GB	14.1" WXGA	2.0M	250G 5400	Intel 1000			None	None	6	No	Pro 32 Feb 10
2516-72U	i3-370M	2.40	2GB	14.1" WXGA	2.0M	250G 5400	Intel 1000			None	None	6	No	Pro 64 Jul 10
2516-73U	i3-370M	2.40	2GB	14.1" WXGA	2.0M	320G 7200	Intel 1000			None	None	6	No	Pro 64 Jul 10
2516-74U	i3-370M	2.40	2GB	14.1" WXGA	2.0M	320G 7200	Intel 1000	Gobi 2000	selectable	None	None	6	No	Pro 64 Jul 10
2516-FBU	i3-390M	2.66	2GB	14.1" WXGA	2.0M	320G 7200	Intel 1000	WWAN upg		None	None	6	No	Pro 64 Jan 11

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i3 processor i3-330M, i3-370M, or i3-390M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache	Preloaded operating system ²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 250GB ⁸ (5400 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio	
Camera	Camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm 6-cell: starting at 5.0 lb (2.27kg); 9-cell: starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	Supports ThinkVantage® technologies
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom 6-cell: up to 6.6 hr; 9-cell: up to 11 hr; 9-cell plus Slice battery: up to 22 hr	65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	ThinkPlus™. 22 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975
PCIe Mini Card Intel 1000 WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS	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
Carrier	<i>Some:</i> User selectable at first boot, AT&T®, Verizon®, or Sprint®, contract required with service provider	
Modem Bluetooth™ Ethernet Intel AMT Audio support	56K V.92 ⁶ modem None Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

See footnotes for important warranty information

US model announced January 11, 2011; previous models on February 2 or July 6, 2010

US model withdrawn effective July 31, 2010

© Lenovo
(NZ1i-2) January 2011

ThinkPad® T410i 2518 (TopSeller) - Windows 7

Personal Systems Reference (PSREF)

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

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

Positioning Processor	Premiere performance; two spindles Intel® Core™ i3 processor i3-370M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 250GB ® (5400 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display Camera	14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm <i>6-cell:</i> starting at 5.0 lb (2.27kg); <i>9-cell:</i> starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery <i>6-cell:</i> up to 6.6 hr; <i>9-cell:</i> up to 11 hr; <i>9-cell plus Slice battery:</i> up to 22 hr	
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
PCIe Mini Card Intel 1000 WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS	
Carrier	<i>Some:</i> User selectable at first boot, AT&T®, Verizon®, or Sprint®, contract required with service provider	
Modem Bluetooth™ Ethernet Intel AMT Audio support	56K V.92 ⁹ modem <i>Some:</i> Bluetooth 2.1 wireless, LED indicator Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

Supports ThinkVantage® technologies

65-watt AC adapter
ThinkPad Roll Cage (one-piece magnesium frame)
EPEAT™ Gold rating
ENERGY STAR® 5.0-compliant
RoHS-compliant
International Warranty Service¹⁷
24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378

ThinkPlus™.²² 3-year LOR²⁴ 9x5 NBD 45K6021
ThinkPlus 4-year LOR 9x5 NBD 45K6022
ThinkPlus 5-year LOR 9x5 NBD 45K6024
ThinkPlus 4-year P&L P/U Depot 45K6023
ThinkPlus 5-year P&L P/U Depot 45K6025
Post-warranty annual maintenance agreements at
lenovo.com/thinkplus/warranty

See footnotes for important warranty information
US models announced July 6, 2010

© Lenovo
(NZ1j-3) July 2010

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

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	CCFL or LED	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Blue/Fing	Intel vPro	Preload	Avail date
2518-JYU	i3-370M	2.40	2GB	14.1" WXGA+	LED	2.0M	320G 7200	Intel 6200 ²⁸	WWAN upg	None	Yes	No	Pro 64	Jul 10
• This small and medium business (SMB) model is part of the US TopSeller™ Program • This model has a depot repair service 3-year limited warranty • This system is Microsoft® Office 2010 Product Key Ready (O10PKR)														
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i3 processor i3-370M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64			
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)			
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™													
Widescreen display	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio													
Camera	Camera on top of screen, 2.0-megapixel, fixed focus													
Discrete graphics	NVIDIA® Quadro® NVS3100M , PCI Express® x16, 256MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)													
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touchpad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm													
Weight ²	6-cell: starting at 5.0 lb (2.27kg); 9-cell: starting at 5.35 lb (2.43kg)													
Case color	Black													
Case material	<i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic													
Battery - type	Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom													
Battery - life ¹⁰	6-cell: up to 5.0 hr; 9-cell: up to 8.3 hr; 9-cell plus Slice battery: up to 16.6 hr													
Chipset	Mobile Intel QM57 Express Chipset													
ExpressCard/34	One slot (ExpressCard/34)													
Smart Card read	None													
Multicard reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)													
Ports	Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
PCIe Mini Card	Two PCI Express Mini Card slots													
Intel 6200 ²⁸	11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2													
WWAN upg	Wireless WAN upgradable													
Modem	56K V.92 ⁶ modem													
Bluetooth™	Bluetooth 2.1 wireless, LED indicator													
Ethernet	Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1													
Intel AMT	Intel Active Management Technology (iAMT)													
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module, TCG 1.2-compliant													
Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available													

See footnotes for important warranty information
 US model announced July 6, 2010

© Lenovo
 (NZ1i-4) July 2010

Memory

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

Ultrabay Slim 9.5mm

Serial ATA Hard Drive Bay Adapter III	43N3412	ann 06/23/09
DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s	43N3292	ann 08/03/10
DVD Burner Ultrabay Slim Drive II SATA 1.5G/s	43N3229	ann 06/23/09
Ultrabay Slim Blu-ray Burner II (SATA)	43N3230	ann 06/23/09

Storage and removable storage

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

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

128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ann 08/26/08
256GB FDE SSD SATA 3Gb/s 1.8" (2.5" cover)	43N3417	ann 06/23/09
ThinkPad 160GB Intel X25-M SSD ⁴¹	43N3435	ann 06/22/10

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

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

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

ThinkPad Expansion

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

Keyboard

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

⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.
 ThinkPad USB Keyboard with TrackPoint 55Y9003 ann 08/18/09
 Lenovo® USB Fingerprint Keyboard 73P4730 ann 02/22/05
 Lenovo USB Smartcard Keyboard 51J0155 ann 03/24/09

Mouse

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

Multimedia

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

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06
ThinkPad T400/T410/R400 Privacy Filter	43R2472	ann 08/05/08

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

Batteries

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

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

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

⁴⁴ Requires the ThinkPad 90W AC Adapter 40Y7659 or the adapter provided with the system.

More information at www.lenovo.com/alldaycomputing

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

⁴⁵ Only compatible with the integrated graphics models.

ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
ThinkPad 65W AC Adapter with USB Hub	57Y4600	ann 09/07/10
90W Ultralim AC/DC Combo Adapter	41R4493	ann 09/22/09

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

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

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

More information at www.lenovopowertips.com

Carrying Cases

Up to 14" widescreen models:

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

Up to 15.6" widescreen models:

ThinkPad 15W Case Sleeve	51J0477	ann 08/18/09
Lenovo Business Messenger Case	51J0475	ann 08/18/09
Lenovo Messenger Max	41U5253	ann 05/01/07
Lenovo Performance Backpack	41U5254	ann 05/01/07
ThinkPad Business 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
Wenger Backpack for Lenovo	57Y4271	ann 01/07/10
Wenger Slim Case for Lenovo	57Y4272	ann 01/07/10
Wenger Deluxe Slim Case for Lenovo	57Y4273	ann 01/07/10

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

Monitors

Lenovo L2230x Wide 21.5" Monitor	5453HB1	ann 06/10/10
ThinkVision® L1711p 17" Monitor	5047HB2	ann 10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann 10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann 10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann 10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann 10/20/09
ThinkVision L2321x Wide 23" Monitor	4014HB6	ann 06/10/10

www.lenovo.com/support/thinkpad/optimus-monitors

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
Lenovo DisplayPort to VGA Monitor Cable	57Y4393	ann 08/04/09
DisplayPort to Single-link DVI-D Cable	45J7915	ann 08/05/08
ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

For more information on ThinkPad accessories, please visit:

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

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

ThinkPad®



Lenovo® ThinkPad T420



Lenovo ThinkPad T420



Lenovo ThinkPad T420



Lenovo ThinkPad T420



ThinkPad triple external monitor configuration
using NVIDIA's Optimus technology



ThinkPad Mini Dock Series 3
433710U

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ² rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Modem	IEEE 1394	Finger print reader	Blue-tooth	Battery cells	Intel AMT	Intel vPro	Preload
4178-6UU	i5-2520M	4GBx1	14.0" HD	720p	500G 7200	Intel 6205 ²⁸	WWAN upg		1394	Finger	Blue	6	iAMT	vPro	Pro 64
4178-9RU	i5-2410M	4GBx1	14.0" HD+	720p	320G 7200	Intel 6205	WWAN upg	Modem			Blue	6			Pro 64
4178-59U	i5-2540M	2GBx2	14.0" HD+	720p	320G 7200	Intel 6205	WWAN upg				Blue	6	iAMT	vPro	Pro 64
4178-57U	i5-2540M	2GBx2	14.0" HD	720p	500G 7200	Intel 6205	WWAN upg				Blue	6	iAMT	vPro	Pro 64
4178-56U	i5-2520M	2GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg				Blue	6	iAMT	vPro	Pro 64
• These small and medium business (SMB) models are part of the US TopSeller™ Program • These models have a depot repair service 3-year limited warranty • These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)															
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-2410M processor (dual-core, 2.30GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology Intel Core i5-2520M processor (dual-core, 2.50GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)				
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets														
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive														
mSATA™ SSD	None														
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio														
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus														
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)														
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ² Case material	14.0W" (WxDxH): 13.4" x 9.05" x 1.18–1.20"; 340.5 x 233.0mm x 30.1–30.5mm <i>4-cell:</i> from 4.13 lb (1.87kg); <i>6-cell:</i> from 4.31 lb (1.96kg); <i>9-cell:</i> from 4.70 lb (2.13kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Carbon-Fiber Reinforced Plastic														
Battery - type Battery - life ¹⁰	Lithium Ion 4-cell, 6-cell, or 9-cell, supports optional Slice battery (57Y4545) as 2nd battery <i>6-cell:</i> up to 9.0 hr; <i>9-cell:</i> up to 15.0 hr; <i>9-cell plus Slice battery:</i> up to 30.0 hr														
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM67 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)														
PCIe Mini Card WLAN ⁴ WWAN Modem IEEE 1394 Bluetooth™ Ethernet	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable <i>Some:</i> 56K V.92 ⁶ modem <i>Some:</i> IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) Bluetooth 3.0 wireless, LED indicator <i>Non-vPro model:</i> Intel 82579LF Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>vPro model:</i> Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>Some:</i> Intel Active Management Technology (iAMT)										Supports ThinkVantage® technologies				
Intel AMT Audio support	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole										65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Security Security chip Fingerprint reader	Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										For compatible accessories, please go to O-T420 sheet;				
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available														
											For ThinkPlus™ ²² service upgrade options, please go to S-TA sheet				

See footnotes for more detailed information
 US models announced February 22, 2011

© Lenovo
 (NZ3-1) February 2011

ThinkPad® T420 4178 (Optimus) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Modem	IEEE 1394	Finger print reader	Blue-tooth	Battery cells	Intel vPro	Preload
4178-6WU	i7-2620M	4GBx1	14.0" HD+	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	None	1394	Finger	Blue	9	vPro	Pro 64
4178-6VU	i5-2520M	4GBx1	14.0" HD+	720p	500G 7200	Intel 6205	WWAN upg	None	1394	Finger	Blue	9	vPro	Pro 64
4178-58U	i5-2520M	2GBx2	14.0" HD+	720p	320G 7200	Intel 6205	WWAN upg	None			Blue	9	vPro	Pro 64

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i7-2620M processor (dual-core, 2.70GHz, 4MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications ¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive	
mSATA™ SSD	None	
Widescreen display	14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio	
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus	
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 in processor, and NVIDIA Quadro® NVS4200M , PCI Express® x16, 1GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	14.0W" (WxDxH): 13.4" x 9.05" x 1.18–1.20"; 340.5 x 233.0mm x 30.1–30.5mm	
Weight ²	<i>4-cell:</i> from 4.13 lb (1.87kg); <i>6-cell:</i> from 4.31 lb (1.96kg); <i>9-cell:</i> from 4.70 lb (2.13kg)	
Case material	<i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type	Lithium Ion 4-cell, 6-cell, or 9-cell, supports optional Slice battery (57Y4545) as 2nd battery	
Battery - life ¹⁰	<i>6-cell:</i> up to 9.0 hr; <i>9-cell:</i> up to 15.0 hr; <i>9-cell plus Slice battery:</i> up to 30.0 hr	
Chipset	Mobile Intel QM67 Express Chipset	
ExpressCard	One slot (ExpressCard/34)	
Smart Card read	None	
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)	
Ports	Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)	
PCIe Mini Card WLAN ⁴	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2	Supports ThinkVantage® technologies 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 For compatible accessories, please go to O-T420 sheet; For ThinkPlus™, ²² service upgrade options, please go to S-TA sheet
WWAN	Wireless WAN upgradable	
Modem	None	
IEEE 1394	<i>Some:</i> IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
Bluetooth™	Bluetooth 3.0 wireless, LED indicator	
Ethernet	<i>Non-vPro model:</i> Intel 82579LF Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>vPro model:</i> Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1	
Intel AMT	Intel Active Management Technology (iAMT)	
Audio support	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	Trusted Platform Module, TCG 1.2-compliant	
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

See footnotes for more detailed information
US models announced February 22, 2011

© Lenovo
(NZ3-2) February 2011

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ² rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	Modem	IEEE 1394	Smart Card Reader	Finger print reader	Blue-tooth	Battery cells	Intel AMT	Intel vPro	Global (G) Educ	Preload
⌘ 4180-MNU	i5-2520M	4GBx1	14.0" HD	720p	500G 7200	Intel 6205 ²⁸	upg		1394		Fing	Blue	6	iAMT	vPro	G	Pro 64
4180-MBU	i5-2540M	4GBx1	14.0" HD+	720p	320G 7200	Intel 6205	upg	Modem			Fing	Blue	6	iAMT	vPro	G	Pro 64
4180-63U	i5-2540M	2GBx2	14.0" HD+	720p	320G 7200	Intel 6205	upg		1394		Fing	Blue	6	iAMT	vPro	G	Pro 64
4180-62U	i5-2520M	2GBx2	14.0" HD	720p	320G 7200	Intel 6205	upg		1394			Blue	6	iAMT	vPro	G	Pro 64
⌘ 4180-KHU	i5-2540M	4GBx1	14.0" HD+	720p	320G 7200	Intel 6205	upg	Modem			Fing	Blue	6	iAMT	vPro		Pro 64
⌘ 4180-NDU	i5-2540M	4GBx1	14.0" HD		320G 7200	Intel 6205	upg		1394	Smart			6	iAMT	vPro		Pro 64
⌘ 4180-NCU	i5-2410M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	upg	Modem					6			Edu	Prem 64
⌘ 4180-N2U	i7-2620M	4GBx1	14.0" HD+	720p	500G 7200	Intel 6205	upg	Modem		Smart	Fing	Blue	6	iAMT	vPro		Pro 64

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-2410M processor (dual-core, 2.30GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology Intel Core i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-2620M processor (dual-core, 2.70GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Home Premium 64 - Some: Genuine Windows 7 Professional 64 Ready to install applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)							
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets																	
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ All: removable, upgradable, supports the second disk, Shock Mounted Hard Drive																	
mSATA™ SSD	None																	
Widescreen display	Some: 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio Some: 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio																	
Camera	Some: HD720p resolution, wider view angle, low light sensitive, fixed focus																	
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; Maximum external resolution: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)																	
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions																	
Dimensions ³ Weight ² Case material	14.0W" (WxDxH): 13.4" x 9.05" x 1.18–1.20"; 340.5 x 233.0mm x 30.1–30.5mm 4-cell: from 4.13 lb (1.87kg); 6-cell: from 4.31 lb (1.96kg); 9-cell: from 4.70 lb (2.13kg) Display cover: Carbon-fiber / Glass-fiber hybrid; Bottom: Carbon-Fiber Reinforced Plastic																	
Battery - type Battery - life ¹⁰	Lithium Ion 4-cell, 6-cell, or 9-cell, supports optional Slice battery (57Y4545) as 2nd battery 6-cell: up to 9.0 hr; 9-cell: up to 15.0 hr; 9-cell plus Slice battery: up to 30.0 hr																	
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM67 Express Chipset One slot (ExpressCard/34) Some: Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)																	
PCIe Mini Card WLAN ⁴ WWAN Modem IEEE 1394 Bluetooth™ Ethernet	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable Some: 56K V.92 ⁶ modem Some: IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) Some: Bluetooth 3.0 wireless, LED indicator Non-vPro model: Intel 82579LF Gigabit Network Connection (Lewisville), PHY, PCIe x1 vPro model: Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Some: Intel Active Management Technology (iAMT)																	
Intel AMT Audio support	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole																	
Security Security chip Fingerprint reader	Trusted Platform Module, TCG 1.2-compliant Some: UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip																	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available										Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 For compatible accessories, please go to O-T420 sheet; For ThinkPlus™, 22 service upgrade options, please go to S-TA sheet							

See footnotes for more detailed information

⌘ US models announced March 1, 2011; previous models on February 22, 2011

⌘ US models withdrawn effective March 2011

© Lenovo
(NZ3-3) March 2011

ThinkPad® T420 4180 (Optimus)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	IEEE 1394	Smart Card Reader	Finger print reader	Blue-tooth	Battery cells	Intel vPro	Global (G) GMP (P)	Pre-load
4180-MMU	i7-2620M	4GBx1	14.0" HD+	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	1394		Finger	Blue	9	vPro	G	Pro 64
4180-65U	i5-2540M	2GBx2	14.0" HD+	720p	500G 7200	Intel 6205	WWAN upg	1394		Finger	Blue	9	vPro	G	Pro 64
4180-64U	i5-2520M	2GBx2	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	1394			Blue	6	vPro	G	Pro 64
4180-NEU	i5-2540M	4GBx1	14.0" HD		320G 7200	Intel 6205	WWAN upg	1394	Smart			6	vPro		Pro 64

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-2620M processor (dual-core, 2.70GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology									Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)					
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets														
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive														
mSATA™ SSD	None														
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio														
Camera	<i>Some:</i> HD720p resolution, wider view angle, low light sensitive, fixed focus														
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 in processor, and NVIDIA Quadro® NVS4200M , PCI Express® x16, 1GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)														
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ² Case material	14.0W" (WxDxH): 13.4" x 9.05" x 1.18–1.20"; 340.5 x 233.0mm x 30.1–30.5mm 4-cell: from 4.13 lb (1.87kg); 6-cell: from 4.31 lb (1.96kg); 9-cell: from 4.70 lb (2.13kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Carbon-Fiber Reinforced Plastic														
Battery - type Battery - life ¹⁰	Lithium Ion 4-cell, 6-cell, or 9-cell, supports optional Slice battery (57Y4545) as 2nd battery 6-cell: up to 9.0 hr; 9-cell: up to 15.0 hr; 9-cell plus Slice battery: up to 30.0 hr														
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM67 Express Chipset One slot (ExpressCard/34) <i>Some:</i> Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)														
PCIe Mini Card WLAN ⁴ WWAN Modem IEEE 1394 Bluetooth™ Ethernet	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) <i>Some:</i> Bluetooth 3.0 wireless, LED indicator <i>Non-vPro model:</i> Intel 82579LF Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>vPro model:</i> Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1														
Intel AMT Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack														
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available									Supports ThinkVantage® technologies 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 For compatible accessories, please go to O-T420 sheet; For ThinkPlus™, ²² service upgrade options, please go to S-TA sheet					

See footnotes for more detailed information

US model announced March 1, 2011; previous models on February 22, 2011

© Lenovo
(NZ3-4) March 2011

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Modem	IEEE 1394	Finger print reader	Blue-tooth	Bat-tery cells	Intel vPro	Global (G) GMP (P)	Preload
4236-NUU	i5-2520M	4GBx1	14.0" HD	720p	500G 7200	Intel 6205 ²⁸	WWAN upg		1394	Finger	Blue	6	vPro	G P	Pro 64
4236-MBU	i5-2540M	4GBx1	14.0" HD+	720p	320G 7200	Intel 6205	WWAN upg	Modem		Finger	Blue	6	vPro	G P	Pro 64
✕ 4236-NHU	i5-2540M	4GBx1	14.0" HD+	720p	320G 7200	Intel 6205	WWAN upg	Modem		Finger	Blue	6	vPro	G P	Pro 64
4236-63U	i5-2540M	2GBx2	14.0" HD+	720p	320G 7200	Intel 6205	WWAN upg		1394	Finger	Blue	6	vPro	G P	Pro 64
4236-62U	i5-2520M	2GBx2	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg		1394		Blue	6	vPro	G P	Pro 64
• These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty • These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)															
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology									Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)					
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets														
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive														
mSATA™ SSD	None														
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio														
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus														
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)														
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ² Case material	14.0W" (WxDxH): 13.4" x 9.05" x 1.18–1.20"; 340.5 x 233.0mm x 30.1–30.5mm 4-cell: from 4.13 lb (1.87kg); 6-cell: from 4.31 lb (1.96kg); 9-cell: from 4.70 lb (2.13kg) Display cover: Carbon-fiber / Glass-fiber hybrid; Bottom: Carbon-Fiber Reinforced Plastic														
Battery - type Battery - life ¹⁰	Lithium Ion 4-cell, 6-cell, or 9-cell, supports optional Slice battery (57Y4545) as 2nd battery 6-cell: up to 9.0 hr; 9-cell: up to 15.0 hr; 9-cell plus Slice battery: up to 30.0 hr														
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM67 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)														
PCIe Mini Card WLAN ⁴ WWAN Modem IEEE 1394 Bluetooth™ Ethernet	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable <i>Some:</i> 56K V.92 ⁶ modem <i>Some:</i> IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) Bluetooth 3.0 wireless, LED indicator <i>Non-vPro model:</i> Intel 82579LF Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>vPro model:</i> Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1									Supports ThinkVantage® technologies					
Intel AMT Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack									65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378					
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip									For compatible accessories, please go to O-T420 sheet;					
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									For ThinkPlus™, 22 service upgrade options, please go to S-TA sheet					

See footnotes for more detailed information

US models announced February 22, 2011

✕ US model withdrawn effective March 2011

© Lenovo

(NZ3-5) February 2011

ThinkPad® T420 4236 (Optimus) - Onsite

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Modem	IEEE 1394	Finger print reader	Blue-tooth	Bat-tery cells	Intel vPro	Global (G) GMP (P)	Preload
4236-NVU	i7-2620M	4GBx1	14.0" HD+	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	None	1394	Finger	Blue	9	vPro	G P	Pro 64
4236-65U	i5-2540M	2GBx2	14.0" HD+	720p	500G 7200	Intel 6205	WWAN upg	None	1394		Blue	9	vPro	G P	Pro 64
4236-64U	i5-2520M	2GBx2	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	None	1394		Blue	6	vPro	G P	Pro 64

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-2620M processor (dual-core, 2.70GHz, 4MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology									Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)					
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets														
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive														
mSATA™ SSD	None														
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio														
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus														
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 in processor, and NVIDIA Quadro® NVS4200M , PCI Express® x16, 1GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)														
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ² Case material	14.0W" (WxDxH): 13.4" x 9.05" x 1.18–1.20"; 340.5 x 233.0mm x 30.1–30.5mm 4-cell: from 4.13 lb (1.87kg); 6-cell: from 4.31 lb (1.96kg); 9-cell: from 4.70 lb (2.13kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Carbon-Fiber Reinforced Plastic														
Battery - type Battery - life ¹⁰	Lithium Ion 4-cell, 6-cell, or 9-cell, supports optional Slice battery (57Y4545) as 2nd battery 6-cell: up to 9.0 hr; 9-cell: up to 15.0 hr; 9-cell plus Slice battery: up to 30.0 hr														
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM67 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)														
PCIe Mini Card WLAN ⁴ WWAN Modem IEEE 1394 Bluetooth™ Ethernet	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) Bluetooth 3.0 wireless, LED indicator <i>Non-vPro model:</i> Intel 82579LF Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>vPro model:</i> Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1														
Intel AMT Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack														
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip														
Limited warranty ¹²	3-years/1-year - battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available														

See footnotes for more detailed information
 US models announced February 22, 2011

© Lenovo
 (NZ3-6) February 2011

ThinkPad® T420i 4177 (TopSeller)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Modem	IEEE 1394	Finger print reader	Blue-tooth	Bat-tery cells	Intel vPro	Preload
4177-QGU	i3-2310M	4GBx1	14.0" HD	720p	320G 7200	Intel 1000	WWAN upg	Modem	None	None	None	6	None	Pro 64

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

Positioning Processor	Premiere performance; two spindles Intel® Core™ i3-2310M processor (dual-core, 2.10GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), HT technology		Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications ¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive		
mSATA™ SSD	None		
Widescreen display	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio		
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus		
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)		
Keyboard	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass		
Touchpad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	14.0W" (WxDxH): 13.4" x 9.05" x 1.18–1.20"; 340.5 x 233.0mm x 30.1–30.5mm		
Weight ²	4-cell: from 4.13 lb (1.87kg); 6-cell: from 4.31 lb (1.96kg); 9-cell: from 4.70 lb (2.13kg)		
Case material	Display cover: Carbon-fiber / Glass-fiber hybrid; Bottom: Carbon-Fiber Reinforced Plastic		
Battery - type	Lithium Ion 4-cell, 6-cell, or 9-cell, supports optional Slice battery (57Y4545) as 2nd battery		
Battery - life ¹⁰	6-cell: up to 9.0 hr; 9-cell: up to 15.0 hr; 9-cell plus Slice battery: up to 30.0 hr		
Chipset	Mobile Intel QM67 Express Chipset		
ExpressCard	One slot (ExpressCard/34)		
Smart Card read	None		
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)		
Ports	Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
WLAN ⁴	11b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2		
WWAN	Wireless WAN upgradable		
Modem	56K V.92 ⁶ modem		
IEEE 1394	None		
Bluetooth™	None		
Ethernet	Non-vPro model: Intel 82579LF Gigabit Network Connection (Lewisville), PHY, PCIe x1 vPro model: Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1		
Intel AMT	None		
Audio support	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	None		
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available		
Supports ThinkVantage® technologies			
65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
For compatible accessories, please go to O-T420 sheet; For ThinkPlus™, 22 service upgrade options, please go to S-TA sheet			

See footnotes for more detailed information
US model announced March 1, 2011

© Lenovo
(NZ3i-1) March 2011

ThinkPad® T420 Accessories

Personal Systems Reference (PSREF)

Memory

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

Ultrabay Enhanced 12.7mm

Serial ATA Hard Drive Bay Adapter III	43N3412	ann	06/23/09
DVD Burner Ultrabay Enhanced II SATA	43N3294	ann	01/07/10

Storage and removable storage

256GB 1.8" FDE Solid State Drive ⁴¹	43N3417	ann	06/23/09
160GB 2.5" Intel X25-M Solid State Drive II ⁴¹	0A33983	ann	02/22/11
128GB 2.5" Solid State Drive II ⁴¹	0A33984	ann	02/22/11
250GB 7200rpm SATA 3.0Gb/s			
OPAL-capable FDE HDD II ⁴¹	0A33985	ann	02/22/11
320GB 7200rpm SATA 3.0Gb/s Hard Drive II ⁴¹	0A33986	ann	02/22/11
320GB 5400rpm SATA 3.0Gb/s Hard Drive II ⁴¹	0A33987	ann	02/22/11

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

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

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann	05/12/09
ThinkPad Port Replicator Series 3	433610W	ann	06/23/09
ThinkPad Mini Dock Series 3	433710U	ann	06/23/09
ThinkPad Mini Dock Plus Series 3	433810U	ann	06/23/09
ThinkPad Mini Dock Plus Series 3 (170W)	433830U	ann	02/22/11

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

Mouse

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

Multimedia

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

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06

Note: ThinkPad T400/T410/R400 Privacy Filter (43R2472) is not supported on T420 or T420s.

Batteries

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

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

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

⁴⁴ Requires the ThinkPad 90W AC Adapter 40Y7659 or the adapter provided with the system.

More information at www.lenovo.com/alldaycomputing

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

⁴⁵ Only compatible with the integrated graphics models.

ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
ThinkPad 65W AC Adapter with USB Hub	57Y4600	ann	09/07/10
90W Ultralim AC/DC Combo Adapter	41R4493	ann	09/22/09

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

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

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

More information at www.lenovopowertips.com

Carrying Cases

Up to 14" widescreen models:

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

Up to 15.6" widescreen models:

ThinkPad 15W Case Sleeve	51J0477	ann	08/18/09
Lenovo Business Messenger Case	51J0475	ann	08/18/09
Lenovo Messenger Max	41U5253	ann	05/01/07
Lenovo Performance Backpack	41U5254	ann	05/01/07
ThinkPad Business 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
Wenger Backpack for Lenovo	57Y4271	ann	01/07/10
Wenger Slim Case for Lenovo	57Y4272	ann	01/07/10
Wenger Deluxe Slim Case for Lenovo	57Y4273	ann	01/07/10

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

Monitors

Lenovo L2230x Wide 21.5" Monitor	5453HB1	ann	06/10/10
ThinkVision® L1711p 17" Monitor	5047HB2	ann	10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann	10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann	10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann	10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann	10/20/09
ThinkVision L2321x Wide 23" Monitor	4014HB6	ann	06/10/10

www.lenovo.com/support/thinkpad/optimus-monitors

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 MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

For more information on ThinkPad accessories, please visit:

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

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

ThinkPad®



Lenovo® ThinkPad T410s



Lenovo ThinkPad T410s



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



ThinkPad Battery 59+ (6-cell)
51J0497



ThinkPad triple external monitor configuration
using NVIDIA's Optimus technology



Lenovo ThinkPad T410s

ThinkPad® T410s 2901 (TopSeller) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Card slot	Intel vPro Preload	Avail date
2901-ATU	i5-560M	2.66 3.20	2GB	14.1" WXGA+	2.0M	250G 5400	11b/g/n	WWAN upg	None	Blue	Express	No Pro 64	Sep 10

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

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5 processor i5-560M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Presentation Director • ThinkVantage Productivity Center • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 250GB ⁸ (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio	
Camera	Camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Touchpad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm	Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Weight ²	6-cell: starting at 3.94 lb (1.79kg)	
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy	
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim	
Battery - life ¹⁰	6-cell: up to 4.8 hr; 6-cell plus Ultrabay battery: up to 7.9 hr	
Chipset	Mobile Intel QS57 Express Chipset	
ExpressCard/34	One slot (ExpressCard/34)	
Multicard Reader	None	
Ports	Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)	
PCIe Mini Card	Two PCI Express Mini Card slots	
11b/g/n	11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card	ThinkPlus 2-year LOR 9x5 NBD 45K5969
WWAN upg	Wireless WAN upgradable	ThinkPlus 3-year LOR 9x5 NBD 45K5970
Modem	None	ThinkPlus 4-year LOR 9x5 NBD 45K5973
Bluetooth™	Bluetooth 2.1 wireless, LED indicator	ThinkPlus 5-year LOR 9x5 NBD 45K5975
Ethernet	Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1	ThinkPlus 2-year P&L P/U Depot 45K5971
Intel AMT	Intel Active Management Technology (iAMT)	ThinkPlus 3-year P&L P/U Depot 45K5972
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	ThinkPlus 4-year P&L P/U Depot 45K5974
Security	Power-on password, hard disk password, supervisor password, security keyhole	ThinkPlus 5-year P&L P/U Depot 45K5976
Security chip	Trusted Platform Module, TCG 1.2-compliant	Post-warranty annual maintenance agreements at
Fingerprint reader	None	lenovo.com/thinkplus/warranty
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

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

© Lenovo
(SN2-11) October 2010

ThinkPad® T410s 2904 (TopSeller) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Card slot	Power Adapter (watt)	Intel vPro	Preload	Avail date
2904-FZU	i5-520M	2.40	2.93	4GB	14.1" WXGA+	128G SSD	Intel 6200 ²⁸	WWAN upg	Finger	Express	65W	vPro	Pro 64	Mar 10
2904-GGU	i5-520M	2.40	2.93	2GB	14.1" WXGA+	250G 5400	Intel 6200	WWAN upg		Express	90W	vPro	Pro 64	May 10
2904-HCU	i5-560M	2.66	3.20	4GB	14.1" WXGA+	128G SSD	Intel 6200	WWAN upg		Express	65W	vPro	Pro 64	Sep 10

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

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-560M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 128GB ⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high <i>Some:</i> 250GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive	
Widescreen display Camera	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm <i>6-cell:</i> starting at 3.94 lb (1.79kg) <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 4.8 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.9 hr	
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel QS57 Express Chipset One slot (ExpressCard/34) None Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)	
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable None Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

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

See footnotes for important warranty information

US model announced September 28, 2010; previous models on March 2 or May 4, 2010

© Lenovo
(SN2-7) October 2010

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

Personal Systems Reference (PSREF)

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

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

Positioning Processor	Premiere performance and ultraportability; two spindles Intel® Core™ i5 processor i5-520M or i5-540M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available		
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 128GB ⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high <i>Some:</i> 250GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive		
Widescreen display	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio		
Camera	Camera on top of screen, 2.0-megapixel, fixed focus		
Switchable graphics	Dynamic switching between discrete and integrated graphics (user selectable), Intel HD Graphics in processor, and NVIDIA® Quadro® NVS3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2048x1536 (VGA)@75Hz(integrated) or 85Hz(discrete); 1920x1200@60Hz (single-link DVI-D via cable 45J7915); 2560x1600 (DP)@60Hz		
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass		
Touchpad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm		
Weight ²	6-cell: starting at 3.94 lb (1.79kg)		
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy		
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim		
Battery - life ¹⁰	6-cell: up to 4.8 hr; 6-cell plus Ultrabay battery: up to 7.9 hr		
Chipset	Mobile Intel QS57 Express Chipset		
ExpressCard/34	None		
Multicard Reader	3-in-1 reader (MMC, SD, SDHC)		
Ports	Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
Intel 6200 ²⁸	11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2		
WWAN upg	Wireless WAN upgradable		
Modem	None		
Bluetooth™	Bluetooth 2.1 wireless, LED indicator		
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1		
Intel AMT	Intel Active Management Technology (iAMT)		
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

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

See footnotes for important warranty information

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

© Lenovo
(SN2-8) May 2010

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

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Card slot	Intel vPro	Preload	Avail date
2904-HDU	i5-560M	2.66	3.20	4GB	14.1" WXGA+	2.0M	128G SSD	Intel 6200 ²⁸	WWAN upg	Finger	Blue	3-in-1	vPro	Pro 64	Sep 10

- **This small and medium business (SMB) model is part of the US TopSeller™ Program**
- **This model has a depot repair service 3-year limited warranty**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5 processor i5-560M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64				
Memory	4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)				
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 128GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive														
Widescreen display	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio														
Camera	Camera on top of screen, 2.0-megapixel, fixed focus														
Optimus graphics ³⁷	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics in processor, and NVIDIA Quadro® NVS3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent display; <i>Maximum external resolution:</i> 2048x1536 (VGA) @ 75Hz; 1920x1200 @ 60Hz (single-link DVI-D via cable 45J7915); 2560x1600 (DP) @ 60Hz														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touchpad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm														
Weight ²	6-cell: starting at 3.94 lb (1.79kg)														
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy														
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim														
Battery - life ¹⁰	6-cell: up to 4.7 hr; 6-cell plus Ultrabay battery: up to 7.8 hr														
Chipset	Mobile Intel QS57 Express Chipset														
ExpressCard/34	None														
Multicard Reader	3-in-1 reader (MMC, SD, SDHC)														
Ports	Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)														
PCIe Mini Card	Two PCI Express Mini Card slots														
Intel 6200 ²⁸	11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2														
WWAN upg	Wireless WAN upgradable														
Modem	None														
Bluetooth™	Bluetooth 2.1 wireless, LED indicator														
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1														
Intel AMT	Intel Active Management Technology (iAMT)														
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module, TCG 1.2-compliant														
Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available														

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

© Lenovo
(SN2-12) December 2010

ThinkPad® T410s 2912 (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	Base (GHz)	Max turbo (GHz)	Memory (MHz)	Wide- screen display	Multi- Touch Screen	Cam- era	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue- tooth	Card slot	Intel vPro	Workhorse (W) Gbl (G) Avail date	
2912-A0U	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA+			120G 5400	11b/g/n	upg			Exp		Pro 32	Feb 10
2912-21U	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA+		2.0M	128G SSD	WiMAX	Gobi	Fing	Blue	5-in-1	vPro	Pro 32	Feb 10
2912-22U	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA+	Multi	2.0M	128G SSD	Intel 6200 ²⁸	upg	Fing	Blue	Exp	vPro	Pro 32	G Feb 10
2912-23U	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA+			120G 5400	11b/g/n	upg	Fing	Blue	Exp		Pro 32	G Feb 10
2912-25U	i5-520M	2.40	2.93	2+1GB 1066	14.1" WXGA+			128G SSD	Intel 6200	upg	Fing	Blue	Exp	vPro	Pro 32	G Feb 10
2912-2DU	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA+		2.0M	128G SSD	Intel 6200	Gobi	Fing	Blue	Exp	vPro	Pro 32	Feb 10
2912-3PU	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA+		2.0M	250G 5400	Intel 6200	upg	Fing	Blue	Exp	vPro	Pro 32	Mar 10
2912-3RU	i5-520M	2.40	2.93	4GBx1 1333	14.1" WXGA+		2.0M	250G 5400	Intel 6200	upg	Fing	Blue	Exp	vPro	Pro 64	G Mar 10
2912-3UU	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA+			250G 5400	Intel 6200	upg		Blue	Exp	vPro	Pro 64	G May 10
2912-3VU	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA+		2.0M	80G SSD	Intel 6200	upg		Blue	Exp	vPro	Pro 64	G May 10
2912-42U	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA+		2.0M	160G SSD	Intel 6200	upg		Blue	Exp	vPro	Pro 64	Aug 10
• These models have a depot repair service 3-year limited warranty • These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)																
Positioning Processor	Premiere performance and ultraportability; two spindles Intel® Core™ i5 processor i5-520M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache											Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64				
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets											Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch				
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 80GB⁸, 128GB, or 160GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high <i>Some:</i> 120GB (5400 rpm) or 250GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive											• Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)				
Widescreen display	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio, <i>Some:</i> MultiTouch (touchscreen supports two-finger touch) <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus															
Camera	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)															
Integrated graphics																
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm <i>MultiTouch models:</i> 13.3" x 9.5" x 0.95–1.14"; 337 x 241.5mm x 24.2mm–29.0mm 6-cell: starting at 3.94 lb (1.79kg); 6-cell (MultiTouch): starting at 4.51lb (2.05kg) <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim 6-cell: up to 4.8 hr; 6-cell plus Ultrabay battery: up to 7.9 hr															
Weight ²																
Case material																
Battery - type																
Battery - life ¹⁰																
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel QS57 Express Chipset <i>Some:</i> One slot (ExpressCard/34) <i>Some:</i> 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)											Supports ThinkVantage® technologies				
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WiMAX	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> 11a/b/g/n and WiMAX wireless, PCIe Half Mini Card, Intel Centrino Advanced-N + WiMAX 6250, 2x2 AGN + 1x2 WiMAX											65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
WWAN upg Gobi™ 2000	<i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider															
Carrier	21U/2DU models: Verizon®, contract required with service provider None															
Modem Bluetooth™ Ethernet	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator <i>Non-vPro model:</i> Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 <i>vPro model:</i> Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1											ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021				
Intel AMT	Intel Active Management Technology (iAMT)											ThinkPlus 4-year LOR 9x5 NBD 45K6022				
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack											ThinkPlus 5-year LOR 9x5 NBD 45K6024				
Security	Hardware Password Manager (HPM), Intel AntiTheft (AT), Power-on password, hard disk password, supervisor password, security keyhole											ThinkPlus 4-year P&L P/U Depot 45K6023				
Security chip	Trusted Platform Module, TCG 1.2-compliant											ThinkPlus 5-year P&L P/U Depot 45K6025				
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
Limited warranty¹² 3-years/1-yr battery - depot repair service / service upgrades²² available																

See footnotes for important warranty information

US model announced August 3, 2010; previous models on January 7, March 2, March 30, or May 4, 2010

US models withdrawn effective August 2010

© Lenovo
(SN2-4) August 2010

ThinkPad® T410s 2912 (Windows 7) - January 2011

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory (MHz)	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Card slot	Intel vPro	Preload	Availability
2912-4NU	i5-560M	2.66	3.20	4GBx1 1333	14.1" WXGA+	2.0M	128G SSD	Intel 6200 ²⁸	WWAN upg	Fing	Blue	Exp	vPro	Pro 64	Jan 11
• This model has a depot repair service 3-year limited warranty • This system is Microsoft® Office 2010 Product Key Ready (O10PKR)															
Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5 processor i5-560M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64				
Memory	4GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)				
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 128GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high, removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive														
Widescreen display Camera	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus														
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)</i>														
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm MultiTouch models: 13.3" x 9.5" x 0.95–1.14"; 337 x 241.5mm x 24.2mm–29.0mm 6-cell: starting at 3.94 lb (1.79kg); 6-cell (MultiTouch): starting at 4.51lb (2.05kg)														
Weight ²															
Case material	Display cover: Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); Base: Magnesium alloy														
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim 6-cell: up to 4.8 hr; 6-cell plus Ultrabay battery: up to 7.9 hr										Supports ThinkVantage® technologies				
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel QS57 Express Chipset One slot (ExpressCard/34) None Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)										65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
PCIe Mini Card Intel 6200 ²⁸ WWAN upg	Two PCI Express Mini Card slots 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable														
Modem Bluetooth™ Ethernet Intel AMT Audio support	None Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025				
Security	Hardware Password Manager (HPM), Intel AntiTheft (AT), Power-on password, hard disk password, supervisor password, security keyhole										Post-warranty annual maintenance agreements at				
Security chip	Trusted Platform Module, TCG 1.2-compliant														
Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										lenovo.com/thinkplus/warranty				
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades²² available														

See footnotes for important warranty information
 US model announced January 11, 2011

© Lenovo
 (SN2-14) January 2011

ThinkPad® T410s 2912 (Switchable) - Windows 7

Personal Systems Reference (PSREF)

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

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

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-540M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64			
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)			
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some: 80GB⁸ or 128GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high</i> <i>Some: 250GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, Active Protection System™</i> <i>All: removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive</i>													
Widescreen display	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio, <i>Some: MultiTouch</i> (touchscreen supports two-finger touch) Camera on top of screen, 2.0-megapixel, fixed focus													
Switchable graphics	Dynamic switching between discrete and integrated graphics (user selectable), Intel HD Graphics in processor, and NVIDIA® Quadro® NVS3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution: 2048x1536 (VGA) @ 75Hz(integrated) or 85Hz(discrete); 1920x1200 @ 60Hz (single-link DVI-D via cable 45J7915); 2560x1600 (DP) @ 60Hz</i>													
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm <i>MultiTouch models:</i> 13.3" x 9.5" x 0.95–1.14"; 337 x 241.5mm x 24.2mm–29.0mm													
Weight ²	6-cell: starting at 3.94 lb (1.79kg); 6-cell (MultiTouch): starting at 4.51lb (2.05kg)													
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy													
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim													
Battery - life ¹⁰	6-cell: up to 4.8 hr; 6-cell plus Ultrabay battery: up to 7.9 hr													
Chipset	Mobile Intel QS57 Express Chipset													
ExpressCard/34	None													
Multicard Reader	3-in-1 reader (MMC, SD, SDHC)													
Ports	Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)													
PCIe Mini Card	Two PCI Express Mini Card slots <i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 WiMAX <i>Some:</i> 11a/b/g/n and WiMAX wireless, PCIe Half Mini Card, Intel Centrino Advanced-N + WiMAX 6250, 2x2 AGN + 1x2 WiMAX													
Intel 6200 ²⁸ WiMAX	<i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3 <i>Some:</i> Wireless WAN upgradable													
Intel 6300 ²⁸ WWAN upg	<i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider													
Gobi™ 2000	<i>Some:</i> AT&T®, contract required with service provider													
Carrier	None													
Modem	Bluetooth 2.1 wireless, LED indicator													
Bluetooth™	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1													
Ethernet	Intel Active Management Technology (iAMT)													
Intel AMT	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack													
Audio support	Hardware Password Manager (HPM), Intel AntiTheft (AT), Power-on password, hard disk password, supervisor password, security keyhole													
Security	Trusted Platform Module, TCG 1.2-compliant													
Security chip	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip													
Fingerprint reader														
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available													

See footnotes for important warranty information

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

© Lenovo
(SN2-9) June 2010

ThinkPad® T410s 2912 (Optimus) - Windows 7

Personal Systems Reference (PSREF)

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

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

Positioning Processor	Premiere performance and ultraportability; two spindles Intel® Core™ i5 processor i5-560M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache			Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64		
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets			Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)		
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 128GB ⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive			Supports ThinkVantage® technologies		
Widescreen display Camera	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus					
Optimus graphics ³⁷	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics in processor, and NVIDIA Quadro® NVS3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent display; <i>Maximum external resolution:</i> 2048x1536 (VGA) @ 75Hz; 1920x1200 @ 60Hz (single-link DVI-D via cable 45J7915); 2560x1600 (DP) @ 60Hz			90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions					
Dimensions ³ Weight ² Case material	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm 6-cell: starting at 3.94 lb (1.79kg) Display cover: Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); Base: Magnesium alloy Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim 6-cell: up to 4.7 hr; 6-cell plus Ultrabay battery: up to 7.8 hr			ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		
Battery - type Battery - life ¹⁰ Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel QS57 Express Chipset None 3-in-1 reader (MMC, SD, SDHC) Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)					
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable None Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack			Security Hardware Password Manager (HPM), Intel AntiTheft (AT), Power-on password, hard disk password, supervisor password, security keyhole Security chip Trusted Platform Module, TCG 1.2-compliant Fingerprint reader UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Security	Hardware Password Manager (HPM), Intel AntiTheft (AT), Power-on password, hard disk password, supervisor password, security keyhole					
Security chip Fingerprint reader	Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip			Limited warranty ¹² 3-years/1-yr battery - depot repair service / service upgrades ²² available		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available					

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

© Lenovo
(SN2-13) December 2010

ThinkPad® T410s 2924 (Onsite) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory (MHz)	Wide-screen display	Multi-Touch Screen	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	Finger print reader	Card slot	Intel vPro	Preload	Workhorse (W) Gbl (G) GMP(P)	Avail date
2924-22U	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA+	Multi	2.0M	128G SSD	Intel 6200 ²⁸	Finger	Exp	vPro	Pro 32	G P Feb 10
2924-23U	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA+			120G 5400	11b/g/n	Finger	Exp	Pro 32	G P Feb 10	
2924-25U	i5-520M	2.40	2.93	2+1GB 1066	14.1" WXGA+			128G SSD	Intel 6200	Finger	Exp	vPro	Pro 32	G P Feb 10
2924-3UU	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA+			250G 5400	Intel 6200		Exp	vPro	Pro 64	G P May 10
2924-3VU	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA+	2.0M	80G SSD	Intel 6200			Exp	vPro	Pro 64	G P May 10
2924-4NU	i5-560M	2.66	3.20	4GBx1 1333	14.1" WXGA+	2.0M	128G SSD	Intel 6200	Finger	Exp	vPro	Pro 64	G P Jan 11	

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

Positioning Processor	Premiere performance and ultraportability; two spindles Intel® Core™ i5 processor i5-520M or i5-560M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache								Preloaded operating system ²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64					
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets								Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo Online Data Backup • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)					
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access Some: 80GB ⁸ or 128GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high Some: 120GB (5400 rpm) or 250GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, Active Protection System™ All: removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive													
Widescreen display	14.1" (358mm) WXGA+ (1440x900) color, anti-glare, LED backlight, 300 nits, 16:10 aspect ratio, 300:1 contrast ratio, Some: MultiTouch (touchscreen supports two-finger touch)													
Camera	Some: camera on top of screen, 2.0-megapixel, fixed focus													
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; Maximum external resolution: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm MultiTouch models: 13.3" x 9.5" x 0.95–1.14"; 337 x 241.5mm x 24.2mm–29.0mm 6-cell: starting at 3.94 lb (1.79kg); 6-cell (MultiTouch): starting at 4.51lb (2.05kg)													
Weight ²														
Case material	Display cover: Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); Base: Magnesium alloy													
Battery - type	Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Slim													
Battery - life ¹⁰	6-cell: up to 4.8 hr; 6-cell plus Ultrabay battery: up to 7.9 hr													
Chipset	Mobile Intel QS57 Express Chipset													
ExpressCard/34	One slot (ExpressCard/34)													
Multicard Reader	None													
Ports	Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)													
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg	Two PCI Express Mini Card slots Some: 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card Some: 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable													
Modem	None													
Bluetooth™	Bluetooth 2.1 wireless, LED indicator													
Ethernet	Non-vPro model: Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 vPro model: Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1													
Intel AMT	Intel Active Management Technology (iAMT)													
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module, TCG 1.2-compliant													
Fingerprint reader	Some: UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip													
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available													

See footnotes for important warranty information

US model announced January 11, 2011; previous models on January 7 or May 4, 2010

US model withdrawn effective August 2010

© Lenovo (SN2-5) February 2011

ThinkPlus™.22 4-year LOR²⁴ 9x5 NBD 45K6038
Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

65-watt AC adapter
ThinkPad Roll Cage (one-piece magnesium frame)
EPEAT™ Gold rating
ENERGY STAR® 5.0-compliant
RoHS-compliant
International Warranty Service¹⁷
24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378

Supports ThinkVantage® technologies

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

Personal Systems Reference (PSREF)

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

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

Positioning Processor	Premiere performance and ultraportability; two spindles Intel® Core™ i5 processor i5-520M or i5-540M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64		
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)		
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 250GB⁸ (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive, Active Protection System™												
Widescreen display	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio												
Camera	Camera on top of screen, 2.0-megapixel, fixed focus												
Switchable graphics	Dynamic switching between discrete and integrated graphics (user selectable), Intel HD Graphics in processor, and NVIDIA® Quadro® NVS3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2048x1536 (VGA) @ 75Hz(integrated) or 85Hz(discrete); 1920x1200@60Hz (single-link DVI-D via cable 45J7915); 2560x1600 (DP) @ 60Hz												
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Touchpad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm												
Weight ²	6-cell: starting at 3.94 lb (1.79kg)												
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy												
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim												
Battery - life ¹⁰	6-cell: up to 4.8 hr; 6-cell plus Ultrabay battery: up to 7.9 hr												
Chipset	Mobile Intel QS57 Express Chipset												
ExpressCard/34	None												
Multicard Reader	3-in-1 reader (MMC, SD, SDHC)												
Ports	Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)										Supports ThinkVantage® technologies		
PCIe Mini Card	Two PCI Express Mini Card slots												
Intel 6200 ²⁸	11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2												
WWAN upg	Wireless WAN upgradable												
Modem	None												
Bluetooth™	Bluetooth 2.1 wireless, LED indicator												
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1												
Intel AMT	Intel Active Management Technology (iAMT)												
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, TCG 1.2-compliant												
Fingerprint reader	None												
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available										90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
											ThinkPlus™. ²² 4-year LOR ²⁴ 9x5 NBD 45K6038		
											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		

See footnotes for important warranty information

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

© Lenovo
(SN2-10) May 2010

ThinkPad® T410s 2912 (Education) - Windows 7

Personal Systems Reference (PSREF)

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

- **These models have a depot repair service 3-year limited warranty**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**
- **Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.**
- **Microsoft Office Ultimate 2007 Academic Edition: Only valid for sale to students, faculty and staff of accredited educational institutions in the United States.**

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 32 Preloaded applications ¹⁴ (only some listed) • Education software - Microsoft® Office Ultimate 2007 Academic Edition (and CD) - Microsoft® Office OneNote® 2007 (and CD) - Adobe Digital School Collection – Instructor Resources (and DVD) – Learning Creative Suite 4 (DVD) – Photoshop Elements 7 (DVD) – Premiere Elements 7 (and DVD) – Acrobat 9 Professional (DVD) – Contribute CS4 (and DVD) – Soundbooth CS4 (and DVD) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software • ThinkVantage Power Manager • ThinkVantage Toolbox • Microsoft Office 2010 preloaded; purchase product key to activate • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 128GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high <i>Some:</i> 250GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive	
Widescreen display	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio, <i>Some:</i> MultiTouch (touchscreen supports two-finger touch)	
Camera	Camera on top of screen, 2.0-megapixel, fixed focus	Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @ 60Hz; 2048x1536 (VGA) @ 75Hz; 1920x1200 @ 60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm <i>MultiTouch models:</i> 13.3" x 9.5" x 0.95–1.14"; 337 x 241.5mm x 24.2mm–29.0mm	
Weight ² Case material	6-cell: starting at 3.94 lb (1.79kg); 6-cell (MultiTouch): starting at 4.51lb (2.05kg) <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim 6-cell: up to 4.8 hr; 6-cell plus Ultrabay battery: up to 7.9 hr	
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel QS57 Express Chipset One slot (ExpressCard/34) None Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)	
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable None None Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

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

© Lenovo
(SN2-6) June 2010

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Card slot	Intel vPro	Preload	Avail date
2901-ARU	i3-370M	2.40	2GB	14.1" WXGA+	2.0M	250G 5400	11b/g/n	WWAN upg	Finger	Blue	Express	No	Pro 64	Aug 10
2901-ASU	i3-370M	2.40	2GB	14.1" WXGA+	2.0M	128G SSD	Intel 6200 ²⁸	WWAN upg	Finger	Blue	Express	No	Pro 64	Aug 10

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

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i3 processor i3-370M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache			Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • Fingerprint Software • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Presentation Director • ThinkVantage Productivity Center • Microsoft Office 2010 preloaded; purchase product key to activate • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available			
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 128GB ⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high <i>Some:</i> 250GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive			
Widescreen display	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio			
Camera	Camera on top of screen, 2.0-megapixel, fixed focus			Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™, ²² 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)			
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass			
Touchpad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions			
Dimensions ³	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm			
Weight ²	6-cell: starting at 3.94 lb (1.79kg)			
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy			
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim			
Battery - life ¹⁰	6-cell: up to 4.8 hr; 6-cell plus Ultrabay battery: up to 7.9 hr			
Chipset	Mobile Intel QS57 Express Chipset			
ExpressCard/34	One slot (ExpressCard/34)			
Multicard Reader	None			
Ports	Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)			
PCIe Mini Card	Two PCI Express Mini Card slots			
11b/g/n	<i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card			
Intel 6200 ²⁸	<i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2			
WWAN upg	Wireless WAN upgradable			
Modem	None			
Bluetooth™	Bluetooth 2.1 wireless, LED indicator			
Ethernet	Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1			
Intel AMT	None			
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack			
Security	Power-on password, hard disk password, supervisor password, security keyhole			
Security chip	Trusted Platform Module, TCG 1.2-compliant			
Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip			
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available			

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

© Lenovo
(SN2i-3) August 2010

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

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Disk SATA GB ^a rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Card slot	Intel vPro	Preload	Avail date
2904-H6U	i3-370M	2.40	2GB	14.1" WXGA+	2.0M	250G 5400	11b/g/n	WWAN upg	Finger	Blue	Express	No	Pro 64	Aug 10
2904-H7U	i3-370M	2.40	2GB	14.1" WXGA+	2.0M	160G SSD	Intel 1000	WWAN upg	Finger	Blue	Express	No	Pro 64	Aug 10

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

Positioning Processor	Premiere performance and ultraportability; two spindles Intel® Core™ i3 processor i3-370M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache			Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available			
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 160GB ⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high <i>Some:</i> 250GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive			
Widescreen display Camera	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio, Camera on top of screen, 2.0-megapixel, fixed focus			
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)			
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions			
Dimensions ³ Weight ² Case material	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm <i>6-cell:</i> starting at 3.94 lb (1.79kg) <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 4.8 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.9 hr			
Battery - type Battery - life ¹⁰				
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel QS57 Express Chipset One slot (ExpressCard/34) None Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)			
PCIe Mini Card 11b/g/n Intel 1000 WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 Wireless WAN upgradable None Bluetooth 2.1 wireless, LED indicator Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 None High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack			
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip			
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available			
Supports ThinkVantage® technologies				
65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021				
ThinkPlus 4-year LOR 9x5 NBD 45K6022				
ThinkPlus 5-year LOR 9x5 NBD 45K6024				
ThinkPlus 4-year P&L P/U Depot 45K6023				
ThinkPlus 5-year P&L P/U Depot 45K6025				
Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				

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

© Lenovo
(SN2i-4) August 2010

Memory

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

Ultrabay Slim 9.5mm

Serial ATA Hard Drive Bay Adapter III	43N3412	ann 06/23/09
DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s	43N3292	ann 08/03/10
DVD Burner Ultrabay Slim Drive II SATA 1.5G/s	43N3229	ann 06/23/09
Ultrabay Slim Blu-ray Burner II (SATA)	43N3230	ann 06/23/09

Storage and removable storage

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

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

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

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

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

Wireless WAN (Mini PCI Express)

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

ThinkPad Expansion

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

Keyboard

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

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

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

Mouse

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

Multimedia

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

Modem

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

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06

Batteries

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

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter ⁴⁵	40Y7696	ann 01/05/06
⁴⁵ Only compatible with the integrated graphics models.		
ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
ThinkPad 65W AC Adapter with USB Hub	57Y4600	ann 09/07/10
90W Ultralim AC/DC Combo Adapter	41R4493	ann 09/22/09

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

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

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

More information at www.lenovopowertips.com

Carrying Cases

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

<i>Up to 15.6" widescreen models:</i>		
ThinkPad 15W Case Sleeve	51J0477	ann 08/18/09
Lenovo Business Messenger Case	51J0475	ann 08/18/09
Lenovo Messenger Max	41U5253	ann 05/01/07
Lenovo Performance Backpack	41U5254	ann 05/01/07
ThinkPad Business Topload Case	43R2476	ann 05/13/08
ThinkPad Business Backpack	43R2482	ann 05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann 05/13/08
ThinkPad Executive Leather Case	43R2480	ann 05/13/08
Wenger Backpack for Lenovo	57Y4271	ann 01/07/10
Wenger Slim Case for Lenovo	57Y4272	ann 01/07/10
Wenger Deluxe Slim Case for Lenovo	57Y4273	ann 01/07/10

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

Monitors

ThinkVision® L1711p 17" Monitor	5047HB2	ann 10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann 10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann 10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann 10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann 10/20/09
ThinkVision L2321x Wide 23" Monitor	4014HB6	ann 06/10/10

www.lenovo.com/support/thinkpad/optimus-monitors

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
Lenovo DisplayPort to VGA Monitor Cable	57Y4393	ann 08/04/09
DisplayPort to Single-link DVI-D Cable	45J7915	ann 08/05/08
ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

For more information on ThinkPad accessories, please visit:

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

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

ThinkPad®



Lenovo® ThinkPad T420s



Lenovo ThinkPad T420s



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



ThinkPad Battery 66+ (6-cell)
0A36287



ThinkPad triple external monitor configuration
using NVIDIA's Optimus technology



Lenovo ThinkPad T420s

ThinkPad® T420s 4170 (TopSeller)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ² rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Intel AMT	Intel vPro	Preload
4170-33U	i5-2540M	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205 ²⁸	WWAN upg	None	Blue	iAMT	vPro	Pro 64
4170-32U	i5-2520M	4GBx1	14.0" HD+	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Blue			Pro 64

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

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology	Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	
Optical Bay battery	DVD burner, 9.5mm Ultrabay slim, removable None	
Ultrabay SATA disk	One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive	
mSATA™ SSD	None	
Widescreen display	14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio	
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus	
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Touchpad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	14.0W" (WxDxH): 13.5" x 9.1" x 0.83–1.02"; 343 x 230.1mm x 21.2–26.0mm	
Weight ²	6-cell: starting at 3.68 lb (1.67kg)	
Case material	<i>Display cover:</i> Hybrid Carbon-fiber reinforced plastic; <i>Bottom:</i> Magnesium alloy	
Battery - type	Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Slim	
Battery - life ¹⁰	6-cell: up to 5.5 hr; 6-cell plus Ultrabay battery: up to 9.3 hr	
Chipset	Mobile Intel QM67 Express Chipset	
ExpressCard	One slot (ExpressCard/34)	
Smart Card Read	None	
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)	
Ports	Two USB 2.0 (one powered), one USB 3.0, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)	
PCIe Mini Card WLAN ⁴	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2	
WWAN	Wireless WAN upgradable	
Modem	None	
Bluetooth™	Bluetooth 3.0 wireless, LED indicator	
Ethernet	<i>Non-vPro model:</i> Intel 82579LF Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>vPro model:</i> Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>Some:</i> Intel Active Management Technology (iAMT)	
Intel AMT		
Audio support	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	Trusted Platform Module, TCG 1.2-compliant	
Fingerprint reader	None	
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

Supports ThinkVantage® technologies	
65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378	
For compatible accessories, please go to O-T420-S sheet; For ThinkPlus™, ²² service upgrade options, please go to S-TA sheet	

See footnotes for more detailed information
US models announced February 22, 2011

© Lenovo
(SN3-1) February 2011

For compatible accessories, please go to O-T420-S sheet;
For ThinkPlus™.22 service upgrade options, please go to S-TA sheet

ThinkPad® T420s 4171 (TopSeller)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Intel vPro	Preload
4171-53U	i5-2540M	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205 ²⁸	WWAN upg	None	Blue	vPro	Pro 64
4171-52U	i5-2520M	4GBx1	14.0" HD+	720p	320G 7200	Intel 6205	WWAN upg	None	Blue	vPro	Pro 64

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

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology	Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	
Optical Bay battery	DVD burner, 9.5mm Ultrabay slim, removable None	
Ultrabay SATA disk	One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive	
mSATA™ SSD	None	
Widescreen display	14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio	
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus	
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Touchpad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	14.0W" (WxDxH): 13.5" x 9.1" x 0.83–1.02"; 343 x 230.1mm x 21.2–26.0mm	
Weight ²	6-cell: starting at 3.68 lb (1.67kg)	
Case material	<i>Display cover:</i> Hybrid Carbon-fiber reinforced plastic; <i>Bottom:</i> Magnesium alloy	
Battery - type	Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Slim	
Battery - life ¹⁰	6-cell: up to 5.5 hr; 6-cell plus Ultrabay battery: up to 9.3 hr	
Chipset	Mobile Intel QM67 Express Chipset	
ExpressCard	One slot (ExpressCard/34)	
Smart Card Read	None	
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)	
Ports	Two USB 2.0 (one powered), one USB 3.0, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)	
PCIe Mini Card	Two PCI Express Mini Card slots	
WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2	
WWAN	Wireless WAN upgradable	
Modem	None	
Bluetooth™	Bluetooth 3.0 wireless, LED indicator	
Ethernet	<i>Non-vPro model:</i> Intel 82579LF Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>vPro model:</i> Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1	
Intel AMT	Intel Active Management Technology (iAMT)	
Audio support	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	Trusted Platform Module, TCG 1.2-compliant	
Fingerprint reader	None	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

Supports ThinkVantage® technologies	
65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378	
For compatible accessories, please go to O-T420-S sheet; For ThinkPlus™, ²² service upgrade options, please go to S-TA sheet	

See footnotes for more detailed information
US models announced February 22, 2011

© Lenovo
(SN3-2) February 2011

ThinkPad® T420s 4173

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	Optical or battery	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Smart Card Reader	Finger print reader	Blue-tooth	Intel vPro	Global (G) GMP (P)	Pre-load
4173-KUU	i5-2540M	4GBx1	14.0" HD+	720p	320G 7200	Bay battery	Intel 6205 ²⁸	WWAN upg			Blue	vPro		Pro 64
4173-KTU	i5-2540M	4GBx1	14.0" HD+	720p	320G 7200	DVD±RW	Intel 6205	WWAN upg			Blue	vPro		Pro 64
4173-KSU	i5-2540M	4GBx1	14.0" HD+	720p	128G SSD	DVD±RW	Intel 6205	WWAN upg			Blue	vPro		Pro 64
4173-29U	i5-2520M	4GBx1	14.0" HD+		320G 7200	DVD±RW	Intel 6205	WWAN upg		Finger	Blue	vPro	G	Pro 64
4173-2AU	i5-2520M	4GBx1	14.0" HD+	720p	128G SSD	DVD±RW	Intel 6205	WWAN upg			Blue	vPro	G	Pro 64
4173-2BU	i5-2520M	4GBx1	14.0" HD+	720p	320G 7200	DVD±RW	Intel 6205	WWAN upg			Blue	vPro	G	Pro 64
4173-L5U	i5-2520M	4GBx1	14.0" HD+		320G 7200	DVD±RW	Intel 6205	WWAN upg	Smart			vPro		Pro 64

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

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache). DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache). DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications ¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	
Optical	<i>Some:</i> DVD burner, 9.5mm Ultrabay slim, removable	
Bay battery	<i>Some:</i> ThinkPad Battery 42 (3-cell, bay) (57Y4536) in Option Bay	
Ultrabay	One modular bay for interchangeable devices (right side), 9.5mm high, bottom access	
SATA disk	<i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™	
mSATA™ SSD	<i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive None	
Widescreen display	14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio	
Camera	<i>Some:</i> HD720p resolution, wider view angle, low light sensitive, fixed focus	
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Touchpad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	14.0W" (WxDxH): 13.5" x 9.1" x 0.83–1.02"; 343 x 230.1mm x 21.2–26.0mm	
Weight ²	6-cell: starting at 3.68 lb (1.67kg)	
Case material	<i>Display cover:</i> Hybrid Carbon-fiber reinforced plastic; <i>Bottom:</i> Magnesium alloy	
Battery - type	Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Slim	
Battery - life ¹⁰	6-cell: up to 5.5 hr; 6-cell plus Ultrabay battery: up to 9.3 hr	
Chipset	Mobile Intel QM67 Express Chipset	
ExpressCard	One slot (ExpressCard/34)	
Smart Card Read	<i>Some:</i> Smart Card reader	
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)	
Ports	Two USB 2.0 (one powered), one USB 3.0, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)	
PCIe Mini Card	Two PCI Express Mini Card slots	
WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2	
WWAN	Wireless WAN upgradable	
Modem	None	
Bluetooth™	<i>Some:</i> Bluetooth 3.0 wireless, LED indicator	
Ethernet	<i>Non-vPro model:</i> Intel 82579LF Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>vPro model:</i> Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT)	
Intel AMT		
Audio support	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	Trusted Platform Module, TCG 1.2-compliant	
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

Supports ThinkVantage® technologies	
65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378	
For compatible accessories, please go to O-T420-S sheet; For ThinkPlus™, ²² service upgrade options, please go to S-TA sheet	

See footnotes for more detailed information

US model announced March 1, 2011; previous models on February 22, 2011

© Lenovo (SN3-3) March 2011

ThinkPad® T420s 4174 (Onsite)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	Optical or battery	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Intel vPro	Global (G) GMP (P) Preload
4174-29U	i5-2520M	4GBx1	14.0" HD+		320G 7200	DVD±RW	Intel 6205 ²⁸	WWAN upg	Finger	Blue	vPro	G P Pro 64
4174-2AU	i5-2520M	4GBx1	14.0" HD+	720p	128G SSD	DVD±RW	Intel 6205	WWAN upg		Blue	vPro	G P Pro 64
4174-2BU	i5-2520M	4GBx1	14.0" HD+	720p	320G 7200	DVD±RW	Intel 6205	WWAN upg		Blue	vPro	G P Pro 64

- These models have a limited onsite service²⁴ 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Premiere performance and ultraportability; two spindles Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology		Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications ¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
Optical Bay battery	DVD burner, 9.5mm Ultrabay slim, removable None		
Ultrabay SATA disk	One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive		
mSATA™ SSD	None		
Widescreen display	14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> HD720p resolution, wider view angle, low light sensitive, fixed focus		
Camera			
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)		
Keyboard	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass		
Touchpad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	14.0W" (WxDxH): 13.5" x 9.1" x 0.83–1.02"; 343 x 230.1mm x 21.2–26.0mm		
Weight ²	6-cell: starting at 3.68 lb (1.67kg)		
Case material	<i>Display cover:</i> Hybrid Carbon-fiber reinforced plastic; <i>Bottom:</i> Magnesium alloy		
Battery - type	Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Slim		
Battery - life ¹⁰	6-cell: up to 5.5 hr; 6-cell plus Ultrabay battery: up to 9.3 hr		
Chipset	Mobile Intel QM67 Express Chipset		
ExpressCard	One slot (ExpressCard/34)		
Smart Card Read	None		
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)		
Ports	Two USB 2.0 (one powered), one USB 3.0, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2		
WWAN	Wireless WAN upgradable		
Modem	None		
Bluetooth™	Bluetooth 3.0 wireless, LED indicator		
Ethernet	<i>Non-vPro model:</i> Intel 82579LF Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>vPro model:</i> Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1		
Intel AMT	Intel Active Management Technology (iAMT)		
Audio support	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-year - battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available		

Supports ThinkVantage® technologies	
65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
For compatible accessories, please go to O-T420-S sheet;	
For ThinkPlus™, ²² service upgrade options, please go to S-TA sheet	

See footnotes for more detailed information
US models announced February 22, 2011

© Lenovo
(SN3-4) March 2011

Memory

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

Ultrabay Slim 9.5mm

Serial ATA Hard Drive Bay Adapter III	43N3412	ann 06/23/09
DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s	43N3292	ann 08/03/10
DVD Burner Ultrabay Slim Drive II SATA 1.5G/s	43N3229	ann 06/23/09

Storage and removable storage

160GB 2.5" Intel X25-M Solid State Drive II ⁴¹	0A33983	ann 02/22/11
128GB 2.5" Solid State Drive II ⁴¹	0A33984	ann 02/22/11
250GB 7200rpm SATA 3.0G/s		
OPAL-capable FDE HDD II ⁴¹	0A33985	ann 02/22/11
320GB 7200rpm SATA 3.0Gb/s Hard Drive II ⁴¹	0A33986	ann 02/22/11
320GB 5400rpm SATA 3.0Gb/s Hard Drive II ⁴¹	0A33987	ann 02/22/11

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

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

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann 05/12/09
ThinkPad Port Replicator Series 3	433610W	ann 06/23/09
ThinkPad Mini Dock Series 3	433710U	ann 06/23/09
ThinkPad Mini Dock Plus Series 3	433810U	ann 06/23/09
ThinkPad Mini Dock Plus Series 3 (170W)	433830U	ann 02/22/11

Keyboard

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

⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.		
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann 08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

Mouse

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

Multimedia

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

Modem

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

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06

Batteries

ThinkPad Battery 66+ (6-cell)	0A36287	ann 02/22/11
ThinkPad Battery 42 (3-cell, bay) ⁴²	57Y4536	ann 08/25/09
⁴² Used in Ultrabay Slim bay.		
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann 09/20/05
⁴⁴ Requires the ThinkPad 90W AC Adapter 40Y7659 or the adapter provided with the system.		

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter ⁴⁵	40Y7696	ann 01/05/06
⁴⁵ Only compatible with the integrated graphics models.		
ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
ThinkPad 65W AC Adapter with USB Hub	57Y4600	ann 09/07/10
90W Ultralim AC/DC Combo Adapter	41R4493	ann 09/22/09

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

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

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

More information at www.lenovopowertips.com

Carrying Cases

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

Up to 15.6" widescreen models:		
ThinkPad 15W Case Sleeve	51J0477	ann 08/18/09
Lenovo Business Messenger Case	51J0475	ann 08/18/09
Lenovo Messenger Max	41U5253	ann 05/01/07
Lenovo Performance Backpack	41U5254	ann 05/01/07
ThinkPad Business 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
Wenger Backpack for Lenovo	57Y4271	ann 01/07/10
Wenger Slim Case for Lenovo	57Y4272	ann 01/07/10
Wenger Deluxe Slim Case for Lenovo	57Y4273	ann 01/07/10

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

Monitors

ThinkVision® L1711p 17" Monitor	5047HB2	ann 10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann 10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann 10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann 10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann 10/20/09
ThinkVision L2321x Wide 23" Monitor	4014HB6	ann 06/10/10

www.lenovo.com/support/thinkpad/optimus-monitors

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
DisplayPort to Single-link DVI-D Cable	45J7915	ann 08/05/08
ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

For more information on ThinkPad accessories, please visit:

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

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

ThinkPad®



Lenovo® ThinkPad T510



Lenovo ThinkPad T510



ThinkPad Mini Dock Plus Series 3
433810U



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



ThinkPad triple external monitor configuration
using NVIDIA's Optimus technology



Lenovo ThinkPad T510

ThinkPad® T510 4313 (TopSeller) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	SATA optical	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Battery Intel vPro	Preload	Avail date
4313-28U	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	250G 5400	DVD±RW	11b/g/n	None	None	None	6	No	Pro 32 Jan 10
4313-CTU	i5-560M	2.66	3.20	2GB	15.6" HD	2.0M	320G 7200	DVD±RW	11b/g/n	None	None	None	6	No	Pro 64 Sep 10

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-560M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64				
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Microsoft Office 2010 preloaded; purchase product key to activate • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)				
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 250GB⁸ (5400 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™										Supports ThinkVantage® technologies				
Widescreen display Camera	15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus										65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)										ThinkPlus™, 22 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions										Limited warranty ¹² 1-year - depot repair service / service upgrades ²² available				
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg) <i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell:</i> up to 6.2 hr; <i>9-cell:</i> up to 10.4 hr; <i>9-cell plus Slice battery:</i> up to 20.8 hr														
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
PCIe Mini Card 11b/g/n WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card None 56K V.92 ⁶ modem None Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack														
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None														

See footnotes for important warranty information

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

© Lenovo
(KN1-1) October 2010

ThinkPad® T510 4313 (TopSeller) - Windows 7 (January 2011)

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory (MHz)	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	SATA optical	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Bat-tery Intel cells vPro	Preload	Avail date
4313-J6U	i5-480M	2.66	2.93	2GBx1 1066	15.6" HD	2.0M	320G 7200	DVD±RW	Intel 1000	WWAN upg	6	No Pro 64	Jan 11
4313-J8U	i5-480M	2.66	2.93	4GBx1 1333	15.6" HD+	2.0M	320G 7200	DVD±RW	Intel 1000	WWAN upg	6	No Home P 64	Jan 11

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-480M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system²⁰ - <i>Some:</i> Genuine Windows® 7 Home Premium 64 - <i>Some:</i> Genuine Windows 7 Professional 64
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Microsoft Office 2010 preloaded; purchase product key to activate • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	Supports ThinkVantage® technologies
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio	65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Camera	Camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm 6-cell: starting at 5.66 lb (2.57kg); 9-cell: starting at 6.01 lb (2.72kg) Display cover: Glass-fiber reinforced plastic; Base: Carbon-fiber reinforced plastic Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom 6-cell: up to 6.2 hr; 9-cell: up to 10.4 hr; 9-cell plus Slice battery: up to 20.8 hr	
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	ThinkPlus™, 22 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
PCIe Mini Card Intel 1000 WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 Wireless WAN upgradable 56K V.92 ⁶ modem None Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None	
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

See footnotes for important warranty information
 US models announced January 11, 2011

© Lenovo
 (KN1-16) January 2011

ThinkPad® T510 4314 (TopSeller) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory (MHz)	Wide-screen display	Disk SATA GB ^a rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Bat- tery cells	Power Adapter (watt)	Intel vPro	Preload	Avail date
4314-36U	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD	320G 7200	WiMAX	WWAN upg	Finger	6	65W	vPro	Pro 32	Jan 10
4314-2JU	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD	250G 5400	11b/g/n	WWAN upg		6	65W		Pro 32	Jan 10
4314-9BU	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD	160G 7200	Intel 6200 ²⁸	WWAN upg		9	90W	vPro	Pro 64	May 10
4314-C5U	i5-540M	2.53	3.06	2GBx1 1066	15.6" HD	160G SSD	Intel 6200	WWAN upg	Finger	9	65W	vPro	Pro 64	Jul 10
4314-DDU	i5-560M	2.66	3.20	2GBx1 1066	15.6" HD	320G 7200	Intel 6200	WWAN upg		6	65W	vPro	Pro 64	Sep 10
4314-DPU	i7-620M	2.66	3.33	4GBx1 1333	15.6" HD+	500G 7200	Intel 1000	WWAN upg		6	65W		Pro 64	Jan 11

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M, i5-540M, or i5-560M with dual-core, or Intel Core i7 processor i7-620M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; <i>i5-520M/i5-540M/i5-560M: 3MB cache; i7-620M: 4MB cache</i>		Preloaded operating system²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64	
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)	
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some: 160GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high</i> <i>Some: 160GB (7200 rpm), 250GB (5400 rpm), 320GB (7200 rpm), or 500GB (7200 rpm) /</i> <i>SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™</i> <i>All: removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive</i>			
Widescreen display	<i>Some: 15.6" (396mm) HD (1366x768) color, anti-glare, LED backlight,</i> 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some: 15.6" (396mm) HD+ (1600x900) color, anti-glare, LED backlight,</i> 220 nits, 16:9 aspect ratio, 500:1 contrast ratio			
Camera	Camera on top of screen, 2.0-megapixel, fixed focus			
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution: 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)</i>			
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions			
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>15.6W" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm</i> <i>6-cell: starting at 5.66 lb (2.57kg); 9-cell: starting at 6.01 lb (2.72kg)</i> <i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery <i>6-cell: up to 6.2 hr; 9-cell: up to 10.4 hr; 9-cell plus Slice battery: up to 20.8 hr</i>			
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		Supports ThinkVantage® technologies	
PCIe Mini Card 11b/g/n Intel 1000 Intel 6200 ²⁸ WiMAX	Two PCI Express Mini Card slots <i>Some: 11b/g/n wireless⁴, ThinkPad 11b/g/n, PCIe Half Mini Card</i> <i>Some: 11b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2</i> <i>Some: 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2</i> <i>Some: 11a/b/g/n and WiMAX wireless, PCIe Half Mini Card, Intel Centrino Advanced-N + WiMAX 6250, 2x2 AGN + 1x2 WiMAX</i>		65-watt or 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
WWAN upg Modem Bluetooth™ Ethernet	Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator <i>Non-vPro model:</i> Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 <i>vPro model:</i> Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1		ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025	
Intel AMT Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack		Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some: UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip</i>			
Limited warranty ¹²	3-years/1-yr - battery depot repair service / service upgrades²² available			

See footnotes for important warranty information

US model announced January 11, 2011; previous models on January 7, May 4, July 6, or September 28, 2010

US model withdrawn effective February 2011

© Lenovo (KN1-3) January 2011

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

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery Intel vPro	Preload	Avail date
4314-DEU	i5-560M	2.66	3.20	2GB	15.6" HD+	2.0M	320G 7200	Intel 6200 ²⁸	WWAN upg	None	Blue	9	vPro	Pro 64 Sep 10
• This small and medium business (SMB) model is part of the US TopSeller™ Program • This model has a depot repair service 3-year limited warranty • This system is Microsoft® Office 2010 Product Key Ready (O10PKR)														
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-560M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64			
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)			
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™													
Widescreen display Camera	15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus													
Optimus graphics ³⁷	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics in processor, and NVIDIA Quadro® NVS3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg) <i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell:</i> up to 6.1 hr; <i>9-cell:</i> up to 10.3 hr; <i>9-cell plus Slice battery:</i> up to 20.7 hr										Supports ThinkVantage® technologies			
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack										ThinkPlus™, 22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025			
Security Security chip Fingerprnt reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Limited warranty ¹²	3-years/1-yr - battery depot repair service / service upgrades²² available													

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

© Lenovo
 (KN1-14) December 2010

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

Personal Systems Reference (PSREF)

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

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

Positioning Processor	Premiere performance; two spindles Intel® Core™ i5 processor i5-520M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32 Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Adobe® Reader® • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) Supports ThinkVantage® technologies
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display Camera	15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus	
Discrete graphics	NVIDIA® Quadro® NVS3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg) <i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell:</i> up to 4.7 hr; <i>9-cell:</i> up to 7.8 hr; <i>9-cell plus Slice battery:</i> up to 15.6 hr	
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	ThinkPlus™, ²² 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
PCIe Mini Card 11b/g/n WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None	
Limited warranty ¹² 1-year - depot repair service / service upgrades ²² available		

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

© Lenovo
(KN1-4) January 2010

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

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Battery Intel vPro	Preload	Avail date
4314-2MU	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	250G 5400	Intel 1000	WWAN upg			9	Pro 32	Feb 10
4314-2PU	i5-540M	2.53	3.06	4GB	15.6" HD+	2.0M	500G 7200	Intel 6200 ²⁸	WWAN upg	Finger	Blue	9 vPro	Pro 32	Feb 10
4314-7QU	i5-520M	2.40	2.93	4GB	15.6" HD+	2.0M	320G 7200	Intel 6200	WWAN upg	Finger	Blue	9 vPro	Pro 64	Mar 10
4314-7RU	i5-540M	2.53	3.06	4GB	15.6" HD+	2.0M	128G SSD	Intel 6200	WWAN upg	Finger	Blue	9 vPro	Pro 64	Mar 10
4314-9CU	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	160G 7200	Intel 6200	WWAN upg		Blue	9 vPro	Pro 64	May 10
4314-9DU	i5-540M	2.53	3.06	2GB	15.6" HD+	2.0M	160G 7200	Intel 6200	WWAN upg		Blue	9 vPro	Pro 64	May 10
✕ 4314-C4U	i5-540M	2.53	3.06	2GB	15.6" HD	2.0M	160G SSD	Intel 6200	WWAN upg	Finger	Blue	9 vPro	Pro 64	Jul 10
• These small and medium business (SMB) models are part of the US TopSeller™ Program • These models have a depot repair service 3-year limited warranty • These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)														
Positioning Processor	Premiere performance; two spindles Intel® Core™ i5 processor i5-520M or i5-540M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system ²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64			
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; Italics: standard memory in both sockets; no sockets available; Non-italics: standard memory in one socket; one socket available										Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)			
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access Some: 128GB ⁸ or 160GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high Some: 160GB (7200 rpm), 250GB (5400 rpm), 320GB (7200 rpm), or 500GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ All: removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive													
Widescreen display	Some: 15.6" (396mm) HD (1366x768) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Some: 15.6" (396mm) HD+ (1600x900) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio													
Camera	Camera on top of screen, 2.0-megapixel, fixed focus													
Discrete graphics	NVIDIA® Quadro® NVS3100M, PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; Maximum external resolution: 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@85Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm 6-cell: starting at 5.66 lb (2.57kg); 9-cell: starting at 6.01 lb (2.72kg) Display cover: Glass-fiber reinforced plastic; Base: Carbon-fiber reinforced plastic Lithium Ion 9-cell, supports optional Slice battery (57Y4545) as 2nd battery at bottom 6-cell: up to 4.7 hr; 9-cell: up to 7.8 hr; 9-cell plus Slice battery: up to 15.6 hr													
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										Supports ThinkVantage® technologies			
PCIe Mini Card Intel 1000 Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet	Two PCI Express Mini Card slots Some: 11b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 Some: 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁶ modem Some: Bluetooth 2.1 wireless, LED indicator Non-vPro model: Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 vPro model: Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant Some: UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Intel AMT Audio support Security Security chip Fingerprint reader											ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Limited warranty ¹²	3-years/1-yr - battery depot repair service / service upgrades ²² available													

See footnotes for important warranty information

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

✕ US model withdrawn effective February 2011

© Lenovo
(KN1-6) July 2010

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory (MHz)	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Power Adapter (watt)	Intel vPro	Pre-load	Workhorse (W) Gbl (G) GMP (P)	Avail date
4349-3JU	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD	2.0M	250G 5400	6200 ²⁸	Gobi AT&T ²³	Finger	Blue	90W	vPro	Pro 32		Jan 10
4349-3KU	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD+	2.0M	320G 7200	6200	Gobi Verizon ¹⁶	Finger	Blue	90W	vPro	Pro 32		Jan 10
4349-2LU	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD		320G 5400	11b/g/n upg				65W		Pro 32		Jan 10
4349-2NU	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD+	2.0M	320G 7200	6200	Gobi AT&T	Finger	Blue	65W	vPro	Pro 32		Feb 10
4349-2PU	i7-620M	2.66	3.33	4GBx1 1333	15.6" HD+	2.0M	500G 7200	6200	upg	Finger	Blue	65W	vPro	Pro 32		Jan 10
4349-2MU	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD	2.0M	500G 7200	11b/g/n upg		Finger	Blue	65W		Pro 32	W G	Jan 10
4349-3AU	i5-520M	2.40	2.93	2+1GB 1066	15.6" HD	2.0M	320G 5400	6200	upg	Finger	Blue	65W	vPro	Pro 32	W G	Jan 10
4349-4BU	i5-520M	2.40	2.93	2+1GB 1066	15.6" HD	2.0M	80G SSD	6200	upg	Finger	Blue	65W	vPro	Pro 32		G Feb 10
4349-4VU	i5-520M	2.40	2.93	2GBx2 1066	15.6" HD	2.0M	320G 5400	6200	upg			65W	vPro	Pro 64		G Mar 10
4349-57U	i5-540M	2.53	3.06	2GBx1 1066	15.6" HD+	2.0M	320G 7200	6200	Gobi AT&T	Finger	Blue	65W	vPro	Pro 32		Apr 10
4349-4XU	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD	2.0M	160G 7200	6200	upg		Blue	65W	vPro	Pro 32		G Apr 10
4349-5CU	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD+	2.0M	160G 7200	6200	upg		Blue	65W	vPro	Pro 64		G May 10
4349-5EU	i5-540M	2.53	3.06	2GBx1 1066	15.6" HD+	2.0M	160G 7200	6200	upg		Blue	65W	vPro	Pro 64		G May 10
• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)																
Positioning Processor	Premiere performance; two spindles Intel® Core™ i5 processor i5-520M or i5-540M with dual-core, or Intel Core i7 processor i7-620M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; <i>i5-520M/ i5-540M: 3MB cache; i7-620M: 4MB cache</i>										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64					
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)					
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some: 80GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high</i> <i>Some: 160GB (7200 rpm), 250GB (5400 rpm), 320GB (5400 or 7200 rpm), or 500GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™</i> <i>All: removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive</i>															
Widescreen display	<i>Some: 15.6" (396mm) HD (1366x768) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio</i> <i>Some: 15.6" (396mm) HD+ (1600x900) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio</i> <i>All: camera on top of screen, 2.0-megapixel, fixed focus</i>															
Camera	<i>Some: camera on top of screen, 2.0-megapixel, fixed focus</i>															
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)</i>															
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys															
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass															
Touchpad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch															
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³	15.6W" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm															
Weight ²	6-cell: starting at 5.66 lb (2.57kg); 9-cell: starting at 6.01 lb (2.72kg)															
Case material	Display cover: Glass-fiber reinforced plastic; Base: Carbon-fiber reinforced plastic															
Battery - type	Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom															
Battery - life ¹⁰	6-cell: up to 6.2 hr; 9-cell: up to 10.4 hr; 9-cell plus Slice battery: up to 20.8 hr															
Chipset	Mobile Intel QM57 Express Chipset															
ExpressCard/34	One slot (ExpressCard/34)															
Smart Card read	None															
Multicard reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)															
Ports	Four USB 2.0 (one powered), external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										Supports ThinkVantage® technologies					
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots <i>Some: 11b/g/n wireless⁴, ThinkPad 11b/g/n, PCIe Half Mini Card</i> <i>Some: 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2</i> <i>Some: Wireless WAN upgradable</i> <i>Some: Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider</i> <i>Some: AT&T® or Verizon®, contract required with service provider</i>										65-watt or 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378					
Carrier	<i>Some: 56K V.92²⁶ modem</i>															
Modem	<i>Some: Bluetooth 2.1 wireless, LED indicator</i>															
Bluetooth™	<i>Non-vPro model: Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1</i>										ThinkPlus™. ²² 3-year LOR ²⁴ 9x5 NBD 45K6021					
Ethernet	<i>vPro model: Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1</i> <i>Intel Active Management Technology (iAMT)</i>										ThinkPlus 4-year LOR 9x5 NBD 45K6022					
Intel AMT	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack										ThinkPlus 5-year LOR 9x5 NBD 45K6024					
Audio support	Power-on password, hard disk password, supervisor password, security keyhole										ThinkPlus 4-year P&L P/U Depot 45K6023					
Security chip	Trusted Platform Module, TCG 1.2-compliant										ThinkPlus 5-year P&L P/U Depot 45K6025					
Fingerprint reader	<i>Some: UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip</i>										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty					
Limited warranty ¹²	3-years/1-yr - battery depot repair service / service upgrades ²² available															

See footnotes for important warranty information

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

ThinkPad® T510 4349 (Windows 7) - July 2010

Personal Systems Reference (PSREF)

Model	Type	Processor	Base		Max		Wide-	Disk	PCIe	PCIe	Finger	Blue-	Intel	Preload	Availability
			GHz	turbo	Memory	screen									
4349-G3U	i5-540M	2.53	3.06	2GBx2	1066	15.6" HD+	2.0M	160G SSD	Intel 6200 ²⁸	WWAN upg	Finger	Blue	vPro	Pro 64	Jul 10
4349-GJU	i5-560M	2.66	3.20	4GBx1	1333	15.6" HD+	2.0M	320G 7200	Intel 6200	WWAN upg	Finger	Blue	vPro	Pro 64	Jan 11

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-540M or i5-560M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	4GB std / 8GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some: 160GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high</i> <i>Some: 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™</i> <i>All: removable, upgradeable, supports 2nd disk, Shock Mounted Hard Drive</i>	
Widescreen display Camera	15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)</i>	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>15.6W" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm</i> <i>6-cell: starting at 5.66 lb (2.57kg); 9-cell: starting at 6.01 lb (2.72kg)</i> <i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell: up to 6.2 hr; 9-cell: up to 10.4 hr; 9-cell plus Slice battery: up to 20.8 hr</i>	
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradeable 56K V.92 ⁹ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹²	3-years/1-yr - battery depot repair service / service upgrades ²² available	

Supports ThinkVantage® technologies

65-watt AC adapter
ThinkPad Roll Cage (one-piece magnesium frame)
EPEAT™ Gold rating
ENERGY STAR® 5.0-compliant
RoHS-compliant
International Warranty Service¹⁷
24 hour x 7 day¹⁸ toll-free support during the warranty period¹²
via 800-426-7378

ThinkPlus™, ²² 3-year LOR²⁴ 9x5 NBD
45K6021
ThinkPlus 4-year LOR 9x5 NBD
45K6022
ThinkPlus 5-year LOR 9x5 NBD
45K6024
ThinkPlus 4-year P&L P/U Depot
45K6023
ThinkPlus 5-year P&L P/U Depot
45K6025
Post-warranty annual maintenance agreements at
lenovo.com/thinkplus/warranty

See footnotes for important warranty information

US model announced January 11, 2011; previous model on July 6, 2010

- ✂ US model withdrawn effective February 2011

© Lenovo
(KN1-13) January 2011

ThinkPad® T510 4349 (Optimus) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base (GHz)	turbo (GHz)	Memory (MHz)	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Intel vPro	Preload	Avail date
4349-GDU	i5-560M	2.66	3.20	2GBx1 1066	15.6" HD+	2.0M	320G 7200	Intel 6200 ²⁸	WWAN upg	None	Blue	vPro	Pro 64	Sep 10

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-560M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 320GB ⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display Camera	15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus	
Optimus graphics ³⁷	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics in processor, and NVIDIA Quadro® NVS3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent display; <i>Maximum external resolution: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)</i>	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm 6-cell: starting at 5.66 lb (2.57kg); 9-cell: starting at 6.01 lb (2.72kg) Display cover: Glass-fiber reinforced plastic; Base: Carbon-fiber reinforced plastic Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery 6-cell: up to 6.1 hr; 9-cell: up to 10.3 hr; 9-cell plus Slice battery: up to 20.7 hr	
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	Supports ThinkVantage® technologies
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None	ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025
Limited warranty ¹²	3-years/1-yr - battery depot repair service / service upgrades ²² available	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

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

© Lenovo
 (KN1-15) December 2010

ThinkPad® T510 4349 (Discrete) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory (MHz)	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Bat- tery Intel vPro	Workhorse (W) Pre-load Gbl (G) GMP (P)	Avail date
4349-2QU	i5-520M	2.40	2.93	2GBx1	1066	15.6" HD	500G 7200	11b/g/n	WWAN upg	6	Pro 32	Feb 10
4349-3HU	i5-540M	2.53	3.06	2+1GB	1066	15.6" HD	2.0M 128G SSD	Intel 6200 ²⁸	WWAN upg	Finger Blue 6	vPro Pro 32	Feb 10
4349-2RU	i7-620M	2.66	3.33	2GBx1	1066	15.6" HD+	2.0M 320G 7200	Intel 6200	WWAN upg	Finger Blue 9	vPro Pro 32	Feb 10
4349-3BU	i5-520M	2.40	2.93	2+1GB	1066	15.6" HD	2.0M 320G 7200	Intel 6200	WWAN upg	Finger Blue 6	vPro Pro 32	Feb 10
4349-4WU	i5-540M	2.53	3.06	2GBx2	1066	15.6" HD+	2.0M 320G 7200	Intel 6200	WWAN upg	Finger Blue 9	vPro Pro 64	Mar 10
4349-5AU	i5-520M	2.40	2.93	2GBx1	1066	15.6" HD	2.0M 160G 7200	Intel 6200	WWAN upg	Blue 9	vPro Pro 32	Apr 10
4349-5BU	i5-520M	2.40	2.93	2GBx1	1066	15.6" HD+	2.0M 320G 7200	Intel 6200	WWAN upg	Finger Blue 6	vPro Pro 32	Apr 10
4349-5DU	i5-520M	2.40	2.93	2GBx1	1066	15.6" HD	2.0M 160G 7200	Intel 6200	WWAN upg	Blue 6	vPro Pro 64	May 10
✕ 4349-G2U	i5-540M	2.53	3.06	2GBx2	1066	15.6" HD	2.0M 160G SSD	Intel 6200	WWAN upg	Finger Blue 6	vPro Pro 64	Jul 10

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-540M with dual-core, or Intel Core i7 processor i7-620M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; <i>i5-520M/i5-540M: 3MB cache; i7-620M: 4MB cache</i>	Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some: 128GB⁸ or 160GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high</i> <i>Some: 160GB (7200 rpm), 320GB (7200 rpm), or 500GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™</i> <i>All: removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive</i>	
Widescreen display	<i>Some: 15.6" (396mm) HD (1366x768) color, anti-glare, LED backlight,</i> 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some: 15.6" (396mm) HD+ (1600x900) color, anti-glare, LED backlight,</i> 220 nits, 16:9 aspect ratio, 500:1 contrast ratio	
Camera	<i>Some: camera on top of screen, 2.0-megapixel, fixed focus</i>	
Discrete graphics	NVIDIA® Quadro® NVS3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)</i>	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>15.6W" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm</i> <i>6-cell: starting at 5.66 lb (2.57kg); 9-cell: starting at 6.01 lb (2.72kg)</i> <i>Display cover: Glass-fiber reinforced plastic; Base: Carbon-fiber reinforced plastic</i> Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery <i>6-cell: up to 4.7 hr; 9-cell: up to 7.8 hr; 9-cell plus Slice battery: up to 15.6 hr</i>	
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	Supports ThinkVantage® technologies
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet	Two PCI Express Mini Card slots <i>Some: 11b/g/n wireless⁴, ThinkPad 11b/g/n, PCIe Half Mini Card</i> <i>Some: 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2</i> Wireless WAN upgradable 56K V.92 ⁶ modem <i>Some: Bluetooth 2.1 wireless, LED indicator</i> <i>Non-vPro model: Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1</i> <i>vPro model: Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1</i> Intel Active Management Technology (iAMT)	90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Intel AMT Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some: UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip</i>	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Limited warranty ¹² 3-years/1-yr - battery depot repair service / service upgrades²² available		

See footnotes for important warranty information

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

✕ US model withdrawn effective February 2011

© Lenovo
(KN1-8) July 2010

ThinkPad® T510 4384 (Onsite) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory (MHz)	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Intel vPro	Preload	Workhorse (W) Gbl (G) GMP (P)	Avail date
4384-2MU	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD	2.0M	500G 7200	11b/g/n	WWAN upg	Fing		Pro 32	W G P	Jan 10
4384-3AU	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD	2.0M	320G 5400	Intel 6200 ²⁸	WWAN upg	Fing	vPro	Pro 32	W G P	Jan 10
4384-4BU	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD	2.0M	80G SSD	Intel 6200	WWAN upg	Fing	vPro	Pro 32	G P	Feb 10
4384-4XU	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD	2.0M	160G 7200	Intel 6200	WWAN upg		vPro	Pro 32	G P	Apr 10
4384-5CU	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD+	2.0M	160G 7200	Intel 6200	WWAN upg		vPro	Pro 64	G P	May 10
4384-5EU	i5-540M	2.53	3.06	2GBx1 1066	15.6" HD+	2.0M	160G 7200	Intel 6200	WWAN upg		vPro	Pro 64	G P	May 10
4384-H3U	i5-540M	2.53	3.06	2GBx2 1066	15.6" HD	2.0M	160G SSD	Intel 6200	WWAN upg	Fing	vPro	Pro 64		Jul 10
4384-GJU	i5-560M	2.66	3.20	4GBx1 1333	15.6" HD+	2.0M	320G 7200	Intel 6200	WWAN upg	Fing	vPro	Pro 64		Jan 11

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M, i5-540M, or i5-560M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64			
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)			
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> 80GB or 160GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 160GB (7200 rpm), 320GB (5400 or 7200rpm), or 500GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive													
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio													
Camera	Camera on top of screen, 2.0-megapixel, fixed focus													
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg) <i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell:</i> up to 6.2 hr; <i>9-cell:</i> up to 10.4 hr; <i>9-cell plus Slice battery:</i> up to 20.8 hr													
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator <i>Non-vPro model:</i> Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 <i>vPro model:</i> Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1										Supports ThinkVantage® technologies			
Intel AMT Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack										65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										ThinkPlus™. 22 4-year LOR ²⁴ 9x5 NBD 45K6038			
Limited warranty ¹²	3-years/1-year - battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			

See footnotes for important warranty information

US model announced January 11, 2011; previous models on January 7, April 6, May 4, or July 6, 2010

US model withdrawn effective February 2011

© Lenovo
(KN1-9) January 2011

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

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base (GHz)	turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸	rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery cells	Intel vPro	Preload	Workhorse (W) Gbl (G) (P)	Avail date
4384-2RU	i7-620M	2.66	3.33	2GB	15.6" HD+	2.0M	320G	7200	Intel 6200 ²⁸	WWAN upg	Finger	Blue	9	vPro	Pro 32	W G P	Feb 10
4384-3BU	i5-520M	2.40	2.93	3GB	15.6" HD	2.0M	320G	7200	Intel 6200	WWAN upg	Finger	Blue	6	vPro	Pro 32	W G P	Feb 10
4384-5DU	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	160G	7200	Intel 6200	WWAN upg		Blue	6	vPro	Pro 64	G P	May 10
✕ 4384-H2U	i5-540M	2.53	3.06	4GB	15.6" HD+	2.0M	160G	SSD	Intel 6200	WWAN upg	Finger	Blue	6	vPro	Pro 64		Jul 10

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-540M with dual-core, or Intel Core i7 processor i7-620M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; <i>i5-520M/i5-540M: 3MB cache; i7-620M: 4MB cache</i>											Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64						
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available											Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)						
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some: 160GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high</i> <i>Some: 160GB (7200 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™</i> <i>All: removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive</i>																	
Widescreen display	<i>Some: 15.6" (396mm) HD (1366x768) color, anti-glare, LED backlight,</i> 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some: 15.6" (396mm) HD+ (1600x900) color, anti-glare, LED backlight,</i> 220 nits, 16:9 aspect ratio, 500:1 contrast ratio																	
Camera	Camera on top of screen, 2.0-megapixel, fixed focus																	
Discrete graphics	NVIDIA® Quadro® NVS3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)</i>																	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions																	
Dimensions ³	15.6W" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm																	
Weight ²	6-cell: starting at 5.66 lb (2.57kg); 9-cell: starting at 6.01 lb (2.72kg)																	
Case material	<i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic																	
Battery - type	Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery																	
Battery - life ¹⁰	6-cell: up to 4.7 hr; 9-cell: up to 7.8 hr; 9-cell plus Slice battery: up to 15.6 hr																	
Chipset	Mobile Intel QM57 Express Chipset																	
ExpressCard/34	One slot (ExpressCard/34)																	
Smart Card read	None																	
Multicard reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)																	
Ports	Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											Supports ThinkVantage® technologies						
PCIe Mini Card Intel 6200 ²⁸ WWAN upg	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable																	
Modem	56K V.92 ⁶ modem																	
Bluetooth™	Bluetooth 2.1 wireless, LED indicator																	
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1																	
Intel AMT	Intel Active Management Technology (iAMT)																	
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack																	
Security	Power-on password, hard disk password, supervisor password, security keyhole																	
Security chip	Trusted Platform Module, TCG 1.2-compliant																	
Fingerprint reader	<i>Some: UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip</i>											ThinkPlus™, 22 4-year LOR ²⁴ 9x5 NBD 45K6038						
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty						

See footnotes for important warranty information

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

✕ US model withdrawn effective February 2011

© Lenovo
(KN1-10) July 2010

ThinkPad® T510 4349 (Education) - Windows 7

Personal Systems Reference (PSREF)

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

- These models have a depot repair service 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)
- Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.
- Microsoft Office Ultimate 2007 Academic Edition: Only valid for sale to students, faculty and staff of accredited educational institutions in the United States.

Positioning Processor	Premiere performance; two spindles Intel® Core™ i5 processor i5-520M or i5-540M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 32 Preloaded applications ¹⁴ (only some listed) • E3U/E4U models: Education software - Microsoft® Office Ultimate 2007 Academic Edition (and CD) • Education software - Microsoft® Office OneNote® 2007 (and CD) - Adobe Digital School Collection – Instructor Resources (and DVD) – Learning Creative Suite 4 (DVD) – Photoshop Elements 7 (DVD) – Premiere Elements 7 (and DVD) – Acrobat 9 Professional (DVD) – Contribute CS4 (and DVD) – Soundbooth CS4 (and DVD) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Microsoft Office 2010 preloaded; purchase product key to activate • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available		
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 250GB ⁸ (5400 rpm) or 320GB (5400 or 7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™		
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio		
Camera	Camera on top of screen, 2.0-megapixel, fixed focus		
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)		
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm 6-cell: starting at 5.66 lb (2.57kg); 9-cell: starting at 6.01 lb (2.72kg) <i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom 6-cell: up to 6.2 hr; 9-cell: up to 10.4 hr; 9-cell plus Slice battery: up to 20.8 hr		
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		Supports ThinkVantage® technologies
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ Gobi™ 2000	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider		65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Carrier Modem Bluetooth™ Ethernet	<i>Some:</i> AT&T®, contract required with service provider 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator <i>Non-vPro model:</i> Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 <i>vPro model:</i> Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1		ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021
Intel AMT Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack		ThinkPlus 4-year LOR 9x5 NBD 45K6022
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		ThinkPlus 5-year LOR 9x5 NBD 45K6024
Limited warranty ¹²	3-years/1-yr - battery depot repair service / service upgrades ²² available		ThinkPlus 4-year P&L P/U Depot 45K6023
			ThinkPlus 5-year P&L P/U Depot 45K6025
			Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

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

© Lenovo
 (KN1-11) January 2010

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

Personal Systems Reference (PSREF)

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

- **These models have a depot repair service 3-year limited warranty**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**
- **Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.**
- **Microsoft Office Ultimate 2007 Academic Edition: Only valid for sale to students, faculty and staff of accredited educational institutions in the United States.**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 32	
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 applications ¹⁴ (only some listed) • <i>E6U model:</i> Education software - Microsoft® Office Ultimate 2007 Academic Edition (and CD) • Education software - Microsoft® Office OneNote® 2007 (and CD) - Adobe Digital School Collection – Instructor Resources (and DVD) – Learning Creative Suite 4 (DVD) – Photoshop Elements 7 (DVD) – Premiere Elements 7 (and DVD) – Acrobat 9 Professional (DVD) – Contribute CS4 (and DVD) – Soundbooth CS4 (and DVD) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Microsoft Office 2010 preloaded; purchase product key to activate • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)	
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 250GB ⁸ (5400 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™			
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio			
Camera	Camera on top of screen, 2.0-megapixel, fixed focus			
Discrete graphics	NVIDIA® Quadro® NVS3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)			
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions			
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg) <i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery <i>6-cell:</i> up to 4.7 hr; <i>9-cell:</i> up to 7.8 hr; <i>9-cell plus Slice battery:</i> up to 15.6 hr			
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		Supports ThinkVantage® technologies 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
PCIe Mini Card Intel 6200 ²⁸ Gobi™ 2000	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider			
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	AT&T®, contract required with service provider 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack		ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip			
Limited warranty ¹²	3-years/1-yr - battery depot repair service / service upgrades ²² available			

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

© Lenovo
 (KN1-12) January 2010

ThinkPad® T510i 4313 (TopSeller) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	SATA optical	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery cells	Intel vPro	Preload	Avail date
4313-C2U	i3-370M	2.40	2GB	15.6" HD	2.0M	250G 5400	DVD±RW	Intel 1000	None	Finger	Blue	6	No	Pro 64	Jul 10
4313-C3U	i3-370M	2.40	2GB	15.6" HD	2.0M	320G 7200	DVD±RW	Intel 1000	None	Finger	Blue	6	No	Pro 64	Jul 10

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i3 processor i3-370M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Adobe® Reader® • Adobe Flash® Player • Microsoft Office 2010 preloaded; purchase product key to activate • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 250GB ⁸ (5400 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display Camera	15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	Supports ThinkVantage® technologies
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg) <i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell:</i> up to 6.2 hr; <i>9-cell:</i> up to 10.4 hr; <i>9-cell plus Slice battery:</i> up to 20.8 hr	65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	ThinkPlus™. ²² 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
PCIe Mini Card Intel 1000 WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

See footnotes for important warranty information
US models announced July 6, 2010

© Lenovo
(KN1i-3) July 2010

ThinkPad®



Lenovo® ThinkPad W510



Lenovo ThinkPad W510



ThinkPad Mini Dock Plus Series 3 - Mobile WorkStation
433820U



ThinkPad 135W AC Adapter
55Y9317



Lenovo ThinkPad W510



Lenovo ThinkPad W510

ThinkPad® W510 4319 (TopSeller) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory (MHz)	Wide-screen display	Multi-Touch Screen	Disk SATA GB ³ rpm	RAID	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Color calib	Intel vPro	Preload	Avail date	
4319-2NU	i7-720QM	1.60	2.80	2GBx1 1066	15.6" HD+		320G 7200	None	Intel 6300 ²⁸	WWAN upg			vPro	Pro 32	Jan 10	
4319-2PU	i7-720QM	1.60	2.80	2GBx2 1066	15.6" FHD		320G 7200	None	Intel 6300	WWAN upg			vPro	Pro 64	Jan 10	
4319-2QU	i7-720QM	1.60	2.80	2GBx2 1066	15.6" FHD		320G 7200	None	Intel 6300	Gobi 2000			vPro	Pro 64	Jan 10	
4319-2RU	i7-820QM	1.73	3.06	2GBx2 1066	15.6" FHD	Multi	320G 7200	None	Intel 6300	WWAN upg			X-Rite	vPro	Pro 64	Jan 10
4319-4BU	i7-720QM	1.60	2.80	2GBx2 1066	15.6" FHD		320G 7200	None	Intel 6300	Gobi 2000	AT&T ²³		vPro	Pro 64	Feb 10	
4319-4MU	i7-720QM	1.60	2.80	2GBx2 1066	15.6" HD+		320G 7200	None	Intel 6300	Gobi 2000	AT&T		vPro	Pro 64	Mar 10	
4319-64U	i7-720QM	1.60	2.80	2GBx1 1066	15.6" HD+		320G 7200	None	Intel 6300	WWAN upg			vPro	Pro 64	Sep 10	
• These small and medium business (SMB) models are part of the US TopSeller™ Program • Power-packed engineering with Open GL graphics and ISV certifications • These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)																
Positioning Processor	Mobile workstation; two spindles Intel® Core™ i7 processor i7-720QM or i7-820QM with quad-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1333MHz), Intel Turbo Boost, Hyper-Threading technology; i7-720QM: 6MB cache; i7-820QM: 8MB cache											Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64				
Memory	2GB or 4GB std / 16GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 204-pin SO-DIMM sockets											Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) • huey™PRO Monitor Color Correction by Pantone®/X-Rite® (color calibration models)				
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, Shock Mounted Hard Drive, Active Protection System™															
Widescreen display	<i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) FHD (1920x1080) color , anti-glare, LED backlight , 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut <i>Some:</i> 15.6" (396mm) FHD (1920x1080) color , anti-glare, LED backlight , 242 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut, MultiTouch (touchscreen supports two-finger touch)															
Color calibration Camera	<i>Some:</i> huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest Camera on top of screen, 2.0-megapixel, fixed focus															
Discrete graphics	NVIDIA® Quadro® FX880M , PCI Express® x16, 1GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)															
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions (WxDxH) ³	<i>HD+:</i> 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>FHD:</i> 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm <i>FHD MultiTouch:</i> 14.68" x 9.65" x 1.35-1.57"; 372.8mm x 245.1mm x 34.3-39.8mm															
Weight ²	<i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg)															
Case material	<i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic															
Battery - type	Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom															
Battery - life ¹⁰	<i>6-cell:</i> up to 3.0 hr; <i>9-cell:</i> up to 5.1 hr; <i>9-cell plus slice battery:</i> up to 10.5 hr															
Chipset	Mobile Intel QM57 Express Chipset											Supports ThinkVantage® technologies				
ExpressCard/34	One slot (ExpressCard/34)															
Smart Card Read	None											135-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Multicard Reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)															
Ports	Two USB 3.0, one Powered USB 2.0, one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)															
PCIe Mini Card	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Ultimate-N 6300, 3x3 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider															
Carrier	<i>Some:</i> AT&T®, contract required with service provider															
Modem	56K V.92 ⁶ modem											ThinkPlus™, 22 3-year LOR ²⁴ 9x5 NBD 41C9176				
Bluetooth™	Bluetooth 2.1 wireless, LED indicator											ThinkPlus 4-year LOR 9x5 NBD 41C9177				
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1											ThinkPlus 5-year LOR 9x5 NBD 41C9179				
Intel AMT	Intel Active Management Technology (iAMT)											ThinkPlus 4-year P&L P/U Depot 41C9178				
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack											ThinkPlus 5-year P&L P/U Depot 41C9180				
Security	Power-on password, hard disk password, supervisor password, security keyhole											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
Security chip	Trusted Platform Module, TCG 1.2-compliant															
Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip															
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available															

See footnotes for important warranty information

US model announced September 28, 2010; previous models on January 7, February 2, or March 2, 2010

US model withdrawn effective February 2010

© Lenovo
(KN1W-1) October 2010

ThinkPad® W510 4319 (TopSeller) - Windows 7 (July 2010)

Personal Systems Reference (PSREF)

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

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- Power-packed engineering with Open GL graphics and ISV certifications
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Mobile workstation; two spindles Intel® Core™ i5 processor i5-520M or i5-560M with dual-core, or Intel Core i7 processor i7-620M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; <i>i5-520M/i5-560M: 3MB cache; i7-620M: 4MB cache</i>										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Preloaded applications¹⁴ (only some listed)			
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										• Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)			
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, Shock Mounted Hard Drive, Active Protection System™													
Widescreen display	<i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) FHD (1920x1080) color , anti-glare, LED backlight , 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut													
Color calibration	None													
Camera	Camera on top of screen, 2.0-megapixel, fixed focus													
Discrete graphics	NVIDIA® Quadro® FX880M , PCI Express® x16, 1GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions (WxDxH) ³	<i>HD+:</i> 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>FHD:</i> 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm													
Weight ²	<i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg)													
Case material	<i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic													
Battery - type	Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery													
Battery - life ¹⁰	<i>6-cell:</i> up to 3.0 hr; <i>9-cell:</i> up to 5.1 hr; <i>9-cell plus slice battery:</i> up to 10.5 hr													
Chipset	Mobile Intel QM57 Express Chipset													
ExpressCard/34	One slot (ExpressCard/34)													
Smart Card Read	None													
Multicard Reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)													
Ports	Two USB 3.0, one Powered USB 2.0, one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
PCIe Mini Card	Two PCI Express Mini Card slots													
Intel 6200 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2													
Intel 6300 ²⁸	<i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3													
WWAN upg	Wireless WAN upgradable													
Modem	56K V.92 ⁶ modem													
Bluetooth™	Bluetooth 2.1 wireless, LED indicator													
Ethernet	<i>Non-vPro model:</i> Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 <i>vPro model:</i> Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT)													
Intel AMT														
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module, TCG 1.2-compliant													
Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available										Supports ThinkVantage® technologies 135-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			

See footnotes for important warranty information

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

US model withdrawn effective February 2011

© Lenovo
(KN1W-5) October 2010

Type-model	Processor	Max Base turbo (GHz)	Memory (MHz)	Wide-screen display	Multi-Touch Screen	Cam-era	Disk SATA GB ⁸ rpm RAID	SATA optical	PCIe Mini Card 802.11	Blue/Color Fing	Bat-tery Intel vPro	Workhorse (W) Pre-GMP (P) Avail
4389-22U	i7-720QM	1.60	2.80	2GBx1 1066	15.6" HD		250G 5400	DVD±RW	Intel 6200 ²⁸		6 vPro	Pro 32 G Jan 10
4389-23U	i7-820QM	1.73	3.06	2GBx2 1066	15.6" HD+		320G 7200	DVD±RW	Intel 6200	Yes	9 vPro	Pro 32 G Jan 10
4389-24U	i7-820QM	1.73	3.06	4GBx1 1333	15.6" HD+	2.0M	500G 7200	1	Intel 6300 ²⁸	Yes	9 vPro	Pro 64 Jan 10
4389-2SU	i7-920XM	2.00	3.20	4GBx1 1333	15.6" HD+	2.0M	320G 7200	1	Intel 6300	Yes	9	Pro 64 Jan 10
4389-2TU	i7-720QM	1.60	2.80	2GBx2 1066	15.6" HD+	2.0M	320G 7200	DVD±RW	Intel 6200	Yes	9 vPro	Pro 32 Jan 10
4389-2UU	i7-820QM	1.73	3.06	2GBx2 1066	15.6" FHD	Multi	2.0M	500G 7200	DVD±RW	Intel 6300	Yes X-Rite	9 vPro Pro 32 Jan 10
4389-N9U	i7-820QM	1.73	3.06	4GBx1 1333	15.6" FHD	2.0M	320G 7200	DVD±RW	Intel 6300	Yes X-Rite	6 vPro	Pro 64 G Aug 10

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

Positioning Processor	<i>Mobile workstation; two spindles</i> Intel® Core™ i7 processor i7-720QM, i7-820QM, or i7-920XM with quad-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1333MHz), Intel Turbo Boost, Hyper-Threading technology; <i>i7-720QM: 6MB cache; i7-820QM/ i7-920XM: 8MB cache</i>									Preloaded operating system²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64		
Memory	2GB or 4GB std / 16GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, four 204-pin SO-DIMM sockets									Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) • huey™PRO Monitor Color Correction by Pantone®/X-Rite® (color calibration models)		
SATA DVD±RW Ultrabay Enhanced SATA disk	<i>Some:</i> DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 250GB⁸ (5400 rpm), 320GB⁸ (7200 rpm), or 500GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, Shock Mounted Hard Drive, Active Protection System™											
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) FHD (1920x1080) color , anti-glare, LED backlight , 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut <i>Some:</i> 15.6" (396mm) FHD (1920x1080) color , anti-glare, LED backlight , 242 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut, MultiTouch (touchscreen supports two-finger touch)											
Color calibration Camera	<i>Some:</i> huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus											
Discrete graphics	NVIDIA® Quadro® FX880M , PCI Express® x16, 1GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)											
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions (WxDxH) ³	<i>HD & HD+:</i> 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>FHD:</i> 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm <i>FHD MultiTouch:</i> 14.68" x 9.65" x 1.35-1.57"; 372.8mm x 245.1mm x 34.3-39.8mm <i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg)											
Weight ²	<i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic											
Battery - type	Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery											
Battery - life ¹⁰	<i>6-cell:</i> up to 3.0 hr; <i>9-cell:</i> up to 5.1 hr; <i>9-cell plus slice battery:</i> up to 10.5 hr											
Chipset	Mobile Intel QM57 Express Chipset											
ExpressCard/34	One slot (ExpressCard/34)											
Smart Card Read	None											
Multicard Reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)											
Ports	Two USB 3.0, one Powered USB 2.0, one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											
PCIe Mini Card	Two PCI Express Mini Card slots <i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3											
WWAN upg	Wireless WAN upgradable											
Modem	56K V.92 ⁶ modem											
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator											
Ethernet	<i>Non-vPro model:</i> Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 <i>vPro model:</i> Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1											
Intel AMT	Intel Active Management Technology (iAMT)											
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack											
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	Trusted Platform Module, TCG 1.2-compliant											
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip											
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available											

See footnotes for important warranty information

US model announced August 3, 2010; previous models on January 7, 2010

ThinkPad® W510 4389 (Windows 7) - July 2010

Personal Systems Reference (PSREF)

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

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

Positioning Processor	Mobile workstation; two spindles Intel® Core™ i5 processor i5-520M with dual-core, or Intel Core i7 processor i7-620M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; <i>i5-520M: 3MB cache; i7-620M: 4MB cache</i>										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64				
Memory	2GB, 4GB, or 8GB std / 8GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)				
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 160GB⁶ (7200 rpm), 250GB (5400 rpm), 320GB (7200 rpm), or 500GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, Shock Mounted Hard Drive, Active Protection System™														
Widescreen display	<i>Some: 15.6" (396mm) HD (1366x768) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut</i> <i>Some: 15.6" (396mm) HD+ (1600x900) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut</i> <i>Some: 15.6" (396mm) FHD (1920x1080) color, anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut</i>														
Color calibration	None														
Camera	<i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus														
Discrete graphics	NVIDIA® Quadro® FX880M , PCI Express® x16, 1GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)</i>														
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions (WxDxH) ³	HD & HD+: 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm FHD: 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm														
Weight ²	<i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg)														
Case material	<i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic														
Battery - type	Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery														
Battery - life ¹⁰	<i>6-cell:</i> up to 3.0 hr; <i>9-cell:</i> up to 5.1 hr; <i>9-cell plus slice battery:</i> up to 10.5 hr														
Chipset	Mobile Intel QM57 Express Chipset														
ExpressCard/34	One slot (ExpressCard/34)														
Smart Card Read	<i>Some:</i> Smart Card reader														
Multicard Reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)														
Ports	Two USB 3.0, one Powered USB 2.0, one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
PCIe Mini Card	Two PCI Express Mini Card slots														
Intel 6200 ²⁸	11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2														
WWAN upg	Wireless WAN upgradable														
Modem	56K V.92 ⁶ modem														
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator														
Ethernet	Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1														
Intel AMT	Intel Active Management Technology (iAMT)														
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module, TCG 1.2-compliant														
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available														

See footnotes for important warranty information

US models announced July 13, 2010

✂ US model withdrawn effective February 2011

© Lenovo
(KN1W-6) July 2010

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

ThinkPad® W510 4391 (Onsite) - Windows 7

Personal Systems Reference (PSREF)

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

- These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty
- Power-packed engineering with Open GL graphics and ISV certifications
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Mobile workstation; two spindles Intel® Core™ i7 processor i7-720QM or i7-820QM with quad-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1333MHz), Intel Turbo Boost, Hyper-Threading technology; <i>i7-720QM: 6MB cache; i7-820QM: 8MB cache</i>		Preloaded operating system ²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64	
Memory	2GB or 4GB std / 16GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, four 204-pin SO-DIMM sockets		Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)	
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 250GB⁸ (5400 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, Shock Mounted Hard Drive, Active Protection System™			
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) FHD (1920x1080) color , anti-glare, LED backlight , 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut			
Color calibration Camera	<i>Some:</i> huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus			
Discrete graphics	NVIDIA® Quadro® FX880M , PCI Express® x16, 1GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)			
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions			
Dimensions (WxDxH) ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>HD & HD+:</i> 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>FHD:</i> 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm <i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg) <i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery <i>6-cell:</i> up to 3.0 hr; <i>9-cell:</i> up to 5.1 hr; <i>9-cell plus slice battery:</i> up to 10.5 hr			
Chipset ExpressCard/34 Smart Card Read Multicard Reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Two USB 3.0, one Powered USB 2.0, one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)			
PCIe Mini Card Intel 6200 ²⁸ Intel 6300 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots <i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3 Wireless WAN upgradable 56K V.92 ⁶ modem <i>Some:</i> Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack		Supports ThinkVantage® technologies 135-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		ThinkPlus™.22 4-year LOR 9x5 NBD 12X5630 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty	
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available			

See footnotes for important warranty information

US model announced August 3, 2010; previous models on January 7, 2010

© Lenovo
(KN1W-3) August 2010

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

Personal Systems Reference (PSREF)

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

- These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty
- Power-packed engineering with Open GL graphics and ISV certifications
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Mobile workstation; two spindles Intel® Core™ i5 processor i5-520M with dual-core, or Intel Core i7 processor i7-620M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; <i>i5-520M: 3MB cache; i7-620M: 4MB cache</i>			Preloaded operating system ²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64
Memory	2GB, 4GB, or 8GB std / 8GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets			Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 160GB⁸ (7200 rpm), 250GB (5400 rpm), 320GB (7200 rpm), or 500GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, Shock Mounted Hard Drive, Active Protection System™			
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) FHD (1920x1080) color , anti-glare, LED backlight , 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut			
Color calibration	None			
Camera	<i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus			
Discrete graphics	NVIDIA® Quadro® FX880M , PCI Express® x16, 1GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)			
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass			
Touchpad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions			
Dimensions (WxDxH) ³	HD & HD+: 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm FHD: 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm			
Weight ²	6-cell: starting at 5.66 lb (2.57kg); 9-cell: starting at 6.01 lb (2.72kg)			
Case material	<i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic			
Battery - type	Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery			
Battery - life ¹⁰	6-cell: up to 3.0 hr; 9-cell: up to 5.1 hr; 9-cell plus slice battery: up to 10.5 hr			
Chipset	Mobile Intel QM57 Express Chipset			
ExpressCard/34	One slot (ExpressCard/34)			
Smart Card Read	<i>Some:</i> Smart Card reader			
Multicard Reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)			
Ports	Two USB 3.0, one Powered USB 2.0, one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)			
PCIe Mini Card	Two PCI Express Mini Card slots			
Intel 6200 ²⁸	11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2			
WWAN upg	Wireless WAN upgradable			
Modem	56K V.92 ⁶ modem			
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator			
Ethernet	Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1			
Intel AMT	Intel Active Management Technology (iAMT)			
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack			
Security	Power-on password, hard disk password, supervisor password, security keyhole			
Security chip	Trusted Platform Module, TCG 1.2-compliant			
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip			
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				
135-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
ThinkPlus™. 22 4-year LOR 9x5 NBD 12X5630				
Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				

See footnotes for important warranty information

US models announced July 13, 2010

⚡ US model withdrawn effective February 2011

© Lenovo
(KN1W-7) July 2010

Memory

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

Ultrabay Slim 9.5mm

Serial ATA Hard Drive Bay Adapter III ⁴⁸	43N3412	ann 06/23/09
---	---------	--------------

Ultrabay Enhanced 12.7mm

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

Storage and removable storage

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

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

128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ann 08/26/08
256GB FDE SSD SATA 3Gb/s 1.8" (2.5" cover)	43N3417	ann 06/23/09
ThinkPad 160GB Intel X25-M SSD ⁴¹	43N3435	ann 06/22/10

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

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

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

ThinkPad Expansion

T510:

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

All:

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

Keyboard

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

⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.		
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann 08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

Mouse

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

Multimedia

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

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06

Batteries

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

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

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

⁴⁴ Requires the ThinkPad 90W AC Adapter 40Y7659 or the adapter provided with the system.

More information at www.lenovo.com/alldaycomputing

T510:

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

ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
ThinkPad 65W AC Adapter with USB Hub	57Y4600	ann 09/07/10
90W Ultralim AC/DC Combo Adapter	41R4493	ann 09/22/09

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

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

More information at www.lenovopowertips.com

W510:

ThinkPad 135W AC Adapter	55Y9317	ann 01/07/10
--------------------------	---------	--------------

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

Carrying Cases

Up to 15.6" widescreen models:

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

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

Monitors

Lenovo L2230x Wide 21.5" Monitor	5453HB1	ann 06/10/10
ThinkVision® L1711p 17" Monitor	5047HB2	ann 10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann 10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann 10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann 10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann 10/20/09
ThinkVision L2321x Wide 23" Monitor	4014HB6	ann 06/10/10

www.lenovo.com/support/thinkpad/optimus-monitors

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
Lenovo DisplayPort to VGA Monitor Cable	57Y4393	ann 08/04/09
DisplayPort to Single-link DVI-D Cable	45J7915	ann 08/05/08
ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

For more information on ThinkPad accessories, please visit:

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

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad®



Lenovo® ThinkPad T520



Lenovo ThinkPad T520



ThinkPad Mini Dock Plus Series 3
433810U



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



ThinkPad triple external monitor configuration
using NVIDIA's Optimus technology



Lenovo ThinkPad T520

ThinkPad® T520 4239 (TopSeller)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	Modem	Smart Card Reader	Finger print reader	Bat- tooth cells	Intel AMT	Intel vPro	Global (G) Educ	Preload
4239-46U	i5-2520M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205 ²⁸	upg	Modem	Smart	None	Blue 6	iAMT	vPro	Pro 64	
4239-4CU	i5-2410M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	upg	Modem	Smart	None	6			Edu	Prem 64

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

Positioning Processor	Premiere performance; two spindles Intel® Core™ i5-2410M processor (dual-core, 2.30GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology Intel Core i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology		Preloaded operating system²⁰ - <i>Some:</i> Genuine Windows® 7 Home Premium 64 - <i>Some:</i> Genuine Windows 7 Professional 64 Ready to install applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive		
mSATA™ SSD	None		
Widescreen display	15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut		
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus		
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)		
Keyboard	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass		
Touchpad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions (WxDxH) ³	<i>HD & HD+:</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>FHD:</i> 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm		
Weight ²	<i>6-cell:</i> starting at 5.54 lb (2.51kg); <i>9-cell:</i> starting at 5.89 lb (2.67kg)		
Case material	<i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint		
Battery - type	Lithium Ion 6-cell or 9-cell, support optional Slice battery (57Y4545) as 2nd battery at bottom		
Battery - life ¹⁰	<i>6-cell:</i> up to 7.7 hr; <i>9-cell:</i> up to 12.8 hr; <i>9-cell plus slice battery:</i> up to 25.6 hr		
Chipset	Mobile Intel QM67 Express Chipset		
ExpressCard	One slot (ExpressCard/34)		
Smart Card Read	<i>Some:</i> Smart Card reader		
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)		
Ports	<i>Integrated model:</i> Four USB 2.0 (one powered), <i>Optimus model:</i> Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		
PCIe Mini Card	Two PCI Express Mini Card slots		
WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2		
WWAN	Wireless WAN upgradable		
Modem	56K V.92 ⁶ modem		
Bluetooth™	<i>Some:</i> Bluetooth 3.0 wireless, LED indicator		
Ethernet	<i>Non-vPro model:</i> Intel 82579LF Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>vPro model:</i> Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1		
Intel AMT	<i>Some:</i> Intel Active Management Technology (iAMT)		
Audio support	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	None		
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available		

Supports ThinkVantage® technologies		
65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378		
For compatible accessories, please go to O-T520 sheet; For ThinkPlus™, ²² service upgrade options, please go to S-TA sheet		

See footnotes for more detailed information

US model announced March 1, 2011; previous model on February 22, 2011

© Lenovo
(KN3-1) March 2011

ThinkPad® T520 4240 (TopSeller)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Modem	Finger print reader	Blue-tooth	Bat-tery cells	Intel vPro	Preload
4240-4AU	i5-2520M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	Modem	Finger	Blue	6	vPro	Pro 64
4240-2GU	i5-2540M	2GBx1	15.6" HD+	720p	500G 7200	Intel 6205	WWAN upg			Blue	6	vPro	Pro 64
4240-2FU	i5-2520M	2GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg				6	vPro	Pro 64
4240-4EU	i7-2620M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	WWAN upg	Modem	Finger	Blue	6	vPro	Pro 64
• These small and medium business (SMB) models are part of the US TopSeller™ Program • These models have a depot repair service 3-year limited warranty • These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)													
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-2620M processor (dual-core, 2.70GHz, 4MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology								Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)				
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets												
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive												
mSATA™ SSD	None												
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut												
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus												
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)												
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions (WxDxH) ³	<i>HD & HD+:</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>FHD:</i> 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm												
Weight ²	6-cell: starting at 5.54 lb (2.51kg); 9-cell: starting at 5.89 lb (2.67kg)												
Case material	<i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint												
Battery - type	Lithium Ion 6-cell or 9-cell, support optional Slice battery (57Y4545) as 2nd battery at bottom												
Battery - life ¹⁰	6-cell: up to 7.7 hr; 9-cell: up to 12.8 hr; 9-cell plus slice battery: up to 25.6 hr												
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM67 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) <i>Integrated model:</i> Four USB 2.0 (one powered), <i>Optimus model:</i> Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)												
PCIe Mini Card WLAN ⁴ WWAN	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable <i>Some:</i> 56K V.92 ⁶ modem								Supports ThinkVantage® technologies				
Modem Bluetooth™ Ethernet	<i>Some:</i> Bluetooth 3.0 wireless, LED indicator <i>Non-vPro model:</i> Intel 82579LF Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>vPro model:</i> Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1								65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Intel AMT Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack												
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip								For compatible accessories, please go to O-T520 sheet; For ThinkPlus™, 22 service upgrade options, please go to S-TA sheet				
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available												

See footnotes for more detailed information

US model announced March 1, 2011; previous models on February 22, 2011

© Lenovo
(KN3-2) March 2011

ThinkPad® T520 4239 (Optimus) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Modem	Finger print reader	Blue-tooth	Bat-tery cells	Intel vPro	Preload
4239-26U	i7-2620M	4GBx2	15.6" FHD	720p	128G SSD	Intel 6300 ²⁸	WWAN upg	Modem	Finger	Blue	9	vPro	Pro 64
4239-23U	i5-2540M	2GBx2	15.6" HD+	720p	320G 7200	Intel 6205 ²⁸	WWAN upg	Modem	Finger	Blue	9	vPro	Pro 64
4239-24U	i5-2540M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205	WWAN upg		Finger	Blue	9	vPro	Pro 64

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-2540M processor (dual-core, 2.60GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-2620M processor (dual-core, 2.70GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology		Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications ¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive		
mSATA™ SSD	None		
Widescreen display	<i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) FHD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut		
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus		
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 in processor, and NVIDIA Quadro® NVS4200M , PCI Express® x16, 1GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)		
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions (WxDxH) ³	<i>HD & HD+:</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>FHD:</i> 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm		
Weight ²	<i>6-cell:</i> starting at 5.67 lb (2.57kg); <i>9-cell:</i> starting at 6.02 lb (2.73kg)		
Case material	<i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint		
Battery - type	Lithium Ion 6-cell or 9-cell, support optional Slice battery (57Y4545) as 2nd battery at bottom		
Battery - life ¹⁰	<i>6-cell:</i> up to 8.4 hr; <i>9-cell:</i> up to 14.0 hr; <i>9-cell plus slice battery:</i> up to 28.1 hr		
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM67 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) <i>Integrated model:</i> Four USB 2.0 (one powered), <i>Optimus model:</i> Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		
PCIe Mini Card WLAN ⁴	Two PCI Express Mini Card slots <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3		Supports ThinkVantage® technologies 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 For compatible accessories, please go to O-T520 sheet; For ThinkPlus™, ²² service upgrade options, please go to S-TA sheet
WWAN	Wireless WAN upgradable		
Modem	<i>Some:</i> 56K V.92® modem		
Bluetooth™	Bluetooth 3.0 wireless, LED indicator		
Ethernet	<i>Non-vPro model:</i> Intel 82579LF Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>vPro model:</i> Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1		
Intel AMT	Intel Active Management Technology (iAMT)		
Audio support	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available		

See footnotes for more detailed information
US models announced February 22, 2011

© Lenovo
(KN3-3) March 2011

ThinkPad® T520 4240 (Optimus) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Modem	Finger print reader	Blue-tooth	Battery cells	Intel vPro	Preload
4240-48U	i7-2620M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	Modem	Finger	Blue	9	vPro	Pro 64
4240-49U	i5-2520M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205	WWAN upg	Modem	Finger	Blue	9	vPro	Pro 64
4240-2HU	i5-2540M	2GBx2	15.6" HD+	720p	500G 7200	Intel 6205	WWAN upg			Blue	9	vPro	Pro 64

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

Positioning Processor	Premiere performance; two spindles Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-2620M processor (dual-core, 2.70GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology			Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)		
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets					
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive					
mSATA™ SSD	None					
Widescreen display Camera	15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut HD720p resolution, wider view angle, low light sensitive, fixed focus					
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 in processor, and NVIDIA Quadro® NVS4200M , PCI Express® x16, 1GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)					
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions					
Dimensions (WxDxH) ³	<i>HD & HD+:</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>FHD:</i> 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm					
Weight ²	<i>6-cell:</i> starting at 5.67 lb (2.57kg); <i>9-cell:</i> starting at 6.02 lb (2.73kg)					
Case material	<i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint					
Battery - type	Lithium Ion 6-cell or 9-cell, support optional Slice battery (57Y4545) as 2nd battery at bottom					
Battery - life ¹⁰	<i>6-cell:</i> up to 8.4 hr; <i>9-cell:</i> up to 14.0 hr; <i>9-cell plus slice battery:</i> up to 28.1 hr					
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM67 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) <i>Integrated model:</i> Four USB 2.0 (one powered), <i>Optimus model:</i> Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)			Supports ThinkVantage® technologies		
PCIe Mini Card WLAN ⁴ WWAN Modem Bluetooth™ Ethernet	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable <i>Some:</i> 56K V.92 ⁶ modem Bluetooth 3.0 wireless, LED indicator <i>Non-vPro model:</i> Intel 82579LF Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>vPro model:</i> Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT)			90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
Intel AMT Audio support	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack			For compatible accessories, please go to O-T520 sheet;		
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip			For ThinkPlus™, ²² service upgrade options, please go to S-TA sheet		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available					

See footnotes for more detailed information
 US models announced February 22, 2011

© Lenovo
 (KN3-4) March 2011

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Modem	Finger print reader	Blue-tooth	Battery cells	Intel vPro	Preload
4241-26U	i5-2520M	2GBx1	15.6" HD	720p	320G 7200	Intel 6205 ²⁸	WWAN upg	None	Finger	Blue	6	vPro	Pro 64

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology			Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications ¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets			
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive			
mSATA™ SSD	None			
Widescreen display	15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut			
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus			
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)			
Keyboard	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass			
Touchpad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions			
Dimensions (WxDxH) ³	<i>HD & HD+:</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>FHD:</i> 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm			
Weight ²	<i>6-cell:</i> starting at 5.54 lb (2.51kg); <i>9-cell:</i> starting at 5.89 lb (2.67kg)			
Case material	<i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint			
Battery - type	Lithium Ion 6-cell or 9-cell, support optional Slice battery (57Y4545) as 2nd battery at bottom			
Battery - life ¹⁰	<i>6-cell:</i> up to 7.7 hr; <i>9-cell:</i> up to 12.8 hr; <i>9-cell plus slice battery:</i> up to 25.6 hr			
Chipset	Mobile Intel QM67 Express Chipset			
ExpressCard	One slot (ExpressCard/34)			
Smart Card Read	None			
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)			
Ports	<i>Integrated model:</i> Four USB 2.0 (one powered), <i>Optimus model:</i> Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)			
PCIe Mini Card	Two PCI Express Mini Card slots			
WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2			
WWAN	Wireless WAN upgradable			
Modem	None			
Bluetooth™	Bluetooth 3.0 wireless, LED indicator			
Ethernet	<i>Non-vPro model:</i> Intel 82579LF Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>vPro model:</i> Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1			
Intel AMT	Intel Active Management Technology (iAMT)			
Audio support	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack			
Security	Power-on password, hard disk password, supervisor password, security keyhole			
Security chip	Trusted Platform Module, TCG 1.2-compliant			
Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip			
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available			

Supports ThinkVantage® technologies	
65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
For compatible accessories, please go to O-T520 sheet;	
For ThinkPlus™, ²² service upgrade options, please go to S-TA sheet	

See footnotes for more detailed information
 US model announced February 22, 2011

© Lenovo
 (KN3-5) February 2011

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Modem	Finger print reader	Blue-tooth	Bat-tery cells	Intel vPro	Global (G) GMP (P)	Pre-load
4242-4WU	i5-2520M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	Modem	Finger	Blue	6	vPro	G	Pro 64
4242-39U	i5-2540M	2GBx1	15.6" HD	720p	500G 7200	Intel 6205	WWAN upg			Blue	6	vPro	G	Pro 64
4242-29U	i5-2520M	2GBx2	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg			Blue	6	vPro	G	Pro 64

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology								Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)					
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets													
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive													
mSATA™ SSD	None													
Widescreen display	15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut													
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus													
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)													
Keyboard	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touchpad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions (WxDxH) ³	HD & HD+: 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm FHD: 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm													
Weight ²	6-cell: starting at 5.54 lb (2.51kg); 9-cell: starting at 5.89 lb (2.67kg)													
Case material	Display cover: Carbon-fiber / Glass-fiber hybrid; Bottom: Glass-fiber reinforced plastic without paint													
Battery - type	Lithium Ion 6-cell or 9-cell, support optional Slice battery (57Y4545) as 2nd battery at bottom													
Battery - life ¹⁰	6-cell: up to 7.7 hr; 9-cell: up to 12.8 hr; 9-cell plus slice battery: up to 25.6 hr													
Chipset	Mobile Intel QM67 Express Chipset													
ExpressCard	One slot (ExpressCard/34)													
Smart Card Read	None													
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)													
Ports	<i>Integrated model:</i> Four USB 2.0 (one powered), <i>Optimus model:</i> Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
PCIe Mini Card	Two PCI Express Mini Card slots													
WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2													
WWAN	Wireless WAN upgradable													
Modem	<i>Some:</i> 56K V.92 ⁶ modem													
Bluetooth™	Bluetooth 3.0 wireless, LED indicator													
Ethernet	<i>Non-vPro model:</i> Intel 82579LF Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>vPro model:</i> Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1													
Intel AMT	Intel Active Management Technology (iAMT)													
Audio support	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module, TCG 1.2-compliant													
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available													

See footnotes for more detailed information
 US models announced February 22, 2011

© Lenovo
 (KN3-6) February 2011

ThinkPad® T520 4242 (Optimus)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ^a rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Modem	Finger print reader	Blue-tooth	Battery cells	Intel vPro	Global (G) GMP (P)	Pre-load
4242-4UU	i7-2620M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	Modem	Finger	Blue	9	vPro	G	Pro 64
4242-4VU	i5-2520M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	WWAN upg	Modem	Finger	Blue	9	vPro	G	Pro 64
4242-27U	i5-2520M	2GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg				9	vPro	G	Pro 64
4242-28U	i5-2540M	2GBx2	15.6" HD+	720p	500G 7200	Intel 6205	WWAN upg		Finger	Blue	9	vPro	G	Pro 64

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-2620M processor (dual-core, 2.70GHz, 4MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology								Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)					
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets													
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive													
mSATA™ SSD	None													
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut													
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus													
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 in processor, and NVIDIA Quadro® NVS4200M , PCI Express® x16, 1GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions (WxDxH) ³	<i>HD & HD+:</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>FHD:</i> 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm													
Weight ²	<i>6-cell:</i> starting at 5.67 lb (2.57kg); <i>9-cell:</i> starting at 6.02 lb (2.73kg)													
Case material	<i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint													
Battery - type	Lithium Ion 6-cell or 9-cell, support optional Slice battery (57Y4545) as 2nd battery at bottom													
Battery - life ¹⁰	<i>6-cell:</i> up to 8.4 hr; <i>9-cell:</i> up to 14.0 hr; <i>9-cell plus slice battery:</i> up to 28.1 hr													
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM67 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) <i>Integrated model:</i> Four USB 2.0 (one powered), <i>Optimus model:</i> Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
PCIe Mini Card WLAN ⁴ WWAN Modem Bluetooth™ Ethernet	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable <i>Some:</i> 56K V.92 ⁶ modem <i>Some:</i> Bluetooth 3.0 wireless, LED indicator <i>Non-vPro model:</i> Intel 82579LF Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>vPro model:</i> Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1													
Intel AMT Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack													
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available								Supports ThinkVantage® technologies 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 For compatible accessories, please go to O-T520 sheet; For ThinkPlus™, 22 service upgrade options, please go to S-TA sheet					

See footnotes for more detailed information
US models announced February 22, 2011

© Lenovo
(KN3-7) March 2011

ThinkPad® T520 4243 (Onsite)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Modem	Finger print reader	Blue-tooth	Battery cells	Intel vPro	Global (G) GMP (P)	Pre-load
4243-4WU	i5-2520M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	Modem	Finger	Blue	6	vPro	G P	Pro 64
4243-29U	i5-2520M	2GBx2	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg			Blue	6	vPro	G P	Pro 64

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology		Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications ¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive		
mSATA™ SSD	None		
Widescreen display	15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut		
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus		
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)		
Keyboard	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass		
Touchpad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions (WxDxH) ³	<i>HD & HD+:</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>FHD:</i> 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm		
Weight ²	<i>6-cell:</i> starting at 5.54 lb (2.51kg); <i>9-cell:</i> starting at 5.89 lb (2.67kg)		
Case material	<i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint		
Battery - type	Lithium Ion 6-cell or 9-cell, support optional Slice battery (57Y4545) as 2nd battery at bottom		
Battery - life ¹⁰	<i>6-cell:</i> up to 7.7 hr; <i>9-cell:</i> up to 12.8 hr; <i>9-cell plus slice battery:</i> up to 25.6 hr		
Chipset	Mobile Intel QM67 Express Chipset		
ExpressCard	One slot (ExpressCard/34)		
Smart Card Read	None		
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)		
Ports	<i>Integrated model:</i> Four USB 2.0 (one powered), <i>Optimus model:</i> Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		
PCIe Mini Card	Two PCI Express Mini Card slots		
WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2		
WWAN	Wireless WAN upgradable		
Modem	<i>Some:</i> 56K V.92 ⁶ modem		
Bluetooth™	Bluetooth 3.0 wireless, LED indicator		
Ethernet	<i>Non-vPro model:</i> Intel 82579LF Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>vPro model:</i> Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1		
Intel AMT	Intel Active Management Technology (iAMT)		
Audio support	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-year - battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available		
Supports ThinkVantage® technologies			
65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
For compatible accessories, please go to O-T520 sheet;			
For ThinkPlus™, ²² service upgrade options, please go to S-TA sheet			

See footnotes for more detailed information
US models announced February 22, 2011

© Lenovo
(KN3-8) February 2011

ThinkPad® T520 4243 (Optimus) - Onsite

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ² rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Modem	Finger print reader	Blue-tooth	Battery cells	Intel vPro	Global (G) GMP (P)	Pre-load
4243-4UU	i7-2620M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	Modem	Finger	Blue	9	vPro	G P	Pro 64
4243-4VU	i5-2520M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	WWAN upg	Modem	Finger	Blue	9	vPro	G P	Pro 64
4243-28U	i5-2540M	2GBx2	15.6" HD+	720p	500G 7200	Intel 6205	WWAN upg			Blue	9	vPro	G P	Pro 64
4243-27U	i5-2520M	2GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg				9	vPro	G P	Pro 64

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

Positioning Processor	Premiere performance; two spindles Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-2620M processor (dual-core, 2.70GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology									Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)				
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets													
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive													
mSATA™ SSD	None													
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut													
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus													
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 in processor, and NVIDIA Quadro® NVS4200M , PCI Express® x16, 1GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions (WxDxH) ³	HD & HD+: 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm FHD: 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm													
Weight ²	6-cell: starting at 5.67 lb (2.57kg); 9-cell: starting at 6.02 lb (2.73kg)													
Case material	Display cover: Carbon-fiber / Glass-fiber hybrid; Bottom: Glass-fiber reinforced plastic without paint													
Battery - type	Lithium Ion 6-cell or 9-cell, support optional Slice battery (57Y4545) as 2nd battery at bottom													
Battery - life ¹⁰	6-cell: up to 8.4 hr; 9-cell: up to 14.0 hr; 9-cell plus slice battery: up to 28.1 hr													
Chipset ExpressCard Smart Card Reader Multicard Reader Ports	Mobile Intel QM67 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) <i>Integrated model:</i> Four USB 2.0 (one powered), <i>Optimus model:</i> Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
PCIe Mini Card WLAN ⁴ WWAN Modem Bluetooth™ Ethernet	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable <i>Some:</i> 56K V.92 ⁶ modem <i>Some:</i> Bluetooth 3.0 wireless, LED indicator <i>Non-vPro model:</i> Intel 82579LF Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>vPro model:</i> Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1													
Intel AMT Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack													
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip													
Limited warranty ¹²	3-years/1-year - battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available									Supports ThinkVantage® technologies 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 For compatible accessories, please go to O-T520 sheet; For ThinkPlus™, 22 service upgrade options, please go to S-TA sheet				

See footnotes for more detailed information
 US models announced February 22, 2011

© Lenovo
 (KN3-9) March 2011

ThinkPad® T520i 4239 (TopSeller)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Modem	Finger print reader	Blue-tooth	Bat-tery cells	Intel vPro	Preload
4239-47U	i3-2310M	4GBx1	15.6" HD	720p	320G 7200	Intel 1000	WWAN upg	Modem	None	None	6	None	Pro 64

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i3-2310M processor (dual-core, 2.10GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), HT technology			Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications ¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets			
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive			
mSATA™ SSD	None			
Widescreen display	15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut			
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus			
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)			
Keyboard	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass			
Touchpad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions			
Dimensions (WxDxH) ³	<i>HD & HD+:</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>FHD:</i> 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm			
Weight ²	<i>6-cell:</i> starting at 5.54 lb (2.51kg); <i>9-cell:</i> starting at 5.89 lb (2.67kg)			
Case material	<i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint			
Battery - type	Lithium Ion 6-cell or 9-cell, support optional Slice battery (57Y4545) as 2nd battery at bottom			
Battery - life ¹⁰	<i>6-cell:</i> up to 7.7 hr; <i>9-cell:</i> up to 12.8 hr; <i>9-cell plus slice battery:</i> up to 25.6 hr			
Chipset	Mobile Intel QM67 Express Chipset			
ExpressCard	One slot (ExpressCard/34)			
Smart Card Read	None			
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)			
Ports	<i>Integrated model:</i> Four USB 2.0 (one powered), <i>Optimus model:</i> Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)			
PCIe Mini Card	Two PCI Express Mini Card slots			
WLAN ⁴	11b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2			
WWAN	Wireless WAN upgradable			
Modem	56K V.92 ⁶ modem			
Bluetooth™	None			
Ethernet	<i>Non-vPro model:</i> Intel 82579LF Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>vPro model:</i> Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1			
Intel AMT	None			
Audio support	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack			
Security	Power-on password, hard disk password, supervisor password, security keyhole			
Security chip	Trusted Platform Module, TCG 1.2-compliant			
Fingerprint reader	None			
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available			

Supports ThinkVantage® technologies			
65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378			
For compatible accessories, please go to O-T520 sheet;			
For ThinkPlus™, ²² service upgrade options, please go to S-TA sheet			

See footnotes for more detailed information
US model announced March 1, 2011

© Lenovo
(KN3i-1) March 2011

Memory

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

Ultrabay Enhanced 12.7mm

Serial ATA Hard Drive Bay Adapter III	43N3412	ann	06/23/09
DVD Burner Ultrabay Enhanced II SATA	43N3294	ann	01/07/10

Storage and removable storage

256GB 1.8" FDE Solid State Drive ⁴¹	43N3417	ann	06/23/09
160GB 2.5" Intel X25-M Solid State Drive II ⁴¹	0A33983	ann	02/22/11
128GB 2.5" Solid State Drive II ⁴¹	0A33984	ann	02/22/11
250GB 7200rpm SATA 3.0Gb/s			
OPAL-capable FDE HDD II ⁴¹	0A33985	ann	02/22/11
320GB 7200rpm SATA 3.0Gb/s Hard Drive II ⁴¹	0A33986	ann	02/22/11
320GB 5400rpm SATA 3.0Gb/s Hard Drive II ⁴¹	0A33987	ann	02/22/11

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

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

ThinkPad Expansion

ThinkPad Mini Dock Series 3 ⁶²	433710U	ann	06/23/09
ThinkPad Mini Dock Plus Series 3 ⁶²	433810U	ann	06/23/09
ThinkPad Mini Dock Plus Series 3 (170W)	433830U	ann	02/22/11
Lenovo® Essential Notebook Stand	45J9292	ann	05/12/09

⁶² Compatible only with dual core models.

⁶³ Requires the adapter provided with the system.

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

Mouse

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

Multimedia

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

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06

Batteries

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

⁴³ To be used along with system battery for all-day computing;

attaches under ThinkPad using docking connector

(not supported when using Series 3 Port Replicator or Docks).

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

⁴⁴ Requires the ThinkPad 90W AC Adapter

40Y7659 or the adapter provided with the system.

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter ^{45, 62}	40Y7696	ann	01/05/06
ThinkPad 90W AC Adapter ⁶²	40Y7659	ann	09/20/05
ThinkPad 135W AC Adapter	55Y9317	ann	01/07/10
ThinkPad 65W AC Adapter with USB Hub ⁶²	57Y4600	ann	09/07/10
90W Ultraslim AC/DC Combo Adapter ⁶²	41R4493	ann	09/22/09

⁴⁵ Only compatible with the integrated graphics models.

⁶² Compatible only with dual core models.

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

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

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

More information at www.lenovopowertips.com

Carrying Cases

Up to 15.6" widescreen models:

ThinkPad 15W Case Sleeve	51J0477	ann	08/18/09
Lenovo Business Messenger Case	51J0475	ann	08/18/09
Lenovo Messenger Max	41U5253	ann	05/01/07
Lenovo Performance Backpack	41U5254	ann	05/01/07
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
Wenger Backpack for Lenovo	57Y4271	ann	01/07/10
Wenger Slim Case for Lenovo	57Y4272	ann	01/07/10
Wenger Deluxe Slim Case for Lenovo	57Y4273	ann	01/07/10

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

Monitors

Lenovo L2230x Wide 21.5" Monitor	5453HB1	ann	06/10/10
ThinkVision® L1711p 17" Monitor	5047HB2	ann	10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann	10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann	10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann	10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann	10/20/09
ThinkVision L2321x Wide 23" Monitor	4014HB6	ann	06/10/10

www.lenovo.com/support/thinkpad/optimus-monitors

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann	05/12/09
Lenovo DisplayPort to VGA Monitor Cable	57Y4393	ann	08/04/09
DisplayPort to Single-link DVI-D Cable	45J7915	ann	08/05/08
ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

For more information on ThinkPad accessories, please visit:

www.lenovo.com/support/accessories

www.lenovo.com/support/notebookaccessories

www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad®



Lenovo® ThinkPad W520



Lenovo ThinkPad W520



Lenovo ThinkPad W520



Lenovo ThinkPad W520



Lenovo ThinkPad W520



Lenovo ThinkPad W520

ThinkPad® W520 4270 (Optimus) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Discrete graphics	Camera	Disk SATA GB ⁹ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Color calib	Bat-tery cells	Intel vPro	Preload
4270-26U	i7-2620M	4GBx1	15.6" HD	1000M	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	None	Blue	None	9	vPro	Pro 64

- **This small and medium business (SMB) model is part of the US TopSeller™ Program**
- **Power-packed engineering with Open GL graphics and ISV certifications**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	Mobile workstation; two spindles Intel® Core™ i7-2620M processor (dual-core, 2.70GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology		Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) • huey™PRO Monitor Color Correction by Pantone®/X-Rite® (color calibration models)
Memory	<i>dual-core model:</i> 8GB max ⁷ , two 204-pin SO-DIMM sockets <i>quad-core model:</i> 16GB max, four 204-pin SO-DIMM sockets <i>All:</i> PC3-10600 1333MHz DDR3, non-parity, dual-channel capable		
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive		
mSATA™ SSD	None		
Widescreen display	15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut		
Color calibration	None		
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus		
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 in processor, and NVIDIA Quadro® 1000M or 2000M , PCI Express® x16, 2GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent displays; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)		
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions (WxDxH) ³	<i>HD & HD+:</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>FHD:</i> 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm		
Weight ²	<i>6-cell:</i> starting at 5.40 lb (2.45kg); <i>9-cell:</i> starting at 5.75 lb (2.61kg)		
Case material	<i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint		
Battery - type	Lithium Ion 6-cell or 9-cell, supports optional Slice battery (57Y4545) as 2nd battery at bottom		
Battery - life ¹⁰	<i>6-cell:</i> up to 6.5 hr; <i>9-cell:</i> up to 10.8 hr; <i>9-cell plus slice battery:</i> up to 21.6 hr		
Chipset	Mobile Intel QM67 Express Chipset		
ExpressCard	One slot (ExpressCard/34)		
Smart Card Read	None		
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)		
Ports	Two USB 3.0 (blue), one Powered USB 2.0 (yellow), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		
PCIe Mini Card WLAN ⁴	Two PCI Express Mini Card slots		
WWAN	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2		
Modem	Wireless WAN upgradable		
Bluetooth™	56K V.92 ⁶ modem		
Ethernet	Bluetooth 3.0 wireless, LED indicator		
Intel AMT	<i>Non-vPro model:</i> Intel 82579LF Gigabit Network Connection (Lewisville), PHY, PCIe x1		
Audio support	<i>vPro model:</i> Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1		
Security	Intel Active Management Technology (iAMT)		
Security chip	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack		
Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant		
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available		

See footnotes for more detailed information
US model announced February 22, 2011

© Lenovo
(KN3W-1) March 2011

ThinkPad® W520 4276 (Optimus) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Discrete graphics	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Smart Card Reader	Finger print reader	Blue-tooth	Color calib	Bat-tery Intel vPro	Preload
4276-2QU	i7-2720QM	4GBx1	15.6" FHD	2000M	720p	500G 7200	Intel 6205 ²⁸	WWAN upg			Blue		9 vPro	Pro 64
4276-2PU	i7-2620M	4GBx1	15.6" FHD	1000M	720p	500G 7200	Intel 6205	WWAN upg			Blue		9 vPro	Pro 64
4276-23U	i7-2920XM	4GBx4	15.6" FHD	2000M	720p	500G 7200	Intel 6205	WWAN upg	Smart	Finger	Blue	X-Rite	9	Pro 64
4276-39U	i7-2820QM	4GBx2	15.6" FHD	1000M	720p	500G 7200	Intel 6205	WWAN upg		Finger	Blue		9 vPro	Pro 64
4276-38U	i7-2720QM	4GBx1	15.6" HD+	1000M	720p	500G 7200	Intel 6205	WWAN upg		Finger	Blue		9 vPro	Pro 64
4276-37U	i7-2720QM	4GBx2	15.6" FHD	1000M	720p	500G 7200	Intel 6205	WWAN upg		Finger	Blue		9 vPro	Pro 64
• These small and medium business (SMB) models are part of the US TopSeller™ Program • These models have a depot repair service 3-year limited warranty • Power-packed engineering with Open GL graphics and ISV certifications • These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)														
Positioning Processor	Mobile workstation; two spindles Intel® Core™ i7-2620M processor (dual-core, 2.70GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology Intel Core i7-2720QM processor (quad-core, 2.20GHz, 6MB Cache), DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-2820QM processor (quad-core, 2.30GHz, 8MB Cache), DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology Intel Core i7-2920XM processor (quad-core, 2.50GHz, 8MB Cache), DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology										Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications ¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) • huey™PRO Monitor Color Correction by Pantone®/X-Rite® (color calibration models)			
Memory	dual-core model: 8GB max ⁷ , two 204-pin SO-DIMM sockets quad-core model: 16GB max, four 204-pin SO-DIMM sockets All: PC3-10600 1333MHz DDR3, non-parity, dual-channel capable													
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high Some: HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ All: removable, upgradable, supports the second disk, Shock Mounted Hard Drive													
mSATA™ SSD	None													
Widescreen display	Some: 15.6" (396mm) HD+ (1600x900) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut Some: 15.6" (396mm) FHD (1920x1080) color, anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut													
Color calibration Camera	Some: huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest HD720p resolution, wider view angle, low light sensitive, fixed focus													
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 in processor, and NVIDIA Quadro® 1000M or 2000M, PCI Express® x16, 2GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent displays; Maximum external resolution: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions (WxDxH) ³	HD & HD+: 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm FHD: 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm													
Weight ²	6-cell: starting at 5.40 lb (2.45kg); 9-cell: starting at 5.75 lb (2.61kg)													
Case material	Display cover: Carbon-fiber / Glass-fiber hybrid; Bottom: Glass-fiber reinforced plastic without paint													
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery (57Y4545) as 2nd battery at bottom 6-cell: up to 6.5 hr; 9-cell: up to 10.8 hr; 9-cell plus slice battery: up to 21.6 hr													
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM67 Express Chipset One slot (ExpressCard/34) Some: Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0 (blue), one Powered USB 2.0 (yellow), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
PCIe Mini Card WLAN ⁴ WWAN Modem Bluetooth™ Ethernet	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable 56K V.92 ⁵ modem Bluetooth 3.0 wireless, LED indicator Non-vPro model: Intel 82579LF Gigabit Network Connection (Lewisville), PHY, PCIe x1 vPro model: Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT)										Supports ThinkVantage® technologies 170-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Intel AMT Audio support	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole													
Security Security chip Fingerprint reader	Trusted Platform Module, TCG 1.2-compliant Some: UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										For compatible accessories, please go to O-W520 sheet; For ThinkPlus™, 22 service upgrade options, please go to S-TA sheet			
Limited warranty ¹² 3-years/1-yr battery - depot repair service / service upgrades ²² available														

See footnotes for more detailed information

US models announced March 1, 2011; previous models on February 22, 2011

© Lenovo
(KN3W-2) March 2011

Type-model	Processor	Memory	Wide-screen display	Discrete graphics	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Smart Card Reader	Finger print reader	Color calib	Bat-tery cells	Intel vPro	Global (G) GMP (P)	Pre-load
4282-3SU	i7-2720QM	4GBx1	15.6" FHD	1000M	720p	500G 7200	Intel 6205 ²⁸	WWAN upg		Fing		9	vPro		Pro 64
4282-3RU	i7-2620M	4GBx1	15.6" FHD	1000M	720p	500G 7200	Intel 6205	WWAN upg		Fing		9	vPro		Pro 64
4282-26U	i7-2620M	4GBx1	15.6" FHD	1000M	720p	500G 7200	Intel 6205	WWAN upg		Fing	X-Rite	9	vPro	G	Pro 64
4282-23U	i7-2820QM	4GBx2	15.6" FHD	2000M	720p	500G 7200	Intel 6300 ²⁸	WWAN upg		Fing		9	vPro	G	Pro 64
4282-24U	i7-2720QM	4GBx1	15.6" FHD	2000M	720p	500G 7200	Intel 6300	WWAN upg				9	vPro	G	Pro 64
4282-25U	i5-2540M	2GBx2	15.6" HD+	1000M	720p	320G 7200	Intel 6205	WWAN upg				9	vPro	G	Pro 64
4282-4CU	i7-2720QM	4GBx1	15.6" FHD	1000M	720p	500G 7200	Intel 6205	WWAN upg	Smart	Fing		9	vPro	G	Pro 64
4282-4BU	i7-2620M	4GBx1	15.6" HD+	1000M		320G 7200	Intel 6205	WWAN upg	Smart			9	vPro	G	Pro 64
• Power-packed engineering with Open GL graphics and ISV certifications															
Positioning Processor	<i>Mobile workstation; two spindles</i> Intel® Core™ i5-2540M processor (dual-core, 2.60GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-2620M processor (dual-core, 2.70GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology Intel Core i7-2720QM processor (quad-core, 2.20GHz, 6MB Cache), DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-2820QM processor (quad-core, 2.30GHz, 8MB Cache), DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) • huey™PRO Monitor Color Correction by Pantone®/X-Rite® (color calibration models)				
Memory	<i>dual-core model:</i> 8GB max ⁷ , two 204-pin SO-DIMM sockets <i>quad-core model:</i> 16GB max, four 204-pin SO-DIMM sockets <i>All:</i> PC3-10600 1333MHz DDR3, non-parity, dual-channel capable														
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive														
mSATA™ SSD	None														
Widescreen display	<i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) FHD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut														
Color calibration Camera	<i>Some:</i> huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest <i>Some:</i> HD720p resolution, wider view angle, low light sensitive, fixed focus														
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 in processor, and NVIDIA Quadro® 1000M or 2000M , PCI Express® x16, 2GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent displays; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)														
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions (WxDxH) ³	<i>HD & HD+:</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>FHD:</i> 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm														
Weight ²	<i>6-cell:</i> starting at 5.40 lb (2.45kg); <i>9-cell:</i> starting at 5.75 lb (2.61kg)														
Case material	<i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint														
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell:</i> up to 6.5 hr; <i>9-cell:</i> up to 10.8 hr; <i>9-cell plus slice battery:</i> up to 21.6 hr														
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM67 Express Chipset One slot (ExpressCard/34) <i>Some:</i> Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0 (blue), one Powered USB 2.0 (yellow), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
PCIe Mini Card WLAN ⁴ WWAN Modem Bluetooth™ Ethernet	Two PCI Express Mini Card slots <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3 Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth 3.0 wireless, LED indicator <i>Non-vPro model:</i> Intel 82579LF Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>vPro model:</i> Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT)										Supports ThinkVantage® technologies 170-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Intel AMT Audio support	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole														
Security Security chip Fingerprint reader	Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										For compatible accessories, please go to O-W520 sheet; For ThinkPlus™, 22 service upgrade options, please go to S-TA sheet				
Limited warranty ¹² 3-years/1-yr battery - depot repair service / service upgrades²² available															

See footnotes for more detailed information

US models announced March 1, 2011; previous models on February 22, 2011

ThinkPad® W520 4284 (Optimus) - Onsite

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Discrete graphics	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Smart Card Reader	Finger print reader	Color calib	Bat-tery cells	Intel vPro	Global (G) GMP (P)	Pre-load
4284-26U	i7-2620M	4GBx1	15.6" FHD	1000M	720p	500G 7200	Intel 6205 ²⁸	WWAN upg		Finger	X-Rite	9	vPro	G P	Pro 64
4284-23U	i7-2820QM	4GBx2	15.6" FHD	2000M	720p	500G 7200	Intel 6300 ²⁸	WWAN upg				9	vPro	G P	Pro 64
4284-24U	i7-2720QM	4GBx1	15.6" FHD	2000M	720p	500G 7200	Intel 6300	WWAN upg				9	vPro	G P	Pro 64
4284-25U	i5-2540M	2GBx2	15.6" HD+	1000M	720p	320G 7200	Intel 6205	WWAN upg				9	vPro	G P	Pro 64
4284-4CU	i7-2720QM	4GBx1	15.6" FHD	1000M	720p	500G 7200	Intel 6205	WWAN upg	Smart	Finger		9	vPro	G P	Pro 64
4284-4BU	i7-2620M	4GBx1	15.6" HD+	1000M		320G 7200	Intel 6205	WWAN upg	Smart			9	vPro	G P	Pro 64
• These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty • Power-packed engineering with Open GL graphics and ISV certifications															
Positioning Processor	<i>Mobile workstation; two spindles</i> Intel® Core™ i5-2540M processor (dual-core, 2.60GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-2620M processor (dual-core, 2.70GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology Intel Core i7-2720QM processor (quad-core, 2.20GHz, 6MB Cache), DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-2820QM processor (quad-core, 2.30GHz, 8MB Cache), DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology										Preloaded operating system²⁰ - Genuine Windows [®] 7 Professional 64 Ready to install applications¹⁴ (all OSes; only some listed) • Rescue and Recovery[™] • Access Connections[™] • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications¹⁴ (all OSes; only some listed) • Norton[™] Internet Security 2011 (30 days of virus definitions) • Adobe[®] Reader[®] • Skype[™] for Windows • Windows Live[™] Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel[®] WinDVD[®] (DVD±RW) • Corel Burn.Now[™] Lenovo Edition (DVD±RW) • Corel DVD MovieFactory[®] Lenovo Edition (DVD±RW) • huey[™]PRO Monitor Color Correction by Pantone[®]/X-Rite[®] (color calibration models)				
Memory	<i>dual-core model:</i> 8GB max ⁷ , two 204-pin SO-DIMM sockets <i>quad-core model:</i> 16GB max, four 204-pin SO-DIMM sockets <i>All:</i> PC3-10600 1333MHz DDR3, non-parity, dual-channel capable														
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System [™] <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive														
mSATA [™] SSD	None														
Widescreen display	<i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) FHD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut														
Color calibration Camera	<i>Some:</i> huey [™] PRO Colorimeter by X-Rite [®] color calibration sensor in palm rest <i>Some:</i> HD720p resolution, wider view angle, low light sensitive, fixed focus														
Graphics	NVIDIA [®] Optimus [™] technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 in processor, and NVIDIA Quadro[®] 1000M or 2000M , PCI Express [®] x16, 2GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent displays; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)														
Keyboard TrackPoint [®] Touchpad ThinkLight [™]	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint [®] pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav [™] , wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions (WxDxH) ³	<i>HD & HD+:</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>FHD:</i> 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm														
Weight ²	<i>6-cell:</i> starting at 5.40 lb (2.45kg); <i>9-cell:</i> starting at 5.75 lb (2.61kg)														
Case material	<i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint														
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell:</i> up to 6.5 hr; <i>9-cell:</i> up to 10.8 hr; <i>9-cell plus slice battery:</i> up to 21.6 hr														
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM67 Express Chipset One slot (ExpressCard/34) <i>Some:</i> Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0 (blue), one Powered USB 2.0 (yellow), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
PCIe Mini Card WLAN ⁴	Two PCI Express Mini Card slots <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino [®] Advanced-N 6205, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3										Supports ThinkVantage [®] technologies				
WWAN Modem Bluetooth [™] Ethernet	Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth 3.0 wireless, LED indicator <i>Non-vPro model:</i> Intel 82579LF Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>vPro model:</i> Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1										170-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT [™] Gold rating ENERGY STAR [®] 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Intel AMT Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack														
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										For compatible accessories, please go to O-W520 sheet;				
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										For ThinkPlus [™] , ²² service upgrade options, please go to S-TA sheet				

See footnotes for more detailed information

ES US models announced March 1, 2011; previous models on February 22, 2011

© Lenovo
(KN3W-4) March 2011

Memory

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

Ultrabay Enhanced 12.7mm

Serial ATA Hard Drive Bay Adapter III	43N3412	ann	06/23/09
DVD Burner Ultrabay Enhanced II SATA	43N3294	ann	01/07/10

Storage and removable storage

256GB 1.8" FDE Solid State Drive ⁴¹	43N3417	ann	06/23/09
160GB 2.5" Intel X25-M Solid State Drive II ⁴¹	0A33983	ann	02/22/11
128GB 2.5" Solid State Drive II ⁴¹	0A33984	ann	02/22/11
250GB 7200rpm SATA 3.0Gb/s			
OPAL-capable FDE HDD II ⁴¹	0A33985	ann	02/22/11
320GB 7200rpm SATA 3.0Gb/s Hard Drive II ⁴¹	0A33986	ann	02/22/11
320GB 5400rpm SATA 3.0Gb/s Hard Drive II ⁴¹	0A33987	ann	02/22/11

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

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

ThinkPad Expansion

ThinkPad Mini Dock Plus Series 3 (170W)	433830U	ann	02/22/11
Lenovo® Essential Notebook Stand	45J9292	ann	05/12/09

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann	08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

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

Multimedia

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

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06

Batteries

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

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

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

⁴⁴ Requires the ThinkPad 90W AC Adapter 40Y7659 or the adapter provided with the system.

More information at www.lenovo.com/alldaycomputing

ThinkPad 170W AC Adapter for W520	0A36227	ann	03/01/11
-----------------------------------	---------	-----	----------

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

Carrying Cases

Up to 15.6" widescreen models:

ThinkPad 15W Case Sleeve	51J0477	ann	08/18/09
Lenovo Business Messenger Case	51J0475	ann	08/18/09
Lenovo Messenger Max	41U5253	ann	05/01/07
Lenovo Performance Backpack	41U5254	ann	05/01/07
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
Wenger Backpack for Lenovo	57Y4271	ann	01/07/10
Wenger Slim Case for Lenovo	57Y4272	ann	01/07/10
Wenger Deluxe Slim Case for Lenovo	57Y4273	ann	01/07/10

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

Monitors

Lenovo L2230x Wide 21.5" Monitor	5453HB1	ann	06/10/10
ThinkVision® L1711p 17" Monitor	5047HB2	ann	10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann	10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann	10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann	10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann	10/20/09
ThinkVision L2321x Wide 23" Monitor	4014HB6	ann	06/10/10

www.lenovo.com/support/thinkpad/optimus-monitors

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann	05/12/09
Lenovo DisplayPort to VGA Monitor Cable	57Y4393	ann	08/04/09
DisplayPort to Single-link DVI-D Cable	45J7915	ann	08/05/08
ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

For more information on ThinkPad accessories, please visit:

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

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

ThinkPad®



Lenovo® ThinkPad X100e



Lenovo ThinkPad X100e



Lenovo ThinkPad X100e



Lenovo ThinkPad X100e with 3-cell battery



Lenovo ThinkPad X100e



Lenovo ThinkPad X100e family

ThinkPad® X100e (3508) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	CCFL or LED	Camera	Integrated graphics	Disk SATA GB ⁶ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Top color	Blue- tooth	Preload	Avail date
3508-28U	MV-40	1.60	1GB	11.6" HD	LED	0.3M	HD 3200	160GB 5400	11b/g/n	WWAN upg		black		Home P 32	Jan 10
3508-29U	MV-40	1.60	2GB	11.6" HD	LED	0.3M	HD 3200	250GB 5400	11b/g/n	WWAN upg		black		Pro 32	Jan 10
3508-2AU	MV-40	1.60	2GB	11.6" HD	LED	0.3M	HD 3200	250GB 5400	11b/g/n	Gobi 2000	AT&T ²³	black		Pro 32	Jan 10
3508-9BU	L335	1.60	1GB	11.6" HD	LED	0.3M	HD 3200	160GB 5400	11b/g/n	WWAN upg		black		Home P 32	Mar 10
3508-9CU	L335	1.60	2GB	11.6" HD	LED	0.3M	HD 3200	250GB 5400	11b/g/n	WWAN upg		black		Pro 32	Mar 10
3508-9DU	L335	1.60	2GB	11.6" HD	LED	0.3M	HD 3200	250GB 5400	11b/g/n	WWAN upg		red		Pro 32	Mar 10
3508-9EU	L335	1.60	2GB	11.6" HD	LED	0.3M	HD 3200	250GB 5400	11b/g/n	Gobi 2000		black	Blue	Pro 32	Mar 10
3508-9TU	L335	1.60	1GB	11.6" HD	LED	0.3M	HD 3200	160GB 5400	11b/g/n	Gobi 2000	AT&T	black		Home P 32	Apr 10
3508-A9U	MV-40	1.60	2GB	11.6" HD	LED	0.3M	HD 3200	250GB 5400	11b/g/n	WWAN upg		black	Blue	Home P 32	Jul 10
3508-AAU	L335	1.60	2GB	11.6" HD	LED	0.3M	HD 3200	250GB 5400	11b/g/n	Gobi 2000	selectable	black		Pro 32	Jul 10
3508-AHU	L335	1.60	2GB	11.6" HD	LED	0.3M	HD 3200	160GB 5400	11a/b/g/n	WWAN upg		black	Blue	Home P 32	Jul 10
3508-AKU	L335	1.60	2GB	11.6" HD	LED	0.3M	HD 3200	250GB 5400	11b/g/n	WWAN upg		black		Home P 32	Sep 10
3508-ALU	MV-40	1.60	1GB	11.6" HD	LED	0.3M	HD 3200	160GB 5400	11b/g/n	Gobi 2000	selectable	black	Blue	Home P 32	Sep 10

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

Positioning Processor	Entry ultraportable for excellent usability and reliability; one spindle AMD Athlon™ Neo Processor for Ultrathin Notebooks MV-40 with single-core, virtualization technology, integrated DDR2 memory controller, and 512KB L2 cache or AMD Athlon Neo X2 Processor for Ultrathin Notebooks L335 with dual-core, virtualization technology, integrated DDR2 memory controller, and 512KB L2 cache	Preloaded operating system²⁰ - Some: Genuine Windows® 7 Home Premium 32 - Some: Genuine Windows 7 Professional 32
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) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch
SATA DVD±RW SATA disk	None (use optional USB-based optical drive) 160GB⁸ (5400 rpm) or 250GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high, Active Protection System™, upgradable	
Widescreen display Camera	11.6" (295mm) HD (1366x768) TFT color , anti-glare, LED backlight , 200 nits, 16:9 aspect ratio, 300:1 contrast ratio Camera on top of screen, 0.3-megapixel, fixed focus, low light sensitive	
Integrated graphics	ATI™ Radeon™ HD 3200 graphics , in M780G, external analog monitor support via VGA DB-15 connector; <i>Maximum external resolution:</i> 2048x1536 @ 60Hz	
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 6-row, spill-resistant, multimedia Fn keys TrackPoint pointing device, Internet Scroll Bar ¹³ , magnifying glass Two-button touch pad, supports multi-touch function None	
Dimensions ³ Weight ² Case	<i>6-cell:</i> 11.1" x 8.2" x 0.6-1.2"; 282mm x 209mm x 16-30mm <i>6-cell:</i> from 3.3 lb (1.5kg) <i>Color:</i> black or red; <i>Material:</i> PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell <i>6-cell:</i> up to 5 hr	Supports ThinkVantage® technologies
Chipset	AMD M780G Chipset, SB710 south bridge	
Multicard reader ExpressCard/54 Ports	4-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital) None Three USB 2.0 (one powered), external monitor (VGA DB-15), ethernet (RJ-45)	65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
PCIe Mini Card 11b/g/n 11a/b/g/n	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card, Realtek® chipset, 1x2 <i>Some:</i> 11a/b/g/n wireless, ThinkPad 11a/b/g/n, PCIe Half Mini Card, Broadcom® chipset, 2x2	ThinkPlus™, 22 1-year LOR ²⁴ 9x5 NBD 45K5968
WWAN upg Gobi™ 2000	<i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS	ThinkPlus 2-year LOR 9x5 NBD 45K5969
Carrier	<i>Some:</i> AT&T®, contract required with service provider <i>Some:</i> User selectable at first boot, AT&T, Verizon®, or Sprint®, contract required with service provider	ThinkPlus 3-year LOR 9x5 NBD 45K5970
Modem Bluetooth™ Ethernet	None <i>Some:</i> Bluetooth 2.1 wireless Realtek RT8111DL Gigabit Network Connection, PHY, PCIe x1	ThinkPlus 4-year LOR 9x5 NBD 45K5973
Audio support	High Definition (HD) Audio, Conexant CX20582-11Z codec / stereo speakers, 1.5 watt x 2 / combo audio/mic jack	ThinkPlus 2-year P&L P/U Depot 45K5971
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole None None	ThinkPlus 3-year P&L P/U Depot 45K5972
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	ThinkPlus 4-year P&L P/U Depot 45K5974 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information

US models announced September 21, 2010;
previous models on January 5, March 30, April 6, July 6, or July 27, 2010

© Lenovo
(MNK1-2) February 2011

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Camera	Integrated graphics	Disk SATA GB ⁹ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Top color	Bat- tery cells	Blue- tooth	Workhorse (W) Global (G) Avail date
2876-2JU	MV-40	1.60	2GB	11.6" HD	0.3M	HD 3200	160GB 5400	11b/g/n	WWAN upg	None	black	6	Pro 32	G Jan 10
2876-2FU	MV-40	1.60	2GB	11.6" HD	0.3M	HD 3200	250GB 5400	11b/g/n	WWAN upg	None	black	6	Blue Pro 32	G Jan 10
2876-35U	MV-40	1.60	3GB	11.6" HD	0.3M	HD 3200	250GB 5400	11b/g/n	Gobi 2000	None	black	6	Blue Pro 32	Jan 10
2876-33U	MV-40	1.60	2GB	11.6" HD	0.3M	HD 3200	250GB 5400	WiMAX	WWAN upg	None	black	6	Blue Pro 32	Mar 10
2876-34U	MV-40	1.60	4GB	11.6" HD	0.3M	HD 3200	250GB 5400	WiMAX	WWAN upg	None	black	6	Blue Pro 32	Mar 10
2876-6RU	MV-40	1.60	2GB	11.6" HD	0.3M	HD 3200	250GB 5400	11b/g/n	WWAN upg	None	black	6 high	Blue Pro 32	G Mar 10
2876-72U	L625	1.60	2GB	11.6" HD	0.3M	HD 3200	250GB 5400	11b/g/n	WWAN upg	None	black	6	Blue Pro 32	G Mar 10
2876-73U	L625	1.60	2GB	11.6" HD	0.3M	HD 3200	250GB 5400	11b/g/n	Gobi 2000	None	black	6	Blue Pro 32	Mar 10
2876-74U	L625	1.60	2GB	11.6" HD	0.3M	HD 3200	250GB 5400	11b/g/n	Gobi 2000	None	red	6	Blue Pro 32	Mar 10
2876-76U	L625	1.60	2GB	11.6" HD	0.3M	HD 3200	250GB 5400	11b/g/n	WWAN upg	None	black	6 high	Blue Pro 32	Mar 10
2876-9XU	L335	1.60	2GB	11.6" HD	0.3M	HD 3200	160GB 5400	11b/g/n	WWAN upg	None	black	6	Blue Pro 32	G May 10
2876-9YU	L335	1.60	2GB	11.6" HD	0.3M	HD 3200	250GB 5400	11b/g/n	Gobi 2000	None	black	6	Blue Pro 32	May 10
2876-AHU	L335	1.60	2GB	11.6" HD	0.3M	HD 3200	250GB 5400	11a/b/g/n	WWAN upg	None	black	6 high	Blue Pro 32	Jul 10
2876-AJU	L625	1.60	2GB	11.6" HD	0.3M	HD 3200	250GB 5400	11a/b/g/n	WWAN upg	None	black	6 high	Blue Pro 32	Jul 10

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

Positioning Processor	Entry ultraportable for excellent usability and reliability; one spindle AMD Athlon™ Neo Processor for Ultrathin Notebooks MV-40 with single-core, virtualization technology, integrated DDR2 memory controller, and 512KB L2 cache or AMD Athlon Neo X2 Processor for Ultrathin Notebooks L335 with dual-core , virtualization technology, integrated DDR2 memory controller, and 512KB L2 cache or AMD Turion™ Neo X2 Processor for Ultrathin Notebooks L625 with dual-core , virtualization technology, integrated DDR2 memory controller, and 1MB L2 cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 32 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch
Memory	2GB, 3GB, or 4GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available		
SATA DVD±RW SATA disk	None (use optional USB-based optical drive) 160GB ⁸ (5400 rpm) or 250GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high, Active Protection System™, upgradable		
Widescreen display	11.6" (295mm) HD (1366x768) TFT color , anti-glare, LED backlight , 200 nits, 16:9 aspect ratio, 300:1 contrast ratio		
Camera	Camera on top of screen, 0.3-megapixel, fixed focus, low light sensitive		
Integrated graphics	ATI™ Radeon™ HD 3200 graphics , in M780G, external analog monitor support via VGA DB-15 connector; <i>Maximum external resolution:</i> 2048x1536 @60Hz		
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 6-row, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass Two-button touch pad, supports multi-touch function None		
Dimensions ³ Weight ² Case	<i>6-cell:</i> 11.1" x 8.2" x 0.6-1.2"; 282mm x 209mm x 16-30mm <i>6-cell:</i> from 3.3 lb (1.5kg) <i>Color:</i> black or red; <i>Material:</i> PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic		
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 6-cell high capacity <i>6-cell:</i> up to 5.1 hr; <i>6-cell high:</i> up to 5.2 hr		
Chipset	AMD M780G Chipset, SB710 south bridge		
Multicard reader ExpressCard/54 Ports	4-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital) None Three USB 2.0 (one powered), external monitor (VGA DB-15), ethernet (RJ-45)		
PCIe Mini Card 11b/g/n 11a/b/g/n	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card, Realtek® chipset, 1x2 <i>Some:</i> 11a/b/g/n wireless, ThinkPad 11a/b/g/n, PCIe Half Mini Card, Broadcom® chipset, 2x2		
WiMAX	<i>Some:</i> 11a/b/g/n and WiMAX wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N + WiMAX 6250, 2x2 AGN + 1x2 WiMAX		
WWAN upg Gobi™ 2000	<i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider		
Carrier Modem Bluetooth™ Ethernet Audio support	None None <i>Some:</i> Bluetooth 2.1 wireless Realtek RT8111DL Gigabit Network Connection, PHY, PCIe x1 High Definition (HD) Audio, Conexant CX20582-11Z codec / stereo speakers, 1.5 watt x 2 / combo audio/mic jack		
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole None None		
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available		

Supports ThinkVantage® technologies
65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
ThinkPlus™, 22 1-year LOR ²⁴ 9x5 NBD 45K5968
ThinkPlus 2-year LOR 9x5 NBD 45K5969
ThinkPlus 3-year LOR 9x5 NBD 45K5970
ThinkPlus 4-year LOR 9x5 NBD 45K5973
ThinkPlus 2-year P&L P/U Depot 45K5971
ThinkPlus 3-year P&L P/U Depot 45K5972
ThinkPlus 4-year P&L P/U Depot 45K5974
Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information

US models announced July 27, 2010; previous models on January 5, March 2, March 30, or May 4, 2010

© Lenovo

(MNK1-1) February 2011

ThinkPad® X100e (3508) - Education (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	CCFL or LED	Camera	Integrated graphics	Disk SATA GB ⁵ rpm	SATA optical	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Bat- tery Carrier	Bat- tery cells	Workhorse (W) Gbl (G) Preload	Educ	Avail date
3508-2GU	MV-40	1.60	2GB	11.6" HD	LED	0.3M	HD 3200	250G 5400	None	11b/g/n	WWAN upg	None	6	Pro 32	Edu	Jan 10

- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**
- **Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.**

Positioning Processor	Entry ultraportable for excellent usability and reliability; one spindle AMD Athlon™ Neo Processor for Ultrathin Notebooks MV-40 with single-core, virtualization technology, integrated DDR2 memory controller, and 512KB L2 cache	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 32 Preloaded applications ¹⁴ (only some listed) • Education software - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection - Photoshop Elements (and CD) - Premiere Elements (and DVD) - Acrobat 8 Professional - Contribute 4 • Rescue and Recovery™ • Access Connections™ • Password Manager • Microsoft Office 2010 preloaded; purchase product key to activate
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	
SATA DVD±RW SATA disk	None (use optional USB-based optical drive) 250GB ⁸ (5400 rpm) / SATA 3.0Gb/s, 9.5mm high, Active Protection System™, upgradable	
Widescreen display Camera	11.6" (295mm) HD (1366x768) TFT color , anti-glare, LED backlight , 200 nits, 16:9 aspect ratio, 300:1 contrast ratio Camera on top of screen, 0.3-megapixel, fixed focus, low light sensitive	
Integrated graphics	ATI™ Radeon™ HD 3200 graphics , in M780G, external analog monitor support via VGA DB-15 connector; <i>Maximum external resolution:</i> 2048x1536 @60Hz	
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 6-row, spill-resistant, multimedia Fn keys TrackPoint pointing device, Internet Scroll Bar ¹³ , magnifying glass Two-button touch pad, supports multi-touch function None	Supports ThinkVantage® technologies
Dimensions ³ Weight ² Case	<i>6-cell:</i> 11.1" x 8.2" x 0.6-1.2"; 282mm x 209mm x 16-30mm <i>6-cell:</i> from 3.3 lb (1.5kg) <i>Color:</i> black; <i>Material:</i> PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic	65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell <i>6-cell:</i> up to 5 hr	
Chipset	AMD M780G Chipset, SB710 south bridge	
Multicard reader ExpressCard/54 Ports	4-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital) None Three USB 2.0 (one powered), external monitor (VGA DB-15), ethernet (RJ-45)	
PCIe Mini Card 11b/g/n WWAN upg Gobi™ 2000 Carrier Modem Bluetooth™ Ethernet Audio support	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card, Realtek® chipset, 1x2 Wireless WAN upgradable None None None None Realtek RT8111DL Gigabit Network Connection, PHY, PCIe x1 High Definition (HD) Audio, Conexant CX20582-11Z codec / stereo speakers, 1.5 watt x 2 / combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole	ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974
Security Security chip Fingerprint reader	None None None	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

See footnotes for important warranty information
US model announced January 5, 2010

© Lenovo
(MNK1-3) February 2011

Memory

1GB PC2-5300 DDR2 SODIMM	40Y7734	ann	01/05/06
1GB PC2-5300 DDR2 SODIMM (25-Pack)	51J0502	ann	03/17/09
2GB PC2-5300 DDR2 SODIMM	40Y7735	ann	11/28/06
2GB PC2-5300 DDR2 SODIMM (25-Pack)	51J0548	ann	03/17/09

Storage and removable storage

USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann	05/26/09
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann	11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive ⁵³	57Y4400	ann	01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann	01/05/10

⁵³ USB-only attach.**Wireless WAN (Mini PCI Express)**

Only WWAN upgradable models:

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

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann	05/12/09
----------------------------------	---------	-----	----------

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

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

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

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

Mouse

Lenovo Optical Mouse (USB)	06P4069	ann	05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann	01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann	12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann	08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann	06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann	01/22/08
Lenovo Wireless Laser Mouse - Black ⁵²	45K1696	ann	11/25/08
Lenovo Wireless Laser Mouse - Red/Black ⁵²	51J0198	ann	11/25/08

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06

Multimedia

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

Modem

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

Batteries

ThinkPad Battery 17+ (6-cell)	57Y4559	ann	01/05/10
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann	09/20/05

⁴⁴ Requires the ThinkPad 90W AC Adapter

40Y7659 or the adapter provided with the system.

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter	40Y7696		
ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
ThinkPad 65W AC Adapter with USB Hub	57Y4600	ann	09/07/10
90W Ultraslim AC/DC Combo Adapter	41R4493	ann	09/22/09

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

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

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

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

ThinkPad 11W Case Sleeve	57Y4286	ann	01/05/10
ThinkPad 11W Sling Case	57Y4287	ann	01/05/10

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

ThinkVision® L1711p 17" Monitor	5047HB2	ann	10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann	10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann	10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann	10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann	10/20/09
ThinkVision L2321x Wide 23" Monitor	4014HB6	ann	06/10/10

Monitor Accessories⁴⁶

ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09

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

For more information on accessories, please visit:

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

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



Lenovo® ThinkPad X120e



Lenovo ThinkPad X120e



Lenovo ThinkPad X120e



Lenovo ThinkPad X120e



Lenovo ThinkPad X120e



Lenovo ThinkPad X120e

ThinkPad® X120e (0596) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Integrated graphics	Disk SATA GB ⁹ rpm	SATA optical	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Carrier	Blue-tooth	Battery cells	Preload
0596-2UU	E-350	1.60	2GBx1	11.6" HD	0.3M	HD 6310	320G 7200	None	TP 11b/g/n	Gobi 2000	selectable	Blue	6	Pro 64
0596-2TU	E-240	1.50	2GBx1	11.6" HD	0.3M	HD 6310	320G 7200	None	TP 11b/g/n	Gobi 2000	selectable	Blue	6	Pro 64
0596-2SU	E-240	1.50	2+1GB	11.6" HD	0.3M	HD 6310	320G 7200	None	TP 11b/g/n	WWAN upg		Blue	6	Pro 64
0596-2RU	E-350	1.60	2GBx2	11.6" HD	0.3M	HD 6310	320G 7200	None	TP 11b/g/n	WWAN upg		Blue	6	Pro 64
0596-2PU	E-350	1.60	2GBx1	11.6" HD	0.3M	HD 6310	320G 7200	None	TP 11b/g/n	WWAN upg		Blue	6	Pro 64
0596-2NU	E-350	1.60	2GBx1	11.6" HD	0.3M	HD 6310	320G 7200	None	TP 11b/g/n	WWAN upg			6	Pro 64
0596-24U	E-240	1.50	2GBx1	11.6" HD	0.3M	HD 6310	320G 7200	None	TP 11b/g/n	WWAN upg		Blue	6	Pro 64

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

Positioning Processor	Entry ultraportable for excellent usability and reliability; one spindle AMD Fusion™ Processor E-240 with single-core, virtualization technology, integrated 1066MHz DDR3 memory controller, and 512KB L2 cache AMD Fusion Processor E-350 with dual-core, virtualization technology, integrated 1066MHz DDR3 memory controller, and 1MB L2 cache	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) Preloaded applications ¹⁴ (all OSes; only some listed) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1066MHz DDR3 memory controller	
Optical SATA disk	None (use optional USB-based optical drive) <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, upgradable, Active Protection System™	
Widescreen display	11.6" (295mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio	
Camera	Camera on top of screen, 0.3-megapixel, fixed focus, low light sensitive, LED indicator	
Graphics	AMD Radeon™ HD 6310 graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI™ (supporting HDCP to output protected content); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (VGA) @60Hz; 1920x1080 (HDMI) @60Hz(1080p)	
Keyboard	Full-size, 6-row, 89-key, spill-resistant, multimedia Fn keys	
TrackPoint®	TrackPoint pointing device, Internet Scroll Bar ¹³ , magnifying glass	
Touch pad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch	
ThinkLight™	None	
Dimensions ³	<i>3-cell:</i> 11.1" x 7.4" x 0.6-1.2"; 282mm x 189mm x 15.6-29.5mm <i>6-cell:</i> 11.1" x 8.3" x 0.6-1.2"; 282mm x 210mm x 15.6-29.5mm	
Weight ²	<i>3-cell:</i> from 2.93 lb (1.33kg); <i>6-cell:</i> from 3.31 lb (1.5kg)	
Case color	Matte black (top)	
Case material	<i>Top:</i> PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic; <i>Bottom:</i> Magnesium alloy	
Battery - type	Lithium Ion 3-cell or 6-cell	
Battery - life ¹⁰	<i>3-cell:</i> up to 3 hr; <i>6-cell:</i> up to 6 hr	
Chipset	AMD A50M FCH Chipset	
Multicard reader	4-in-1 reader (MMC, SD, Memory Stick, Memory Stick Pro)	
ExpressCard	None	
Ports	Three USB 2.0 (one powered), external monitor (VGA DB-15, HDMI), ethernet (RJ-45)	
PCIe Mini Card	Two PCI Express Mini Card slots	
WLAN	11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card, Realtek® chipset, 1x1	
WWAN	<i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 2000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS <i>Some:</i> User selectable carrier at first boot, AT&T, Verizon®, or Sprint®, contract required with service provider	
Modem	None	
Bluetooth™	<i>Some:</i> Bluetooth 3.0 wireless (requires Bluetooth 3.0 driver support)	
Ethernet	Realtek RTL8111DL Gigabit Network Connection, PHY, PCIe x1	
Audio support	High Definition (HD) Audio, Conexant CX20582 codec / stereo speakers, 1 watt x 2 / digital mono microphone, combo audio/mic jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	None	
Fingerprint reader	None	
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

Supports ThinkVantage® technologies	
65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378	
For compatible accessories, please go to O-X120-E sheet; For ThinkPlus™ service upgrade options, please go to S-TA sheet	

See footnotes for more detailed information
US models announced February 15, 2011

© Lenovo
(MNK2-1) February 2011

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Integrated graphics	Disk SATA GB ^a	rpm	SATA optical	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Carrier	Blue-tooth	Battery cells	Preload
0611-2NU	E-350	1.60	2+1GB	11.6" HD	0.3M	HD 6310	320G	7200	None	TP 11b/g/n	Gobi 2000	selectable	Blue	6	Pro 64
0611-2HU	E-350	1.60	2+1GB	11.6" HD	0.3M	HD 6310	320G	7200	None	TP 11b/g/n	WWAN upg			6	Pro 64
0611-2EU	E-350	1.60	2GBx2	11.6" HD	0.3M	HD 6310	320G	7200	None	TP 11b/g/n	WWAN upg		Blue	6	Pro 64
0611-2DU	E-240	1.50	2GBx2	11.6" HD	0.3M	HD 6310	320G	7200	None	TP 11b/g/n	WWAN upg			6	Pro 64
0611-2BU	E-350	1.60	2GBx1	11.6" HD	0.3M	HD 6310	320G	7200	None	TP 11b/g/n	WWAN upg		Blue	6	Pro 64
0611-29U	E-240	1.50	2GBx1	11.6" HD	0.3M	HD 6310	320G	7200	None	TP 11b/g/n	WWAN upg		Blue	6	Pro 64

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

Positioning Processor	Entry ultraportable for excellent usability and reliability; one spindle AMD Fusion™ Processor E-240 with single-core, virtualization technology, integrated 1066MHz DDR3 memory controller, and 512KB L2 cache AMD Fusion Processor E-350 with dual-core, virtualization technology, integrated 1066MHz DDR3 memory controller, and 1MB L2 cache		Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) Preloaded applications ¹⁴ (all OSes; only some listed) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1066MHz DDR3 memory controller		
Optical SATA disk	None (use optional USB-based optical drive) <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, upgradable, Active Protection System™		
Widescreen display	11.6" (295mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio		
Camera	Camera on top of screen, 0.3-megapixel, fixed focus, low light sensitive, LED indicator		
Graphics	AMD Radeon™ HD 6310 graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI™ (supporting HDCP to output protected content); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (VGA) @60Hz; 1920x1080 (HDMI) @60Hz(1080p)		
Keyboard	Full-size, 6-row, 89-key, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint pointing device, Internet Scroll Bar ¹³ , magnifying glass		
Touch pad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch		
ThinkLight™	None		
Dimensions ³	<i>3-cell:</i> 11.1" x 7.4" x 0.6-1.2"; 282mm x 189mm x 15.6-29.5mm <i>6-cell:</i> 11.1" x 8.3" x 0.6-1.2"; 282mm x 210mm x 15.6-29.5mm		
Weight ²	<i>3-cell:</i> from 2.93 lb (1.33kg); <i>6-cell:</i> from 3.31 lb (1.5kg)		
Case color	Matte black (top)		
Case material	<i>Top:</i> PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic; <i>Bottom:</i> Magnesium alloy		
Battery - type	Lithium Ion 3-cell or 6-cell		
Battery - life ¹⁰	<i>3-cell:</i> up to 3 hr; <i>6-cell:</i> up to 6 hr		
Chipset	AMD A50M FCH Chipset		
Multicard reader	4-in-1 reader (MMC, SD, Memory Stick, Memory Stick Pro)		
ExpressCard	None		
Ports	Three USB 2.0 (one powered), external monitor (VGA DB-15, HDMI), ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
WLAN	11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card, Realtek® chipset, 1x1		
WWAN	<i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 2000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS <i>Some:</i> User selectable carrier at first boot, AT&T, Verizon®, or Sprint®, contract required with service provider		
Modem	None		
Bluetooth™	<i>Some:</i> Bluetooth 3.0 wireless (requires Bluetooth 3.0 driver support)		
Ethernet	Realtek RTL8111DL Gigabit Network Connection, PHY, PCIe x1		
Audio support	High Definition (HD) Audio, Conexant CX20582 codec / stereo speakers, 1 watt x 2 / digital mono microphone, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	None		
Fingerprint reader	None		
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available		

Supports ThinkVantage® technologies		
65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378		
For compatible accessories, please go to O-X120-E sheet; For ThinkPlus™ service upgrade options, please go to S-TA sheet		

See footnotes for more detailed information
US models announced February 15, 2011

© Lenovo
(MNK2-2) February 2011

65-watt AC Adapter
EPEAT™ Gold rating
ENERGY STAR® 5.0-compliant
ROHS-compliant
International Warranty Service¹⁷
24 hour x 7 day¹⁸ toll-free support during the warranty period¹²
via 800-426-7378

For compatible accessories, please go to O-X120-E sheet;
For ThinkPlus™ service upgrade options, please go to S-TA sheet

Memory⁶⁴

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

⁶⁴ System automatically clocks down for processors with 1066MHz DDR3 memory controller.

Storage and removable storage

USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann	05/26/09
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann	11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive ⁵³	57Y4400	ann	01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann	01/05/10

⁵³ USB-only attach.

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

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

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann	05/12/09
----------------------------------	---------	-----	----------

Keyboard

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

Mouse

Lenovo Optical Mouse (USB)	06P4069	ann	05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann	01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann	12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann	08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann	06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann	01/22/08
Lenovo Wireless Laser Mouse - Black ⁵²	45K1696	ann	11/25/08
Lenovo Wireless Laser Mouse - Red/Black ⁵²	51J0198	ann	11/25/08

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06

Multimedia

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

Modem

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

Batteries

ThinkPad Battery 17+ (6-cell)	57Y4559	ann	01/05/10
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann	09/20/05

⁴⁴ Requires the *ThinkPad 90W AC Adapter* 40Y7659 or the adapter provided with the system.

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter	40Y7696	ann	01/05/06
ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
ThinkPad 65W AC Adapter with USB Hub	57Y4600	ann	09/07/10
90W Ultraslim AC/DC Combo Adapter	41R4493	ann	09/22/09

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

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

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

More information at www.lenovopowertips.com

Carrying Cases

ThinkPad 11W Case Sleeve	57Y4286	ann	01/05/10
ThinkPad 11W Sling Case	57Y4287	ann	01/05/10

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

Monitors

ThinkVision® L1711p 17" Monitor	5047HB2	ann	10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann	10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann	10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann	10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann	10/20/09
ThinkVision L2321x Wide 23" Monitor	4014HB6	ann	06/10/10

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann	05/12/09
ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

For more information on accessories, please visit:

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

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

ThinkPad®



Lenovo® ThinkPad X201
(TrackPoint model)



Lenovo ThinkPad X201 with
ThinkPad Battery 47++ (9-cell)
43R9255



Lenovo ThinkPad X201
(UltraNav model)



Lenovo ThinkPad X201
(UltraNav model)



ThinkPad X200 UltraBase
43R8781



ThinkPad 65W AC Adapter
40Y7696

ThinkPad® X201 (3249) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	Max Base turbo (GHz)(GHz)	Memory	Wide- screen display	Camera	Disk SATA GB ⁵ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCle Mini Card 802.11	PCle Mini Card WWAN	Carrier	Intel vPro	Preload	Avail date
3249-2EU	i5-540M	2.53 3.06	2GB	12.1" WXGA	250G 5400			Intel 6200 ²⁸	WWAN upg	vPro Pro 32	Mar 10			
3249-2FU	i5-540M	2.53 3.06	2GB	12.1" WXGA	2.0M 320G 7200	DVD±RW	UltraBase	Intel 6200	WWAN upg	vPro Pro 32	Mar 10			
3249-2GU	i5-540M	2.53 3.06	4GB	12.1" WXGA	2.0M 320G 7200	DVD±RW	UltraBase	Intel 6200	Gobi 2000	Verizon ¹⁶	vPro Pro 32	Mar 10		
3249-2HU	i5-520M	2.40 2.93	4GB	12.1" WXGA	2.0M 320G 7200	DVD±RW	UltraBase	Intel 6200	WWAN upg	vPro Pro 32	Mar 10			
3249-2TU	i5-540M	2.53 3.06	4GB	12.1" WXGA	2.0M 320G 7200	DVD±RW	UltraBase	WiMAX	WWAN upg	vPro Pro 64	Mar 10			
3249-2UJ	i5-540M	2.53 3.06	4GB	12.1" WXGA	2.0M 320G 7200	DVD±RW	UltraBase	Intel 6200	Gobi 2000	AT&T ²³	vPro Pro 64	Mar 10		
3249-2VU	i5-540M	2.53 3.06	4GB	12.1" WXGA	2.0M 320G 7200	DVD±RW	UltraBase	Intel 6200	WWAN upg	vPro Pro 64	Mar 10			
3249-C2U	i5-520M	2.40 2.93	2GB	12.1" WXGA	2.0M 160G 7200			Intel 6200	WWAN upg	vPro Pro 64	Apr 10			
3249-C3U	i5-520M	2.40 2.93	2GB	12.1" WXGA	2.0M 320G 7200			Intel 6200	WWAN upg	vPro Pro 64	Apr 10			
3249-EPU	i5-560M	2.66 3.20	2GB	12.1" WXGA	2.0M 320G 7200	DVD±RW	UltraBase	Intel 6200	WWAN upg	vPro Pro 64	Sep 10			
3249-ERU	i5-560M	2.66 3.20	2GB	12.1" WXGA	160G 7200			Intel 6200	WWAN upg	vPro Pro 64	Sep 10			

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

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5 processor i5-520M, i5-540M, or i5-560M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64			
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Microsoft Office 2010 preloaded; purchase product key to activate			
SATA DVD±RW Ultrabay Slim SATA disk	Some: DVD burner, SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 160GB⁸ (7200 rpm), 250GB (5400 rpm), or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std X200 UltraBase													
Widescreen display	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 250:1 contrast ratio Some: camera on top of screen, 2.0-megapixel, fixed focus													
Camera														
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; Maximum external resolution: 2560x1600 (DP) @60Hz; 2048x1536(VGA) @75Hz										Supports ThinkVantage® technologies ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s 43N3292 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411			
Keyboard	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touchpad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	<i>without UltraBase; 4/6-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 20.7-35.3mm <i>without UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 233.8mm x 20.7-35.3mm <i>4-cell:</i> from 2.89 lb (1.31kg); <i>6-cell:</i> from 3.18 lb (1.44kg); <i>9-cell:</i> from 3.52 lb (1.60kg) <i>Color:</i> black; <i>Material:</i> magnesium alloy													
Weight ²														
Case	<i>Color:</i> black; <i>Material:</i> magnesium alloy													
Battery - type	Lithium Ion 6-cell													
Battery - life ¹⁰	<i>4-cell:</i> up to 3.4 hr; <i>6-cell:</i> up to 6.7 hr; <i>9-cell:</i> up to 11.3 hr													
Chipset	Mobile Intel QM57 Express Chipset													
Media slice	Some: ThinkPad X200 UltraBase media slice (see right side)													
Multicard reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)													
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)													
Ports	Three USB 2.0 (one powered), external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)													
PCle Mini Card	Two PCI Express Mini Card slots													
Intel 6200 ²⁸	Some: 11a/b/g/n wireless, PCle Mini Card, Intel Centrino® Advanced-N 6200, 2x2													
WiMAX	Some: 11a/b/g/n and WiMAX wireless, PCle Half Mini Card, Intel Centrino Advanced-N + WiMAX 6250, 2x2 AGN + 1x2 WiMAX													
WWAN upg	Some: Wireless WAN upgradable													
Gobi™ 2000	Some: Wireless WAN, Qualcomm chipset, PCle Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider													
Carrier	Some: AT&T® or Verizon®, contract required with service provider													
Modem	56K V.92 ⁹ modem													
Bluetooth™	Bluetooth 2.1 wireless, LED indicator													
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCle x1													
Intel AMT	Intel Active Management Technology (iAMT)													
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speaker, 1 watt x 2 / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module, TCG 1.2-compliant													
Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip													
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available													

See footnotes for important warranty information

US models announced September 28, 2010; previous models on February 23, March 2, or April 20, 2010

© Lenovo
(MOC3-1) December 2010

ThinkPad® X201 (3249) - TopSeller (Windows 7) - January 2011

Personal Systems Reference (PSREF)

Type-model	Proc- essor	Base (GHz)	Max turbo (GHz)	Memory	Wide- screen display	Camera	Disk SATA GB ⁵ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Intel vPro	Preload	Avail date
3249-1FU	i5-480M	2.66	2.93	2GB	12.1" WXGA	2.0M	160G 7200	Optional	Optional	Intel 1000	WWAN upg	No	Pro 64	Jan 11

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

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5 processor i5-480M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64			
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update			
SATA DVD±RW Ultrabay Slim SATA disk	Option for <i>ThinkPad X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 160GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std <i>X200 UltraBase</i>										Supports ThinkVantage® technologies			
Widescreen display Camera	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 250:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus										ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s 43N3292 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411			
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz										Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g			
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch Illuminates the keyboard to improve visibility in low-light conditions										65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Dimensions ³	<i>without UltraBase; 4/6-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 20.7-35.3mm <i>without UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 233.8mm x 20.7-35.3mm <i>4-cell:</i> from 2.89 lb (1.31kg); <i>6-cell:</i> from 3.18 lb (1.44kg); <i>9-cell:</i> from 3.52 lb (1.60kg)													
Weight ² Case Battery - type Battery - life ¹⁰	<i>Color:</i> black; <i>Material:</i> magnesium alloy Lithium Ion 6-cell <i>4-cell:</i> up to 3.4 hr; <i>6-cell:</i> up to 6.7 hr; <i>9-cell:</i> up to 11.3 hr													
Chipset	Mobile Intel QM57 Express Chipset													
Media slice Multicard reader ExpressCard/54 Ports	<i>Option:</i> ThinkPad X200 UltraBase media slice (see right side) 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0 (one powered), external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)													
PCIe Mini Card Intel 1000 WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , PCIe Mini Card, Intel Centrino® Wireless-N 1000, 1x2 Wireless WAN upgradable 56K V.92 ⁵ modem None Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 None High Definition (HD) Audio, Conexant 20585 codec / stereo speaker, 1 watt x 2 / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack													
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None													
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available													

See footnotes for important warranty information
US model announced January 11, 2011

© Lenovo
(MOC3-7) January 2011

ThinkPad® X201 (3626) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Proc- essor	Base (GHz)	Max turbo (GHz)	Memory	Wide- screen display	Camera	Disk SATA GB ⁸ rpm	Optical in UltraBase	ThinkPad X200 Mini Card	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger reader	Bat- tery Blue- tooth	Intel vPro	Workhorse (W) Global (G) Avail	date	
3626-R3U	i5-540M	2.53	3.06	2GB	12.1" WXGA		320G 7200		Intel 6200 ²⁸	upg	Fing	Blue	6	vPro	Pro 32	Mar 10	
3626-11U	i5-540M	2.53	3.06	2GB	12.1" WXGA		320G 7200		Intel 6200	upg	Fing	Blue	6	vPro	Pro 32	G Mar 10	
3626-F2U	i5-540M	2.53	3.06	2GB	12.1" WXGA		320G 7200		Intel 6200	upg		Blue	6	vPro	Pro 32 W	Mar 10	
3626-F3U	i5-540M	2.53	3.06	4GB	12.1" WXGA		320G 7200		Intel 6200	Gobi	Fing	Blue	6	vPro	Pro 64 W	Mar 10	
3626-F4U	i5-540M	2.53	3.06	2GB	12.1" WXGA		320G 5400	DVD±RW	UltraB	Intel 6200	upg	Fing	Blue	9	vPro	Pro 32 W	Mar 10
3626-F5U	i5-540M	2.53	3.06	4GB	12.1" WXGA	2.0M	320G 7200	DVD±RW	UltraB	Intel 6200	upg	Fing	Blue	6	vPro	Pro 64 W	Mar 10
3626-F6U	i5-540M	2.53	3.06	3GB	12.1" WXGA	2.0M	128G SSD		Intel 6200	upg	Fing	Blue	6	vPro	Pro 32 W	Mar 10	
3626-F7U	i5-540M	2.53	3.06	4GB	12.1" WXGA		320G 7200		Intel 6300 ²⁸	upg	Fing	Blue	9	vPro	Pro 32 W	G Mar 10	
3626-F8U	i5-540M	2.53	3.06	2GB	12.1" WXGA		250G 5400		Intel 6200				4	vPro	Pro 32 W	G Mar 10	
3626-F9U	i5-540M	2.53	3.06	2GB	12.1" WXGA		320G 7200	DVD±RW	UltraB	Intel 6200	upg	Fing	Blue	6	vPro	Pro 32 W	G Mar 10
3626-FAU	i5-540M	2.53	3.06	2GB	12.1" WXGA	2.0M	320G 7200		Intel 6200	upg	Fing	Blue	9	vPro	Pro 32 W	G Mar 10	
3626-FBU	i5-520M	2.40	2.93	2GB	12.1" WXGA	2.0M	250G 5400		Intel 6200	upg	Fing	Blue	6	vPro	Pro 32 W	G Mar 10	
3626-HUU	i5-520M	2.40	2.93	2GB	12.1" WXGA	2.0M	320G 7200		Intel 6300	upg	Fing	Blue	6	vPro	Pro 32 W	G Apr 10	
3626-HVU	i5-520M	2.40	2.93	2GB	12.1" WXGA		320G 7200		Intel 6200	upg			6	vPro	Pro 32 W	G Apr 10	
3626-12U	i5-520M	2.40	2.93	2GB	12.1" WXGA		160G 7200		Intel 6200	Gobi	Fing	Blue	6	vPro	Pro 64 W	Apr 10	
3626-13U	i5-520M	2.40	2.93	2GB	12.1" WXGA	2.0M	160G 7200	DVD±RW	UltraB	Intel 6200	upg	Fing	Blue	6	vPro	Pro 64 W	Apr 10
3626-14U	i5-520M	2.40	2.93	2GB	12.1" WXGA		320G 7200		Intel 6200	upg	Fing	Blue	9	vPro	Pro 64 W	G Apr 10	
3626-PVU	i5-560M	2.66	3.20	2GB	12.1" WXGA		320G 7200		Intel 6200	upg	Fing	Blue	6	vPro	Pro 32	Sep 10	
Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5 processor i5-520M, i5-540M, or i5-560M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache											Preloaded operating system ²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64					
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Microsoft Office 2010 preloaded; purchase product key to activate					
SATA DVD±RW Ultrabay Slim SATA disk	Some: DVD burner, SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) Some: 128GB ⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high Some: 160GB (7200 rpm), 250GB (5400 rpm), or 320GB (5400 rpm or 7200 rpm) / SATA 3.0Gb/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											Supports ThinkVantage® technologies					
Widescreen display	12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 250:1 contrast ratio Some: camera on top of screen, 2.0-megapixel, fixed focus											ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s 43N3292 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411					
Camera												Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g					
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; Maximum external resolution: 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz											65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378					
Keyboard	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys																
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass																
Touchpad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch																
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions																
Dimensions ³	without UltraBase; 4/6-cell: 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 20.7-35.3mm without UltraBase; 9-cell: 11.6" x 9.2" x 0.8-1.4"; 295mm x 233.8mm x 20.7-35.3mm 4-cell: from 2.89 lb (1.31kg); 6-cell: from 3.18 lb (1.44kg); 9-cell: from 3.52 lb (1.60kg)																
Weight ²	Color: black; Material: magnesium alloy																
Case	Lithium Ion 4-cell, 6-cell, or 9-cell																
Battery - type	4-cell: up to 3.4 hr; 6-cell: up to 6.7 hr; 9-cell: up to 11.3 hr																
Battery - life ¹⁰																	
Chipset	Mobile Intel QM57 Express Chipset																
Media slice	Some: ThinkPad X200 UltraBase media slice (see right side)																
Multicard reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)																
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)																
Ports	Three USB 2.0 (one powered), external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)																
PCIe Mini Card	Two PCI Express Mini Card slots																
Intel 6200 ²⁸	Some: 11a/b/g/n wireless ⁴ , PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2																
Intel 6300 ²⁸	Some: 11a/b/g/n wireless, PCIe Mini Card, Intel Centrino Ultimate-N 6300, 3x3																
WWAN upg	Some: Wireless WAN upgradable																
Gobi™ 2000	Some: Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider																
Carrier	F3U/12U models: Verizon®, contract required with service provider																
Modem	56K V.92 ⁶ modem																
Bluetooth™	Some: Bluetooth 2.1 wireless, LED indicator																
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1																
Intel AMT	Intel Active Management Technology (iAMT)																
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speaker, 1 watt x 2 / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack																
Security	Power-on password, hard disk password, supervisor password, security keyhole																
Security chip	Trusted Platform Module, TCG 1.2-compliant																
Fingerprint reader	Some: UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip																
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available																

See footnotes for important warranty information

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

US model withdrawn effective June 2010

© Lenovo
(MOC3-3) December 2010

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

Personal Systems Reference (PSREF)

Type-model	Proc- essor	Max		Memory	Wide- screen display	Camera	Disk SATA GB ⁵ rpm	Optical in UltraBase	ThinkPad X200 Mini Card	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Bat- tery Fing	Intel vPro	Workhorse (W)			
		Base (GHz)	turbo (GHz)											Preload	Global (G) GMP (P)	Avail date	
3680-F7U	i5-540M	2.53	3.06	4GB	12.1" WXGA		320G 7200			Intel 6300 ²⁸	upg	Yes	9	vPro	Pro 32	W G P	Mar 10
3680-F8U	i5-540M	2.53	3.06	2GB	12.1" WXGA		250G 5400			Intel 6200 ²⁸			4	vPro	Pro 32	W G P	Mar 10
3680-F9U	i5-540M	2.53	3.06	2GB	12.1" WXGA		320G 7200	DVD±RW	UltraB	Intel 6200	upg	Yes	6	vPro	Pro 32	W G P	Mar 10
3680-FAU	i5-540M	2.53	3.06	2GB	12.1" WXGA	2.0M	320G 7200			Intel 6200	upg	Yes	9	vPro	Pro 32	W G P	Mar 10
3680-FBU	i5-520M	2.40	2.93	2GB	12.1" WXGA	2.0M	250G 5400			Intel 6200	upg	Yes	6	vPro	Pro 32	W G P	Mar 10
3680-11U	i5-540M	2.53	3.06	2GB	12.1" WXGA		320G 7200			Intel 6200	upg	Yes	6	vPro	Pro 32	G P	Mar 10
3680-PKU	i5-520M	2.40	2.93	2GB	12.1" WXGA	2.0M	320G 7200			Intel 6300	upg	Yes	6	vPro	Pro 32	W G P	Apr 10
3680-PLU	i5-520M	2.40	2.93	2GB	12.1" WXGA		320G 7200			Intel 6200	upg		6	vPro	Pro 32	W G P	Apr 10
3680-14U	i5-520M	2.40	2.93	2GB	12.1" WXGA		320G 7200			Intel 6200	upg	Yes	9	vPro	Pro 64	W G P	Apr 10

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

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5 processor i5-520M or i5-540M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system ²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available	Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • Microsoft Office 2010 preloaded; purchase product key to activate
SATA DVD±RW Ultrabay Slim SATA disk	Some: DVD burner, SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 250GB ⁸ (5400 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std X200 UltraBase	
Widescreen display Camera	12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 250:1 contrast ratio Some: camera on top of screen, 2.0-megapixel, fixed focus	Supports ThinkVantage® technologies
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; Maximum external resolution: 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz	ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s 43N3292 – Serial ATA Hard Drive Bay Adapter III 43N3412 - Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	without UltraBase; 4/6-cell: 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 20.7-35.3mm without UltraBase; 9-cell: 11.6" x 9.2" x 0.8-1.4"; 295mm x 233.8mm x 20.7-35.3mm 4-cell: from 2.89 lb (1.31kg); 6-cell: from 3.18 lb (1.44kg); 9-cell: from 3.52 lb (1.60kg)	
Weight ² Case Battery - type Battery - life ¹⁰	Color: black; Material: magnesium alloy Lithium Ion 4-cell, 6-cell, or 9-cell 4-cell: up to 3.4 hr; 6-cell: up to 6.7 hr; 9-cell: up to 11.3 hr	
Chipset	Mobile Intel QM57 Express Chipset	
Media slice Multicard reader ExpressCard/54 Ports	Some: ThinkPad X200 UltraBase media slice (see right side) 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0 (one powered), external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)	Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g
PCIe Mini Card Intel 6200 ²⁸ Intel 6300 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots Some: 11a/b/g/n wireless ⁴ , PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Some: 11a/b/g/n wireless, PCIe Mini Card, Intel Centrino Ultimate-N 6300, 3x3 Some: Wireless WAN upgradable 56K V.92 ⁶ modem Some: Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speaker, 1 watt x 2 / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant Some: UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Limited warranty ¹²	3-years/1-year - battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time/ service upgrades ²² available	

See footnotes for important warranty information

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

© Lenovo

(MOC3-4) December 2010

ThinkPad® X201 (3626) - Education (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)(GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Blue/ Fing	Intel vPro	Preload	Avail date	
3626-N2U	i5-540M	2.53	3.06	2GB	12.1" WXGA	2.0M	250G	5400	Optional	Optional	Intel 6200 ²⁸	WWAN upg	Yes	vPro Pro 32	Mar 10
• This model has a depot repair service 3-year limited warranty • This system is Microsoft® Office 2010 Product Key Ready (O10PKR) • Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.															
Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5 processor i5-540M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 32				
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications ¹⁴ (only some listed) • Education software - Microsoft Office OneNote® 2007 (and CD) • Rescue and Recovery™ • Microsoft Office 2010 preloaded; purchase product key to activate				
SATA DVD±RW Ultrabay Slim SATA disk	Option for <i>ThinkPad X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 250GB⁸ (5400 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std <i>X200 UltraBase</i>										Supports ThinkVantage® technologies				
Widescreen display Camera	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 250:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus										ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: - DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s 43N3292 - Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411				
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz										Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g				
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch Illuminates the keyboard to improve visibility in low-light conditions										65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Dimensions ³	<i>without UltraBase; 4/6-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 20.7-35.3mm <i>without UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 233.8mm x 20.7-35.3mm <i>4-cell:</i> from 2.89 lb (1.31kg); <i>6-cell:</i> from 3.18 lb (1.44kg); <i>9-cell:</i> from 3.52 lb (1.60kg) <i>Color:</i> black; <i>Material:</i> magnesium alloy														
Weight ² Case Battery - type Battery - life ¹⁰	Lithium Ion 6-cell <i>4-cell:</i> up to 3.4 hr; <i>6-cell:</i> up to 6.7 hr; <i>9-cell:</i> up to 11.3 hr														
Chipset	Mobile Intel QM57 Express Chipset														
Media slice Multicard reader ExpressCard/54 Ports	<i>Option: ThinkPad X200 UltraBase media slice</i> (see right side) 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0 (one powered), external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)														
PCIe Mini Card Intel 6200 ²⁸ WWAN upg	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable														
Modem Bluetooth™ Ethernet Intel AMT Audio support	56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speaker, 1 watt x 2 / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack														
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available														

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

© Lenovo
(MOC3-5) December 2010

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

Personal Systems Reference (PSREF)

Type-model	Processor	Base turbo (GHz)	Max (GHz) Memory	Wide-screen display	Camera	Disk SATA GB ⁸	rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCIe Mini Card 802.11	PCle Mini Card WWAN	Blue/ Fing	Intel vPro	Preload	Avail date
3680-N2U i5-540M	2.53	3.06	2GB	12.1" WXGA	2.0M	250G	5400	Optional	Optional	Intel 6200 ²⁸	WWAN upg	Yes	vPro	Pro 32	Mar 10
• This model has a limited onsite service²⁴ 3-year limited warranty • This system is Microsoft® Office 2010 Product Key Ready (O10PKR) • Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.															
Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5 processor i5-540M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache											Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32			
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											Preloaded applications¹⁴ (only some listed) • Education software - Microsoft Office OneNote® 2007 (and CD) - Adobe Digital School Collection • Rescue and Recovery™ • Microsoft Office 2010 preloaded; purchase product key to activate			
SATA DVD±RW Ultrabay Slim SATA disk	Option for <i>ThinkPad X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 250GB⁸ (5400 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std <i>X200 UltraBase</i>											Supports ThinkVantage® technologies			
Widescreen display Camera	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 250:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus											ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s 43N3292 – Serial ATA Hard Drive Bay Adapter III 43N3412 - Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411			
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DP)@60Hz; 2048x1536(VGA) @75Hz											Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 445J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g			
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch Illuminates the keyboard to improve visibility in low-light conditions											65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378			
Dimensions ³	<i>without UltraBase;</i> 4/6-cell: 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 20.7-35.3mm <i>without UltraBase;</i> 9-cell: 11.6" x 9.2" x 0.8-1.4"; 295mm x 233.8mm x 20.7-35.3mm 4-cell: from 2.89 lb (1.31kg); 6-cell: from 3.18 lb (1.44kg); 9-cell: from 3.52 lb (1.60kg) <i>Color:</i> black; <i>Material:</i> magnesium alloy														
Weight ² Case Battery - type Battery - life ¹⁰	Lithium Ion 6-cell 4-cell: up to 3.4 hr; 6-cell: up to 6.7 hr; 9-cell: up to 11.3 hr														
Chipset	Mobile Intel QM57 Express Chipset														
Media slice Multicard reader ExpressCard/54 Ports	<i>Option:</i> ThinkPad X200 UltraBase media slice (see right side) 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0 (one powered), external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)														
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁹ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speaker, 1 watt x 2 / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack														
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip														
Limited warranty ¹²	3-years/1-year - battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available														

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

© Lenovo
(MOC3-6) December 2010

ThinkPad® X201i (3249) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Intel vPro	Preload	Avail date
3249-J2U	i3-330M	2.13	2GB	12.1" WXGA	None	250G 5400	Optional	Optional	Intel 1000	WWAN upg	No	Pro 32	Mar 10
3249-MCU	i3-330M	2.13	2GB	12.1" WXGA	None	160G 7200	Optional	Optional	Intel 1000	WWAN upg	No	Pro 64	Apr 10
3249-MDU	i3-370M	2.40	2GB	12.1" WXGA	None	160G 7200	Optional	Optional	Intel 1000	WWAN upg	No	Pro 64	Jul 10
3249-1HU	i3-390M	2.66	2GB	12.1" WXGA	None	160G 7200	Optional	Optional	Intel 1000	WWAN upg	No	Pro 64	Jan 11

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

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i3 processor i3-330M, i3-370M, or i3-390M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache	Preloaded operating system ²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available	
SATA DVD±RW Ultrabay Slim SATA disk	Option for <i>ThinkPad X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 160GB ⁸ (7200 rpm) or 250GB (5400 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std <i>X200 UltraBase</i>	Supports ThinkVantage® technologies
Widescreen display	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 250:1 contrast ratio	ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5Gb/s 43N3292 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411
Camera	None	
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz	Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g
Keyboard	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Touchpad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	<i>without UltraBase; 4/6-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 20.7-35.3mm <i>without UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 233.8mm x 20.7-35.3mm <i>4-cell:</i> from 2.89 lb (1.31kg); <i>6-cell:</i> from 3.18 lb (1.44kg); <i>9-cell:</i> from 3.52 lb (1.60kg)	
Weight ²	<i>Color:</i> black; <i>Material:</i> magnesium alloy	
Case	Lithium Ion 6-cell	
Battery - type	<i>4-cell:</i> up to 3.4 hr; <i>6-cell:</i> up to 6.7 hr; <i>9-cell:</i> up to 11.3 hr	
Battery - life ¹⁰		
Chipset	Mobile Intel QM57 Express Chipset	
Media slice	<i>Option: ThinkPad X200 UltraBase media slice</i> (see right side)	
Multicard reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)	
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)	
Ports	Three USB 2.0 (one powered), external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)	
PCIe Mini Card	Two PCI Express Mini Card slots	
Intel 1000	11b/g/n wireless ⁴ , PCIe Mini Card, Intel Centrino® Wireless-N 1000, 1x2	
WWAN upg	Wireless WAN upgradable	
Modem	56K V.92 ⁶ modem	
Bluetooth™	None	
Ethernet	Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1	
Intel AMT	None	
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speaker, 1 watt x 2 / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	Trusted Platform Module, TCG 1.2-compliant	
Fingerprint reader	None	
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

See footnotes for important warranty information

US model announced January 11, 2011; previous models on February 23, April 20, or July 6, 2010

US models withdrawn effective July 31, 2010

© Lenovo

(MOC3i-1) January 2011

65-watt AC Adapter
EPEAT™ Gold rating
ENERGY STAR® 5.0-compliant
ROHS-compliant
International Warranty Service¹⁷
24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378

Memory

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

Ultrabay Slim 9.5mm

<i>Most Ultrabay Slim accessories supported in ThinkPad X200 UltraBase</i>		
Serial ATA Hard Drive Bay Adapter III	43N3412	ann 06/23/09
DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s	43N3292	ann 08/03/10
DVD Burner Ultrabay Slim Drive II SATA 1.5G/s	43N3229	ann 06/23/09
Ultrabay Slim Blu-ray Burner II (SATA)	43N3230	ann 06/23/09

Storage and removable storage

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

⁴¹ Can be used as the main HDD or with *Serial ATA Hard Drive Bay Adapter III 43N3412* in X200 UltraBase (43R8781)

128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ann 08/26/08
256GB FDE SSD SATA 3Gb/s 1.8" (2.5" cover)	43N3417	ann 06/23/09
ThinkPad 160GB Intel X25-M SSD ⁴¹	43N3435	ann 06/22/10

USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive ⁵³	57Y4400	ann 01/07/10

⁵³ USB-only attach.

Wireless WAN (Mini PCI Express)

Only X201 WWAN upgradable models:

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

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann 05/12/09
USB Port Replicator with Digital Video	45K1610	ann 07/28/09
ThinkPad X200 UltraBase	43R8781	ann 08/05/08

Keyboard

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

Mouse

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

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
X200s (WXGA+), X201s 12W Privacy Filter	43R2470	ann 08/05/08
X200/X200s (WXGA), X201 12W Privacy Filter	55Y9264	ann 04/07/09
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06
ExpressCard Gemplus Smart Card Reader	41N3043	ann 06/27/06

Multimedia

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

Batteries

ThinkPad Battery 47 (4-cell)	43R9253	ann 08/05/08
ThinkPad Battery 47+ (6-cell)	43R9254	ann 08/05/08
ThinkPad Battery 47++ (9-cell)	43R9255	ann 08/05/08
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann 09/20/05

⁴⁴ Requires the *ThinkPad 90W AC Adapter*

40Y7659 or the adapter provided with the system.

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter	40Y7696	ann 01/05/06
ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
ThinkPad 65W AC Adapter with USB Hub	57Y4600	ann 09/07/10
90W Ultralim AC/DC Combo Adapter	41R4493	ann 09/22/09

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

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

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

More information at www.lenovopowertips.com

Carrying Cases

Up to 12" widescreen models:

ThinkPad 12W Case Sleeve	51J0476	ann 08/18/09
--------------------------	---------	--------------

Up to 13.3" widescreen models:

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

Up to 15.6" widescreen models:

Lenovo Messenger Max	41U5253	ann 05/01/07
Lenovo Performance Backpack	41U5254	ann 05/01/07
ThinkPad Business Topload Case	43R2476	ann 05/13/08
ThinkPad Business Backpack	43R2482	ann 05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann 05/13/08
ThinkPad Executive Leather Case	43R2480	ann 05/13/08

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

Lenovo luxury cases at www.lenovoluxurycases.com

Monitors

Lenovo L2230x Wide 21.5" Monitor	5453HB1	ann 06/10/10
ThinkVision® L1711p 17" Monitor	5047HB2	ann 10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann 10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann 10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann 10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann 10/20/09
ThinkVision L2321x Wide 23" Monitor	4014HB6	ann 06/10/10
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann 09/17/08

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
Lenovo DisplayPort to VGA Monitor Cable ⁵⁰	57Y4393	ann 08/04/09
DisplayPort to Single-link DVI-D Cable ⁵⁰	45J7915	ann 08/05/08

⁵⁰ Can only be used via ThinkPad X200 UltraBase (43R8781)

ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

For more information on ThinkPad accessories, please visit:

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

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide



Lenovo® ThinkPad X220



Lenovo ThinkPad X220



ThinkPad 65W AC Adapter
40Y7696



Lenovo ThinkPad X220



Lenovo ThinkPad X220



Lenovo ThinkPad X220

ThinkPad® X220 (4287) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery cells	Intel vPro	Preload
4287-2WU	i5-2520M	4GBx1	12.5" HD	720p	320G 7200	DVD±RW	UltraBase	Intel 1000	WWAN upg	Finger	Blue	6	None	Pro 64
4287-2VU	i5-2410M	4GBx1	12.5" HD	720p	320G 7200			Intel 1000	WWAN upg	Finger	Blue	6	None	Pro 64

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

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5-2410M processor (dual-core, 2.30GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology Intel Core i5-2520M processor (dual-core, 2.50GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology		Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications ¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate Supports ThinkVantage® technologies ThinkPad Ultrabase Series 3 • Provides desktop expansion and cable management for X220 and X220 Tablet • Easily connects to the bottom of the X220 or X220 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s 43N3292 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 128GB 2.5" SSD II 0A33984 Other features: • Power button (front) • Security key lock, security keyhole • Analog VGA DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet (RJ-45) port • Microphone in and headphone out • Requires 65W or 90W AC adapter • 1.39 lb; 620g 65-watt AC Adapter ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
Optical Ultrabay SATA disk	<i>Some:</i> DVD burner, removable from ThinkPad Ultrabase Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 (0A33932) <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3		
mSATA™ SSD	None		
Widescreen display	12.5" (317.5mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio		
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus		
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)		
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, buttonless touchpad below keyboard, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material Standard Battery External Battery Battery - life ¹⁰	<i>without UltraBase; 4/6-cell:</i> 12.0" x 8.13" x 0.75-1.05"; 305mm x 206.5mm x 19.0-34.6mm <i>4-cell:</i> from 2.97 lb (1.35kg) <i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy Lithium Ion 4-cell, 6-cell, or 9-cell, supports optional external battery (0A36280) as 2nd battery None <i>4-cell:</i> up to 4.1 hr; <i>6-cell:</i> up to 9.2 hr; <i>9-cell:</i> up to 13.8 hr; <i>external battery:</i> up to 9.4 hr; <i>6-cell plus external battery:</i> up to 23.2 hr		
Chipset	Mobile Intel QM67 Express Chipset		
Ultrabase Multicard reader ExpressCard Ports	<i>Some:</i> ThinkPad Ultrabase Series 3 (see right side) 3-in-1 reader (SD, SDHC, SDXC) One slot (ExpressCard/34, ExpressCard/54) <i>i7 model:</i> One USB 3.0, two USB 2.0 (one powered) <i>other model:</i> Three USB 2.0 (one powered) external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)		
PCIe Mini Card WLAN WWAN Modem Bluetooth™ Ethernet	Two PCI Express Mini Card slots 11b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 Wireless WAN upgradable None Bluetooth 3.0 wireless, LED indicator <i>Non-vPro model:</i> Intel 82579LF Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>vPro model:</i> Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1		
Intel AMT Audio support	None High Definition (HD) Audio, Conexant 20672 codec / stereo speaker, 1 watt x 2 / volume up, down, mute buttons / dual array microphone, combo audio/mic jack		
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for more detailed information
US models announced March 1, 2011

© Lenovo
(DSH1-1) March 2011

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ⁹ rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery cells	Intel vPro	Global (G) GMP (P)	Pre-load
4290-2WU	i5-2540M	4GBx1	12.5" HD Prem	720p	320G 7200	DVD±RW	UltraB	Intel 6205 ²⁸	WWAN upg	Fing	Blue	9	vPro	G	Pro 64
4290-2XU	i5-2540M	4GBx1	12.5" HD	720p	320G 7200			Intel 6205	WWAN upg					G	Pro 64
4290-37U	i5-2540M	4GBx1	12.5" HD		320G 7200			Intel 6300 ²⁸	WWAN upg	Fing	Blue	6	vPro		Pro 64
4290-36U	i5-2540M	4GBx1	12.5" HD		320G 7200			Intel 6205	WWAN upg			9	vPro		Pro 64
4290-35U	i7-2620M	4GBx1	12.5" HD Prem	720p	320G 7200			Intel 6205	WWAN upg	Fing	Blue	9	vPro		Pro 64
4290-34U	i5-2520M	4GBx1	12.5" HD Prem		320G 7200			Intel 6300	WWAN upg	Fing	Blue	6	vPro		Pro 64
4290-33U	i5-2540M	4GBx1	12.5" HD Prem	720p	320G 7200			Intel 6205	WWAN upg	Fing	Blue	6	vPro		Pro 64
4290-32U	i5-2540M	4GBx1	12.5" HD	720p	320G 7200			Intel 6205	WWAN upg	Fing	Blue	9	vPro		Pro 64
4290-2ZU	i5-2520M	2GBx1	12.5" HD		320G 7200			Intel 6205	WWAN upg			6	vPro		Pro 64

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

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-2620M processor (dual-core, 2.70GHz, 4MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology									Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)					
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets														
Optical Ultrabay SATA disk	<i>Some:</i> DVD burner, removable from ThinkPad Ultrabase Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 (0A33932) <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3														
mSATA™ SSD	None														
Widescreen display	<i>Some:</i> 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> (Premium) 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, WideView (170° viewing)														
Camera	<i>Some:</i> HD720p resolution, wider view angle, low light sensitive, fixed focus														
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)														
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, buttonless touchpad below keyboard, multi-touch Illuminates the keyboard to improve visibility in low-light conditions									Supports ThinkVantage® technologies					
Dimensions ³ Weight ²	<i>without UltraBase; 4/6-cell:</i> 12.0" x 8.13" x 0.75-1.05"; 305mm x 206.5mm x 19.0-34.6mm <i>4-cell:</i> from 2.97 lb (1.35kg)														
Case material Standard Battery External Battery Battery - life ¹⁰	<i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy Lithium Ion 4-cell, 6-cell, or 9-cell, supports optional external battery (0A36280) as 2nd battery None <i>4-cell:</i> up to 4.1 hr; <i>6-cell:</i> up to 9.2 hr; <i>9-cell:</i> up to 13.8 hr; <i>external battery:</i> up to 9.4 hr; <i>6-cell plus external battery:</i> up to 23.2 hr														
Chipset	Mobile Intel QM67 Express Chipset														
Ultrabase Multicard reader ExpressCard Ports	<i>Some:</i> ThinkPad Ultrabase Series 3 (see right side) 3-in-1 reader (SD, SDHC, SDXC) One slot (ExpressCard/34, ExpressCard/54) <i>i7 model:</i> One USB 3.0, two USB 2.0 (one powered) <i>other model:</i> Three USB 2.0 (one powered) external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)														
PCIe Mini Card WLAN WWAN Modem Bluetooth™ Ethernet	Two PCI Express Mini Card slots <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3 Wireless WAN upgradable None <i>Some:</i> Bluetooth 3.0 wireless, LED indicator <i>Non-vPro model:</i> Intel 82579LF Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>vPro model:</i> Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT)														
Intel AMT Audio support	High Definition (HD) Audio, Conexant 20672 codec / stereo speaker, 1 watt x 2 / volume up, down, mute buttons / dual array microphone, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole														
Security Security chip Fingerprint reader	Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available									65-watt AC Adapter ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378					

See footnotes for more detailed information
US models announced March 1, 2011

© Lenovo
(DSH1-2) March 2011

ThinkPad® X220 (4291) - Onsite

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ⁸ rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Finger print reader	Blue-tooth cells	Battery vPro	Global (G) GMP (P)	Pre-load
4291-33U	i5-2540M	4GBx1	12.5" HD		320G 7200			Intel 6300 ²⁸	WWAN upg	Fing	Blue	6 vPro		Pro 64
4291-32U	i5-2540M	4GBx1	12.5" HD		320G 7200			Intel 6205 ²⁸	WWAN upg			9 vPro		Pro 64
4291-2ZU	i5-2520M	4GBx1	12.5" HD Prem	720p	320G 7200			Intel 6205	WWAN upg			9 vPro		Pro 64
4291-2YU	i5-2540M	2GBx1	12.5" HD	720p	320G 7200			Intel 6205	WWAN upg	Fing	Blue	6 vPro		Pro 64
4291-2XU	i5-2540M	4GBx1	12.5" HD	720p	320G 7200			Intel 6205	WWAN upg			6 vPro	G P	Pro 64
4291-2WU	i5-2540M	4GBx1	12.5" HD Prem	720p	320G 7200	DVD±RW	UltraB	Intel 6205	WWAN upg	Fing	Blue	9 vPro	G P	Pro 64
4291-2VU	i7-2620M	4GBx1	12.5" HD Prem		320G 7200			Intel 6205	WWAN upg	Fing	Blue	9 vPro		Pro 64
4291-2UU	i5-2540M	2GBx1	12.5" HD Prem	720p	320G 7200			Intel 6205	WWAN upg			9 vPro		Pro 64
4291-2TU	i5-2520M	2GBx1	12.5" HD		320G 7200			Intel 6205	WWAN upg	Fing	Blue	9 vPro		Pro 64
• Some models are part of the Global Models Plus program with limited onsite service ²⁴ 3-year limited warranty • These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)														
Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-2620M processor (dual-core, 2.70GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology									Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications ¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)				
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets													
Optical Ultrabay SATA disk	Some: DVD burner, removable from ThinkPad Ultrabase Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 (0A33932) Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ All: removable, upgradable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3													
mSATA™ SSD	None													
Widescreen display	Some: 12.5" (317.5mm) HD (1366x768) TFT color, anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio Some: (Premium) 12.5" (317.5mm) HD (1366x768) TFT color, anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, WideView (170° viewing)													
Camera	Some: HD720p resolution, wider view angle, low light sensitive, fixed focus													
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; Maximum external resolution: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, buttonless touchpad below keyboard, multi-touch Illuminates the keyboard to improve visibility in low-light conditions									Supports ThinkVantage® technologies				
Dimensions ³ Weight ²	without UltraBase; 4/6-cell: 12.0" x 8.13" x 0.75-1.05"; 305mm x 206.5mm x 19.0-34.6mm 4-cell: from 2.97 lb (1.35kg)									ThinkPad Ultrabase Series 3 • Provides desktop expansion and cable management for X220 and X220 Tablet • Easily connects to the bottom of the X220 or X220 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s 43N3292 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 128GB 2.5" SSD II 0A33984				
Case material Standard Battery External Battery Battery - life ¹⁰	Display cover: Magnesium + PCABS; Bottom: Magnesium alloy Lithium Ion 4-cell, 6-cell, or 9-cell, supports optional external battery (0A36280) as 2nd battery None 4-cell: up to 4.1 hr; 6-cell: up to 9.2 hr; 9-cell: up to 13.8 hr; external battery: up to 9.4 hr; 6-cell plus external battery: up to 23.2 hr													
Chipset	Mobile Intel QM67 Express Chipset													
Ultrabase Multicard reader ExpressCard Ports	Some: ThinkPad Ultrabase Series 3 (see right side) 3-in-1 reader (SD, SDHC, SDXC) One slot (ExpressCard/34, ExpressCard/54) i7 model: One USB 3.0, two USB 2.0 (one powered) other model: Three USB 2.0 (one powered) external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)													
PCIe Mini Card WLAN WWAN Modem Bluetooth™ Ethernet	Two PCI Express Mini Card slots Some: 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Some: 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3 Wireless WAN upgradable None Some: Bluetooth 3.0 wireless, LED indicator Non-vPro model: Intel 82579LF Gigabit Network Connection (Lewisville), PHY, PCIe x1 vPro model: Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT)													
Intel AMT Audio support	High Definition (HD) Audio, Conexant 20672 codec / stereo speaker, 1 watt x 2 / volume up, down, mute buttons / dual array microphone, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole													
Security Security chip Fingerprint reader	Trusted Platform Module, TCG 1.2-compliant Some: UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip									Other features: • Power button (front) • Security key lock, security keyhole • Analog VGA DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet (RJ-45) port • Microphone in and headphone out • Requires 65W or 90W AC adapter • 1.39 lb; 620g				
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 AC Adapter ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				

See footnotes for more detailed information
US models announced March 1, 2011

© Lenovo
(DSH1-3) March 2011

ThinkPad® X220i (4286) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery cells	Intel vPro	Preload
4286-2AU	i3-2310M	4GBx1	12.5" HD	720p	320G 7200	Optional	Optional	Intel 1000	WWAN upg	None	None	6	None	Pro 64

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

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i3-2310M processor (dual-core, 2.10GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), HT technology		Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications ¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Skype™ for Windows
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
Optical Ultrabay SATA disk	Option for ThinkPad Ultrabase Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 (0A33932) <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3		
mSATA™ SSD	None		
Widescreen display	12.5" (317.5mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio		Supports ThinkVantage® technologies ThinkPad Ultrabase Series 3 • Provides desktop expansion and cable management for X220 and X220 Tablet • Easily connects to the bottom of the X220 or X220 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s 43N3292 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 128GB 2.5" SSD II 0A33984 Other features: • Power button (front) • Security key lock, security keyhole • Analog VGA DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet (RJ-45) port • Microphone in and headphone out • Requires 65W or 90W AC adapter • 1.39 lb; 620g 65-watt AC Adapter ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus		
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)		
Keyboard	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass		
Touchpad	UltraNav™, buttonless touchpad below keyboard, multi-touch		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	<i>without UltraBase; 4/6-cell:</i> 12.0" x 8.13" x 0.75-1.05"; 305mm x 206.5mm x 19.0-34.6mm		
Weight ²	<i>4-cell:</i> from 2.97 lb (1.35kg)		
Case material	<i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy		
Standard Battery	Lithium Ion 4-cell, 6-cell, or 9-cell, supports optional external battery (0A36280) as 2nd battery		
External Battery	None		
Battery - life ¹⁰	<i>4-cell:</i> up to 4.1 hr; <i>6-cell:</i> up to 9.2 hr; <i>9-cell:</i> up to 13.8 hr; <i>external battery:</i> up to 9.4 hr; <i>6-cell plus external battery:</i> up to 23.2 hr		
Chipset	Mobile Intel QM67 Express Chipset		
Ultrabase	<i>Option:</i> ThinkPad Ultrabase Series 3 (see right side)		
Multicard reader	3-in-1 reader (SD, SDHC, SDXC)		
ExpressCard	One slot (ExpressCard/34, ExpressCard/54)		
Ports	<i>i7 model:</i> One USB 3.0, two USB 2.0 (one powered) <i>other model:</i> Three USB 2.0 (one powered) external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
WLAN	11b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2		
WWAN	Wireless WAN upgradable		
Modem	None		
Bluetooth™	None		
Ethernet	<i>Non-vPro model:</i> Intel 82579LF Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>vPro model:</i> Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1		
Intel AMT	None		
Audio support	High Definition (HD) Audio, Conexant 20672 codec / stereo speaker, 1 watt x 2 / volume up, down, mute buttons / dual array microphone, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	None		
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available		

See footnotes for more detailed information
US model announced March 1, 2011

© Lenovo
(DSH1i-1) March 2011

ThinkPad® X220i (4287) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery cells	Intel vPro	Preload
4287-2UU	i3-2310M	4GBx1	12.5" HD	720p	320G 7200	Optional	Optional	Intel 1000	WWAN upg	None	None	6	None	Pro 64

- This small and medium business (SMB) model is part of the US TopSeller™ Program
- This model has a depot repair service 3-year limited warranty
- This system is Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i3-2310M processor (dual-core, 2.10GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), HT technology		Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications ¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Skype™ for Windows Supports ThinkVantage® technologies ThinkPad Ultrabase Series 3 • Provides desktop expansion and cable management for X220 and X220 Tablet • Easily connects to the bottom of the X220 or X220 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s 43N3292 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 128GB 2.5" SSD II 0A33984 Other features: • Power button (front) • Security key lock, security keyhole • Analog VGA DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet (RJ-45) port • Microphone in and headphone out • Requires 65W or 90W AC adapter • 1.39 lb; 620g 65-watt AC Adapter ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
Optical Ultrabay SATA disk	Option for ThinkPad Ultrabase Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 (0A33932) <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3		
mSATA™ SSD	None		
Widescreen display	12.5" (317.5mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio		
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus		
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)		
Keyboard	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass		
Touchpad	UltraNav™, buttonless touchpad below keyboard, multi-touch		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	<i>without UltraBase;</i> 4/6-cell: 12.0" x 8.13" x 0.75-1.05"; 305mm x 206.5mm x 19.0-34.6mm		
Weight ²	4-cell: from 2.97 lb (1.35kg)		
Case material	<i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy		
Standard Battery	Lithium Ion 4-cell, 6-cell, or 9-cell, supports optional external battery (0A36280) as 2nd battery		
External Battery	None		
Battery - life ¹⁰	4-cell: up to 4.1 hr; 6-cell: up to 9.2 hr; 9-cell: up to 13.8 hr; external battery: up to 9.4 hr; 6-cell plus external battery: up to 23.2 hr		
Chipset	Mobile Intel QM67 Express Chipset		
Ultrabase	<i>Option:</i> ThinkPad Ultrabase Series 3 (see right side)		
Multicard reader	3-in-1 reader (SD, SDHC, SDXC)		
ExpressCard	One slot (ExpressCard/34, ExpressCard/54)		
Ports	<i>i7 model:</i> One USB 3.0, two USB 2.0 (one powered) <i>other model:</i> Three USB 2.0 (one powered) external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
WLAN	11b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2		
WWAN	Wireless WAN upgradable		
Modem	None		
Bluetooth™	None		
Ethernet	<i>Non-vPro model:</i> Intel 82579LF Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>vPro model:</i> Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1		
Intel AMT	None		
Audio support	High Definition (HD) Audio, Conexant 20672 codec / stereo speaker, 1 watt x 2 / volume up, down, mute buttons / dual array microphone, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	None		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for more detailed information
US model announced March 1, 2011

© Lenovo
(DSH1i-2) March 2011

Memory

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

Ultrabay Slim 9.5mm

Most Ultrabay Slim accessories supported in ThinkPad Ultrabase Series 3

Serial ATA Hard Drive Bay Adapter III	43N3412	ann	06/23/09
DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s	43N3292	ann	08/03/10
DVD Burner Ultrabay Slim Drive II SATA 1.5G/s	43N3229	ann	06/23/09

Storage and removable storage

160GB 2.5" Intel X25-M Solid State Drive II ⁴¹	0A33983	ann	02/22/11
128GB 2.5" Solid State Drive II ⁴¹	0A33984	ann	02/22/11
250GB 7200rpm SATA 3.0G/s			
OPAL-capable FDE HDD II ⁴¹	0A33985	ann	02/22/11
320GB 7200rpm SATA 3.0Gb/s Hard Drive II ⁴¹	0A33986	ann	02/22/11
320GB 5400rpm SATA 3.0Gb/s Hard Drive II ⁴¹	0A33987	ann	02/22/11

⁴¹ Can be used as the main HDD or with Serial ATA Hard Drive Bay Adapter III 43N3412 in ThinkPad Ultrabase Series 3

USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann	05/26/09
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann	11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive ⁵³	57Y4400	ann	01/07/10
⁵³ USB-only attach.			
USB 2.0 Portable DVD Burner	43N3264	ann	01/05/10

ThinkPad Expansion

ThinkPad Ultrabase Series 3	0A33932	ann	03/01/11
ThinkPad Port Replicator Series 3	433610W	ann	06/23/09
ThinkPad Mini Dock Series 3	433710U	ann	06/23/09
ThinkPad Mini Dock Plus Series 3	433810U	ann	06/23/09
Lenovo® Essential Notebook Stand	45J9292	ann	05/12/09

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann	08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

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

Multimedia

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

Modem

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

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06
ExpressCard Gemplus Smart Card Reader	41N3043	ann	06/27/06

Batteries

ThinkPad Battery 29 (4-cell)	0A36281	ann	03/01/11
ThinkPad Battery 29+ (6-cell)	0A36282	ann	03/01/11
ThinkPad Battery 29++ (9-cell)	0A36283	ann	03/01/11
ThinkPad Battery 19+ (6-cell, Slim External)	0A36280	ann	03/01/11
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann	09/20/05

⁴⁴ Requires the ThinkPad 90W AC Adapter 40Y7659 or the adapter provided with the system.

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter	40Y7696	ann	01/05/06
ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
ThinkPad 65W AC Adapter with USB Hub	57Y4600	ann	09/07/10
90W Ultrastim AC/DC Combo Adapter	41R4493	ann	09/22/09

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

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

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

More information at www.lenovopowertips.com

Carrying Cases

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

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

Up to 15.6" widescreen models:			
Lenovo Messenger Max	41U5253	ann	05/01/07
Lenovo Performance Backpack	41U5254	ann	05/01/07
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08

More information at www.lenovo.com/support/cases
Lenovo luxury cases at www.lenovoluxurycases.com

Monitors

Lenovo L2230x Wide 21.5" Monitor	5453HB1	ann	06/10/10
ThinkVision® L1711p 17" Monitor	5047HB2	ann	10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann	10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann	10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann	10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann	10/20/09
ThinkVision L2321x Wide 23" Monitor	4014HB6	ann	06/10/10
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann	05/12/09
Lenovo DisplayPort to VGA Monitor Cable	57Y4393	ann	08/04/09
DisplayPort to Single-link DVI-D Cable	45J7915	ann	08/05/08
ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

For more information on ThinkPad accessories, please visit:

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

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

ThinkPad®



Lenovo® ThinkPad X201 Tablet



Lenovo ThinkPad X201 Tablet



Lenovo ThinkPad X201 Tablet



Lenovo ThinkPad X201 Tablet



Lenovo ThinkPad X201 Tablet with
ThinkPad X200 Tablet Sleeve
43R9115



Lenovo ThinkPad X201 Tablet with
ThinkPad X200 Tablet Sleeve
43R9115

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

Personal Systems Reference (PSREF)

Type-model	Proc- essor	Max Base turbo (GHz)(GHz)	Memory	Widescreen display	Camera (Mega- pixel)	Disk SATA GB ³ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Bat- tery Intel vPro	Preload	Avail date
2985-C2U	i7-640LM	2.13	2.93	2GB	12.1" WXGA	Entry	250G 5400		Intel 6200 ²⁸	upg	4 vPro	Pro 32	Mar 10
2985-C3U	i7-640LM	2.13	2.93	2GB	12.1" WXGA	Entry	2.0 320G 7200	DVD±RW	UltraB Intel 6200	upg	8 vPro	Pro 32	Mar 10
2985-C4U	i7-640LM	2.13	2.93	4GB	12.1" WXGA	Entry	2.0 320G 7200	DVD±RW	UltraB Intel 6200	Gobi Verizon ¹⁶	8 vPro	Pro 32	Mar 10
✕ 2985-C5U	i7-640LM	2.13	2.93	4GB	12.1" WXGA	Outdoor	2.0 320G 7200		Intel 6200	upg	8 vPro	Pro 32	Mar 10
2985-C6U	i7-640LM	2.13	2.93	2GB	12.1" WXGA	Multi	2.0 250G 5400		Intel 6200	upg	8 vPro	Pro 32	Mar 10
2985-C7U	i7-640LM	2.13	2.93	4GB	12.1" WXGA	Multi	2.0 320G 7200	DVD±RW	UltraB Intel 6200	upg	8 vPro	Pro 32	Mar 10
☞ 2985-EWU	i7-640LM	2.13	2.93	4GB	12.1" WXGA	Entry	2.0 320G 7200	DVD±RW	UltraB Intel 6200	Gobi Verizon	8 vPro	Pro 64	Mar 10
☞ 2985-EXU	i7-640LM	2.13	2.93	4GB	12.1" WXGA	Entry	2.0 320G 7200	DVD±RW	UltraB Intel 6200	Gobi AT&T ²³	8 vPro	Pro 64	Mar 10
☞ 2985-EYU	i7-640LM	2.13	2.93	4GB	12.1" WXGA	Multi	2.0 320G 7200	DVD±RW	UltraB Intel 6200	upg	8 vPro	Pro 64	Mar 10
• These small and medium business (SMB) models are part of the US TopSeller™ Program • These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)													
Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ i7 processor i7-640LM with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 4MB cache									Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64			
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available									Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software • ThinkVantage Toolbox • Lenovo SimpleTap (Multi-Touch models) • Adobe® Reader® • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)			
SATA DVD±RW Ultrabay Slim SATA disk	Some: DVD burner, SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 250GB⁸ (5400 rpm) or 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std X200 UltraBase												
Widescreen display	<i>Entry:</i> 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, frameless <i>Outdoor:</i> 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight , 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, PVA or IPS <i>MultiTouch:</i> 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, enhanced MultiTouch (touchscreen support pen & two-finger touch) <i>All:</i> WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in side base (right), rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)												
Camera	Some: camera on top of screen, 2.0-megapixel, fixed focus									Supports ThinkVantage® technologies			
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz									ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s 43N3292 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411			
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch None												
Dimensions ³	<i>without UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33.3mm <i>without UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33.3mm <i>4-cell:</i> from 3.57 lb (1.62kg); <i>8-cell:</i> from 3.96 lb (1.8kg) <i>Color:</i> black; <i>Material:</i> magnesium alloy												
Weight ²													
Case													
Battery - type	Lithium Ion 4-cell or 8-cell												
Battery - life ¹⁰	<i>4-cell:</i> up to 3.5 hr; <i>8-cell:</i> up to 7.9 hr												
Chipset	Mobile Intel QM57 Express Chipset												
Media slice	Some: ThinkPad X200 UltraBase media slice (see right side)												
Multicard Reader ExpressCard/54	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)												
Ports	One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0 (one powered), external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)												
PCIe Mini Card	Two PCI Express Mini Card slots 11a/b/g/n wireless, PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Some: Wireless WAN upgradable Some: Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider												
Carrier	Some: AT&T® or Verizon®, contract required with service provider												
Modem	56K V.92 ⁹ modem												
Bluetooth™	Bluetooth 2.1 wireless, LED indicator												
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1												
Intel AMT	Intel Active Management Technology (iAMT)												
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant												
Security													
Security chip	UPEK Fingerprint reader (right base of display), used in tablet/notebook mode, 2-way swipe sensor, LED indicator, Power On Authentication, supports the security chip												
Fingerprint reader													
Limited warranty ¹²	3-years/1-yr battery & digitizer pen - depot repair service / service upgrades²² available									65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			

See footnotes for important warranty information

☞ US models announced March 2, 2010; previous models on February 23, 2010

✕ US model withdrawn effective January 2011

© Lenovo

(CML3-1) December 2010

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

Personal Systems Reference (PSREF)

Type-model	Processor	Max turbo (GHz)		Memory	Widescreen display	Camera (Mega-pixel)	Disk SATA GB ⁵ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Bat-tery cells	Intel vPro	Preload	Avail date
2985-F2U	i7-620LM	2.00	2.80	2GB	12.1" WXGA	Entry	2.0 160G 7200	DVD±RW	UltraB	Intel 6200 ²⁸	Gobi	Verizon ¹⁶	8	vPro	Pro 64	Apr 10
2985-F3U	i7-620LM	2.00	2.80	2GB	12.1" WXGA	Outdoor	2.0 160G 7200			Intel 6200	upg		8	vPro	Pro 64	Apr 10
2985-F4U	i7-620LM	2.00	2.80	2GB	12.1" WXGA	Multi	2.0 320G 7200	DVD±RW	UltraB	Intel 6200	upg		8	vPro	Pro 64	Apr 10

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

Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ i7 processor i7-620LM with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 4MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64		
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Windows Live™ Toolbar • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch		
SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> DVD burner, SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 160GB⁸ (7200 rpm) or 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std X200 UltraBase												
Widescreen display	<i>Entry:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, frameless <i>Outdoor:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, PVA or IPS <i>MultiTouch:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, enhanced MultiTouch (touchscreen support pen & two-finger touch) <i>All:</i> WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in side base (right), rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)												
Camera	Camera on top of screen, 2.0-megapixel, fixed focus										Supports ThinkVantage® technologies		
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz										ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s 43N3292 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411		
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch None												
Dimensions ³	<i>without UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33.3mm <i>without UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33.3mm <i>4-cell:</i> from 3.57 lb (1.62kg); <i>8-cell:</i> from 3.96 lb (1.8kg)												
Weight ²	<i>Color:</i> black; <i>Material:</i> magnesium alloy												
Case	Lithium Ion 8-cell												
Battery - type	<i>4-cell:</i> up to 3.5 hr; <i>8-cell:</i> up to 7.9 hr												
Battery - life ¹⁰													
Chipset	Mobile Intel QM57 Express Chipset												
Media slice	<i>Some:</i> ThinkPad X200 UltraBase media slice (see right side)												
Multicard Reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)												
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)												
Ports	Three USB 2.0 (one powered), external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)												
PCIe Mini Card	Two PCI Express Mini Card slots												
Intel 6200 ²⁸	11a/b/g/n wireless, PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2												
WWAN upg	<i>Some:</i> Wireless WAN upgradable												
Gobi™ 2000	<i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider												
Carrier	<i>Some:</i> Verizon®, contract required with service provider												
Modem	56K V.92 ⁶ modem												
Bluetooth™	Bluetooth 2.1 wireless, LED indicator												
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1												
Intel AMT	Intel Active Management Technology (iAMT)												
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, TCG 1.2-compliant												
Fingerprint reader	UPEK Fingerprint reader (right base of display), used in tablet/notebook mode, 2-way swipe sensor, LED indicator, Power On Authentication, supports the security chip												
Limited warranty ¹²	3-years/1-yr battery & digitizer pen - depot repair service / service upgrades²² available										65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		

See footnotes for important warranty information

US models announced April 20, 2010

2985 US model withdrawn effective January 2011

© Lenovo

(CML3-8) December 2010

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

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

Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ i5 processor i5-520UM with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 800MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache or Intel Core i5 processor i5-560M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64		
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Lenovo SimpleTap (Multi-Touch models) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch		
SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> DVD burner, SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 160GB⁸ (7200 rpm), 250GB⁸ (5400 rpm), or 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std X200 UltraBase												
Widescreen display	<i>Entry:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, frameless <i>Outdoor:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, PVA or IPS <i>MultiTouch:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, enhanced MultiTouch (touchscreen support pen & two-finger touch) <i>All:</i> WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in side base (right), rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)												
Camera	<i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus												
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz												
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch None												
Dimensions ³	<i>without UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33.3mm <i>without UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33.3mm <i>4-cell:</i> from 3.57 lb (1.62kg); <i>8-cell:</i> from 3.96 lb (1.8kg)												
Weight ²	<i>Color:</i> black; <i>Material:</i> magnesium alloy												
Case	Lithium Ion 4-cell or 8-cell												
Battery - type	<i>4-cell:</i> up to 3.5 hr; <i>8-cell:</i> up to 7.9 hr												
Battery - life ¹⁰													
Chipset	Mobile Intel QM57 Express Chipset												
Media slice	<i>Some:</i> ThinkPad X200 UltraBase media slice (see right side)												
Multicard Reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)												
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)												
Ports	Three USB 2.0 (one powered), external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)												
PCIe Mini Card Intel 6200 ²⁸ WWAN upg	Two PCI Express Mini Card slots 11a/b/g/n wireless, PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable												
Modem	56K V.92 ⁶ modem												
Bluetooth™	Bluetooth 2.1 wireless, LED indicator												
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1												
Intel AMT	Intel Active Management Technology (iAMT)												
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, TCG 1.2-compliant												
Fingerprint reader	UPEK Fingerprint reader (right base of display), used in tablet/notebook mode, 2-way swipe sensor, LED indicator, Power On Authentication, supports the security chip												
Limited warranty ¹²	3-years/1-yr battery & digitizer pen - depot repair service / service upgrades²² available												

See footnotes for important warranty information

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

US models withdrawn effective January 2011

© Lenovo

(CML3-9) December 2010

ThinkPad® X201 Tablet (3093) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Proc- essor	Max Base turbo (GHz) (GHz)	Memory	Widescreen display	Camera	Disk SATA GB ³ rpm	Optical in UltraBase	ThinkPad X200 Mini Card	PCIe Mini Card 802.11	PCIe Mini Card Blue/ Intel WWAN	Workhorse (W) Pre- Gbl (G) Avail load GMP (P) date
3093-R5U	i7-620LM	2.00	2.80	2GB	12.1" WXGA Entry	160G 5400		Intel 6200 ²⁸	upg	vPro Pro 32	Mar 10
3093-R6U	i7-640LM	2.13	2.93	4GB	12.1" WXGA Outdoor	2.0M 320G 7200		Intel 6200	upg	Yes vPro Pro 32	Mar 10
3093-92U	i7-640LM	2.13	2.93	2GB	12.1" WXGA Entry	2.0M 320G 7200	DVD±RW	UltraB	Intel 6200	upg	Yes vPro Pro 32 W G Mar 10
3093-93U	i7-640LM	2.13	2.93	2GB	12.1" WXGA Entry	250G 5400		Intel 6200	upg	Yes vPro Pro 32 W G Mar 10	
3093-94U	i7-620LM	2.00	2.80	2GB	12.1" WXGA Entry	250G 5400		Intel 6200	upg	vPro Pro 32 W G Mar 10	
3093-95U	i7-640LM	2.13	2.93	4GB	12.1" WXGA Outdoor	2.0M 320G 7200		Intel 6200	upg	Yes vPro Pro 32 W G Mar 10	
3093-96U	i7-640LM	2.13	2.93	4GB	12.1" WXGA Multi	2.0M 320G 7200		Intel 6200	upg	Yes vPro Pro 32 W G Mar 10	

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

Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ i7 processor i7-620LM or i7-640LM with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 4MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Lenovo SimpleTap (Multi-Touch models) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW)
SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> DVD burner, SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 160GB⁸ (5400 rpm), 250GB (5400 rpm), or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std X200 UltraBase										
Widescreen display	<i>Entry:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, frameless <i>Outdoor:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, PVA or IPS <i>MultiTouch:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, enhanced MultiTouch (touchscreen support pen & two-finger touch) <i>All:</i> WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in side base (right), rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)										
Camera	<i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus										Supports ThinkVantage® technologies
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz										ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s 43N3292 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch None										Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g
Dimensions ³	<i>without UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33.3mm <i>without UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33.3mm <i>4-cell:</i> from 3.57 lb (1.62kg); <i>8-cell:</i> from 3.96 lb (1.8kg)										
Weight ²	<i>Color:</i> black; <i>Material:</i> magnesium alloy										
Case	Lithium Ion 8-cell										
Battery - type	<i>4-cell:</i> up to 3.5 hr; <i>8-cell:</i> up to 7.9 hr										
Battery - life ¹⁰											
Chipset	Mobile Intel QM57 Express Chipset										
Media slice	<i>Some:</i> ThinkPad X200 UltraBase media slice (see right side)										
Multicard Reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)										
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)										
Ports	Three USB 2.0 (one powered), external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)										
PCIe Mini Card	Two PCI Express Mini Card slots										
Intel 6200 ²⁸	11a/b/g/n wireless, PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2										
WWAN upg	Wireless WAN upgradable										
Modem	56K V.92 ⁶ modem										
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator										
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1										
Intel AMT	Intel Active Management Technology (iAMT)										
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack										
Security	Power-on password, hard disk password, supervisor password, security keyhole										
Security chip	Trusted Platform Module, TCG 1.2-compliant										
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader (right base of display), used in tablet/notebook mode, 2-way swipe sensor, LED indicator, Power On Authentication, supports the security chip										
Limited warranty ¹²	3-years/1-yr battery & digitizer pen - depot repair service / service upgrades²² available										65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378

See footnotes for important warranty information

US models announced February 23, 2010

⚡ US models withdrawn effective March 2010 or January 2011

© Lenovo
(CML3-2) December 2010

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

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base (GHz)	turbo (GHz)	Memory	Widescreen display	Camera	Disk SATA GB ⁸	rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCIe Mini Card WWAN	Carrier	Bat-Blue/ Fing	tery Intel vPro	Workhorse (W) Gbl (G) Avail	date	
3093-21U	i7-620LM	2.00	2.80	2GBx1	Entry		250G	5400			WWAN upg		4	vPro	Pro 32	G Mar 10	
3093-22U	i7-640LM	2.13	2.93	2GBx2	Outdoor	2.0M	320G	7200			WWAN upg	Yes	8	vPro	Pro 32	G Mar 10	
3093-23U	i7-640LM	2.13	2.93	2GBx2	Multi	2.0M	320G	7200			WWAN upg	Yes	8	vPro	Pro 32	G Mar 10	
3093-24U	i7-640LM	2.13	2.93	2GBx2	Entry	2.0M	320G	7200	DVD±RW	UltraB	Gobi 2000	Verizon ¹⁶	Yes	8	vPro	Pro 32	W Mar 10
3093-25U	i7-640LM	2.13	2.93	2GBx2	Outdoor	2.0M	320G	7200			Gobi 2000	Verizon	Yes	8	vPro	Pro 32	W Mar 10
3093-26U	i7-640LM	2.13	2.93	2GB+1	Multi	2.0M	128G	SSD	DVD±RW	UltraB	WWAN upg	Yes	8	vPro	Pro 32	W Mar 10	
3093-27U	i7-640LM	2.13	2.93	2GBx1	Entry	2.0M	320G	7200	DVD±RW	UltraB	WWAN upg	Yes	8	vPro	Pro 32	W G Mar 10	
3093-28U	i7-640LM	2.13	2.93	2GBx1	Entry		250G	5400			WWAN upg	Yes	8	vPro	Pro 32	W G Mar 10	
3093-42U	i7-620LM	2.00	2.80	2GBx1	Entry	2.0M	160G	7200			WWAN upg	Yes	8	vPro	Pro 64	W G Apr 10	
3093-3ZU	i7-620LM	2.00	2.80	2GBx1	Multi	2.0M	160G	7200			WWAN upg	Yes	8	vPro	Pro 64	W G Apr 10	
• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)																	
Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ i7 processor i7-620LM or i7-640LM with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 4MB cache												Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64				
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets												Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Lenovo SimpleTap (Multi-Touch models) • Adobe® Reader® • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)				
SATA DVD±RW Ultrabay Slim SATA disk	Some: DVD burner, SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) Some: 128GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high Some: 160GB (7200 rpm), 250GB (5400 rpm), or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ All: removable, upgradable, Shock Mounted Hard Drive, supports second disk in opt or std X200 UltraBase																
Widescreen display	Entry: 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, frameless Outdoor: 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, PVA or IPS MultiTouch: 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, enhanced MultiTouch (touchscreen support pen & two-finger touch) All: WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in side base (right), rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)																
Camera	Some: camera on top of screen, 2.0-megapixel, fixed focus												Supports ThinkVantage® technologies				
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; Maximum external resolution: 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz												ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s 43N3292 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411				
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch None												Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g				
Dimensions ³	without UltraBase; 4-cell: 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33.3mm without UltraBase; 8-cell: 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33.3mm 4-cell: from 3.57 lb (1.62kg); 8-cell: from 3.96 lb (1.8kg) Color: black; Material: magnesium alloy																
Weight ²	Lithium Ion 4-cell or 8-cell 4-cell: up to 3.5 hr; 8-cell: up to 7.9 hr																
Case Battery - type Battery - life ¹⁰																	
Chipset	Mobile Intel QM57 Express Chipset																
Media slice Multicard Reader ExpressCard/54 Ports	Some: ThinkPad X200 UltraBase media slice (see right side) 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0 (one powered), external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)																
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots 11a/b/g/n wireless, PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Some: Wireless WAN upgradable Some: Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider Some: Verizon®, contract required with service provider 56K V.92 ⁶ modem Some: Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant Some: UPEK Fingerprint reader (right base of display), used in tablet/notebook mode, 2-way swipe sensor, LED indicator, Power On Authentication, supports the security chip																
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support																	
Security Security chip Fingerprint reader																	
Limited warranty ¹²	3-years/1-yr battery & digitizer pen - depot repair service / service upgrades²² available												65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				

See footnotes for important warranty information

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

US models withdrawn effective March 2010 or January 2011

© Lenovo
(CML3-3) December 2010

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

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Widescreen display	Camera	Disk SATA GB ¹ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCle Mini Card WWAN	Bat- tery Intel vPro	Workhorse (W) Gbl (G) Avail
3093-45U	i5-520UM	1.06	1.86	4GB	Multi	2.0M	320G 7200			upg	Yes 8 vPro	Pro 32 Jun 10
3093-46U	i5-520UM	1.06	1.86	4GB	Outdoor	2.0M	320G 7200			upg	Yes 8 vPro	Pro 32 Jun 10
3093-47U	i5-520UM	1.06	1.86	2GB	Entry	2.0M	320G 7200	DVD±RW	UltraB	upg	Yes 8 vPro	Pro 32 Jun 10
3093-48U	i5-520UM	1.06	1.86	2GB	Entry		250G 5400			upg	8 vPro	Pro 32 Jun 10
3093-4AU	i5-520UM	1.06	1.86	2GB	Entry		250G 5400			upg	Yes 8 vPro	Pro 32 Jun 10
3093-4CU	i5-520UM	1.06	1.86	2GB	Entry		160G 7200			upg	4 vPro	Pro 64 G Jun 10
3093-4DU	i5-520UM	1.06	1.86	2GB	Multi	2.0M	160G 7200			upg	Yes 8 vPro	Pro 64 G Jun 10
3093-4EU	i5-520UM	1.06	1.86	2GB	Entry	2.0M	320G 7200	DVD±RW	UltraB	Gobi Verizon ¹⁶	Yes 8 vPro	Pro 64 W Jun 10
3093-4FU	i5-520UM	1.06	1.86	2GB	Outdoor	2.0M	320G 7200			Gobi Verizon	Yes 8 vPro	Pro 64 W Jun 10
3093-4GU	i5-520UM	1.06	1.86	2GB	Outdoor	2.0M	160G 7200			upg	Yes 8 vPro	Pro 64 W G Jun 10
• These models have a depot repair service 3-year limited warranty • These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)												
Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ i5 processor i5-520UM with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 800MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache											Preloaded operating system ²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Lenovo SimpleTap (Multi-Touch models) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW)
SATA DVD±RW Ultrabay Slim SATA disk	Some: DVD burner, SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 160GB ⁸ (7200 rpm), 250GB (5400 rpm), or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std X200 UltraBase											Supports ThinkVantage® technologies
Widescreen display	Entry: 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, frameless Outdoor: 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, PVA or IPS MultiTouch: 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 300 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, enhanced MultiTouch (touchscreen support pen & two-finger touch) All: WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen, pen holder in side base (right), rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)											ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s 43N3292 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411
Camera	Some: camera on top of screen, 2.0-megapixel, fixed focus											Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; Maximum external resolution: 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz											65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch None											
Dimensions ³	without UltraBase; 4-cell: 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33.3mm without UltraBase; 8-cell: 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33.3mm											
Weight ²	4-cell: from 3.57 lb (1.62kg); 8-cell: from 3.96 lb (1.8kg)											
Case	Color: black; Material: magnesium alloy											
Battery - type	Lithium Ion 4-cell or 8-cell											
Battery - life ¹⁰	4-cell: up to 3.5 hr; 8-cell: up to 7.9 hr											
Chipset	Mobile Intel QM57 Express Chipset											
Media slice	Some: ThinkPad X200 UltraBase media slice (see right side)											
Multicard Reader ExpressCard/54 Ports	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0 (one powered), external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)											
PCle Mini Card	Two PCI Express Mini Card slots 11a/b/g/n wireless, PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2											
Intel 6200 ²⁸ WWAN upg	Some: Wireless WAN upgradable											
Gobi™ 2000	Some: Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider											
Carrier Modem	Some: Verizon®, contract required with service provider 56K V.92 ⁹ modem											
Bluetooth™	Some: Bluetooth 2.1 wireless, LED indicator											
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1											
Intel AMT	Intel Active Management Technology (iAMT)											
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack											
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	Trusted Platform Module, TCG 1.2-compliant											
Fingerprint reader	Some: UPEK Fingerprint reader (right base of display), used in tablet/notebook mode, 2-way swipe sensor, LED indicator, Power On Authentication, supports the security chip											
Limited warranty ¹²	3-years/1-yr battery & digitizer pen - depot repair service / service upgrades ²² available											

See footnotes for important warranty information

US models announced May 25, 2010

⚡ US models withdrawn effective January 2011

© Lenovo
(CML3-10) December 2010

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

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Widescreen display	Camera	Disk SATA GB ⁹	rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCIe Mini Card WWAN	Carrier	Blue/ Fing	Intel vPro	Preload	Avail date
3093-4MU	i5-560M	2.66	3.20	4GB	Entry	2.0M	320G	7200	DVD±RW	UltraBase	Gobi 2000	Verizon ¹⁶	Yes	vPro	Pro 32	Sep 10
3093-4PU	i5-560M	2.66	3.20	2GB	Entry		250G	5400			WWAN upg		Yes	vPro	Pro 64	Sep 10

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

Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ i5 processor i5-560M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache											Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64				
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software • ThinkVantage Toolbox • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate				
SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> DVD burner, SATA 1.5Gb/s, removable from <i>X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 250GB⁸ (5400 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std <i>X200 UltraBase</i>															
Widescreen display	<i>Entry:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, frameless WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in side base (right), rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock) <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus															
Camera												Supports ThinkVantage® technologies				
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DP) @60Hz; 2048x1536(VGA) @75Hz											ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s 43N3292 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411				
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch None															
Dimensions ³	<i>without UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33.3mm <i>without UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33.3mm <i>4-cell:</i> from 3.57 lb (1.62kg); <i>8-cell:</i> from 3.96 lb (1.8kg) <i>Color:</i> black; <i>Material:</i> magnesium alloy															
Weight ² Case																
Battery - type	Lithium Ion 8-cell															
Battery - life ¹⁰	<i>4-cell:</i> up to 3.5 hr; <i>8-cell:</i> up to 7.9 hr															
Chipset	Mobile Intel QM57 Express Chipset															
Media slice	<i>Some:</i> ThinkPad X200 UltraBase media slice (see right side)															
Multicard Reader ExpressCard/54 Ports	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0 (one powered), external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)															
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots 11a/b/g/n wireless, PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider															
Carrier Modem	<i>Some:</i> Verizon®, contract required with service provider 56K V.92® modem															
Bluetooth™	Bluetooth 2.1 wireless, LED indicator															
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1															
Intel AMT	Intel Active Management Technology (iAMT)															
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole															
Security	Trusted Platform Module, TCG 1.2-compliant															
Security chip	UPEK Fingerprint reader (right base of display), used in tablet/notebook mode, 2-way swipe sensor, LED indicator, Power On Authentication, supports the security chip															
Fingerprint reader																
Limited warranty ¹²	3-years/1-yr battery & digitizer pen - depot repair service / service upgrades ²² available															

See footnotes for important warranty information
US models announced September 28

© Lenovo
(CML3-11) December 2010

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

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Widescreen display	Camera	Disk SATA GB ⁵ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Blue/ Intel Fing cells vPro	Bat- Intel vPro	Workhorse (W) Gbl (G) GMP (P)	Avail date
3113-92U	i7-640LM	2.13	2.93	2GBx1	12.1" WXGA Entry	2.0M	320G 7200	DVD±RW	UltraB	Yes	8 vPro	Pro 32 W G P	Mar 10
3113-93U	i7-640LM	2.13	2.93	2GBx1	12.1" WXGA Entry		250G 5400			Yes	8 vPro	Pro 32 W G P	Mar 10
3113-94U	i7-620LM	2.00	2.80	2GBx1	12.1" WXGA Entry		250G 5400				8 vPro	Pro 32 W G P	Mar 10
3113-95U	i7-640LM	2.13	2.93	2GBx2	12.1" WXGA Outdoor	2.0M	320G 7200			Yes	8 vPro	Pro 32 W G P	Mar 10
3113-96U	i7-640LM	2.13	2.93	2GBx2	12.1" WXGA Multi	2.0M	320G 7200			Yes	8 vPro	Pro 32 W G P	Mar 10
3113-42U	i7-620LM	2.00	2.80	2GBx1	12.1" WXGA Entry	2.0M	160G 7200			Yes	8 vPro	Pro 64 W G P	Apr 10
3113-3ZU	i7-620LM	2.00	2.80	2GBx1	12.1" WXGA Multi	2.0M	160G 7200			Yes	8 vPro	Pro 64 W G P	Apr 10
3113-98U	i5-520UM	1.06	1.86	2GBx1	12.1" WXGA Entry	2.0M	320G 7200	DVD±RW	UltraB	Yes	8 vPro	Pro 32 W G P	Jun 10
3113-9AU	i5-520UM	1.06	1.86	2GBx1	12.1" WXGA Entry		160G 7200				4 vPro	Pro 64 W G P	Jun 10
3113-9BU	i5-520UM	1.06	1.86	2GBx1	12.1" WXGA Multi	2.0M	160G 7200			Yes	8 vPro	Pro 64 W G P	Jun 10
3113-9CU	i5-520UM	1.06	1.86	2GBx1	12.1" WXGA Outdoor	2.0M	160G 7200			Yes	8 vPro	Pro 64 W G P	Jun 10
• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)													
Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ i5 processor i5-520UM with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 800MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache or Intel Core i7 processor i7-620LM or i7-640LM with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 4MB cache									Preloaded operating system ²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Lenovo SimpleTap (Multi-Touch models) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch			
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets									Supports ThinkVantage® technologies ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s 43N3292 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411 Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g 65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
SATA DVD±RW Ultrabay Slim SATA disk	Some: DVD burner, SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 160GB ⁸ (7200 rpm), 250GB (5400 rpm), or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std X200 UltraBase												
Widescreen display	Entry: 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, frameless Outdoor: 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, PVA or IPS MultiTouch: 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 300 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, enhanced MultiTouch (touchscreen support pen & two-finger touch) All: WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen, pen holder in side base (right), rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)												
Camera	Some: camera on top of screen, 2.0-megapixel, fixed focus												
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; Maximum external resolution: 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz												
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch None												
Dimensions ³	without UltraBase; 4-cell: 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33.3mm without UltraBase; 8-cell: 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33.3mm 4-cell: from 3.57 lb (1.62kg); 8-cell: from 3.96 lb (1.8kg)												
Weight ²	Color: black; Material: magnesium alloy												
Case	Lithium Ion 4-cell or 8-cell												
Battery - type	4-cell: up to 3.5 hr; 8-cell: up to 7.9 hr												
Battery - life ¹⁰													
Chipset	Mobile Intel QM57 Express Chipset												
Media slice	Some: ThinkPad X200 UltraBase media slice (see right side)												
Multicard Reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)												
ExpressCard/54 Ports	One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0 (one powered), external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)												
PCIe Mini Card	Two PCI Express Mini Card slots												
Intel 6200 ²⁸ WWAN upg	11a/b/g/n wireless, PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable												
Modem	56K V.92 ⁶ modem												
Bluetooth™	Some: Bluetooth 2.1 wireless, LED indicator												
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1												
Intel AMT	Intel Active Management Technology (iAMT)												
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, TCG 1.2-compliant												
Fingerprint reader	Some: UPEK Fingerprint reader (right base of display), used in tablet/notebook mode, 2-way swipe sensor, LED indicator, Power On Authentication, supports the security chip												
Limited warranty ¹²	3-years/1-year - battery & digitizer pen, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri, excluding holidays, next business day response / service upgrades ²² available												

See footnotes for important warranty information

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

US models withdrawn effective January 2011

© Lenovo
(CML3-4) December 2010

Memory

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

Ultrabay Slim 9.5mm

<i>Most Ultrabay Slim accessories supported in ThinkPad X200 UltraBase</i>		
Serial ATA Hard Drive Bay Adapter III	43N3412	ann 06/23/09
DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s	43N3292	ann 08/03/10
DVD Burner Ultrabay Slim Drive II SATA 1.5G/s	43N3229	ann 06/23/09
Ultrabay Slim Blu-ray Burner II (SATA)	43N3230	ann 06/23/09

Storage and removable storage

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

⁴¹ Can be used as the main HDD or with *Serial ATA Hard Drive Bay Adapter III 43N3412* in X200 UltraBase (43R8781)

128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ann 08/26/08
256GB FDE SSD SATA 3Gb/s 1.8" (2.5" cover)	43N3417	ann 06/23/09
ThinkPad 160GB Intel X25-M SSD ⁴¹	43N3435	ann 06/22/10

USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive ⁵³	57Y4400	ann 01/07/10

⁵³ USB-only attach.

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

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

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann 05/12/09
USB Port Replicator with Digital Video	45K1610	ann 07/28/09
ThinkPad X200 UltraBase	43R8781	ann 08/05/08

Keyboard

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

Mouse

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

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06
ExpressCard Gemplus Smart Card Reader	41N3043	ann 06/27/06

Multimedia

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

Tablet

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

Batteries

ThinkPad Battery 12 (4-cell)	43R9256	ann 09/23/08
ThinkPad Battery 12++ (8-cell)	43R9257	ann 09/23/08
ThinkPad External Battery Charger ^{44, 47}	40Y7625	ann 09/20/05

⁴⁴ Requires the *ThinkPad 90W AC Adapter*

⁴⁷ 40Y7659 or the adapter provided with the system.

⁴⁷ Only supports *ThinkPad Battery 12 (4-cell)* 43R9256

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter	40Y7696	ann 01/05/06
ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
ThinkPad 65W AC Adapter with USB Hub	57Y4600	ann 09/07/10
90W Ultralim AC/DC Combo Adapter	41R4493	ann 09/22/09

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

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

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

More information at www.lenovopowertips.com

Carrying Cases

<i>X200 Tablet:</i>		
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 15.6" widescreen models:

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

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

Lenovo luxury cases at www.lenovoluxurycases.com

Monitors

Lenovo L2230x Wide 21.5" Monitor	5453HB1	ann 06/10/10
ThinkVision® L1711p 17" Monitor	5047HB2	ann 10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann 10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann 10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann 10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann 10/20/09
ThinkVision L2321x Wide 23" Monitor	4014HB6	ann 06/10/10
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann 09/17/08

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
Lenovo DisplayPort to VGA Monitor Cable ⁵⁰	57Y4393	ann 08/04/09
DisplayPort to Single-link DVI-D Cable ⁵⁰	45J7915	ann 08/05/08

⁵⁰ Can only be used via ThinkPad X200 UltraBase (43R8781)

ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

For more information on ThinkPad accessories, please visit:

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

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide

Partial list of Lenovo® ThinkPlus Services²² for ThinkPad notebooksFor more information see: http://www.lenovo.com/services_warranty/us/en/index.html

ThinkPlus service upgrade options for ThinkPad W/X series		ThinkPlus Secure Business	
ThinkPad X100e and X120e notebook with 1-year Depot warranty		Lenovo Online Data Backup	
2-year parts and labor depot repair service	45K5971	- 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	
3-year parts and labor depot repair service	45K5972	1-year Lenovo Online Data Backup - 10GB	51J0787
4-year parts and labor depot repair service	0A34460	1-year Lenovo Online Data Backup - 25GB	51J0795
1-year LOR 9x5 Next Business Day	45K5968		
2-year LOR 9x5 Next Business Day	45K5969		
3-year LOR 9x5 Next Business Day	45K5970		
4-year LOR 9x5 Next Business Day	0A34462		
ThinkPad W/X series notebook with 1-year Depot warranty			
2-year parts and labor depot repair service	41C9169		
3-year parts and labor depot repair service	41C9170		
4-year parts and labor depot repair service	41C9172		
5-year parts and labor depot repair service	41C9174		
1-year LOR 9x5 Next Business Day	41C9166		
2-year LOR 9x5 Next Business Day	41C9167		
3-year LOR 9x5 Next Business Day	41C9168		
4-year LOR 9x5 Next Business Day	41C9171		
5-year LOR 9x5 Next Business Day	41C9173		
ThinkPad W/X series notebook with 3-year Depot warranty			
4-year parts and labor depot repair service	41C9178		
5-year parts and labor depot repair service	41C9180		
3-year LOR 9x5 Next Business Day	41C9176		
4-year LOR 9x5 Next Business Day	41C9177		
5-year LOR 9x5 Next Business Day	41C9179		
ThinkPad W/X series notebook with 3-year Onsite warranty			
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 notebook with 1-year Depot warranty	
		3-year Priority Support	45J9107
		ThinkPad Workstation 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 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 service upgrade options for ThinkPad T/L series			
ThinkPad T/L series notebook with 1-year Depot warranty			
2-year parts and labor depot repair service	45K5971		
3-year parts and labor depot repair service	45K5972		
4-year parts and labor depot repair service	45K5974		
5-year parts and labor depot repair service	45K5976		
1-year LOR 9x5 Next Business Day	45K5968		
2-year LOR 9x5 Next Business Day	45K5969		
3-year LOR 9x5 Next Business Day	45K5970		
4-year LOR 9x5 Next Business Day	45K5973		
5-year LOR 9x5 Next Business Day	45K5975		
ThinkPad T/L series notebook with 3-year Depot warranty			
4-year parts and labor depot repair service	45K6023		
5-year parts and labor depot repair service	45K6025		
3-year LOR 9x5 Next Business Day	45K6021		
4-year LOR 9x5 Next Business Day	45K6022		
5-year LOR 9x5 Next Business Day	45K6024		
ThinkPad T/L series notebook with 3-year Onsite warranty			
4-year LOR 9x5 Next Business Day	45K6038		
5-year LOR 9x5 Next Business Day	43R2162		

Availability: All offers subject to availability. Lenovo reserves the right to alter product offerings and specifications at any time, without notice. Lenovo is not responsible for photographic or typographic errors.

Warranty: For a copy of applicable product warranties, write to: Warranty Information, P.O. Box 12195, RTP, NC, 27709, Attn: Dept ZPYA/B676. Lenovo makes no representation or warranty regarding third party products or services.

Footnotes:

¹ Power management, including Intel® SpeedStep® Technology, reduces processor speed when in battery mode.

² **Weight** includes battery and standard optical drive; weight may vary due to vendor components, manufacturing process and options.

³ **Thinness** may vary at certain points on the system.

⁴ **Wireless capability:** Requires compatible wireless-enabled options sold separately.

⁵ **TAA:** ThinkPad notebook is compliant with the U.S. Federal Government's country-of-origin requirements prescribed in 48 C.F.R. Subpart 25.4; Trade Act Agreement (TAA) model.

⁶ **Public network download modem speeds** are limited to 53Kbps. Upload speeds are limited to 48Kbps for V.92 modems. Actual speeds depend on many factors and are often less than the maximum possible. V.92 functions and speeds require compatible phone line and server equipment. Check with your telephone and ISP service providers for availability.

⁷ **Maximum memory capacity** may require the replacement of standard component with largest supported component available. On ThinkPad systems, even though it is possible to physically install 4GB of memory, the actual amount of memory addressable by a 32-bit operating system will be limited to 3GB. This limitation does not exist with 64-bit operating systems.

⁸ **Hard drive:** GB = billion bytes, TB = trillion bytes. Accessible capacity is less; up to 4GB is service partition.

⁹ **CD/DVD drive speeds** list maximum rates; rates are variable and are often less than the maximum.

¹⁰ **Battery:** These model numbers achieved the battery life based on MobileMark® 2007 during testing. For the ThinkPad X300, battery life is based on Business Winstone Battery Mark 2002. Battery life (and recharge times) will vary based on many factors including screen brightness, applications, features, power management, battery conditioning, and other customer preferences.

¹¹ **External monitor:** This system supports a maximum of two external monitors. The integrated display(s) must be disabled to support two external monitors.

¹² **Limited warranty:** Support unrelated to a warranty issue may be subject to additional charges.

¹³ **Internet access not included.**

¹⁴ **Included software** may differ from its retail version (if available), and may not include user manuals or all program functionality. Software license agreements may apply.

¹⁶ **Activating Verizon Wireless Service:** Lenovo customers will be contacted after purchase to activate service; requires separate agreement with Verizon Wireless and is subject to the Customer Agreement, Calling Plan, and credit approval. Service, airtime, and early termination charges may apply. Verizon Wireless, not Lenovo, is solely responsible for service. Service not available in all areas; purchaser is responsible for verifying that service is available for the intended location before purchasing a computer equipped with WAN card. Network details, coverage limitations, and maps at www.verizonwireless.com.

¹⁷ **International Warranty Service** is available in any country in which this product is sold and serviced. Service delivery methods and parts availability vary by country, may be different from that in the country of purchase, and are subject to change without notice. Fees and restrictions may apply in some countries.

¹⁸ **Telephone support** may be subject to additional charges, even during the limited warranty period. Response times may vary. May exclude some holidays. If a machine is listed as having "On-site service for select repairs", this means that onsite service is available only for the replacement of select parts. For all other warranty repairs, Lenovo will provide the customer a replacement part for customer installation. The parts for which onsite service is available varies by machine, but may include the processor, power supply, heat sink, system board, or base cover. For ThinkPad notebooks with EasyServ or Courier service, Lenovo will attempt to diagnose and resolve the problem remotely before sending a courier.

¹⁹ **EasyServ depot repair service:** In the United States call 1-800-426-7378. The customer may be asked certain diagnostic questions before a courier is sent. Your ThinkPad purchase includes this depot repair service, available in the U.S. during the limited warranty period.

²⁰ **Operating System:** Level of support varies by operating system. Operating systems not preloaded on the system may not provide full feature functionality. Refer to lenovo.com/pc/support and enter your machine type and model number for more information.

²¹ **For combination drives**, maximum possible speeds only are given in the following order: CD write, CD rewrite, CD read, DVD read.

²² **ThinkPlus Services:** These services are available for machines normally used for business, professional, or trade purposes, rather than personal, family, or household purposes. Not all machine types and models are covered. Service period begins with the equipment date of purchase. Service must be purchased during the original limited product warranty period. Service levels are response time objectives and are not guarantees. If the machine problem turns out to be a Customer Replaceable Unit (CRU), a part will be express shipped to you for quick replacement. Onsite 24x7x2-hour service is not available in all locations. For ThinkPad notebooks requiring LCD or other component replacement, Lenovo may choose to perform service at the depot repair center. Calls must be received by 5 pm local time in order to qualify for Next Business Day service. P&L means parts and labor. P/U means pick-up. See ThinkPlus terms and conditions for complete details and restrictions.

²³ **Activating AT&T Wireless Service:** Requires separate agreement with AT&T, subject to service agreement, rate plan and coverage maps. AT&T, not Lenovo, is solely responsible for service. Coverage not available in all areas; AT&T BroadbandConnect available in select metropolitan markets. Special credit and tenure restrictions and additional charges may apply to international roaming. A network connection, third-party software, additional hardware, and/or subscription to a third-party service may be required for certain solutions/applications. Additional restrictions apply, including early termination fee; see www.wireless.att.com for details. To activate call Lenovo Wireless Activation Hot Line at 1-877-299-4710.

²⁴ **Limited onsite service systems** are designed to be repaired during the applicable warranty period primarily with customer-replaceable parts provided by Lenovo. Lenovo will only send a technician onsite to perform a repair if (a) remote telephone diagnosis and/or customer part replacement are unable to resolve the problem, or (b) the part is one of the few designated by Lenovo for onsite replacement. For a list of onsite replaceable parts, contact Lenovo. In the United States call 1-800-426-7378. Support unrelated to a warranty issue may be subject to additional charges. Lenovo onsite repair (LOR), 8 am to 5 pm, Monday through Friday coverage excluding holidays, next business day (NBD) response time.

²⁶ **Full-size keyboard:** As defined by ISO/IEC 15412.

²⁷ **Based on IEEE 802.11a and 802.11b.** A customer can not upgrade to a different wireless Mini PCI adapter due to FCC regulations. Security screws prevent removal of this adapter. This wireless LAN product has been designed to permit legal operation world-wide in regions which it is approved. This product has been tested and certified to be interoperable by the Wireless Ethernet Compatibility Alliance and is authorized to carry the Wi-Fi logo.

²⁸ **The IEEE 802.11n specification (MIMO)** has been finalized and is currently in IEEE 802.11n-2009 release. The maximum speed depends on the access point device and the number of integrated antenna used for connection. An adapter with 11a/b, 11a/b/g, 11b/g/n, or 11a/b/g/n can communicate on any of its supported formats.

³⁰ **Measures only maximum** data transfer rate, not application performance. Many factors affect application performance.

³² **Wireless:** Based on IEEE 802.11a, 802.11b, and 802.11g respectively. An adapter with 11a/b, 11b/g, or 11a/b/g can communicate on either/any of these listed formats respectively, the actual connection will be based on the access point to which it connects.

³⁶ **Wireless upgradable** allows the system to be wireless-enabled with an optional wireless Mini PCI or Mini PCI Express card. Designed to operate only with Lenovo options.

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

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, 2011.
All rights reserved.

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

March 2011
tabook.pdf