



Product Specifications Reference Lenovo® ThinkPad® Notebooks 2013 to present - withdrawn

January 2015 - Version 466 (Western Europe)



http://www.lenovo.com/psref/psrefs_withdrawn.html

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Summary of Changes

This section describes the withdrawn products which are added in this edition and in previous editions.

May 27, 2014 - Version 454

► Withdrawn product(s)

ThinkPad X131e is withdrawn and added in the book

ThinkPad T430u is withdrawn and added in the book

June 18, 2014 - Version 455

► Changes in this update

ThinkPad X131e is reactive and return into tabook

August 19, 2014 - Version 458

► Withdrawn product(s)

ThinkPad L430 is withdrawn and added in the book

ThinkPad L530 is withdrawn and added in the book

ThinkPad T430 is withdrawn and added in the book

ThinkPad T430s is withdrawn and added in the book

ThinkPad T431s is withdrawn and added in the book

ThinkPad T530 is withdrawn and added in the book

ThinkPad W530 is withdrawn and added in the book

ThinkPad X230 is withdrawn and added in the book

ThinkPad X230 Tablet is withdrawn and added in the book

ThinkPad X1 Carbon is withdrawn and added in the book

January 7, 2015 - Version 466

► Withdrawn product(s)

ThinkPad X131e is withdrawn and added in the book



Lenovo® ThinkPad L430



Lenovo ThinkPad L430



Lenovo ThinkPad L430



Lenovo ThinkPad L430



Lenovo ThinkPad L430



Lenovo ThinkPad L430

ThinkPad L430 2468 (TopSeller)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	SIM card	Card slot	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Ann Date (mm/yy)
2468-34G	i3-2370M	4GBx1	14.0" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	None	None	Finger	BT	6	Pro 64	06/12
2468-35G	i5-3210M	4GBx1	14.0" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	None	None	Finger	BT	6	Pro 64	06/12
2468-36G	i5-3210M	4GBx1	14.0" HD+	720p	500G 7200	TP 11b/g/n	Ericsson	selectable	None	Finger	BT	6	Pro 64	06/12
2468-37G	i5-3210M	4GBx1	14.0" HD+	720p	500G 7200	Intel 2200	WWAN upg	None	None	Finger	BT	6	Pro 64	07/12
2468-3HG	i3-2328M	4GBx1	14.0" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Express 54	Finger	BT	6	Pro 64	09/12
2468-3MG	i5-3210M	4GBx1	14.0" HD+	720p	500G 7200	Intel 2200	WWAN upg	None	Express 54	Finger	BT	6	Pro 64	09/12
2468-3LG	i5-3210M	4GBx1	14.0" HD+	720p	500G 7200	TP 11b/g/n	Ericsson	selectable	Express 54	Finger	BT	6	Pro 64	09/12
2468-3KG	i5-3210M	4GBx1	14.0" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	None	Express 54	Finger	BT	6	Pro 64	09/12
2468-3JG	i3-2370M	4GBx1	14.0" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	None	Express 54	Finger	BT	6	Pro 64	09/12

• Small and medium business (SMB) model(s), part of the WE TopSeller™ Program

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3-2328M processor (2 cores, 2.20GHz, 3MB cache), Intel HD Graphics 3000, DDR3 memory controller (up to 1333MHz), HT technology Intel Core i3-2370M processor (2 cores, 2.40GHz, 3MB cache), Intel HD Graphics 3000, DDR3 memory controller (up to 1333MHz), HT technology Intel Core i5-3210M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology									Preloaded operating system²⁰ Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager				
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller									Preloaded applications¹⁴ (only some listed) • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)				
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/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> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 400:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 400:1 contrast ratio													
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus													
Graphics	Intel HD Graphics 3000 or 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)													
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch None													
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	14.0W" (WxDxH): 13.94" x 9.57" x 1.17–1.24"; 354mm x 243mm x 29.6–31.4mm <i>6-cell:</i> from 5.11 lb (2.32kg); <i>9-cell:</i> from 5.48 lb (2.49kg) Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell or 9-cell, HW Authentication <i>6-cell (57Whr):</i> up to 7.5 hr; <i>9-cell (94Whr):</i> up to 12.3 hr													
Chipset ExpressCard Smart Card read Multicard Reader Ports	Mobile Intel HM76 Express Chipset <i>Some:</i> One slot (ExpressCard/34, ExpressCard/54) None 4-in-1 reader (MMC, SD, SDHC, SDXC) One USB 3.0, three USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)													
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1 <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS													
SIM card Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> User selectable, contract required with service provider None Bluetooth 4.0 wireless Realtek® RTL8111F Gigabit Network Connection None HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1.5W x 2 / volume up, down, mute buttons / monaural 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 AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, supports the security chip													
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 GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				

See footnotes for more detailed information

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ThinkPad L430 2468 (TopSeller) - Windows 8

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	SIM card	Card slot	Finger print reader	Blue-tooth	Battery cells	Preload	Ann Date (mm/yy)
2468-3CG	i3-2328M	4GBx1	14.0" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Express 54	Finger	BT	6	Win8 Pro64	10/12
2468-3DG	i5-3210M	4GBx1	14.0" HD+	720p	500G 7200	Intel 2200	WWAN upg	None	Express 54	Finger	BT	6	Win8 Pro64	10/12
2468-3EG	i3-3110M	4GBx1	14.0" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	None	Express 54	Finger	BT	6	Win8 Pro64	10/12
2468-3FG	i5-3210M	4GBx1	14.0" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	None	Express 54	Finger	BT	6	Win8 Pro64	10/12
2468-3GG	i5-3210M	4GBx1	14.0" HD+	720p	500G 7200	TP 11b/g/n	Ericsson	selectable	Express 54	Finger	BT	6	Win8 Pro64	10/12
2468-3SG	i3-2328M	4GBx1	14.0" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Express 54	Finger	BT	6	Win7 Pro64	10/12
2468-3RG	i3-3110M	4GBx1	14.0" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	None	Express 54	Finger	BT	6	Win7 Pro64	10/12
2468-3QG	i5-3210M	4GBx1	14.0" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	None	Express 54	Finger	BT	6	Win7 Pro64	10/12
2468-3PG	i5-3210M	4GBx1	14.0" HD+	720p	500G 7200	Intel 2200	WWAN upg	None	Express 54	Finger	BT	6	Win7 Pro64	10/12
2468-3NG	i5-3210M	4GBx1	14.0" HD+	720p	500G 7200	TP 11b/g/n	Ericsson	selectable	Express 54	Finger	BT	6	Win7 Pro64	10/12
2468-4CG	i5-2520M	4GBx1	14.0" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	None	Express 54	Finger	BT	6	Win7 Pro64	01/13

• Small and medium business (SMB) model(s), part of the WE TopSeller™ Program

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3-2328M processor (2 cores, 2.20GHz, 3MB cache), Intel HD Graphics 3000, DDR3 memory controller (up to 1333MHz), HT technology Intel Core i3-3110M processor (2 cores, 2.40GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), HT technology Intel Core i5-2520M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 3000, DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-3210M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology		Preloaded operating system ²⁰ - <i>Some:</i> Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - <i>Some:</i> Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • AccuWeather • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions)
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/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> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 400:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 400:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 3000 or 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch None		
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	14.0W" (WxDxH): 13.94" x 9.57" x 1.17–1.24"; 354mm x 243mm x 29.6–31.4mm <i>6-cell:</i> from 5.11 lb (2.32kg); <i>9-cell:</i> from 5.48 lb (2.49kg) Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell or 9-cell, HW Authentication <i>6-cell (57Whr):</i> up to 7.5 hr; <i>9-cell (94Whr):</i> up to 12.3 hr		
Chipset ExpressCard Smart Card read Multicard Reader Ports	Mobile Intel HM76 Express Chipset One slot (ExpressCard/34, ExpressCard/54) None 4-in-1 reader (MMC, SD, SDHC, SDXC) One USB 3.0, three USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)		
PCIe Mini Card PCIe 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> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2		
PCIe WWAN	<i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS		
SIM card Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> User selectable, contract required with service provider None Bluetooth 4.0 wireless Realtek® RTL8111F Gigabit Network Connection None HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1.5W x 2 / volume up, down, mute buttons / monaural 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 AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, supports the security chip		
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 GREENGUARD® certified RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² | | |

See footnotes for more detailed information

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ThinkPad L430 2468 (TopSeller) - Windows 8 - II

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ¹ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	SIM card	Card slot	Finger print reader	Bat- tery Blue- tooth cells	Preload	Ann Date (mm/yy)
2468-5AG	i3-3120M	4GBx1	14.0" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	None	Express 54	Finger	BT	6	Win7 Pro64 03/13
2468-59G	i5-3230M	4GBx1	14.0" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	None	Express 54	Finger	BT	6	Win7 Pro64 03/13
2468-58G	i5-3230M	4GBx1	14.0" HD+	720p	500G 7200	Intel 2200	WWAN upg	None	Express 54	Finger	BT	6	Win7 Pro64 03/13
2468-57G	i5-3230M	4GBx1	14.0" HD+	720p	500G 7200	TP 11b/g/n	Ericsson	selectable	Express 54	Finger	BT	6	Win7 Pro64 03/13
2468-56G	i5-2520M	4GBx1	14.0" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	None	Express 54	Finger	BT	6	Win8 Pro64 03/13
2468-55G	i3-3120M	4GBx1	14.0" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	None	Express 54	Finger	BT	6	Win8 Pro64 03/13
2468-54G	i5-3230M	4GBx1	14.0" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	None	Express 54	Finger	BT	6	Win8 Pro64 03/13
2468-53G	i5-3230M	4GBx1	14.0" HD+	720p	500G 7200	Intel 2200	WWAN upg	None	Express 54	Finger	BT	6	Win8 Pro64 03/13
2468-52G	i5-3230M	4GBx1	14.0" HD+	720p	500G 7200	TP 11b/g/n	Ericsson	selectable	Express 54	Finger	BT	6	Win8 Pro64 03/13
2468-6MG	i5-3230M	4GBx1	14.0" HD+	720p	180G SSD	TP 11b/g/n	Ericsson	selectable	Express 54	None	BT	6	Win7 Pro64 06/13
2468-6LG	i5-3230M	4GBx1	14.0" HD+	720p	180G SSD	TP 11b/g/n	Ericsson	selectable	Express 54	None	BT	6	Win8 Pro64 06/13
2468-6FG	i5-3230M	4GBx1	14.0" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	None	Express 54	None	BT	6	Win7 Pro64 06/13
2468-6EG	i5-3230M	4GBx1	14.0" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	None	Express 54	None	BT	6	Win8 Pro64 06/13
2468-6DG	i5-3230M	4GBx1	14.0" HD+	720p	500G 7200	Intel 2200	WWAN upg	None	Express 54	None	BT	6	Win7 Pro64 06/13
2468-6CG	i5-3230M	4GBx1	14.0" HD+	720p	500G 7200	Intel 2200	WWAN upg	None	Express 54	None	BT	6	Win8 Pro64 06/13
2468-6BG	i5-3230M	4GBx1	14.0" HD+	720p	500G 7200	TP 11b/g/n	Ericsson	selectable	Express 54	None	BT	6	Win7 Pro64 06/13
2468-6AG	i5-3230M	4GBx1	14.0" HD+	720p	500G 7200	TP 11b/g/n	Ericsson	selectable	Express 54	None	BT	6	Win8 Pro64 06/13
2468-69G	i5-3230M	4GBx1	14.0" HD+	720p	180G SSD	TP 11b/g/n	Ericsson	selectable	Express 54	Finger	BT	6	Win7 Pro64 06/13
2468-68G	i5-3230M	4GBx1	14.0" HD+	720p	180G SSD	TP 11b/g/n	Ericsson	selectable	Express 54	Finger	BT	6	Win8 Pro64 06/13
Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3-3120M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Hyper-Threading technology Intel Core i5-2520M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 3000, DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-3230M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology									Preloaded operating system ²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit			
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller									Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • AccuWeather • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions)			
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable Some: 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	Some: 14.0" (355mm) HD (1366x768) color, anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 400:1 contrast ratio Some: 14.0" (355mm) HD+ (1600x900) color, anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 400:1 contrast ratio												
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus												
Graphics	Intel HD Graphics 3000 or 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; Maximum external resolution: 2560x1600 @60Hz (DisplayPort via optional Mini DP cable); 1920x1200 @60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536 @75Hz (VGA)												
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch None												
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	14.0W" (WxDxH): 13.94" x 9.57" x 1.17–1.24"; 354mm x 243mm x 29.6–31.4mm 6-cell: from 5.11 lb (2.32kg); 9-cell: from 5.48 lb (2.49kg) Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell or 9-cell, HW Authentication 6-cell (57Whr): up to 7.5 hr; 9-cell (94Whr): up to 12.3 hr												
Chipset ExpressCard Smart Card read Multicard Reader Ports	Mobile Intel HM76 Express Chipset One slot (ExpressCard/34, ExpressCard/54) None 4-in-1 reader (MMC, SD, SDHC, SDXC) One USB 3.0, three USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)												
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN	Two PCI Express Mini Card slots Some: 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1 Some: 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 Some: Wireless WAN upgradable Some: Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS												
SIM card Modem Bluetooth™ Ethernet Intel AMT Audio support	Some: User selectable, contract required with service provider None Bluetooth 4.0 wireless Realtek® RTL8111F Gigabit Network Connection None HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1.5W x 2 / volume up, down, mute buttons / monaural 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 Some: AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, supports the security chip												
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 GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²			

See footnotes for more detailed information

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ThinkPad L430 2468 (TopSeller) - Windows 8 - III

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	SIM card	Card slot	Finger print reader	Blue-tooth	Bat- tery cells	Preload	Ann Date (mm/yy)
2468-6KG	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	None	Express 54	None	BT	6	Win7 Pro64	06/13
2468-6JG	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	None	Express 54	None	BT	6	Win8 Pro64	06/13
2468-67G	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	None	Express 54	Finger	BT	6	Win7 Pro64	06/13
2468-66G	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	None	Express 54	Finger	BT	6	Win8 Pro64	06/13
2468-6HG	i3-3120M	4GBx1	14.0" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	None	Express 54	None	BT	6	Win7 Pro64	06/13
2468-6GG	i3-3120M	4GBx1	14.0" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	None	Express 54	None	BT	6	Win8 Pro64	06/13

• Small and medium business (SMB) model(s), part of the WE TopSeller™ Program

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3-3120M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Hyper-Threading technology Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology		Preloaded operating system ²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • AccuWeather • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate Supports ThinkVantage® technologies 65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable Some: 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	Some: 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 400:1 contrast ratio Some: 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 400:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; Maximum external resolution: 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		
Keyboard	6-row, 84-key, 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, multi-touch		
ThinkLight™	None		
Dimensions ³	14.0W" (WxDxH): 13.94" x 9.57" x 1.17–1.24"; 354mm x 243mm x 29.6–31.4mm		
Weight ²	6-cell: from 5.11 lb (2.32kg); 9-cell: from 5.48 lb (2.49kg)		
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic		
Battery - type	Lithium Ion 6-cell or 9-cell, HW Authentication		
Battery - life ¹⁰	6-cell (57Whr): up to 7.5 hr; 9-cell (94Whr): up to 12.3 hr		
Chipset	Mobile Intel HM76 Express Chipset		
ExpressCard	One slot (ExpressCard/34, ExpressCard/54)		
Smart Card read	None		
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)		
Ports	One USB 3.0, three USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1		
PCIe WWAN	Wireless WAN upgradable		
SIM card	None		
Modem	None		
Bluetooth™	Bluetooth 4.0 wireless		
Ethernet	Realtek® RTL8111F Gigabit Network Connection		
Intel AMT	None		
Audio support	HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1.5W 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	Some: AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, supports the security chip		
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available		

See footnotes for more detailed information

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Supports ThinkVantage® technologies

65-watt AC adapter
EPEAT™ Gold rating
ENERGY STAR® 5.0-compliant
GREENGUARD® certified
RoHS-compliant
International Warranty Service¹⁷
24 hour x 7 day¹⁸ toll-free support during the warranty period¹²

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	SIM card	Smart Card Reader	Card slot	Finger print reader	Blue- toot h	Bat-Workhorse (W) Global (G)	Pre-load (mm/yy)	Ann Date (mm/yy)
2465-33G	i5-3360M	4GBx1	14.0" HD	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	None	Smart	Exp 54	Finger	BT	6 W G	Pro 64	06/12
2465-32G	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	None	Smart	Exp 54	Finger	BT	6 W G	Pro 64	06/12
2465-29G	i5-3360M	4GBx1	14.0" HD+	720p	500G 7200	Intel 6205	WWAN upg	None	None	Exp 54	Finger	BT	9 G	Pro 64	06/12
2465-2AG	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	Intel 6205	WWAN upg	None	None	Exp 54	Finger	BT	6 G	Pro 64	06/12
2465-2BG	i5-3360M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	None	None	Exp 54	Finger	BT	6 G	Pro 64	06/12
2465-2CG	i5-3320M	4GBx1	14.0" HD	No	320G 7200	Intel 2200	WWAN upg	None	None	Exp 54	None	BT	6 G	Pro 64	06/12
2465-2DG	i5-3360M	4GBx1	14.0" HD+	720p	320G 7200	Intel 6205	WWAN upg	None	None	Exp 54	Finger	BT	9 G	Pro 64	06/12
2465-2EG	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	None	None	Exp 54	Finger	BT	6 G	Pro 64	06/12
2465-2FG	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	None	None	Exp 54	None	No	6 G	Pro 64	06/12
2465-5WG	i5-2520M	4GBx1	14.0" HD+	720p	500G 7200	Intel 2200	Ericsson	selectable	None	Exp 54	Finger	BT	6	Pro 64	10/12
2465-5VG	i5-2520M	4GBx1	14.0" HD+	720p	500G 7200	Intel 2200	WWAN upg	None	Smart	Exp 54	Finger	BT	6	Pro 64	10/12
2465-5UG	i5-2520M	4GBx1	14.0" HD	720p	500G 7200	Intel 2200	WWAN upg	None	None	Exp 54	Finger	BT	6	Pro 64	10/12
2465-5TG	i5-2520M	4GBx1	14.0" HD	720p	320G 7200	Intel 2200	WWAN upg	None	None	Exp 54	Finger	BT	6	Pro 64	10/12
2465-5SG	i5-2520M	2GBx1	14.0" HD	720p	320G 7200	TP 11b/g/n	None	None	None	None	Finger	BT	6	Pro 64	10/12
2465-5RG	i5-2520M	4GBx1	14.0" HD	720p	320G 7200	TP 11b/g/n	None	None	None	Exp 54	Finger	BT	6	Pro 64	10/12
2465-5QG	i5-2520M	4GBx1	14.0" HD	720p	500G 7200	TP 11b/g/n	None	None	None	Exp 54	Finger	BT	6	Pro 64	10/12
2465-5PG	i5-2520M	2GBx1	14.0" HD	720p	320G 7200	TP 11b/g/n	None	None	None	Exp 54	Finger	BT	6	Pro 64	10/12
Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i5-2520M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 3000, DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i5-3360M processor (2 cores, 2.80GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology										Preloaded operating system²⁰ Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager				
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller										Preloaded applications¹⁴ (only some listed) • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)				
Optical	DVD burner, 12.7mm high, fixed, not removable, tray-in														
SATA disk	<i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/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> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 400:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 400:1 contrast ratio														
Camera	<i>Some:</i> HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus														
Graphics	Intel HD Graphics 3000 or 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 @60Hz (DisplayPort via optional Mini DP cable); 1920x1200 @60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536 @75Hz (VGA)														
Keyboard	6-row, 84-key, 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, multi-touch														
ThinkLight™	None														
Dimensions ³	14.0W" (WxDxH): 13.94" x 9.57" x 1.17–1.24"; 354mm x 243mm x 29.6–31.4mm														
Weight ²	6-cell: from 5.11 lb (2.32kg); 9-cell: from 5.48 lb (2.49kg)														
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic														
Battery - type	Lithium Ion 6-cell or 9-cell, HW Authentication														
Battery - life ¹⁰	6-cell (57Whr): up to 7.5 hr; 9-cell (94Whr): up to 12.3 hr														
Chipset	Mobile Intel HM76 Express Chipset														
ExpressCard	<i>Some:</i> One slot (ExpressCard/34, ExpressCard/54)														
Smart Card read	<i>Some:</i> Smart Card reader														
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)														
Ports	One USB 3.0, three USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)														
PCIe Mini Card	Two PCI Express Mini Card slots														
PCIe WLAN ⁴	<i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1 <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2														
PCIe WWAN	<i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS														
SIM card	<i>Some:</i> User selectable, contract required with service provider														
Modem	None														
Bluetooth™	<i>Some:</i> Bluetooth 4.0 wireless														
Ethernet	Realtek® RTL8111F Gigabit Network Connection														
Intel AMT	None														
Audio support	HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1.5W 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> AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available														
												Supports ThinkVantage® technologies			
												65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²			

See footnotes for more detailed information

ThinkPad L430 2465 (Windows 8)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	SIM card	Finger print reader	Blue-tooth	Bat-tery cells	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
2465-62G	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	None	Finger	BT	6	G	Win8 Pro64	10/12
2465-65G	i5-3320M	4GBx1	14.0" HD	None	320G 7200	Intel 2200	WWAN upg	None	None	No	6	G	Win8 Pro64	10/12
2465-63G	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	None	Finger	BT	6	G	Win8 Pro64	10/12
2465-64G	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	Intel 6205	WWAN upg	None	Finger	BT	6	G	Win8 Pro64	10/12

• A depot repair service 3-year limited warranty

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system ²⁰ - Windows® 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • AccuWeather • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions) • Skype™
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/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> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 400:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 400:1 contrast ratio		
Camera	<i>Some:</i> HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch None		
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>14.0W" (WxDxH):</i> 13.94" x 9.57" x 1.17–1.24"; 354mm x 243mm x 29.6–31.4mm <i>6-cell:</i> from 5.11 lb (2.32kg); <i>9-cell:</i> from 5.48 lb (2.49kg) Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell or 9-cell, HW Authentication <i>6-cell (57Whr):</i> up to 7.5 hr; <i>9-cell (94Whr):</i> up to 12.3 hr		
Chipset ExpressCard Smart Card read Multicard Reader Ports	Mobile Intel HM76 Express Chipset None None 4-in-1 reader (MMC, SD, SDHC, SDXC) One USB 3.0, three USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)		
PCIe Mini Card PCIe WLAN ⁴	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2		
PCIe WWAN SIM card Modem Bluetooth™ Ethernet Intel AMT Audio support	Wireless WAN upgradable None None <i>Some:</i> Bluetooth 4.0 wireless Realtek® RTL8111F Gigabit Network Connection None None HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1.5W x 2 / volume up, down, mute buttons / monaural 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> AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, supports the security chip		
Limited warranty ¹² 3-years/1-yr battery - depot repair service / service upgrades ²² available			

| Supports ThinkVantage® technologies | | |
| 65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² | | |

See footnotes for more detailed information

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ThinkPad L430 2465 (Optimus)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Card slot	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Ann Date (mm/yy)
2465-5YG	i5-2520M	4GBx1	14.0" HD+	720p	500G 7200	Intel 6205 ²⁸	None	Express 54	Finger	BT	6	Pro 64	10/12
2465-5XG	i5-2520M	4GBx1	14.0" HD	720p	500G 7200	Intel 6205	None	Express 54	Finger	BT	6	Pro 64	10/12

- A depot repair service 3-year limited warranty

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i5-2520M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 3000 , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology								Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64				
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller								Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager				
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/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 applications ¹⁴ (only some listed) • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)				
mSATA™ SSD	None												
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 400:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 400:1 contrast ratio												
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus												
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 in processor, and NVIDIA NVS™ 5400M , PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)												
Keyboard	6-row, 84-key, 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, multi-touch												
ThinkLight™	None												
Dimensions ³	14.0W" (WxDxH): 13.94" x 9.57" x 1.17–1.24"; 354mm x 243mm x 29.6–31.4mm												
Weight ²	<i>6-cell:</i> from 5.16 lb (2.34kg); <i>9-cell:</i> from 5.52 lb (2.51kg)												
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic												
Battery - type	Lithium Ion 6-cell or 9-cell, HW Authentication												
Battery - life ¹⁰	<i>6-cell (57Whr):</i> up to 5.6 hr; <i>9-cell (94Whr):</i> up to 9.3 hr												
Chipset	Mobile Intel HM76 Express Chipset												
ExpressCard	One slot (ExpressCard/34, ExpressCard/54)												
Smart Card read	None												
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)												
Ports	One USB 3.0, three USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)												
PCIe Mini Card	Two PCI Express Mini Card slots												
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2												
PCIe WWAN	None												
SIM card	None												
Modem	None												
Bluetooth™	Bluetooth 4.0 wireless												
Ethernet	Realtek® RTL8111F Gigabit Network Connection												
Intel AMT	None												
Audio support	HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1.5W 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	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, supports the security chip												
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available												

See footnotes for more detailed information

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ThinkPad L430 2466 (Onsite)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Smart Card Reader	Card slot	Finger print reader	Blue-tooth	Bat- tery cells	Workhorse (W) Global (G) Pre- load (mm/yy)	Ann Date
2466-33G	i5-3360M	4GBx1	14.0" HD	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	Smart	Exp 54	Finger	BT	6	W G P Pro 64	06/12
2466-32G	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	Smart	Exp 54	Finger	BT	6	W G P Pro 64	06/12
2466-3BG	i5-3360M	4GBx1	14.0" HD+	720p	500G 7200	Intel 6205	WWAN upg	None	Exp 54	Finger	BT	9	G P Pro 64	06/12
2466-3CG	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	Intel 6205	WWAN upg	None	Exp 54	Finger	BT	6	G P Pro 64	06/12
2466-3DG	i5-3360M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	None	Exp 54	Finger	BT	6	G P Pro 64	06/12
2466-3EG	i5-3360M	4GBx1	14.0" HD+	720p	320G 7200	Intel 6205	WWAN upg	None	Exp 54	Finger	BT	9	G P Pro 64	06/12
2466-3FG	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	None	Exp 54	Finger	BT	6	G P Pro 64	06/12

• Part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i5-3360M processor (2 cores, 2.80GHz, 3MB cache), Intel HD Graphics 4000, 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 (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications ¹⁴ (only some listed) • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)			
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller													
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable Some: 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	Some: 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 400:1 contrast ratio Some: 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 400:1 contrast ratio													
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus													
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; Maximum external resolution: 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)													
Keyboard	6-row, 84-key, 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, multi-touch													
ThinkLight™	None													
Dimensions ³	14.0W" (WxDxH): 13.94" x 9.57" x 1.17–1.24"; 354mm x 243mm x 29.6–31.4mm													
Weight ²	6-cell: from 5.11 lb (2.32kg); 9-cell: from 5.48 lb (2.49kg)													
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic													
Battery - type	Lithium Ion 6-cell or 9-cell, HW Authentication													
Battery - life ¹⁰	6-cell (57Whr): up to 7.5 hr; 9-cell (94Whr): up to 12.3 hr													
Chipset	Mobile Intel HM76 Express Chipset													
ExpressCard	One slot (ExpressCard/34, ExpressCard/54)													
Smart Card reader	Some: Smart Card reader													
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)													
Ports	One USB 3.0, three USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)													
PCIe Mini Card	Two PCI Express Mini Card slots													
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2													
PCIe WWAN	Wireless WAN upgradable													
SIM card	None													
Modem	None													
Bluetooth™	Bluetooth 4.0 wireless													
Ethernet	Realtek® RTL8111F Gigabit Network Connection													
Intel AMT	None													
Audio support	HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1.5W 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	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, supports the security chip													
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available													

See footnotes for more detailed information

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ThinkPad L430 2466 (Onsite) - Windows 8

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ^a rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	SIM card	Finger print reader	Blue-tooth	Bat-tery cells	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
2466-62G	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	None	Finger	BT	6	G P	Win8 Pro64	10/12
2466-63G	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	None	Finger	BT	6	G P	Win8 Pro64	10/12
2466-64G	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	Intel 6205	WWAN upg	None	Finger	BT	6	G P	Win8 Pro64	10/12

• Part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system ²⁰ - Windows® 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • AccuWeather • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions)
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/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> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 400:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 400:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		
Keyboard	6-row, 84-key, 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, multi-touch		
ThinkLight™	None		
Dimensions ³	14.0W" (WxDxH): 13.94" x 9.57" x 1.17–1.24"; 354mm x 243mm x 29.6–31.4mm		
Weight ²	6-cell: from 5.11 lb (2.32kg); 9-cell: from 5.48 lb (2.49kg)		
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic		
Battery - type	Lithium Ion 6-cell or 9-cell, HW Authentication		
Battery - life ¹⁰	6-cell (57Whr): up to 7.5 hr; 9-cell (94Whr): up to 12.3 hr		
Chipset	Mobile Intel HM76 Express Chipset		
ExpressCard	None		
Smart Card read	None		
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)		
Ports	One USB 3.0, three USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2		
PCIe WWAN	Wireless WAN upgradable		
SIM card	None		
Modem	None		
Bluetooth™	Bluetooth 4.0 wireless		
Ethernet	Realtek® RTL8111F Gigabit Network Connection		
Intel AMT	None		
Audio support	HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1.5W 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	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, supports the security chip		
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available		

| Supports ThinkVantage® technologies | | |
| 65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² | | |

See footnotes for more detailed information

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Lenovo® ThinkPad L530



Lenovo ThinkPad L530



Lenovo ThinkPad L530



Lenovo ThinkPad L530



Lenovo ThinkPad L530



Lenovo Sport Backpack - Blue0B47298

Lenovo Sport Backpack - Red0A33896

Lenovo Sport Backpack - Grey0B47301

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ² rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Card slot	Finger print reader	Blue-tooth cells	Bat-tery Preload	Ann Date (mm/yy)
2481-2RG	i3-2370M	4GBx1	15.6" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	None	Finger	BT	6	Pro 64 06/12
2481-2SG	i5-3210M	4GBx1	15.6" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	None	Finger	BT	6	Pro 64 06/12
2481-2TG	i5-3210M	4GBx1	15.6" HD+	720p	500G 7200	TP 11b/g/n	WWAN upg	None	Finger	BT	6	Pro 64 06/12
2481-2VG	i3-2370M	4GBx1	15.6" HD+	720p	500G 7200	Intel 2200	WWAN upg	None	Finger	BT	6	Pro 64 07/12
2481-2WG	Cel B820	4GBx1	15.6" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	None	Finger	BT	6	Pro 64 07/12
2481-2UG	i5-3210M	4GBx1	15.6" HD+	720p	500G 7200	TP 11b/g/n	16GB mSATA	None	Finger	BT	6	Pro 64 07/12
2481-3AG	i3-2328M	4GBx1	15.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	Express 54	Finger	BT	6	Pro 64 09/12
2481-3NG	i5-3210M	4GBx1	15.6" HD+	720p	500G 7200	TP 11b/g/n	16GB mSATA	Express 54	Finger	BT	6	Pro 64 09/12
2481-3MG	i5-3210M	4GBx1	15.6" HD+	720p	500G 7200	TP 11b/g/n	WWAN upg	Express 54	Finger	BT	6	Pro 64 09/12
2481-3LG	i5-3210M	4GBx1	15.6" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	Express 54	Finger	BT	6	Pro 64 09/12
2481-3KG	i3-2370M	4GBx1	15.6" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	Express 54	Finger	BT	6	Pro 64 09/12

• **Small and medium business (SMB) model(s), part of the WE TopSeller™ Program**

Positioning Processor	Mainstream business performance; two spindles Intel® Celeron® B820 processor (2 cores, 1.70GHz, 2MB cache) , Intel HD Graphics, DDR3 memory controller (up to 1333MHz) Intel Core™ i3-2328M processor (2 cores, 2.20GHz, 3MB cache) , Intel HD Graphics 3000, DDR3 memory controller (up to 1333MHz), HT technology Intel Core i3-2370M processor (2 cores, 2.40GHz, 3MB cache) , Intel HD Graphics 3000, DDR3 memory controller (up to 1333MHz), HT technology Intel Core i5-3210M processor (2 cores, 2.50GHz, 3MB cache) , Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology	Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications ¹⁴ (only some listed) • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller	
Optical	DVD burner, 12.7mm high, fixed, not removable, tray-in	
SATA disk	<i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/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	<i>Some:</i> mSATA Solid State Drive (SSD), via PCIe Mini Card slot	
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	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus	
Graphics	Intel HD Graphics, Intel HD Graphics 3000, or Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)	
Keyboard	6-row, 84-key, 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, multi-touch	
ThinkLight™	None	
Dimensions ³	15.6W" (WxDxH): 14.96" x 9.72" x 1.25–1.31"; 380mm x 247mm x 31.7–33.4mm	
Weight ²	<i>6-cell:</i> from 5.69 lb (2.58kg); <i>9-cell:</i> from 6.05 lb (2.75kg)	
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic	
Battery - type	Lithium Ion 6-cell or 9-cell, HW Authentication	
Battery - life ¹⁰	<i>6-cell (57Whr):</i> up to 7.5 hr; <i>9-cell (94Whr):</i> up to 12.3 hr	
Chipset	Mobile Intel HM76 Express Chipset	
ExpressCard	<i>Some:</i> One slot (ExpressCard/34, ExpressCard/54)	
Smart Card read	None	
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)	
Ports	One USB 3.0, three USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)	
PCIe Mini Card	Two PCI Express Mini Card slots	
PCIe WLAN ⁴	<i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1 <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 <i>Some:</i> Wireless WAN upgradable	
PCIe WWAN	None	
SIM card	None	
Modem	Bluetooth 4.0 wireless	
Bluetooth™	Realtek® RTL8111F Gigabit Network Connection	
Ethernet	None	
Intel AMT	HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1.5W x 2 / volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack	
Audio support	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant	
Security	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, supports the security chip	
Security chip		
Fingerprint reader		
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	Supports ThinkVantage® technologies 65-watt AC adapter EPEAT™ Gold rating (except Celeron models) ENERGY STAR® 5.0-compliant (except Celeron models) GREENGUARD® certified (except Celeron models) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²

See footnotes for more detailed information

ThinkPad L530 2481 (TopSeller) - DOS

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ^a rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Card slot	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Ann Date (mm/yy)
2481-2QG	Pen B970	4GBx1	15.6" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	None	Finger	BT	6	DOS-Lic.	06/12

- Small and medium business (SMB) model(s), part of the WE TopSeller™ Program

Positioning Processor	Mainstream business performance; two spindles Intel® Pentium® B970 processor (2 cores, 2.30GHz, 2MB cache), Intel HD Graphics, DDR3 memory controller (up to 1333MHz)	Preloaded operating system ²⁰ - DOS-Lic.
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller	
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/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" (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	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus	
Graphics	Intel HD Graphics in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)	
Keyboard	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys	Supports ThinkVantage® technologies
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass	
Touch pad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch	
ThinkLight™	None	
Dimensions ³	15.6W" (WxDxH): 14.96" x 9.72" x 1.25–1.31"; 380mm x 247mm x 31.7–33.4mm	
Weight ²	6-cell: from 5.69 lb (2.58kg); 9-cell: from 6.05 lb (2.75kg)	
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic	
Battery - type	Lithium Ion 6-cell or 9-cell, HW Authentication	
Battery - life ¹⁰	6-cell (57Whr): up to 7.5 hr; 9-cell (94Whr): up to 12.3 hr	
Chipset	Mobile Intel HM76 Express Chipset	
ExpressCard	None	
Smart Card read	None	
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)	
Ports	One USB 3.0, three USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)	
PCIe Mini Card	Two PCI Express Mini Card slots	
PCIe WLAN ⁴	11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1	
PCIe WWAN	Wireless WAN upgradable	
SIM card	None	
Modem	None	
Bluetooth™	Bluetooth 4.0 wireless	
Ethernet	Realtek® RTL8111F Gigabit Network Connection	
Intel AMT	None	
Audio support	HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1.5W 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	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, supports the security chip	
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

See footnotes for more detailed information

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ThinkPad L530 2481 (TopSeller) - Windows 8

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Card slot	Finger print reader	Blue-tooth	Battery cells	Preload	Ann Date (mm/yy)
2481-35G	i3-3110M	4GBx1	15.6" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	Express 54	Finger	BT	6	Win8 Pro64	10/12
2481-36G	i5-3210M	4GBx1	15.6" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	Express 54	Finger	BT	6	Win8 Pro64	10/12
2481-37G	i5-3210M	4GBx1	15.6" HD+	720p	500G 7200	TP 11b/g/n	WWAN upg	Express 54	Finger	BT	6	Win8 Pro64	10/12
2481-38G	i3-2328M	4GBx1	15.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	Express 54	Finger	BT	6	Win8 Pro64	10/12
2481-39G	i5-3210M	4GBx1	15.6" HD+	720p	500G 7200	TP 11b/g/n	16GB mSATA	Express 54	Finger	BT	6	Win8 Pro64	10/12
2481-3TG	i3-2328M	4GBx1	15.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	Express 54	Finger	BT	6	Win7 Pro64	10/12
2481-3SG	i3-3110M	4GBx1	15.6" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	Express 54	Finger	BT	6	Win7 Pro64	10/12
2481-3RG	i5-3210M	4GBx1	15.6" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	Express 54	Finger	BT	6	Win7 Pro64	10/12
2481-3QG	i5-3210M	4GBx1	15.6" HD+	720p	500G 7200	TP 11b/g/n	WWAN upg	Express 54	Finger	BT	6	Win7 Pro64	10/12
2481-3PG	i5-3210M	4GBx1	15.6" HD+	720p	500G 7200	TP 11b/g/n	16GB mSATA	Express 54	Finger	BT	6	Win7 Pro64	10/12
2481-48G	i5-2520M	4GBx1	15.6" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	Express 54	Finger	BT	6	Win7 Pro64	01/13
2481-5EG	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	Express 54	None	BT	6	Win7 Pro64	06/13
2481-5DG	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	Express 54	None	BT	6	Win8 Pro64	06/13
2481-5AG	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	Express 54	Finger	BT	6	Win7 Pro64	06/13
2481-59G	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	Express 54	Finger	BT	6	Win8 Pro64	06/13

• Small and medium business (SMB) model(s), part of the WE TopSeller™ Program

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3-2328M processor (2 cores, 2.20GHz, 3MB cache), Intel HD Graphics 3000, DDR3 memory controller (up to 1333MHz), HT technology Intel Core i3-3110M processor (2 cores, 2.40GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), HT technology Intel Core i5-2520M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 3000, DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-3210M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology							Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit Preloaded applications⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • AccuWeather • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions)					
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller												
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™												
mSATA™ SSD	Some: mSATA Solid State Drive (SSD), via PCIe Mini Card slot												
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	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus												
Graphics	Intel HD Graphics 3000 or 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; Maximum external resolution: 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)												
Keyboard	6-row, 84-key, 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, multi-touch												
ThinkLight™	None												
Dimensions ³	15.6W" (WxDxH): 14.96" x 9.72" x 1.25–1.31"; 380mm x 247mm x 31.7–33.4mm												
Weight ²	6-cell: from 5.69 lb (2.58kg); 9-cell: from 6.05 lb (2.75kg)												
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic												
Battery - type	Lithium Ion 6-cell or 9-cell, HW Authentication												
Battery - life ¹⁰	6-cell (57Whr): up to 7.5 hr; 9-cell (94Whr): up to 12.3 hr												
Chipset	Mobile Intel HM76 Express Chipset												
ExpressCard	One slot (ExpressCard/34, ExpressCard/54)												
Smart Card reader	None												
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)												
Ports	One USB 3.0, three USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)												
PCIe Mini Card	Two PCI Express Mini Card slots												
PCIe WLAN ⁴	11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1												
PCIe WWAN	Some: Wireless WAN upgradable												
SIM card	None												
Modem	None												
Bluetooth™	Bluetooth 4.0 wireless												
Ethernet	Realtek® RTL8111F Gigabit Network Connection												
Intel AMT	None												
Audio support	HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1.5W 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	Some: AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, supports the security chip												
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
GREENGUARD® certified
RoHS-compliant
International Warranty Service¹⁷
24 hour x 7 day¹⁸ toll-free support during the warranty period¹²

See footnotes for more detailed information

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ThinkPad L530 2481 (TopSeller) - Windows 8 - II

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Card slot	Finger print reader	Blue-tooth	Battery cells	Preload	Ann Date (mm/yy)
2481-52G	i3-3120M	4GBx1	15.6" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	Express 54	Finger	BT	6	Win7 Pro64	03/13
2481-4ZG	i5-3230M	4GBx1	15.6" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	Express 54	Finger	BT	6	Win7 Pro64	03/13
2481-4YG	i5-3230M	4GBx1	15.6" HD+	720p	500G 7200	TP 11b/g/n	WWAN upg	Express 54	Finger	BT	6	Win7 Pro64	03/13
2481-4XG	i5-3230M	4GBx1	15.6" HD+	720p	500G 7200	TP 11b/g/n	16GB mSATA	Express 54	Finger	BT	6	Win7 Pro64	03/13
2481-4WG	i5-2520M	4GBx1	15.6" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	Express 54	Finger	BT	6	Win8 Pro64	03/13
2481-4VG	i3-3120M	4GBx1	15.6" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	Express 54	Finger	BT	6	Win8 Pro64	03/13
2481-4UG	i5-3230M	4GBx1	15.6" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	Express 54	Finger	BT	6	Win8 Pro64	03/13
2481-4TG	i5-3230M	4GBx1	15.6" HD+	720p	500G 7200	TP 11b/g/n	WWAN upg	Express 54	Finger	BT	6	Win8 Pro64	03/13
2481-4SG	i5-3230M	4GBx1	15.6" HD+	720p	500G 7200	TP 11b/g/n	16GB mSATA	Express 54	Finger	BT	6	Win8 Pro64	03/13
2481-5QG	i3-3120M	4GBx1	15.6" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	Express 54	None	BT	6	Win7 Pro64	06/13
2481-5PG	i3-3120M	4GBx1	15.6" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	Express 54	None	BT	6	Win8 Pro64	06/13
2481-5NG	i5-3230M	4GBx1	15.6" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	Express 54	None	BT	6	Win7 Pro64	06/13
2481-5MG	i5-3230M	4GBx1	15.6" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	Express 54	None	BT	6	Win8 Pro64	06/13
2481-5LG	i5-3230M	4GBx1	15.6" HD+	720p	500G 7200	TP 11b/g/n	WWAN upg	Express 54	None	BT	6	Win7 Pro64	06/13
2481-5KG	i5-3230M	4GBx1	15.6" HD+	720p	500G 7200	TP 11b/g/n	WWAN upg	Express 54	None	BT	6	Win8 Pro64	06/13
2481-5JG	i5-3230M	4GBx1	15.6" HD+	720p	500G 7200	TP 11b/g/n	16GB mSATA	Express 54	None	BT	6	Win7 Pro64	06/13
2481-5HG	i5-3230M	4GBx1	15.6" HD+	720p	500G 7200	TP 11b/g/n	16GB mSATA	Express 54	None	BT	6	Win8 Pro64	06/13
2481-5GG	i5-3230M	4GBx1	15.6" HD+	720p	180G SSD	TP 11b/g/n	WWAN upg	Express 54	None	BT	6	Win7 Pro64	06/13
2481-5FG	i5-3230M	4GBx1	15.6" HD+	720p	180G SSD	TP 11b/g/n	WWAN upg	Express 54	None	BT	6	Win8 Pro64	06/13
2481-5CG	i5-3230M	4GBx1	15.6" HD+	720p	180G SSD	TP 11b/g/n	WWAN upg	Express 54	Finger	BT	6	Win7 Pro64	06/13
2481-5BG	i5-3230M	4GBx1	15.6" HD+	720p	180G SSD	TP 11b/g/n	WWAN upg	Express 54	Finger	BT	6	Win8 Pro64	06/13
Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3-3120M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Hyper-Threading technology Intel Core i5-2520M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 3000 , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-3230M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology									Preloaded operating system ²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit			
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller									Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • AccuWeather • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions)			
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™												
mSATA™ SSD	Some: mSATA Solid State Drive (SSD), via PCIe Mini Card slot												
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	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus												
Graphics	Intel HD Graphics 3000 or 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; Maximum external resolution: 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)												
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch None												
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 14.96" x 9.72" x 1.25–1.31"; 380mm x 247mm x 31.7–33.4mm 6-cell: from 5.69 lb (2.58kg); 9-cell: from 6.05 lb (2.75kg) Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell or 9-cell, HW Authentication 6-cell (57Whr): up to 7.5 hr; 9-cell (94Whr): up to 12.3 hr												
Chipset ExpressCard Smart Card read Multicard Reader Ports	Mobile Intel HM76 Express Chipset One slot (ExpressCard/34, ExpressCard/54) None 4-in-1 reader (MMC, SD, SDHC, SDXC) One USB 3.0, three USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)												
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN SIM card 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 Some: Wireless WAN upgradable None None Bluetooth 4.0 wireless Realtek® RTL8111F Gigabit Network Connection None HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1.5W x 2 / volume up, down, mute buttons / monaural 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 Some: AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, supports the security chip												
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 GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²			

See footnotes for more detailed information

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Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Smart Card Reader	Card slot	Finger print reader	Blue-tooth	Bat-tery cells	Workhorse (W) Global (G)	Pre-load	Ann Date (mm/yy)
2478-25G	i5-3360M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	None	None	Finger	BT	9	G	Pro 64	06/12
2478-26G	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	WWAN upg	None	None	Finger	BT	6	G	Pro 64	06/12
2478-27G	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	WWAN upg	None	None	None	No	6	G	Pro 64	06/12
2478-28G	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 2200	WWAN upg	None	None	Finger	BT	6	G	Pro 64	06/12
2478-29G	i5-3320M	4GBx1	15.6" HD	None	320G 7200	Intel 2200	WWAN upg	None	None	None	BT	6	G	Pro 64	06/12
2478-2AG	i5-3360M	4GBx1	15.6" HD+	720p	320G 7200	Intel 6205	WWAN upg	None	None	Finger	BT	9	G	Pro 64	06/12
2478-2BG	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	None	None	Finger	BT	6	G	Pro 64	06/12
2478-2CG	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	None	None	None	No	6	G	Pro 64	06/12
2478-2XG	i5-3360M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	WWAN upg	Smart	Exp 54	Finger	BT	9	G	Pro 64	06/12
2478-2YG	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	Smart	Exp 54	Finger	BT	6	G	Pro 64	06/12
2478-32G	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	Smart	Exp 54	Finger	BT	6	W G	Pro 64	06/12
2478-33G	i5-3360M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	WWAN upg	Smart	Exp 54	Finger	BT	9	W G	Pro 64	06/12

• A depot repair service 3-year limited warranty

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i5-3360M processor (2 cores, 2.80GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology		Preloaded operating system²⁰ Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo Message Center Plus• ThinkVantage Product Recovery• Access Connections™• Fingerprint Software (fingerprint models)• ThinkVantage System Update• ThinkVantage Power Manager• Microsoft® Office preloaded; purchase a product key to activate• Norton™ Internet Security 2012 (30 days of virus definitions)• Adobe® Reader®• Skype™ for Windows• Windows Live™ Essentials• Corel® WinDVD® (DVD±RW)• Corel Burn.Now™ Lenovo Edition (DVD±RW)• Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/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" (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	<i>Some:</i> HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		
Keyboard	6-row, 84-key, 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, multi-touch		
ThinkLight™	None		
Dimensions ³	<i>15.6W" (WxDxH):</i> 14.96" x 9.72" x 1.25–1.31"; 380mm x 247mm x 31.7–33.4mm		
Weight ²	<i>6-cell:</i> from 5.69 lb (2.58kg); <i>9-cell:</i> from 6.05 lb (2.75kg)		
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic		
Battery - type	Lithium Ion 6-cell or 9-cell, HW Authentication		
Battery - life ¹⁰	<i>6-cell (57Whr):</i> up to 7.5 hr; <i>9-cell (94Whr):</i> up to 12.3 hr		
Chipset	Mobile Intel HM76 Express Chipset		
ExpressCard	<i>Some:</i> One slot (ExpressCard/34, ExpressCard/54)		
Smart Card read	<i>Some:</i> Smart Card reader		
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)		
Ports	One USB 3.0, three USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	<i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2		
PCIe WWAN	Wireless WAN upgradable		
SIM card	None		
Modem	None		
Bluetooth™	<i>Some:</i> Bluetooth 4.0 wireless		
Ethernet	Realtek® RTL8111F Gigabit Network Connection		
Intel AMT	None		
Audio support	HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1.5W 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> AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for more detailed information

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	SIM card	Smart Card Reader	Card slot	Finger print reader	Blue-tooth	Bat-tery cells	Preload (mm/yy)	Ann Date
2478-5GG	i5-2520M	4GBx1	15.6" HD+	720p	128G SSD	Intel 2200	WWAN upg	None	None	Exp 54	Finger	BT	6	Pro 64	10/12
2478-5FG	i5-2520M	4GBx1	15.6" HD+	720p	128G SSD	Intel 2200	Ericsson	selectable	None	Exp 54	Finger	BT	6	Pro 64	10/12
2478-5EG	i5-2520M	4GBx1	15.6" HD+	720p	500G 7200	Intel 2200	Ericsson	selectable	None	Exp 54	Finger	BT	6	Pro 64	10/12
2478-5DG	i5-2520M	4GBx1	15.6" HD+	720p	500G 7200	Intel 2200	WWAN upg	None	Smart	Exp 54	Finger	BT	6	Pro 64	10/12
2478-5CG	i5-2520M	4GBx1	15.6" HD	720p	500G 7200	Intel 2200	WWAN upg	None	None	Exp 54	Finger	BT	6	Pro 64	10/12
2478-5BG	i5-2520M	4GBx1	15.6" HD	720p	320G 7200	Intel 2200	WWAN upg	None	None	Exp 54	Finger	BT	6	Pro 64	10/12
2478-5AG	i5-2520M	4GBx1	15.6" HD	720p	500G 7200	TP 11b/g/n	None	None	None	Exp 54	Finger	BT	6	Pro 64	10/12
2478-59G	i5-2520M	4GBx1	15.6" HD	720p	320G 7200	TP 11b/g/n	None	None	None	Exp 54	Finger	BT	6	Pro 64	10/12
2478-58G	i5-2520M	2GBx1	15.6" HD	720p	320G 7200	TP 11b/g/n	None	None	None	Exp 54	Finger	BT	6	Pro 64	10/12
2478-57G	i5-2520M	2GBx1	15.6" HD	720p	320G 7200	TP 11b/g/n	None	None	None	None	Finger	BT	6	Pro 64	10/12

• A depot repair service 3-year limited warranty

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i5-2520M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 3000 , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology										Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64				
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller										Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager				
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/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 applications ¹⁴ (only some listed) • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)				
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 <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio														
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus														
Graphics	Intel HD Graphics 3000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)														
Keyboard	6-row, 84-key, 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, multi-touch														
ThinkLight™	None														
Dimensions ³	15.6W" (WxDxH): 14.96" x 9.72" x 1.25–1.31"; 380mm x 247mm x 31.7–33.4mm														
Weight ²	<i>6-cell:</i> from 5.69 lb (2.58kg); <i>9-cell:</i> from 6.05 lb (2.75kg)														
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic														
Battery - type	Lithium Ion 6-cell or 9-cell, HW Authentication														
Battery - life ¹⁰	<i>6-cell (57Whr):</i> up to 7.5 hr; <i>9-cell (94Whr):</i> up to 12.3 hr														
Chipset	Mobile Intel HM76 Express Chipset														
ExpressCard	<i>Some:</i> One slot (ExpressCard/34, ExpressCard/54)														
Smart Card read	<i>Some:</i> Smart Card reader														
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)														
Ports	One USB 3.0, three USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)														
PCIe Mini Card	Two PCI Express Mini Card slots														
PCIe WLAN ⁴	<i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1 <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2														
PCIe WWAN	<i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS														
SIM card	<i>Some:</i> User selectable, contract required with service provider														
Modem	None														
Bluetooth™	Bluetooth 4.0 wireless														
Ethernet	Realtek® RTL8111F Gigabit Network Connection														
Intel AMT	None														
Audio support	HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1.5W 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	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available														

See footnotes for more detailed information

ThinkPad L530 2478 (Windows 8)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	SIM card	Finger print reader	Blue-tooth	Bat- tery cells	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
2478-62G	i7-3520M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	None	Finger	BT	6	G	Win8 Pro64	10/12
2478-4NG	i5-3320M	4GBx1	15.6" HD	None	320G 7200	Intel 2200	WWAN upg	None	None	No	6	G	Win8 Pro64	10/12
2478-63G	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	None	Finger	BT	6	G	Win8 Pro64	10/12
2478-64G	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	WWAN upg	None	Finger	BT	6	G	Win8 Pro64	10/12

• A depot repair service 3-year limited warranty

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system ²⁰ - Windows® 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • AccuWeather • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions)
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/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" (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	<i>Some:</i> HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		
Keyboard	6-row, 84-key, 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, multi-touch		
ThinkLight™	None		
Dimensions ³	15.6W" (WxDxH): 14.96" x 9.72" x 1.25–1.31"; 380mm x 247mm x 31.7–33.4mm		
Weight ²	6-cell: from 5.69 lb (2.58kg); 9-cell: from 6.05 lb (2.75kg)		
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic		
Battery - type	Lithium Ion 6-cell or 9-cell, HW Authentication		
Battery - life ¹⁰	6-cell (57Whr): up to 7.5 hr; 9-cell (94Whr): up to 12.3 hr		
Chipset	Mobile Intel HM76 Express Chipset		
ExpressCard	None		
Smart Card read	None		
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)		
Ports	One USB 3.0, three USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	<i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2		
PCIe WWAN	Wireless WAN upgradable		
SIM card	None		
Modem	None		
Bluetooth™	<i>Some:</i> Bluetooth 4.0 wireless		
Ethernet	Realtek® RTL8111F Gigabit Network Connection		
Intel AMT	None		
Audio support	HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1.5W 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> AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

Supports ThinkVantage® technologies
65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²

See footnotes for more detailed information

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ThinkPad L530 2479 (Onsite)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Smart Card Reader	Card slot	Finger print reader	Blue-tooth	Battery cells	Workhorse (W) Global (G)	Pre-load	Ann Date (mm/yy)
2479-32G	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205 ²⁸	WWAN upg	Smart	Exp 54	Finger	BT	6	W G P	Pro 64	06/12
2479-33G	i5-3360M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	WWAN upg	Smart	Exp 54	Finger	BT	9	W G P	Pro 64	06/12
2479-3BG	i5-3360M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205	WWAN upg	None	None	Finger	BT	9	G P	Pro 64	06/12
2479-3CG	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	WWAN upg	None	None	Finger	BT	6	G P	Pro 64	06/12
2479-3DG	i5-3360M	4GBx1	15.6" HD+	720p	320G 7200	Intel 6205	WWAN upg	None	None	Finger	BT	9	G P	Pro 64	06/12
2479-3EG	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	None	None	Finger	BT	6	G P	Pro 64	06/12
2479-44G	i5-3360M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	WWAN upg	Smart	Exp 54	Finger	BT	9		Pro 64	06/12
2479-45G	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	Smart	Exp 54	Finger	BT	6		Pro 64	06/12

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

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i5-3360M processor (2 cores, 2.80GHz, 3MB cache), Intel HD Graphics 4000, 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 (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications ¹⁴ (only some listed) • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)				
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller														
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable Some: 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	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	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus														
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; Maximum external resolution: 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)														
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch None														
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 14.96" x 9.72" x 1.25–1.31"; 380mm x 247mm x 31.7–33.4mm 6-cell: from 5.69 lb (2.58kg); 9-cell: from 6.05 lb (2.75kg) Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell or 9-cell, HW Authentication 6-cell (57Whr): up to 7.5 hr; 9-cell (94Whr): up to 12.3 hr														
Chipset ExpressCard Smart Card read Multicard Reader Ports	Mobile Intel HM76 Express Chipset Some: One slot (ExpressCard/34, ExpressCard/54) Some: Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) One USB 3.0, three USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)														
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN SIM card Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None Bluetooth 4.0 wireless Realtek® RTL8111F Gigabit Network Connection None HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1.5W 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														
Security Security chip Fingerprint reader	Trusted Platform Module, TCG 1.2-compliant AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, supports the security chip														
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available										65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				

See footnotes for more detailed information

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ThinkPad L530 2479 (Onsite) - Windows 8

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	SIM card	Finger print reader	Blue-tooth cells	Bat-tery	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
2479-62G	i7-3520M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	None	Finger	BT	6	G P	Win8 Pro64	10/12
2479-63G	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	None	Finger	BT	6	G P	Win8 Pro64	10/12
2479-64G	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	WWAN upg	None	Finger	BT	6	G P	Win8 Pro64	10/12

• Part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000. DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000. DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology										Preloaded operating system²⁰ - Windows® 8 Pro 64-bit			
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller										Preloaded applications⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • AccuWeather • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions)			
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/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" (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	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus													
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)													
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch None													
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 14.96" x 9.72" x 1.25–1.31"; 380mm x 247mm x 31.7–33.4mm <i>6-cell:</i> from 5.69 lb (2.58kg); <i>9-cell:</i> from 6.05 lb (2.75kg) Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell or 9-cell, HW Authentication <i>6-cell (57Whr):</i> up to 7.5 hr; <i>9-cell (94Whr):</i> up to 12.3 hr													
Chipset ExpressCard Smart Card read Multicard Reader Ports	Mobile Intel HM76 Express Chipset None None 4-in-1 reader (MMC, SD, SDHC, SDXC) One USB 3.0, three USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)													
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN SIM card Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None Bluetooth 4.0 wireless Realtek® RTL8111F Gigabit Network Connection None HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1.5W x 2 / volume up, down, mute buttons / monaural 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 AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, supports the security chip													
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available										65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²			

See footnotes for more detailed information

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Lenovo® ThinkPad T430



Lenovo ThinkPad T430



Lenovo ThinkPad T430



Lenovo ThinkPad T430



Lenovo ThinkPad T430



Lenovo ThinkPad T430 with
ThinkPad Port Replicator Series 3 with USB 3.0
433615W

ThinkPad T430 2344 (TopSeller)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Bat-tery cells	Intel AMT	Intel vPro	Preload (mm/yy)	Ann Date
2344-4TG	i5-3210M	4GBx1	14.0" HD	720p	500G 7200	Backlit	Intel 6205 ²⁸	WWAN upg	Finger	BT	6	None	None	Pro 64	06/12

- **Small and medium business (SMB) model(s), part of the WE TopSeller™ Program**
- **A depot repair service 3-year limited warranty**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-3210M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology										Preloaded operating system²⁰ Genuine Windows® 7 Professional 64				
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller										Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager				
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 6.0Gb/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										Preloaded applications¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • RapidBoot HDD Accelerator • Symantec™ VIP • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)				
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, wide view angle, low light sensitive, face tracking, fixed focus														
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)														
Keyboard TrackPoint®	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight														
Touchpad UltraNav™	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
ThinkLight™	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	14.0W" (WxDxH): 13.4" x 9.13" x 1.17–1.18"; 340.5mm x 232.0mm x 29.8–29.9mm														
Weight ²	6-cell: from 4.77 lb (2.17kg); 9-cell: from 5.13 lb (2.33kg)														
Case material	<i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Carbon-Fiber Reinforced Plastic														
Battery - type	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication														
Battery - life ¹⁰	6-cell (57Whr): up to 9.7 hr; 9-cell (94Whr): up to 16.2 hr; 9-cell plus 9-cell Slice battery (94Whr): up to 32.5 hr														
Chipset	Mobile Intel QM77 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, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)														
PCIe Mini Card	Two PCI Express Mini Card slots														
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2														
PCIe WWAN	Wireless WAN upgradable														
SIM card	None														
Modem	None														
IEEE 1394	None														
Bluetooth™	Bluetooth 4.0 wireless														
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1														
Intel AMT	None														
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W 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	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades²² available														

See footnotes for more detailed information

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ThinkPad T430 2344 (TopSeller) - Windows 8

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Smart Card Reader	Finger-print reader	Bat-tery cells	Intel AMT	Intel vPro	Preload	Ann Date (mm/yy)
2344-BTG	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205 ²⁸	WWAN upg	Smart	Finger	6	iAMT	vPro	Win7 Pro64	10/12
2344-BSG	i5-3210M	4GBx2	14.0" HD	720p	500G 7200	None	Intel 2200	WWAN upg	Smart	Finger	6	None	No	Win7 Pro64	10/12
2344-BJG	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	None	Finger	6	iAMT	vPro	Win7 Pro64	10/12

- **Small and medium business (SMB) model(s), part of the WE TopSeller™ Program**
- **A depot repair service 3-year limited warranty**

Positioning Processor	Premiere performance; two spindles Intel® Core™ i5-3210M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system ²⁰ - Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • AccuWeather • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions)
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
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 6.0Gb/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	<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, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material	14.0W" (WxDxH): 13.4" x 9.13" x 1.17–1.18"; 340.5mm x 232.0mm x 29.8–29.9mm <i>6-cell:</i> from 4.77 lb (2.17kg); <i>9-cell:</i> from 5.13 lb (2.33kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Carbon-Fiber Reinforced Plastic		
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 9.7 hr; <i>9-cell (94Whr):</i> up to 16.2 hr; <i>9-cell plus 9-cell Slice battery (94Whr):</i> up to 32.5 hr		
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) <i>Some:</i> Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)		
PCIe Mini Card PCIe WLAN ⁴	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2		
PCIe WWAN SIM card Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Wireless WAN upgradable None None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>Some:</i> Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W 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 Trusted Platform Module, TCG 1.2-compliant		
Security Security chip Fingerprint reader	AuthenTec 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 GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²			

See footnotes for more detailed information

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ThinkPad T430 2344 (Optimus) - TopSeller

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ^a rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	SIM card	Finger print reader	Battery cells	Intel vPro	Preload	Ann Date (mm/yy)
2344-4SG	i5-3210M	4GBx1	14.0" HD+	720p	500G 7200	Backlit	Intel 2200	Ericsson	Lenovo	Finger	6	None	Pro 64	06/12

- Small and medium business (SMB) model(s), part of the WE TopSeller™ Program
- A depot repair service 3-year limited warranty

Positioning Processor	Premiere performance; two spindles Intel® Core™ i5-3210M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology			Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo® Solution Center• Lenovo Message Center Plus• ThinkVantage Product Recovery• Access Connections™• Fingerprint Software (fingerprint models)• ThinkVantage System Update• ThinkVantage Power Manager• Lenovo Cloud Storage by SugarSync• Lenovo SimpleTap• Microsoft® Office preloaded; purchase a product key to activate• Norton™ Internet Security 2012 (30 days of virus definitions)• Adobe® Reader®• Skype™ for Windows• Evernote®• Intel Small Business Advantage• RapidBoot HDD Accelerator• Symantec™ VIP• Windows Live™ Essentials• Corel® WinDVD® (DVD±RW)• Corel Burn.Now™ Lenovo Edition (DVD±RW)• Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller			
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 6.0Gb/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	<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, wide view angle, low light sensitive, face tracking, fixed focus			
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA NVS™ 5400M , PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)			
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions			
Dimensions ³ Weight ² Case material	14.0W" (WxDxH): 13.4" x 9.13" x 1.17–1.18"; 340.5mm x 232.0mm x 29.8–29.9mm <i>6-cell:</i> from 4.77 lb (2.17kg); <i>9-cell:</i> from 5.13 lb (2.33kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Carbon-Fiber Reinforced Plastic			
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 9.4 hr; <i>9-cell (94Whr):</i> up to 15.8 hr; <i>9-cell plus 9-cell Slice battery (94Whr):</i> up to 31.6 hr			
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)			
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN	Two PCI Express Mini Card slots 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS			
SIM card Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Lenovo SIM, out-of-box service, pay-as-you-go via credit card, no contract required None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 None HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W 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 AuthenTec 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

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ThinkPad T430 2344 (Optimus) - TopSeller (Windows 8)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Disk SATA GB ³ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Smart Card Reader	Finger print reader	Battery cells	Intel AMT	Intel vPro	Preload	Ann Date (mm/yy)
2344-BUG	i7-3520M	4GBx2	14.0" HD+	500G 7200	None	Intel 6205 ²⁸	WWAN upg	Smart	Finger	9	iAMT	vPro	Win7 Pro64	10/12
2344-BRG	i5-3210M	4GBx1	14.0" HD+	500G 7200	None	Intel 2200	WWAN upg	Smart	Finger	6	None	No	Win7 Pro64	10/12

- **Small and medium business (SMB) model(s), part of the WE TopSeller™ Program**
- **A depot repair service 3-year limited warranty**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-3210M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system ²⁰ - Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • AccuWeather • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions)
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
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 6.0Gb/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	<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, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA NVS™ 5400M , PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material	14.0W" (WxDxH): 13.4" x 9.13" x 1.17–1.18"; 340.5mm x 232.0mm x 29.8–29.9mm 6-cell: from 4.77 lb (2.17kg); 9-cell: from 5.13 lb (2.33kg) Display cover: Carbon-fiber / Glass-fiber hybrid; Bottom: Carbon-Fiber Reinforced Plastic		
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication 6-cell (57Whr): up to 9.4 hr; 9-cell (94Whr): up to 15.8 hr; 9-cell plus 9-cell Slice battery (94Whr): up to 31.6 hr		
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)		
PCIe Mini Card PCIe WLAN ⁴	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2		
PCIe WWAN SIM card Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Wireless WAN upgradable None None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>Some:</i> Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W 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 AuthenTec 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

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Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ^a rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Battery cells	Intel AMT	Intel vPro	Global (G) GMP (P) Preload	Ann Date (mm/yy)
2347-GAG	i5-3320M	4GBx1	14.0" HD+	720p	180G SSD	None	Intel 6205 ²⁸	WWAN upg	Finger	6	iAMT	vPro	G Pro 64	06/12
2347-G8G	i5-3320M	4GBx1	14.0" HD+	720p	128G SSD	None	Intel 6205	WWAN upg	Finger	6	iAMT	vPro	G Pro 64	06/12
2347-GBG	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	6	iAMT	vPro	G Pro 64	06/12
2347-G5G	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	6	iAMT	vPro	G Pro 64	06/12
2347-G3G	i7-3520M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	6	iAMT	vPro	G Pro 64	06/12
2347-G2G	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	None	Intel 6205	WWAN upg	Finger	6	iAMT	vPro	G Pro 64	06/12
2347-KUG	i5-2520M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	6	None	None	Pro 64	10/12
2347-KZG	i5-2520M	4GBx1	14.0" HD	720p	320G 7200	None	Intel 6205	WWAN upg	Finger	6	None	None	Pro 64	10/12

• A depot repair service 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-2520M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 3000 , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology									Preloaded operating system²⁰ Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller									Preloaded applications¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • RapidBoot HDD Accelerator • Symantec™ VIP • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
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 6.0Gb/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	<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, wide view angle, low light sensitive, face tracking, fixed focus									
Graphics	Intel HD Graphics 3000 or 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)									
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions									
Dimensions ³ Weight ² Case material	14.0W" (WxDxH): 13.4" x 9.13" x 1.17–1.18"; 340.5mm x 232.0mm x 29.8–29.9mm 6-cell: from 4.77 lb (2.17kg); 9-cell: from 5.13 lb (2.33kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Carbon-Fiber Reinforced Plastic									
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication 6-cell (57Whr): up to 9.7 hr; 9-cell (94Whr): up to 16.2 hr; 9-cell plus 9-cell Slice battery (94Whr): up to 32.5 hr									
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)									
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN SIM card Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>Some:</i> Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W 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 Trusted Platform Module, TCG 1.2-compliant									
Security Security chip Fingerprint reader	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip									Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available									

See footnotes for more detailed information

ThinkPad T430 2347 (Windows 8)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Finger print reader	Blue-tooth cells	Bat-tery	Global (G) Intel vPro	GMP (P)	Preload	Ann Date (mm/yy)
2347-J9G	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205 ²⁸	WWAN upg	Finger	BT	6	vPro	G	Win8 Pro64	10/12
2347-J8G	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	None	Intel 6205	WWAN upg	Finger	BT	6	vPro	G	Win8 Pro64	10/12

• A depot repair service 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology	Preloaded operating system²⁰ - Windows® 8 Pro 64-bit Preloaded applications⁵ (only some listed) - Windows 7 models <ul style="list-style-type: none"> • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models <ul style="list-style-type: none"> • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • AccuWeather • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models <ul style="list-style-type: none"> • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions)
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller	
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 6.0Gb/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	<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, wide view angle, low light sensitive, face tracking, fixed focus	
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)	
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material	<i>14.0W" (WxDxH):</i> 13.4" x 9.13" x 1.17–1.18"; 340.5mm x 232.0mm x 29.8–29.9mm <i>6-cell:</i> from 4.77 lb (2.17kg); <i>9-cell:</i> from 5.13 lb (2.33kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 9.7 hr; <i>9-cell (94Whr):</i> up to 16.2 hr; <i>9-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> up to 32.5 hr	
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)	Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN SIM card Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W 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 AuthenTec 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

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ThinkPad T430 2347 (Optimus)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Disk SATA GB ⁵ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	SIM card	Smart Card Reader	Finger-print reader	Bat-tery cells	Intel AMT	Global (G) Intel GMP vPro (P) Preload (mm/yy)	Ann Date
2347-G9G	i7-3520M	4GBx1	14.0" HD+	180G SSD	None	Intel 6205 ²⁸	upg	None	None	Finger	9	iAMT	vPro G	Pro 64 06/12
2347-G7G	i7-3520M	4GBx1	14.0" HD+	500G 7200	None	Intel 6205	upg	None	None	Finger	9	iAMT	vPro G	Pro 64 06/12
2347-G6G	i5-3320M	4GBx1	14.0" HD+	500G 7200	None	Intel 6205	upg	None	None	Finger	9	iAMT	vPro G	Pro 64 06/12
2347-G4G	i5-3320M	4GBx1	14.0" HD+	320G 7200	None	Intel 6205	upg	None	None	Finger	9	iAMT	vPro G	Pro 64 06/12
2347-KXG	i5-2520M	4GBx1	14.0" HD+	180G SSD	Backlit	Intel 6300 ²⁸	Ericsson selectable	Smart	Finger	9	None	No	Pro 64	10/12
2347-KWG	i5-2520M	4GBx1	14.0" HD+	128G SSD	None	Intel 6205	upg	None	None	Finger	9	None	No	Pro 64 10/12
2347-KVG	i5-2520M	4GBx1	14.0" HD+	500G 7200	Backlit	Intel 6205	Ericsson selectable	Smart	Finger	9	None	No	Pro 64	10/12

• A depot repair service 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-2520M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 3000 , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications ¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • RapidBoot HDD Accelerator • Symantec™ VIP • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
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 6.0Gb/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	<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, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 or 4000 in processor, and NVIDIA NVS™ 5400M , PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material	<i>14.0W" (WxDxH):</i> 13.4" x 9.13" x 1.17–1.18"; 340.5mm x 232.0mm x 29.8–29.9mm <i>6-cell:</i> from 4.77 lb (2.17kg); <i>9-cell:</i> from 5.13 lb (2.33kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Carbon-Fiber Reinforced Plastic		
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 9.4 hr; <i>9-cell (94Whr):</i> up to 15.8 hr; <i>9-cell plus 9-cell Slice battery (94Whr):</i> up to 31.6 hr		
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) <i>Some:</i> Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)		
PCIe Mini Card PCIe 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		
PCIe WWAN	<i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS		
SIM card Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> User selectable, contract required with service provider None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>Some:</i> Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W 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 AuthenTec 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 GREENGUARD® certified RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² |

See footnotes for more detailed information

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	Backlit key-board	PCle Mini Card WLAN	PCle Mini Card WWAN/mSATA	Smart Card Reader	Finger print reader	Bat-tery cells	Intel AMT	Intel vPro	Global (G) GMP (P)	Pre-load	Ann Date (mm/yy)
2349-HFG	i5-3320M	4GBx1	14.0" HD+	720p	320G 7200	None	Intel 6205 ²⁸	upg	None	Smart	Fing	6	iAMT vPro	G P	Pro 64	06/12
2349-H3G	i5-3210M	4GBx1	14.0" HD+	720p	180G SSD	Backlit	Intel 6205	Ericsson	Lenovo	None	Fing	6	None No		Pro 64	06/12
2349-GZG	i5-3320M	4GBx1	14.0" HD+	720p	320G 7200	None	Intel 6205	Ericsson	selectable	Smart	Fing	6	iAMT vPro	G P	Pro 64	06/12
2349-GAG	i5-3320M	4GBx1	14.0" HD+	720p	180G SSD	None	Intel 6205	upg	None	None	Fing	6	iAMT vPro	G P	Pro 64	06/12
2349-GDG	i5-3320M	4GBx1	14.0" HD	720p	128G SSD	None	Intel 6205	upg	None	None	Fing	6	iAMT vPro	G P	Pro 64	06/12
2349-G8G	i5-3320M	4GBx1	14.0" HD+	720p	128G SSD	None	Intel 6205	upg	None	None	Fing	6	iAMT vPro	G P	Pro 64	06/12
2349-G5G	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	upg	None	None	Fing	6	iAMT vPro	G P	Pro 64	06/12
2349-GCG	i5-3320M	4GBx1	14.0" HD+	720p	320G 7200	None	Intel 6205	upg	None	None	Fing	6	iAMT vPro	G P	Pro 64	06/12
2349-G3G	i7-3520M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 6205	upg	None	None	Fing	6	iAMT vPro	G P	Pro 64	06/12
2349-G2G	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	None	Intel 6205	upg	None	None	Fing	6	iAMT vPro	G P	Pro 64	06/12
2349-HNG	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	None	Intel 6205	upg	None	None	No	6	iAMT vPro	G P	Pro 64	07/12
2349-LLG	i5-2520M	4GBx1	14.0" HD	720p	320G 7200	None	Intel 6205	upg	None	None	Fing	6	None No		Pro 64	10/12
2349-LQG	i5-2520M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 6205	upg	None	None	Fing	6	None No		Pro 64	10/12
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-2520M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 3000, DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-3210M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology										Preloaded operating system²⁰ Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • RapidBoot HDD Accelerator • Symantec™ VIP • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)					
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller															
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 6.0Gb/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	<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, wide view angle, low light sensitive, face tracking, fixed focus															
Graphics	Intel HD Graphics 3000 or 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)															
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³ Weight ²	14.0W" (WxDxH): 13.4" x 9.13" x 1.17–1.18"; 340.5mm x 232.0mm x 29.8–29.9mm 6-cell: from 4.77 lb (2.17kg); 9-cell: from 5.13 lb (2.33kg)															
Case material	Display cover: Carbon-fiber / Glass-fiber hybrid; Bottom: Carbon-Fiber Reinforced Plastic															
Battery - type	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication															
Battery - life ¹⁰	6-cell (57Whr): up to 9.7 hr; 9-cell (94Whr): up to 16.2 hr; 9-cell plus 9-cell Slice battery (94Whr): up to 32.5 hr															
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) <i>Some:</i> Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)															
PCle Mini Card PCle WLAN ⁴ PCle WWAN	Two PCI Express Mini Card slots 11a/b/g/n, PCle Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCle Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS															
SIM card	<i>Some:</i> Lenovo SIM, out-of-box service, pay-as-you-go via credit card, no contract required <i>Some:</i> User selectable, contract required with service provider															
Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCle x1 <i>Some:</i> Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W 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> AuthenTec 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 public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available										Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²					

ThinkPad T430 2349 (Onsite) - Windows 8

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Disk SATA GB ³ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	SIM card	Finger print reader	Battery cells	Intel AMT	Intel vPro	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
2349-KDG	i5-3210M	4GBx1	14.0" HD	500G 7200	Backlit	Intel 6205 ²⁸	WWAN upg	None	Finger	6	None	No	Win7 Pro64		10/12
2349-KCG	i5-3210M	4GBx1	14.0" HD+	180G SSD	Backlit	Intel 6205	Ericsson	Lenovo	Finger	6	None	No	Win7 Pro64		10/12
2349-JQG	i7-3520M	4GBx1	14.0" HD	500G 7200	None	Intel 6205	WWAN upg	None	Finger	6	iAMT	vPro	G P	Win8 Pro64	10/12
2349-JPG	i5-3320M	4GBx1	14.0" HD+	180G SSD	None	Intel 6205	WWAN upg	None	Finger	6	iAMT	vPro	G P	Win8 Pro64	10/12
2349-JNG	i5-3320M	4GBx1	14.0" HD+	500G 7200	None	Intel 6205	WWAN upg	None	Finger	6	iAMT	vPro	G P	Win8 Pro64	10/12
2349-JMG	i5-3320M	4GBx1	14.0" HD	320G 7200	None	Intel 6205	WWAN upg	None	Finger	6	iAMT	vPro	G P	Win8 Pro64	10/12
2349-JJG	i5-3210M	4GBx1	14.0" HD	500G 7200	Backlit	Intel 6205	WWAN upg	None	Finger	6	None	No	Win8 Pro64		10/12
2349-JHG	i5-3210M	4GBx1	14.0" HD+	180G SSD	Backlit	Intel 6205	Ericsson	Lenovo	Finger	6	None	No	Win8 Pro64		10/12

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-3210M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology										Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit Preloaded applications⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • AccuWeather • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions)				
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller														
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 6.0Gb/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, 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	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus														
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; Maximum external resolution: 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)														
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ² Case material	14.0W" (WxDxH): 13.4" x 9.13" x 1.17–1.18"; 340.5mm x 232.0mm x 29.8–29.9mm 6-cell: from 4.77 lb (2.17kg); 9-cell: from 5.13 lb (2.33kg) Display cover: Carbon-fiber / Glass-fiber hybrid; Bottom: Carbon-Fiber Reinforced Plastic														
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication 6-cell (57Whr): up to 9.7 hr; 9-cell (94Whr): up to 16.2 hr; 9-cell plus 9-cell Slice battery (94Whr, 0A36304): up to 32.5 hr														
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)														
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Some: Wireless WAN upgradable Some: Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS														
SIM card Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Some: Lenovo SIM, out-of-box service, pay-as-you-go via credit card, no contract required None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Some: Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W 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 AuthenTec 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 public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available										Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				

See footnotes for more detailed information

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ThinkPad T430 2349 (Onsite) - Windows 8 - II

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Disk SATA GB ⁹ rpm	Backlit key-board	PCle Mini Card WLAN	PCle Mini Card WWAN/ mSATA	SIM card	Smart Card Reader	Finger print reader	Bat-tery cells	Intel AMT	Intel vPro	Preload	Ann Date (mm/yy)
2349-PHG	i5-3320M	4GBx1	14.0" HD	500G 7200	Backlit	Intel 6205 ²⁸	upg	None	Smart	Finger	6	iAMT	vPro	Win7 Pro64	03/13
2349-PGG	i5-3320M	4GBx1	14.0" HD	500G 7200	Backlit	Intel 6205	upg	None	Smart	Finger	6	iAMT	vPro	Win8 Pro64	03/13
2349-N8G	i5-3230M	4GBx1	14.0" HD	500G 7200	Backlit	Intel 6205	upg	None	None	Finger	6	None	No	Win8 Pro64	03/13
2349-N7G	i5-3230M	4GBx1	14.0" HD	500G 7200	Backlit	Intel 6205	upg	None	None	Finger	6	None	No	Win7 Pro64	03/13
2349-N6G	i5-3230M	4GBx1	14.0" HD+	180G SSD	Backlit	Intel 6205	Ericsson selectable	None	Finger	6	None	No	Win8 Pro64	03/13	
2349-N5G	i5-3230M	4GBx1	14.0" HD+	180G SSD	Backlit	Intel 6205	Ericsson selectable	None	Finger	6	None	No	Win7 Pro64	03/13	
2349-Q4G	i5-3320M	4GBx1	14.0" HD	500G 7200	Backlit	Intel 6205	upg	None	Smart	None	6	iAMT	vPro	Win8 Pro64	06/13
2349-Q3G	i5-3320M	4GBx1	14.0" HD	500G 7200	Backlit	Intel 6205	upg	None	Smart	None	6	iAMT	vPro	Win7 Pro64	06/13
2349-Q2G	i5-3230M	4GBx1	14.0" HD	500G 7200	Backlit	Intel 6205	upg	None	None	None	6	None	No	Win8 Pro64	06/13
2349-PZG	i5-3230M	4GBx1	14.0" HD	500G 7200	Backlit	Intel 6205	upg	None	None	None	6	None	No	Win7 Pro64	06/13
2349-PYG	i5-3230M	4GBx1	14.0" HD+	180G SSD	Backlit	Intel 6205	Ericsson selectable	None	None	None	6	None	No	Win8 Pro64	06/13
2349-PXG	i5-3230M	4GBx1	14.0" HD+	180G SSD	Backlit	Intel 6205	Ericsson selectable	None	None	None	6	None	No	Win7 Pro64	06/13
2349-Q6G	i5-3230M	4GBx1	14.0" HD+	256G SSD OPAL	Backlit	Intel 6205	Ericsson selectable	None	None	None	6	None	No	Win8 Pro64	06/13
2349-Q5G	i5-3230M	4GBx1	14.0" HD+	256G SSD OPAL	Backlit	Intel 6205	Ericsson selectable	None	None	None	6	None	No	Win7 Pro64	06/13
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-3230M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000. DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000. DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology										Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit				
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller										Preloaded applications⁵ (only some listed)				
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 6.0Gb/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										- Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)				
mSATA™ SSD	None										- Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • AccuWeather • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW)				
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										- All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions)				
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus										Supports ThinkVantage® technologies				
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)										65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant				
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions										International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				
Dimensions ³ Weight ² Case material	14.0W" (WxDxH): 13.4" x 9.13" x 1.17–1.18"; 340.5mm x 232.0mm x 29.8–29.9mm 6-cell: from 4.77 lb (2.17kg); 9-cell: from 5.13 lb (2.33kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Carbon-Fiber Reinforced Plastic														
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication 6-cell (57Whr): up to 9.7 hr; 9-cell (94Whr): up to 16.2 hr; 9-cell plus 9-cell Slice battery (94Whr, 0A36304): up to 32.5 hr														
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) <i>Some:</i> Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)														
PCle Mini Card PCle WLAN ⁴ PCle WWAN	Two PCI Express Mini Card slots 11a/b/g/n, PCle Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCle Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS														
SIM card Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> User selectable, contract required with service provider None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCle x1 <i>Some:</i> Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W 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> AuthenTec 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 public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available														

See footnotes for more detailed information

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ThinkPad T430 2349 (Optimus) - Onsite

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Disk SATA GB ⁵ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	SIM card	Smart Card Reader	Battery cells	Intel AMT	Intel vPro	Global (G) GMP (P)	Ann Date (mm/yy)
2349-H2G	i7-3520M	4GBx1	14.0" HD+	500G 7200	Backlit	Intel 6205 ²⁸	Ericsson	selectable	None	9	iAMT	vPro	Pro 64	06/12
2349-G9G	i7-3520M	4GBx1	14.0" HD+	180G SSD	None	Intel 6205	WWAN upg	None	None	9	iAMT	vPro	G P	06/12
2349-G7G	i7-3520M	4GBx1	14.0" HD+	500G 7200	None	Intel 6205	WWAN upg	None	None	9	iAMT	vPro	G P	06/12
2349-G6G	i5-3320M	4GBx1	14.0" HD+	500G 7200	None	Intel 6205	WWAN upg	None	None	9	iAMT	vPro	G P	06/12
2349-G4G	i5-3320M	4GBx1	14.0" HD+	320G 7200	None	Intel 6205	WWAN upg	None	None	9	iAMT	vPro	G P	06/12
2349-KMG	i7-3520M	4GBx2	14.0" HD+	500G 7200	None	Intel 6300 ²⁸	WWAN upg	None	Smart	6	iAMT	vPro	Pro 64	10/12
2349-LPG	i5-2520M	4GBx1	14.0" HD+	180G SSD	Backlit	Intel 6300	Ericsson	selectable	Smart	9	None	No	Pro 64	10/12
2349-LNG	i5-2520M	4GBx1	14.0" HD+	128G SSD	None	Intel 6205	WWAN upg	None	None	9	None	No	Pro 64	10/12
2349-LMG	i5-2520M	4GBx1	14.0" HD+	500G 7200	Backlit	Intel 6205	Ericsson	selectable	Smart	9	None	No	Pro 64	10/12

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-2520M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 3000, DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology										Preloaded operating system²⁰ Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager			
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller										Preloaded applications¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • RapidBoot HDD Accelerator • Symantec™ VIP • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)			
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 6.0Gb/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	<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, wide view angle, low light sensitive, face tracking, fixed focus													
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 or 4000 in processor, and NVIDIA NVS™ 5400M , PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)													
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case material	<i>14.0W" (WxDxH):</i> 13.4" x 9.13" x 1.17–1.18"; 340.5mm x 232.0mm x 29.8–29.9mm <i>6-cell:</i> from 4.77 lb (2.17kg); <i>9-cell:</i> from 5.13 lb (2.33kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Carbon-Fiber Reinforced Plastic													
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 9.4 hr; <i>9-cell (94Whr):</i> up to 15.8 hr; <i>9-cell plus 9-cell Slice battery (94Whr):</i> up to 31.6 hr													
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) <i>Some:</i> Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)													
PCIe Mini Card PCIe 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													
PCIe WWAN	<i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS													
SIM card Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> User selectable, contract required with service provider None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>Some:</i> Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W 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 AuthenTec 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 public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available										Supports ThinkVantage® technologies 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²			

See footnotes for more detailed information

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ThinkPad T430 2349 (Optimus) - Onsite (Windows 8)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Discrete graphics memory	Disk SATA GB ⁵ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Smart Card Reader	Finger-print reader	Bat-tery cells	Intel AMT	Intel vPro	Preload	Ann Date (mm/yy)	
2349-KBG	i5-3210M	4GBx1	14.0" HD+	1GB	500G 7200	Backlit	Intel 6205 ²⁸	Ericsson	Lenovo	Smart	Finger	6	None	No	Win7 Pro64	10/12
2349-KAG	i7-3520M	4GBx1	14.0" HD+	1GB	500G 7200	Backlit	Intel 6205	Ericsson	selectable	None	Finger	9	iAMT	vPro	Win7 Pro64	10/12
2349-JGG	i5-3210M	4GBx1	14.0" HD+	1GB	500G 7200	Backlit	Intel 6205	Ericsson	Lenovo	Smart	Finger	6	None	No	Win8 Pro64	10/12
2349-JFG	i7-3520M	4GBx1	14.0" HD+	1GB	500G 7200	Backlit	Intel 6205	Ericsson	selectable	None	Finger	9	iAMT	vPro	Win8 Pro64	10/12
2349-N4G	i5-3230M	4GBx1	14.0" HD+	2GB	500G 7200	Backlit	Intel 6205	Ericsson	selectable	Smart	Finger	6	None	No	Win8 Pro64	03/13
2349-N3G	i5-3230M	4GBx1	14.0" HD+	2GB	500G 7200	Backlit	Intel 6205	Ericsson	selectable	Smart	Finger	6	None	No	Win7 Pro64	03/13
2349-PWG	i5-3230M	4GBx1	14.0" HD+	2GB	500G 7200	Backlit	Intel 6205	Ericsson	selectable	Smart	None	6	None	No	Win8 Pro64	06/13
2349-PVG	i5-3230M	4GBx1	14.0" HD+	2GB	500G 7200	Backlit	Intel 6205	Ericsson	selectable	Smart	None	6	None	No	Win7 Pro64	06/13

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-3210M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology Intel Core i5-3230M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology										Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit					
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller										Preloaded applications⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • AccuWeather • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions)					
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 6.0Gb/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	<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, wide view angle, low light sensitive, face tracking, fixed focus															
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA NVS™ 5400M , PCI Express® x16, 1GB or 2GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)															
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³ Weight ² Case material	14.0W" (WxDxH): 13.4" x 9.13" x 1.17–1.18"; 340.5mm x 232.0mm x 29.8–29.9mm 6-cell: from 4.77 lb (2.17kg); 9-cell: from 5.13 lb (2.33kg) Display cover: Carbon-fiber / Glass-fiber hybrid; Bottom: Carbon-Fiber Reinforced Plastic															
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication 6-cell (57Whr): up to 9.4 hr; 9-cell (94Whr): up to 15.8 hr; 9-cell plus 9-cell Slice battery (94Whr): up to 31.6 hr															
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) <i>Some:</i> Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)															
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS <i>Some:</i> Lenovo SIM, out-of-box service, pay-as-you-go via credit card, no contract required <i>Some:</i> User selectable, contract required with service provider															
SIM card	None															
Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>Some:</i> Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W 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> AuthenTec 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 public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available										Supports ThinkVantage® technologies 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²					

See footnotes for more detailed information

ThinkPad T430i 2344 (TopSeller)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Bat-tery cells	Intel vPro	Preload	Ann Date (mm/yy)
2344-4UG	i3-2370M	4GBx1	14.0" HD	720p	320G 7200	Backlit	Intel 2200	WWAN upg	Finger	BT	6	None	Pro 64	06/12

- **Small and medium business (SMB) model(s), part of the WE TopSeller™ Program**
- **A depot repair service 3-year limited warranty**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i3-2370M processor (2 cores, 2.40GHz, 3MB cache), Intel HD Graphics 3000, DDR3 memory controller (up to 1333MHz), HT technology									Preloaded operating system²⁰ Genuine Windows® 7 Professional 64				
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller									Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager				
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 6.0Gb/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									Preloaded applications¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • RapidBoot HDD Accelerator • Symantec™ VIP • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)				
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, wide view angle, low light sensitive, face tracking, fixed focus													
Graphics	Intel HD Graphics 3000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)													
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case material	<i>14.0W" (WxDxH):</i> 13.4" x 9.13" x 1.17–1.18"; 340.5mm x 232.0mm x 29.8–29.9mm <i>6-cell:</i> from 4.77 lb (2.17kg); <i>9-cell:</i> from 5.13 lb (2.33kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Carbon-Fiber Reinforced Plastic													
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 9.7 hr; <i>9-cell (94Whr):</i> up to 16.2 hr; <i>9-cell plus 9-cell Slice battery (94Whr):</i> up to 32.5 hr													
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)													
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN SIM card Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 Wireless WAN upgradable None None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 None HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W 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 Trusted Platform Module, TCG 1.2-compliant AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip													
Security Security chip Fingerprint reader														
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available									Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				

See footnotes for more detailed information

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ThinkPad T430i 2344 (TopSeller) - Windows 8

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ² rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Finger print reader	Battery cells	Intel vPro	Preload	Ann Date (mm/yy)
2344-BDG	i3-3110M	4GBx1	14.0" HD	720p	500G 7200	Backlit	Intel 2200	WWAN upg	Finger	6	None	Win7 Pro64	10/12
2344-72G	i3-3110M	4GBx1	14.0" HD	720p	500G 7200	Backlit	Intel 2200	WWAN upg	Finger	6	None	Win8 Pro64	10/12
2344-FHG	i3-3120M	4GBx1	14.0" HD+	720p	180G SSD	Backlit	Intel 6205 ²⁸	WWAN upg	Finger	6	None	Win8 Pro64	03/13
2344-FGG	i3-3120M	4GBx1	14.0" HD+	720p	180G SSD	Backlit	Intel 6205	WWAN upg	Finger	6	None	Win7 Pro64	03/13
2344-FFG	i3-3120M	4GBx1	14.0" HD	720p	500G 7200	Backlit	Intel 2200	WWAN upg	Finger	6	None	Win8 Pro64	03/13
2344-FEG	i3-3120M	4GBx1	14.0" HD	720p	500G 7200	Backlit	Intel 2200	WWAN upg	Finger	6	None	Win7 Pro64	03/13
2344-FYG	i3-3120M	4GBx1	14.0" HD+	720p	256G SSD OPAL	Backlit	Intel 6205	WWAN upg	None	6	None	Win8 Pro64	06/13
2344-FXG	i3-3120M	4GBx1	14.0" HD+	720p	256G SSD OPAL	Backlit	Intel 6205	WWAN upg	None	6	None	Win7 Pro64	06/13

- Small and medium business (SMB) model(s), part of the WE TopSeller™ Program
- A depot repair service 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i3-3110M processor (2 cores, 2.40GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Hyper-Threading technology Intel Core i3-3120M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Hyper-Threading technology										Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit Preloaded applications⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • AccuWeather • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • FingerPrint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²			
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller													
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 6.0Gb/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, 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	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus													
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)													
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case material	<i>14.0W" (WxDxH):</i> 13.4" x 9.13" x 1.17–1.18"; 340.5mm x 232.0mm x 29.8–29.9mm <i>6-cell:</i> from 4.77 lb (2.17kg); <i>9-cell:</i> from 5.13 lb (2.33kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Carbon-Fiber Reinforced Plastic													
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 9.7 hr; <i>9-cell (94Whr):</i> up to 16.2 hr; <i>6-cell plus 9-cell Slice battery (94Whr):</i> up to 32.5 hr													
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)													
PCIe Mini Card PCIe WLAN ⁴	Two PCI Express Mini Card slots Some: 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 Some: 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2													
PCIe WWAN SIM card Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Wireless WAN upgradable None None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 None HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W 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: AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades²² available													

See footnotes for more detailed information



Lenovo® ThinkPad T430s



Lenovo ThinkPad T430s



Lenovo ThinkPad T430s with
Lenovo Essential Notebook Stand 45J9292,
notebook, keyboard and mouse



Lenovo ThinkPad T430s with
USB 3.0 Secure 750GB Hard Drive
0A65616



Lenovo ThinkPad T430s



Lenovo ThinkPad T430s with
USB 3.0 Secure 750GB Hard Drive
0A65616

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	SIM card	Finger print reader	Bay battery cells	Battery cells	Global (G) Intel vPro	GMP (P)	Pre-load	Ann Date (mm/yy)
2355-HMG	i7-3520M	4GBx1	14.0" HD+	720p	320G 7200	None	Intel 6205 ²⁸	WWAN upg	None	Finger	No	6	vPro	G	Pro 64	06/12
2355-HLG	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	None	Finger	No	6	vPro	G	Pro 64	06/12
2355-HKG	i7-3520M	4GBx2	14.0" HD+	720p	180G SSD	None	Intel 6205	WWAN upg	None	Finger	No	6	vPro	G	Pro 64	06/12
2355-HFG	i5-3320M	4GBx1	14.0" HD+	720p	128G SSD	None	Intel 6205	WWAN upg	None	Finger	No	6	vPro	G	Pro 64	06/12
2355-HDG	i5-3320M	4GBx1	14.0" HD+	None	320G 7200	None	Intel 6205	WWAN upg	None	Finger	3	6	vPro	G	Pro 64	06/12
2355-G3G	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	None	Finger	No	6	vPro	G	Pro 64	06/12
2355-G2G	i5-3320M	4GBx1	14.0" HD+	720p	320G 7200	None	Intel 6205	WWAN upg	None	Finger	No	6	vPro	G	Pro 64	06/12

• A depot repair service 3-year limited warranty

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology	Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo® Solution Center• Lenovo Message Center Plus• ThinkVantage Product Recovery• Access Connections™• Fingerprint Software (fingerprint models)• ThinkVantage System Update• ThinkVantage Power Manager• Lenovo Cloud Storage by SugarSync• Lenovo SimpleTap• Microsoft® Office preloaded; purchase a product key to activate• Norton™ Internet Security 2012 (30 days of virus definitions)• Adobe® Reader®• Skype™ for Windows• Evernote®• Intel Small Business Advantage• RapidBoot HDD Accelerator• Symantec™ VIP• Windows Live™ Essentials• Corel® WinDVD® (DVD±RW)• Corel Burn.Now™ Lenovo Edition (DVD±RW)• Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller	
Optical Bay battery	DVD burner, 9.5mm Ultrabay slim, removable <i>Some:</i> ThinkPad Battery 43 (3-cell, bay) (0A36310), used in Option Bay	
Ultrabay SATA disk	One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/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	<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, wide view angle, low light sensitive, face tracking, fixed focus	
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)	
Keyboard TrackPoint®	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight	
Touchpad	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
ThinkLight™	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	14.0W" (WxDxH): 13.5" x 9.05" x 0.83–1.02"; 343mm x 230mm x 21.2–26.0mm	
Weight ²	6-cell: from 3.96 lb (1.79kg)	
Case material	<i>Display cover:</i> Hybrid Carbon-fiber reinforced plastic; <i>Bottom:</i> Magnesium alloy	
Battery - type	Lithium Ion 6-cell, supports optional Ultrabay Slim battery as 2nd battery, HW authentication	
Battery - life ¹⁰	6-cell (43.2Whr): up to 7.6 hr; <i>6-cell plus 3-cell Bay battery (31.3Whr):</i> up to 13.2 hr	
Chipset	Mobile Intel QM77 Express Chipset	
ExpressCard	One slot (ExpressCard/34)	
Smart Card Read	None	
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC) via ExpressCard adapter	
Ports	Two USB 3.0, one powered USB 2.0, ethernet (RJ-45), VGA DB-15, Mini DisplayPort (Mini DP / Thunderbolt™ combo port on i7 integrated model, switch via BIOS)	
PCIe Mini Card	Two PCI Express Mini Card slots	
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2	
PCIe WWAN	Wireless WAN upgradable	
SIM card	None	
Modem	None	
IEEE 1394	None	
Bluetooth™	Bluetooth 4.0 wireless	
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1	
Intel AMT	Intel Active Management Technology (iAMT)	
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W 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	AuthenTec 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
GREENGUARD® certified
RoHS-compliant
International Warranty Service¹⁷
24 hour x 7 day¹⁸ toll-free support during the warranty period¹²

See footnotes for more detailed information

ThinkPad T430s 2355 (Windows 8)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Finger print reader	Bat- tery cells	Bay battery cells	Global (G) Intel GMP vPro (P)	Preload	Ann Date (mm/yy)
2355-K7G	i7-3520M	4GBx1	14.0" HD+	720p	180G SSD	None	Intel 6205 ²⁸	WWAN upg	Finger	6	No	vPro G	Win8 Pro64	10/12

• A depot repair service 3-year limited warranty

Positioning Processor	Premiere performance and ultraportability; two spindles Intel® Core™ i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system ²⁰ - Windows® 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models <ul style="list-style-type: none">• Lenovo® Message Center Plus• ThinkVantage Product Recovery• Access Connections™• ThinkVantage Power Manager• Lenovo SimpleTap• Adobe® Reader®• Windows Live™ Essentials• Corel® WinDVD® (DVD±RW)• Corel Burn.Now™ Lenovo Edition (DVD±RW)• Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models <ul style="list-style-type: none">• Lenovo Support• Lenovo Companion• Lenovo QuickLaunch• AccuWeather• PC Device Stage• Cyberlink Power2Go (DVD±RW)• Cyberlink PowerProducer (DVD±RW) - All models <ul style="list-style-type: none">• Lenovo Solution Center• Password Manager• ThinkVantage System Update• Fingerprint Software (fingerprint models)• Lenovo Cloud Storage by SugarSync• Microsoft® Office preloaded; purchase a product key to activate• Norton™ Internet Security (30 days of virus definitions)
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
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 6.0Gb/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	<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, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		
Keyboard TrackPoint®	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight		
Touchpad ThinkLight™	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	14.0W" (WxDxH): 13.5" x 9.05" x 0.83–1.02"; 343mm x 230mm x 21.2–26.0mm		
Weight ²	6-cell: from 3.96 lb (1.79kg)		
Case material	<i>Display cover:</i> Hybrid Carbon-fiber reinforced plastic; <i>Bottom:</i> Magnesium alloy		
Battery - type	Lithium Ion 6-cell, supports optional Ultrabay Slim battery as 2nd battery, HW authentication		
Battery - life ¹⁰	6-cell (43.2Whr): up to 7.6 hr; 6-cell plus 3-cell Bay battery (31.3Whr, 0A36310): up to 13.2 hr		
Chipset	Mobile Intel QM77 Express Chipset		
ExpressCard	One slot (ExpressCard/34)		
Smart Card Read	None		
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC) via ExpressCard adapter		
Ports	Two USB 3.0, one powered USB 2.0, ethernet (RJ-45), VGA DB-15, Mini DisplayPort (Mini DP / Thunderbolt™ combo port on i7 integrated model, switch via BIOS)		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2		
PCIe WWAN	Wireless WAN upgradable		
SIM card	None		
Modem	None		
IEEE 1394	None		
Bluetooth™	Bluetooth 4.0 wireless		
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1		
Intel AMT	Intel Active Management Technology (iAMT)		
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W 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	AuthenTec 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 GREENGUARD® certified RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² | | |

See footnotes for more detailed information

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ThinkPad T430s 2355 (Optimus)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	Optical or battery	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Bat-tery cells	Global (G) vPro	GMP (P)	Pre-load	Ann Date (mm/yy)
2355-HJG	i5-3320M	4GBx2	14.0" HD+	720p	180G SSD	DVD±RW	None	Intel 6205 ²⁸	WWAN upg	Finger	BT	6	vPro	G	Pro 64	06/12
2355-HHG	i5-3320M	4GBx1	14.0" HD+	720p	320G 7200	DVD±RW	None	Intel 6205	WWAN upg	Finger	BT	6	vPro	G	Pro 64	06/12
2355-HGG	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	DVD±RW	None	Intel 6205	WWAN upg	Finger	BT	6	vPro	G	Pro 64	06/12

- **A depot repair service 3-year limited warranty**

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology	Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo® Solution Center• Lenovo Message Center Plus• ThinkVantage Product Recovery• Access Connections™• Fingerprint Software (fingerprint models)• ThinkVantage System Update• ThinkVantage Power Manager• Lenovo Cloud Storage by SugarSync• Lenovo SimpleTap• Microsoft® Office preloaded; purchase a product key to activate• Norton™ Internet Security 2012 (30 days of virus definitions)• Adobe® Reader®• Skype™ for Windows• Evernote®• Intel Small Business Advantage• RapidBoot HDD Accelerator• Symantec™ VIP• Windows Live™ Essentials• Corel® WinDVD® (DVD±RW)• Corel Burn.Now™ Lenovo Edition (DVD±RW)• Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller	
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 6.0Gb/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	<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, wide view angle, low light sensitive, face tracking, fixed focus	
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA NVS™ 5200M , PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort or Thunderbolt (i7 integrated models); supports three independent displays; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)	
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>14.0W"</i> (WxDxH): 13.5" x 9.05" x 0.83–1.02"; 343mm x 230mm x 21.2–26.0mm <i>6-cell:</i> from 3.96 lb (1.79kg) <i>Display cover:</i> Hybrid Carbon-fiber reinforced plastic; <i>Bottom:</i> Magnesium alloy Lithium Ion 6-cell, supports optional Ultrabay Slim battery as 2nd battery, HW authentication <i>6-cell (43.2Whr):</i> up to 7.6 hr; <i>6-cell plus 3-cell Bay battery (31.3Whr):</i> up to 13.2 hr	
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) via ExpressCard adapter Two USB 3.0, one powered USB 2.0, ethernet (RJ-45), VGA DB-15, Mini DisplayPort	
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN SIM card Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None None None Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W 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 AuthenTec 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™ Silver rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²

See footnotes for more detailed information

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ThinkPad T430s 2355 (Optimus) - Windows 8

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Bat-Blue- tooth cells	Global (G) Intel vPro (P)	Ann Date (mm/yy)
2355-K6G	i5-3320M	4GBx1	14.0" HD+	720p	180G SSD	None	Intel 6205 ²⁸	WWAN upg	Finger	BT 6	vPro G	Win8 Pro64 10/12

• A depot repair service 3-year limited warranty

Positioning Processor	Premiere performance and ultraportability; two spindles Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology		Preloaded operating system ²⁰ - Windows® 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • AccuWeather • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions)
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
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 6.0Gb/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	<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, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA NVS™ 5200M , PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort or Thunderbolt (i7 integrated models); supports three independent displays; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)		
Keyboard	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass		
Touchpad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	14.0W" (WxDxH): 13.5" x 9.05" x 0.83–1.02"; 343mm x 230mm x 21.2–26.0mm		
Weight ²	6-cell: from 3.96 lb (1.79kg)		
Case material	<i>Display cover:</i> Hybrid Carbon-fiber reinforced plastic; <i>Bottom:</i> Magnesium alloy		
Battery - type	Lithium Ion 6-cell, supports optional Ultrabay Slim battery as 2nd battery, HW authentication		
Battery - life ¹⁰	6-cell (43.2Whr): up to 7.6 hr; 6-cell plus 3-cell Bay battery (31.3Whr, 0A36310): up to 13.2 hr		
Chipset	Mobile Intel QM77 Express Chipset		
ExpressCard	One slot (ExpressCard/34)		
Smart Card Read	None		
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC) via ExpressCard adapter		
Ports	Two USB 3.0, one powered USB 2.0, ethernet (RJ-45), VGA DB-15, Mini DisplayPort		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2		
PCIe WWAN	Wireless WAN upgradable		
SIM card	None		
Modem	None		
IEEE 1394	None		
Bluetooth™	Bluetooth 4.0 wireless		
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1		
Intel AMT	Intel Active Management Technology (iAMT)		
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W 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	AuthenTec 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™ Silver rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²

See footnotes for more detailed information

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ThinkPad T430s 2356 (Onsite)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	Optical or battery	Backlit key-board	PCIe Mini Card WWAN/ mSATA	SIM card	Smart Card Reader	Finger print reader	Power Adapter (watt)	Global (G) Intel vPro	GMP (P)	Preload (mm/yy)	Ann Date
2356-HCG	i7-3520M	4GBx1	14.0" HD	720p	500G 7200	DVD±RW	None	upg	None	None	Finger	65W	vPro	G P	Pro 64	06/12
2356-HBG	i7-3520M	4GBx1	14.0" HD+	720p	320G 7200	DVD±RW	None	upg	None	None	Finger	65W	vPro	G P	Pro 64	06/12
2356-HAG	i7-3520M	4GBx2	14.0" HD+	720p	180G SSD	DVD±RW	None	upg	None	None	Finger	65W	vPro	G P	Pro 64	06/12
2356-GUG	i7-3520M	4GBx1	14.0" HD+	720p	320G 7200	DVD±RW	None	upg	None	None	None	65W	vPro	G P	Pro 64	06/12
2356-GTG	i5-3320M	4GBx1	14.0" HD+	No	320G 7200	DVD±RW	None	upg	None	None	Finger	65W	vPro	G P	Pro 64	06/12
2356-GRG	i5-3320M	4GBx1	14.0" HD+	720p	128G SSD	DVD±RW	None	upg	None	None	Finger	65W	vPro	G P	Pro 64	06/12
2356-GPG	i5-3320M	4GBx1	14.0" HD+	720p	320G 7200	DVD±RW	None	upg	None	None	None	65W	vPro	G P	Pro 64	06/12
2356-GJG	i5-3320M	4GBx1	14.0" HD+	720p	128G SSD	DVD±RW	None	upg	None	None	None	65W	vPro	G P	Pro 64	06/12
2356-GDG	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	DVD±RW	Backlit	Ericsson	selectable	None	Finger	65W	vPro		Pro 64	06/12
2356-GCG	i7-3520M	4GBx1	14.0" HD+	720p	180G SSD	DVD±RW	Backlit	Ericsson	selectable	None	Finger	90W	vPro		Pro 64	06/12
2356-GBG	i5-3320M	4GBx1	14.0" HD+	720p	180G SSD	Blank bezel	None	Ericsson	selectable	Smart	Finger	65W	vPro		Pro 64	06/12
2356-G3G	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	DVD±RW	None	upg	None	None	Finger	65W	vPro	G P	Pro 64	06/12
2356-G2G	i5-3320M	4GBx1	14.0" HD+	720p	320G 7200	DVD±RW	None	upg	None	None	Finger	65W	vPro	G P	Pro 64	06/12
2356-L3G	i5-3320M	4GBx1	14.0" HD+	720p	180G SSD	DVD±RW	Backlit	Ericsson	selectable	None	Finger	65W	vPro		Pro 64	07/12
2356-L2G	i5-3320M	4GBx1	14.0" HD+	720p	128G SSD	DVD±RW	None	Ericsson	selectable	Smart	Finger	65W	vPro		Pro 64	07/12
Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology										Preloaded operating system²⁰ Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • RapidBoot HDD Accelerator • Symantec™ VIP • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)					
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller															
Optical Bay battery Ultrabay SATA disk	<i>Some:</i> DVD burner, 9.5mm Ultrabay slim, removable <i>None</i> One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/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	<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, wide view angle, low light sensitive, face tracking, fixed focus															
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)															
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	14.0W" (WxDxH): 13.5" x 9.05" x 0.83–1.02"; 343mm x 230mm x 21.2–26.0mm 6-cell: from 3.96 lb (1.79kg) <i>Display cover:</i> Hybrid Carbon-fiber reinforced plastic; <i>Bottom:</i> Magnesium alloy Lithium Ion 6-cell, supports optional Ultrabay Slim battery as 2nd battery, HW authentication 6-cell (43.2Whr): up to 7.6 hr; 6-cell plus 3-cell Bay battery (31.3Whr): up to 13.2 hr															
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) <i>Some:</i> Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) via ExpressCard adapter Two USB 3.0, one powered USB 2.0, ethernet (RJ-45), VGA DB-15, Mini DisplayPort (Mini DP / Thunderbolt™ combo port on i7 integrated model, switch via BIOS)															
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS															
SIM card Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> User selectable, contract required with service provider None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W 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> AuthenTec 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 public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available										Supports ThinkVantage® technologies 65-watt or 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²					

See footnotes for more detailed information

ThinkPad T430s 2356 (Onsite) - Windows 8

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	SIM card	Finger-print reader	Bat-tery cells	Global (G) Intel vPro	GMP (P) Preload	Ann Date (mm/yy)
2356-LRG	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	Backlit	Intel 6205 ²⁸	Ericsson	selectable	Finger	6	vPro	Win7 Pro64	10/12
2356-LQG	i5-3320M	4GBx1	14.0" HD+	720p	180G SSD	Backlit	Intel 6205	Ericsson	selectable	Finger	6	vPro	Win7 Pro64	10/12
2356-LNG	i7-3520M	4GBx1	14.0" HD+	720p	240G FDE SSD	Backlit	Intel 6205	Ericsson	selectable	Finger	6	vPro	Win7 Pro64	10/12
2356-LDG	i7-3520M	4GBx1	14.0" HD+	720p	180G SSD	None	Intel 6205	upg	None	Finger	6	vPro	G P Win8 Pro64	10/12
2356-LAG	i5-3320M	4GBx1	14.0" HD+	720p	320G 7200	None	Intel 6205	upg	None	Finger	6	vPro	G P Win8 Pro64	10/12
2356-L7G	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	Backlit	Intel 6205	Ericsson	selectable	Finger	6	vPro	Win8 Pro64	10/12
2356-L6G	i5-3320M	4GBx1	14.0" HD+	720p	180G SSD	Backlit	Intel 6205	Ericsson	selectable	Finger	6	vPro	Win8 Pro64	10/12
2356-L5G	i7-3520M	4GBx1	14.0" HD+	720p	240G FDE SSD	Backlit	Intel 6205	Ericsson	selectable	Finger	6	vPro	Win8 Pro64	10/12
2356-N7G	i5-3320M	4GBx1	14.0" HD+	720p	256G SSD OPAL	Backlit	Intel 6205	Ericsson	selectable	Finger	6	vPro	Win8 Pro64	06/13
2356-N6G	i5-3320M	4GBx1	14.0" HD+	720p	256G SSD OPAL	Backlit	Intel 6205	Ericsson	selectable	Finger	6	vPro	Win7 Pro64	06/13
2356-N3G	i7-3520M	4GBx1	14.0" HD+	720p	256G SSD OPAL	Backlit	Intel 6205	Ericsson	selectable	Finger	6	vPro	Win8 Pro64	06/13
2356-N2G	i7-3520M	4GBx1	14.0" HD+	720p	256G SSD OPAL	Backlit	Intel 6205	Ericsson	selectable	Finger	6	vPro	Win7 Pro64	06/13

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

Positioning Processor	Premiere performance and ultraportability; two spindles Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system ²⁰ - <i>Some:</i> Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - <i>Some:</i> Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • AccuWeather • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions)
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
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 6.0Gb/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	<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, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint™ pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>14.0W" (WxDxH):</i> 13.5" x 9.05" x 0.83–1.02"; 343mm x 230mm x 21.2–26.0mm <i>6-cell:</i> from 3.96 lb (1.79kg) <i>Display cover:</i> Hybrid Carbon-fiber reinforced plastic; <i>Bottom:</i> Magnesium alloy Lithium Ion 6-cell, supports optional Ultrabay Slim battery as 2nd battery, HW authentication <i>6-cell (43.2Whr):</i> up to 7.6 hr; <i>6-cell plus 3-cell Bay battery (31.3Whr, 0A36310):</i> up to 13.2 hr		
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) via ExpressCard adapter Two USB 3.0, one powered USB 2.0, ethernet (RJ-45), VGA DB-15, Mini DisplayPort (Mini DP / Thunderbolt™ combo port on i7 integrated model, switch via BIOS)		
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS		
SIM card Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> User selectable, contract required with service provider None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W 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 AuthenTec 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 public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available		
			Supports ThinkVantage® technologies
			65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²

See footnotes for more detailed information

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ThinkPad T430s 2356 (Optimus) - Onsite

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ¹ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	SIM card	Finger-print reader	Bat-tery cells	Global (G) Intel vPro	GMP (P) Preload	Ann Date (mm/yy)
2356-H9G	i5-3320M	4GBx2	14.0" HD+	720p	180G SSD	None	Intel 6205 ²⁸	WWAN upg	None	Finger	6	vPro	G P	Pro 64 06/12
2356-H8G	i5-3320M	4GBx1	14.0" HD+	720p	320G 7200	None	Intel 6205	WWAN upg	None	Finger	6	vPro	G P	Pro 64 06/12
2356-H7G	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	None	Finger	6	vPro	G P	Pro 64 06/12
2356-L4G	i5-3320M	4GBx1	14.0" HD+	720p	180G SSD	Backlit	Intel 6205	Ericsson	selectable	Finger	6	vPro		Pro 64 07/12

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

Positioning Processor	Premiere performance and ultraportability; two spindles Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology		Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications ¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • RapidBoot HDD Accelerator • Symantec™ VIP • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
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 6.0Gb/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	<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, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA NVS™ 5200M , PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort or Thunderbolt (i7 integrated models); supports three independent displays; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ²	<i>14.0W" (WxDxH):</i> 13.5" x 9.05" x 0.83–1.02"; 343mm x 230mm x 21.2–26.0mm <i>6-cell:</i> from 3.96 lb (1.79kg)		
Case material	<i>Display cover:</i> Hybrid Carbon-fiber reinforced plastic; <i>Bottom:</i> Magnesium alloy		
Battery - type	Lithium Ion 6-cell, supports optional Ultrabay Slim battery as 2nd battery, HW authentication		
Battery - life ¹⁰	<i>6-cell (43.2Whr):</i> up to 7.6 hr; <i>6-cell plus 3-cell Bay battery (31.3Whr):</i> up to 13.2 hr		
Chipset	Mobile Intel QM77 Express Chipset		
ExpressCard	One slot (ExpressCard/34)		
Smart Card Read	None		
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC) via ExpressCard adapter		
Ports	Two USB 3.0, one powered USB 2.0, ethernet (RJ-45), VGA DB-15, Mini DisplayPort		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2		
PCIe WWAN	<i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS		
SIM card	<i>Some:</i> User selectable, contract required with service provider		
Modem	None		
IEEE 1394	None		
Bluetooth™	Bluetooth 4.0 wireless		
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1		
Intel AMT	Intel Active Management Technology (iAMT)		
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W 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	Trusted Platform Module, TCG 1.2-compliant		
Security chip	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Fingerprint reader			
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available		
	Supports ThinkVantage® technologies 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²		

See footnotes for more detailed information

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ThinkPad T430s 2356 (Optimus) - Onsite (Windows 8)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Disk SATA GB ⁹ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	SIM card	Finger print reader	Bat-tery cells	Global (G) Intel vPro	GMP (P)	Preload	Ann Date (mm/yy)
2356-LPG	i7-3520M	4GBx2	14.0" HD+	240G FDE SSD	Backlit	Intel 6205 ²⁸	Ericsson upg	selectable	Finger	6	vPro		Win7 Pro64	10/12
2356-LCG	i5-3320M	4GBx1	14.0" HD+	180G SSD	None	Intel 6205		None	Finger	6	vPro	G P	Win8 Pro64	10/12
2356-LBG	i5-3320M	4GBx1	14.0" HD+	500G 7200	None	Intel 6205	upg	None	Finger	6	vPro	G P	Win8 Pro64	10/12
2356-L8G	i7-3520M	4GBx2	14.0" HD+	240G FDE SSD	Backlit	Intel 6205	Ericsson	selectable	Finger	6	vPro		Win8 Pro64	10/12
2356-MMG	i5-3320M	4GBx1	14.0" HD+	500G 7200	Backlit	Intel 6205	Ericsson	selectable	Finger	6	vPro		Win8 Pro64	03/13
2356-MLG	i5-3320M	4GBx1	14.0" HD+	500G 7200	Backlit	Intel 6205	Ericsson	selectable	Finger	6	vPro		Win7 Pro64	03/13
2356-N5G	i7-3520M	8GBx1	14.0" HD+	256G SSD OPAL	Backlit	Intel 6205	Ericsson	selectable	Finger	6	vPro		Win8 Pro64	06/13
2356-N4G	i7-3520M	8GBx1	14.0" HD+	256G SSD OPAL	Backlit	Intel 6205	Ericsson	selectable	Finger	6	vPro		Win7 Pro64	06/13

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

Positioning Processor	Premiere performance and ultraportability; two spindles Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system ²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • AccuWeather • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions)
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
Optical Bay battery Ultrabay SATA disk	DVD burner, 9.5mm Ultrabay slim, removable None One modular bay for interchangeable devices (right side), 9.5mm high, bottom access Some: Solid State Drive (SSD) / SATA 6.0Gb/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, 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	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA NVS™ 5200M , PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort or Thunderbolt (i7 integrated models); supports three independent displays; Maximum external resolution: 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material	14.0W" (WxDxH): 13.5" x 9.05" x 0.83–1.02"; 343mm x 230mm x 21.2–26.0mm 6-cell: from 3.96 lb (1.79kg) Display cover: Hybrid Carbon-fiber reinforced plastic; Bottom: Magnesium alloy		
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell, supports optional Ultrabay Slim battery as 2nd battery, HW authentication 6-cell (43.2Whr): up to 7.6 hr; 6-cell plus 3-cell Bay battery (31.3Whr, 0A36310): up to 13.2 hr		
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) via ExpressCard adapter Two USB 3.0, one powered USB 2.0, ethernet (RJ-45), VGA DB-15, Mini DisplayPort		
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Some: Wireless WAN upgradable Some: Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS		
SIM card Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Some: User selectable, contract required with service provider None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W 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 AuthenTec 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 public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available		
			Supports ThinkVantage® technologies 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²

See footnotes for more detailed information

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Lenovo® ThinkPad T430u



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Lenovo ThinkPad T430u

ThinkPad T430u 8614 (TopSeller) - Windows 8

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	SIM card	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Ann Date (mm/yy)
8614-BDG	i5-3337U	4GBx2	14.0" HD	720p	1T 5400	Intel 2230	Ericsson	selectable	Finger	BT	3	Win7 Pro64	06/13

- **Small and medium business (SMB) model(s), part of the WE TopSeller™ Program**
- **A depot repair service 3-year limited warranty**

Positioning Processor	Mainstream Ultrabook™; one spindle Intel® Core™ i5-3337U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.70GHz), HT technology		Preloaded operating system ²⁰ - Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Windows Live™ Essentials - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • AccuWeather • PC Device Stage - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions)
Memory	8GB max ⁷ (up to 16GB max for certain special configuration models only) / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
Optical SATA disk	None <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/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, 200 nits, 16:9 aspect ratio, 500:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via HDMI™ or Mini DisplayPort supports three independent displays; <i>Maximum external resolution: 2560x1600 (Mini-DisplayPort or HDMI)@60Hz</i>		
Keyboard TrackPoint®	6-row, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³		
Touchpad	UltraNav™, buttonless touchpad below keyboard, multi-touch		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	14.0W" (WxDxH): 13.39" x 9.29" x 0.83"; 340mm x 236mm x 21mm		
Weight ²	3-cell: from 4.08 lb (1.85kg)		
Case material	<i>Display cover:</i> Aluminum; <i>Bottom:</i> Glass-Fiber Reinforced Plastic		
Battery - type	Integrated Li-Polymer 3-cell		
Battery - life ¹⁰	3-cell (47Whr): up to 7.1 hr		
Chipset	Mobile Intel UM77 Express Chipset		
ExpressCard	None		
Smart Card read	None		
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)		
Ports	Two USB 3.0, external monitor (Mini DisplayPort, HDMI), ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, 2x2, Wi-Fi + BT combo adapter		
PCIe WWAN	Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS		
SIM card	User selectable, contract required with service provider		
Modem	None		
IEEE 1394	None		
Bluetooth™	Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter		
Ethernet	Realtek® RTL8111F Gigabit Network Connection		
Intel AMT	None		
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 2W x 2 / dual array microphone, combo audio/microphone jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	AuthenTec fingerprint reader on the keyboard bezel, swipe sensor, LED indicator, 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 (bottom cover) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²

See footnotes for more detailed information
WE model(s) withdrawn effective January 2014

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ThinkPad T430u 8614 (Optimus) - TopSeller (Windows 8)

Product Specifications 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	Battery cells	Preload	Ann Date (mm/yy)
8614-ATG	i3-3227U	4GBx1	14.0" HD	720p	500G 7200	Intel 2230	24GB mSATA	Finger	BT	3	Win8 Pro64	03/13
8614-ASG	i3-3227U	4GBx1	14.0" HD	720p	500G 7200	Intel 2230	24GB mSATA	Finger	BT	3	Win7 Pro64	03/13

- Small and medium business (SMB) model(s), part of the WE TopSeller™ Program
- A depot repair service 3-year limited warranty

Positioning Processor	Mainstream Ultrabook™; one spindle Intel® Core™ i3-3227U processor (2 cores, 1.90GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), HT technology		Preloaded operating system ²⁰ - <i>Some:</i> Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - <i>Some:</i> Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models <ul style="list-style-type: none">• Lenovo® Message Center Plus• ThinkVantage Product Recovery• Access Connections™• ThinkVantage Power Manager• Lenovo SimpleTap• Adobe® Reader®• Windows Live™ Essentials - Windows 8 models <ul style="list-style-type: none">• Lenovo Support• Lenovo Companion• Lenovo QuickLaunch• AccuWeather• PC Device Stage - All models <ul style="list-style-type: none">• Lenovo Solution Center• Password Manager• ThinkVantage System Update• Fingerprint Software (fingerprint models)• Lenovo Cloud Storage by SugarSync• Microsoft® Office preloaded; purchase a product key to activate• Norton™ Internet Security (30 days of virus definitions)
Memory	8GB max ⁷ (up to 16GB max for certain special configuration models only) / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
Optical SATA disk	None <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/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	mSATA Solid State Drive (SSD), via PCIe Mini Card slot		
Widescreen display	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 500:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA GeForce® GT 620M , PCI Express® x16, 1GB memory, external digital monitor support via HDMI™ or Mini DisplayPort supports three independent displays; <i>Maximum external resolution: 2560x1600 (Mini-DisplayPort or HDMI)@60Hz</i>		
Keyboard	6-row, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³		
Touchpad	UltraNav™, buttonless touchpad below keyboard, multi-touch		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	<i>14.0W" (WxDxH):</i> 13.39" x 9.29" x 0.83"; 340mm x 236mm x 21mm		
Weight ²	<i>3-cell:</i> from 4.12 lb (1.87kg)		
Case material	<i>Display cover:</i> Aluminum; <i>Bottom:</i> Glass-Fiber Reinforced Plastic		
Battery - type	Integrated Li-Polymer 3-cell		
Battery - life ¹⁰	<i>3-cell (47Whr):</i> up to 6.6 hr		
Chipset	Mobile Intel UM77 Express Chipset		
ExpressCard	None		
Smart Card read	None		
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)		
Ports	Two USB 3.0, external monitor (Mini DisplayPort, HDMI), ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, 2x2, Wi-Fi + BT combo adapter		
PCIe WWAN	None		
SIM card	None		
Modem	None		
IEEE 1394	None		
Bluetooth™	Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter		
Ethernet	Realtek® RTL8111F Gigabit Network Connection		
Intel AMT	None		
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 2W x 2 / dual array microphone, combo audio/microphone jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	AuthenTec fingerprint reader on the keyboard bezel, swipe sensor, LED indicator, 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 (bottom cover)
EPEAT™ Silver rating
ENERGY STAR® 5.0-compliant
GREENGUARD® certified
RoHS-compliant
International Warranty Service¹⁷
24 hour x 7 day¹⁸ toll-free support during the warranty period¹²

See footnotes for more detailed information
WE model(s) withdrawn effective January 2014

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ThinkPad T430u 3353 (TopSeller) - Onsite

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	SIM card	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Ann Date (mm/yy)
3353-38G	i5-3317U	4GBx1	14.0" HD	720p	128G SSD	Intel 2230	Ericsson	selectable	Finger	BT	3	Pro 64	08/12
3353-37G	i5-3317U	4GBx1	14.0" HD	720p	500G 7200	Intel 2230	24GB mSATA	None	Finger	BT	3	Pro 64	08/12

• Small and medium business (SMB) model(s), part of the WE TopSeller™ Program

Positioning Processor	Mainstream Ultrabook™; one spindle Intel® Core™ i5-3317U processor (2 cores, 1.70GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.60GHz), HT technology								Preloaded operating system ^{20F} Genuine Windows® 7 Professional 64				
Memory	8GB max ⁷ (up to 16GB max for certain special configuration models only) / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets								Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager				
Optical SATA disk	None <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/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 applications ¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • RapidBoot HDD Accelerator • Symantec™ VIP • Windows Live™ Essentials				
mSATA™ SSD	<i>Some:</i> mSATA Solid State Drive (SSD), via PCIe Mini Card slot												
Widescreen display	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 500:1 contrast ratio												
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus												
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via HDMI™ or Mini DisplayPort supports three independent displays; <i>Maximum external resolution:</i> 2560x1600 (Mini-DisplayPort or HDMI) @60Hz												
Keyboard TrackPoint®	6-row, spill-resistant, multimedia Fn keys												
Touchpad	TrackPoint® pointing device, Internet Scroll Bar ¹³												
ThinkLight™	UltraNav™, buttonless touchpad below keyboard, multi-touch Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	14.0W" (WxDxH): 13.39" x 9.29" x 0.83"; 340mm x 236mm x 21mm												
Weight ²	3-cell: from 4.08 lb (1.85kg)												
Case material	<i>Display cover:</i> Aluminum; <i>Bottom:</i> Glass-Fiber Reinforced Plastic												
Battery - type	Integrated Li-Polymer 3-cell												
Battery - life ¹⁰	3-cell (47Whr): up to 7.1 hr												
Chipset	Mobile Intel UM77 Express Chipset												
ExpressCard	None												
Smart Card read	None												
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)												
Ports	Two USB 3.0, external monitor (Mini DisplayPort, HDMI), ethernet (RJ-45)												
PCIe Mini Card	Two PCI Express Mini Card slots												
PCIe WLAN ⁴	11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, 2x2, Wi-Fi + BT combo adapter												
PCIe WWAN	<i>Some:</i> Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS												
SIM card	<i>Some:</i> User selectable, contract required with service provider												
Modem	None												
IEEE 1394	None												
Bluetooth™	Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter												
Ethernet	Realtek® RTL8111F Gigabit Network Connection												
Intel AMT	None												
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 2W x 2 / dual array microphone, combo audio/microphone jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, TCG 1.2-compliant												
Fingerprint reader	AuthenTec fingerprint reader on the keyboard bezel, swipe sensor, LED indicator, supports the security chip												
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available												
									Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (bottom cover) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				

See footnotes for more detailed information
WE model(s) withdrawn effective January 2014

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ThinkPad T430u 3353 (TopSeller) - Onsite (Windows 8)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	SIM card	Finger print reader	Blue-tooth cells	Battery	Preload	Ann Date (mm/yy)
3353-3MG	i5-3317U	4GBx1	14.0" HD	720p	128G SSD	Intel 2230	Ericsson	selectable	Finger	BT	3	Win7 Pro64	10/12
3353-3LG	i5-3317U	4GBx1	14.0" HD	720p	500G 7200	Intel 2230	24GB mSATA	None	Finger	BT	3	Win7 Pro64	10/12
3353-3JG	i5-3317U	4GBx1	14.0" HD	720p	128G SSD	Intel 2230	Ericsson	selectable	Finger	BT	3	Win8 Pro64	10/12
3353-3HG	i5-3317U	4GBx1	14.0" HD	720p	500G 7200	Intel 2230	24GB mSATA	None	Finger	BT	3	Win8 Pro64	10/12
3353-3TG	i5-3337U	4GBx1	14.0" HD	720p	128G SSD	Intel 2230	Ericsson	selectable	Finger	BT	3	Win8 Pro64	03/13
3353-3SG	i5-3337U	4GBx1	14.0" HD	720p	128G SSD	Intel 2230	Ericsson	selectable	Finger	BT	3	Win7 Pro64	03/13
3353-3RG	i5-3337U	4GBx1	14.0" HD	720p	500G 7200	Intel 2230	24GB mSATA	None	Finger	BT	3	Win8 Pro64	03/13
3353-3QG	i5-3337U	4GBx1	14.0" HD	720p	500G 7200	Intel 2230	24GB mSATA	None	Finger	BT	3	Win7 Pro64	03/13

• Small and medium business (SMB) model(s), part of the WE TopSeller™ Program

Positioning Processor	Mainstream Ultrabook™; one spindle Intel® Core™ i5-3317U processor (2 cores, 1.70GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.60GHz), HT technology Intel Core i5-3337U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.70GHz), HT technology		Preloaded operating system ²⁰ - <i>Some:</i> Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - <i>Some:</i> Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Windows Live™ Essentials - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • AccuWeather • PC Device Stage - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions)
Memory	8GB max ⁷ (up to 16GB max for certain special configuration models only) / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
Optical SATA disk	None <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/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	<i>Some:</i> mSATA Solid State Drive (SSD), via PCIe Mini Card slot		
Widescreen display	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 500:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via HDMI™ or Mini DisplayPort supports three independent displays; <i>Maximum external resolution: 2560x1600 (Mini-DisplayPort or HDMI) @60Hz</i>		
Keyboard	6-row, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³		
Touchpad	UltraNav™, buttonless touchpad below keyboard, multi-touch		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	14.0W" (WxDxH): 13.39" x 9.29" x 0.83"; 340mm x 236mm x 21mm		
Weight ²	3-cell: from 4.08 lb (1.85kg)		
Case material	<i>Display cover:</i> Aluminum; <i>Bottom:</i> Glass-Fiber Reinforced Plastic		
Battery - type	Integrated Li-Polymer 3-cell		
Battery - life ¹⁰	3-cell (47Whr): up to 7.1 hr		
Chipset	Mobile Intel UM77 Express Chipset		
ExpressCard	None		
Smart Card read	None		
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)		
Ports	Two USB 3.0, external monitor (Mini DisplayPort, HDMI), ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, 2x2, Wi-Fi + BT combo adapter		
PCIe WWAN	<i>Some:</i> Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS		
SIM card	<i>Some:</i> User selectable, contract required with service provider		
Modem	None		
IEEE 1394	None		
Bluetooth™	Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter		
Ethernet	Realtek® RTL8111F Gigabit Network Connection		
Intel AMT	None		
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 2W x 2 / dual array microphone, combo audio/microphone jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	AuthenTec fingerprint reader on the keyboard bezel, swipe sensor, LED indicator, supports the security chip		
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available		

Supports ThinkVantage® technologies
65-watt AC adapter ThinkPad Roll Cage (bottom cover) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²

See footnotes for more detailed information
WE model(s) withdrawn effective January 2014

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ThinkPad T430u 3353 (Optimus) - TopSeller (Onsite)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	SIM card	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Ann Date (mm/yy)
3353-36G	i5-3317U	4GBx1	14.0" HD	720p	128G SSD	Intel 2230	None	None	Finger	BT	3	Pro 64	08/12

• Small and medium business (SMB) model(s), part of the WE TopSeller™ Program

Positioning Processor	Mainstream Ultrabook™; one spindle Intel® Core™ i5-3317U processor (2 cores, 1.70GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.60GHz), HT technology		Preloaded operating system ^{20F} Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo® Solution Center• Lenovo Message Center Plus• ThinkVantage Product Recovery• Access Connections™• Fingerprint Software (fingerprint models)• ThinkVantage System Update• ThinkVantage Power Manager• Lenovo Cloud Storage by SugarSync• Lenovo SimpleTap• Microsoft® Office preloaded; purchase a product key to activate• Norton™ Internet Security 2012 (30 days of virus definitions)• Adobe® Reader®• Skype™ for Windows• Evernote®• Intel Small Business Advantage• RapidBoot HDD Accelerator• Symantec™ VIP• Windows Live™ Essentials
Memory	8GB max ⁷ (up to 16GB max for certain special configuration models only) / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
Optical SATA disk	None <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/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, 200 nits, 16:9 aspect ratio, 500:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA GeForce® GT 620M , PCI Express® x16, 1GB memory, external digital monitor support via HDMI™ or Mini DisplayPort supports three independent displays; <i>Maximum external resolution:</i> 2560x1600 (Mini-DisplayPort or HDMI) @60Hz		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ UltraNav™, buttonless touchpad below keyboard, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material	<i>14.0W" (WxDxH):</i> 13.39" x 9.29" x 0.83"; 340mm x 236mm x 21mm <i>3-cell:</i> from 4.12 lb (1.87kg) <i>Display cover:</i> Aluminum; <i>Bottom:</i> Glass-Fiber Reinforced Plastic		
Battery - type Battery - life ¹⁰	Integrated Li-Polymer 3-cell <i>3-cell (47Whr):</i> up to 6.6 hr		
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel UM77 Express Chipset None None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, external monitor (Mini DisplayPort, HDMI), ethernet (RJ-45)		
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN SIM card Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, 2x2, Wi-Fi + BT combo adapter None None None None None Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter Realtek® RTL8111F Gigabit Network Connection None HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 2W x 2 / dual array microphone, combo audio/microphone jack		
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant AuthenTec fingerprint reader on the keyboard bezel, swipe sensor, LED indicator, supports the security chip		
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available		

See footnotes for more detailed information
WE model(s) withdrawn effective January 2014

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ThinkPad T430u 3353 (Optimus) - TopSeller (Onsite) - Win 8

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	SIM card	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Ann Date (mm/yy)
3353-3KG	i5-3317U	4GBx1	14.0" HD	720p	128G SSD	Intel 2230	None	None	Finger	BT	3	Win7 Pro64	10/12
3353-3GG	i5-3317U	4GBx1	14.0" HD	720p	128G SSD	Intel 2230	None	None	Finger	BT	3	Win8 Pro64	10/12
3353-3PG	i5-3337U	4GBx1	14.0" HD	720p	180G SSD	Intel 2230	None	None	Finger	BT	3	Win8 Pro64	03/13
3353-3NG	i5-3337U	4GBx1	14.0" HD	720p	180G SSD	Intel 2230	None	None	Finger	BT	3	Win7 Pro64	03/13

• Small and medium business (SMB) model(s), part of the WE TopSeller™ Program

Positioning Processor	Mainstream Ultrabook™; one spindle Intel® Core™ i5-3317U processor (2 cores, 1.70GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.60GHz), HT technology Intel Core i5-3337U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.70GHz), HT technology		Preloaded operating system ²⁰ - <i>Some:</i> Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - <i>Some:</i> Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Windows Live™ Essentials - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • AccuWeather • PC Device Stage - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions)
Memory	8GB max ⁷ (up to 16GB max for certain special configuration models only) / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
Optical SATA disk	None <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/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, 200 nits, 16:9 aspect ratio, 500:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA GeForce® GT 620M , PCI Express® x16, 1GB memory, external digital monitor support via HDMI™ or Mini DisplayPort supports three independent displays; <i>Maximum external resolution: 2560x1600 (Mini-DisplayPort or HDMI) @60Hz</i>		
Keyboard	6-row, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³		
Touchpad	UltraNav™, buttonless touchpad below keyboard, multi-touch		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	14.0W" (WxDxH): 13.39" x 9.29" x 0.83"; 340mm x 236mm x 21mm		
Weight ²	3-cell: from 4.12 lb (1.87kg)		
Case material	<i>Display cover:</i> Aluminum; <i>Bottom:</i> Glass-Fiber Reinforced Plastic		
Battery - type	Integrated Li-Polymer 3-cell		
Battery - life ¹⁰	3-cell (47Whr): up to 6.6 hr		
Chipset	Mobile Intel UM77 Express Chipset		
ExpressCard	None		
Smart Card read	None		
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)		
Ports	Two USB 3.0, external monitor (Mini DisplayPort, HDMI), ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, 2x2, Wi-Fi + BT combo adapter		
PCIe WWAN	None		
SIM card	None		
Modem	None		
IEEE 1394	None		
Bluetooth™	Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter		
Ethernet	Realtek® RTL8111F Gigabit Network Connection		
Intel AMT	None		
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 2W x 2 / dual array microphone, combo audio/microphone jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	AuthenTec fingerprint reader on the keyboard bezel, swipe sensor, LED indicator, supports the security chip		
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available		

Supports ThinkVantage® technologies
65-watt AC adapter ThinkPad Roll Cage (bottom cover) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²

See footnotes for more detailed information
WE model(s) withdrawn effective January 2014

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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	Bat-tery cells	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
3352-2SG	i5-3427U	4GBx1	14.0" HD	720p	128G SSD	TP 11a/b/g/n	None	Finger	BT	3	G	Pro 64	08/12

• A depot repair service 3-year limited warranty

Positioning Processor	<i>Mainstream Ultrabook™; one spindle</i> Intel® Core™ i5-3427U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.80GHz), HT technology								Preloaded operating system ^{20F} Genuine Windows® 7 Professional 64				
Memory	8GB max ⁷ (up to 16GB max for certain special configuration models only) / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets								Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager				
Optical SATA disk	None <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/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 applications ¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • RapidBoot HDD Accelerator • Symantec™ VIP • Windows Live™ Essentials				
mSATA™ SSD	None												
Widescreen display	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 500:1 contrast ratio												
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus												
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via HDMI™ or Mini DisplayPort supports three independent displays; <i>Maximum external resolution: 2560x1600 (Mini-DisplayPort or HDMI) @60Hz</i>												
Keyboard TrackPoint®	6-row, spill-resistant, multimedia Fn keys												
Touchpad	TrackPoint® pointing device, Internet Scroll Bar ¹³												
ThinkLight™	UltraNav™, buttonless touchpad below keyboard, multi-touch Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	14.0W" (WxDxH): 13.39" x 9.29" x 0.83"; 340mm x 236mm x 21mm												
Weight ²	3-cell: from 4.08 lb (1.85kg)												
Case material	<i>Display cover:</i> Aluminum; <i>Bottom:</i> Glass-Fiber Reinforced Plastic												
Battery - type	Integrated Li-Polymer 3-cell												
Battery - life ¹⁰	3-cell (47Whr): up to 7.1 hr												
Chipset	Mobile Intel UM77 Express Chipset												
ExpressCard	None												
Smart Card read	None												
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)												
Ports	Two USB 3.0, external monitor (Mini DisplayPort, HDMI), ethernet (RJ-45)												
PCIe Mini Card	Two PCI Express Mini Card slots												
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + BT combo adapter												
PCIe WWAN	None												
SIM card	None												
Modem	None												
IEEE 1394	None												
Bluetooth™	Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter												
Ethernet	Realtek® RTL8111F Gigabit Network Connection												
Intel AMT	None												
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 2W x 2 / dual array microphone, combo audio/microphone jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, TCG 1.2-compliant												
Fingerprint reader	AuthenTec fingerprint reader on the keyboard bezel, swipe sensor, LED indicator, supports the security chip												
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available												

See footnotes for more detailed information
WE model(s) withdrawn effective January 2014

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ThinkPad T430u 3352 (Windows 8)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	SIM card	Finger print reader	Bat- Blue- tery tooth cells	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
3352-3KG	i5-3427U	4GBx1	14.0" HD	720p	128G SSD	Intel 2230	Ericsson	selectable	Finger	BT	3	Win7 Pro64	10/12
3352-3JG	i5-3427U	4GBx1	14.0" HD	720p	500G 7200	Intel 2230	Ericsson	selectable	Finger	BT	3	Win7 Pro64	10/12
3352-3CG	i5-3427U	4GBx1	14.0" HD	720p	128G SSD	Intel 2230	None	None	Finger	BT	3	G Win8 Pro64	10/12
3352-3TG	i5-3427U	4GBx1	14.0" HD	720p	128G SSD	TP 11a/b/g/n	None	None	Finger	BT	3	Win7 Pro64	12/12
3352-3SG	i5-3427U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n	24GB mSATA	None	Finger	BT	3	Win7 Pro64	12/12

• A depot repair service 3-year limited warranty

Positioning Processor	Mainstream Ultrabook™; one spindle Intel® Core™ i5-3427U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.80GHz), HT technology										Preloaded operating system²⁰		
Memory	8GB max ⁷ (up to 16GB max for certain special configuration models only) / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										- <i>Some:</i> Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit		
Optical SATA disk	None <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/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™										- <i>Some:</i> Windows 8 Pro 64-bit		
mSATA™ SSD	<i>Some:</i> mSATA Solid State Drive (SSD), via PCIe Mini Card slot										Preloaded applications⁵ (only some listed)		
Widescreen display	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 500:1 contrast ratio										- Windows 7 models		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus										<ul style="list-style-type: none"> • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Windows Live™ Essentials 		
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via HDMI™ or Mini DisplayPort supports three independent displays; <i>Maximum external resolution: 2560x1600 (Mini-DisplayPort or HDMI) @60Hz</i>										- Windows 8 models		
Keyboard TrackPoint®	6-row, spill-resistant, multimedia Fn keys										<ul style="list-style-type: none"> • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • AccuWeather • PC Device Stage 		
Touchpad	TrackPoint® pointing device, Internet Scroll Bar ¹³										- All models		
ThinkLight™	UltraNav™, buttonless touchpad below keyboard, multi-touch illuminates the keyboard to improve visibility in low-light conditions										<ul style="list-style-type: none"> • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions) 		
Dimensions ³	14.0W" (WxDxH): 13.39" x 9.29" x 0.83"; 340mm x 236mm x 21mm										- All models		
Weight ²	3-cell: from 4.08 lb (1.85kg)										- All models		
Case material	<i>Display cover:</i> Aluminum; <i>Bottom:</i> Glass-Fiber Reinforced Plastic										- All models		
Battery - type	Integrated Li-Polymer 3-cell										- All models		
Battery - life ¹⁰	3-cell (47Whr): up to 7.1 hr										- All models		
Chipset	Mobile Intel UM77 Express Chipset										- All models		
ExpressCard	None										- All models		
Smart Card read	None										- All models		
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)										- All models		
Ports	Two USB 3.0, external monitor (Mini DisplayPort, HDMI), ethernet (RJ-45)										- All models		
PCIe Mini Card	Two PCI Express Mini Card slots										- All models		
PCIe WLAN ⁴	<i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + BT combo adapter <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, 2x2, Wi-Fi + Bluetooth combo adapter										- All models		
PCIe WWAN	<i>Some:</i> Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS										- All models		
SIM card	<i>Some:</i> User selectable, contract required with service provider										- All models		
Modem	None										- All models		
IEEE 1394	None										- All models		
Bluetooth™	Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter										- All models		
Ethernet	Realtek® RTL8111F Gigabit Network Connection										- All models		
Intel AMT	None										- All models		
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 2W x 2 / dual array microphone, combo audio/microphone jack										- All models		
Security	Power-on password, hard disk password, supervisor password, security keyhole										- All models		
Security chip	Trusted Platform Module, TCG 1.2-compliant										- All models		
Fingerprint reader	AuthenTec fingerprint reader on the keyboard bezel, swipe sensor, LED indicator, supports the security chip										- All models		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available										- All models		

See footnotes for more detailed information
WE model(s) withdrawn effective January 2014

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Supports ThinkVantage® technologies

65-watt AC adapter
ThinkPad Roll Cage (bottom cover)
EPEAT™ Silver rating
ENERGY STAR® 5.0-compliant
GREENGUARD® certified
RoHS-compliant
International Warranty Service¹⁷
24 hour x 7 day¹⁸ toll-free support during the warranty period¹²

ThinkPad T430u 6273 (Onsite)

Product Specifications 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	Bat- tery cells	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
6273-2SG	i5-3427U	4GBx1	14.0" HD	720p	128G SSD	TP 11a/b/g/n	None	Finger	BT	3	G P	Pro 64	08/12

• Part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning Processor	Mainstream Ultrabook™; one spindle Intel® Core™ i5-3427U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.80GHz), HT technology		Preloaded operating system ^{20F} Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo® Solution Center• Lenovo Message Center Plus• ThinkVantage Product Recovery• Access Connections™• Fingerprint Software (fingerprint models)• ThinkVantage System Update• ThinkVantage Power Manager• Lenovo Cloud Storage by SugarSync• Lenovo SimpleTap• Microsoft® Office preloaded; purchase a product key to activate• Norton™ Internet Security 2012 (30 days of virus definitions)• Adobe® Reader®• Skype™ for Windows• Evernote®• Intel Small Business Advantage• RapidBoot HDD Accelerator• Symantec™ VIP• Windows Live™ Essentials
Memory	8GB max ⁷ (up to 16GB max for certain special configuration models only) / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
Optical SATA disk	None <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/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, 200 nits, 16:9 aspect ratio, 500:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via HDMI™ or Mini DisplayPort supports three independent displays; <i>Maximum external resolution:</i> 2560x1600 (Mini-DisplayPort or HDMI) @60Hz		
Keyboard	6-row, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³		
Touchpad	UltraNav™, buttonless touchpad below keyboard, multi-touch		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	14.0W" (WxDxH): 13.39" x 9.29" x 0.83"; 340mm x 236mm x 21mm		
Weight ²	3-cell: from 4.08 lb (1.85kg)		
Case material	<i>Display cover:</i> Aluminum; <i>Bottom:</i> Glass-Fiber Reinforced Plastic		
Battery - type	Integrated Li-Polymer 3-cell		
Battery - life ¹⁰	3-cell (47Whr): up to 7.1 hr		
Chipset	Mobile Intel UM77 Express Chipset		
ExpressCard	None		
Smart Card read	None		
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)		
Ports	Two USB 3.0, external monitor (Mini DisplayPort, HDMI), ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + BT combo adapter		
PCIe WWAN	None		
SIM card	None		
Modem	None		
IEEE 1394	None		
Bluetooth™	Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter		
Ethernet	Realtek® RTL8111F Gigabit Network Connection		
Intel AMT	None		
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 2W x 2 / dual array microphone, combo audio/microphone jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	AuthenTec fingerprint reader on the keyboard bezel, swipe sensor, LED indicator, supports the security chip		
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available		

Supports ThinkVantage® technologies
65-watt AC adapter ThinkPad Roll Cage (bottom cover) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²

See footnotes for more detailed information
WE model(s) withdrawn effective January 2014

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ThinkPad T430u 6273 (Onsite) - Windows 8

Product Specifications 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	Bat-tery cells	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
6273-23G	i5-3427U	4+2GB	14.0" HD	720p	500G 7200	TP 11a/b/g/n	None	Finger	BT	3	G P	Win8 Pro64	10/12
6273-24G	i5-3427U	8GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n	None	Finger	BT	3	G P	Win8 Pro64	10/12
6273-25G	i5-3427U	8GBx1	14.0" HD	720p	1T 5400	TP 11a/b/g/n	None	Finger	BT	3	G P	Win8 Pro64	10/12
6273-26G	i5-3427U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n	None	Finger	BT	3	G P	Win8 Pro64	10/12
6273-3CG	i5-3427U	4GBx1	14.0" HD	720p	128G SSD	Intel 2230	None	Finger	BT	3	G P	Win8 Pro64	10/12
6273-3DG	i5-3337U	2GBx1	14.0" HD	720p	128G SSD	WLAN upg	None	Finger	No	3	G P	Win8 Pro64	03/13

• Part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning Processor	Mainstream Ultrabook™; one spindle Intel® Core™ i5-3337U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.70GHz), HT technology Intel Core i5-3427U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.80GHz), HT technology		Preloaded operating system ²⁰ - Windows® 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models <ul style="list-style-type: none">• Lenovo® Message Center Plus• ThinkVantage Product Recovery• Access Connections™• ThinkVantage Power Manager• Lenovo SimpleTap• Adobe® Reader®• Windows Live™ Essentials - Windows 8 models <ul style="list-style-type: none">• Lenovo Support• Lenovo Companion• Lenovo QuickLaunch• AccuWeather• PC Device Stage - All models <ul style="list-style-type: none">• Lenovo Solution Center• Password Manager• ThinkVantage System Update• Fingerprint Software (fingerprint models)• Lenovo Cloud Storage by SugarSync• Microsoft® Office preloaded; purchase a product key to activate• Norton™ Internet Security (30 days of virus definitions)
Memory	8GB max ⁷ (up to 16GB max for certain special configuration models only) / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
Optical SATA disk	None <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/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, 200 nits, 16:9 aspect ratio, 500:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via HDMI™ or Mini DisplayPort supports three independent displays; <i>Maximum external resolution:</i> 2560x1600 (Mini-DisplayPort or HDMI) @60Hz		
Keyboard	6-row, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³		
Touchpad	UltraNav™, buttonless touchpad below keyboard, multi-touch		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	14.0W" (WxDxH): 13.39" x 9.29" x 0.83"; 340mm x 236mm x 21mm		
Weight ²	3-cell: from 4.08 lb (1.85kg)		
Case material	<i>Display cover:</i> Aluminum; <i>Bottom:</i> Glass-Fiber Reinforced Plastic		
Battery - type	Integrated Li-Polymer 3-cell		
Battery - life ¹⁰	3-cell (47Whr): up to 7.1 hr		
Chipset	Mobile Intel UM77 Express Chipset		
ExpressCard	None		
Smart Card read	None		
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)		
Ports	Two USB 3.0, external monitor (Mini DisplayPort, HDMI), ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	<i>Some:</i> Wireless LAN upgradable <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + BT combo adapter <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, 2x2, Wi-Fi + Bluetooth combo adapter		
PCIe WWAN	None		
SIM card	None		
Modem	None		
IEEE 1394	None		
Bluetooth™	<i>Some:</i> Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter		
Ethernet	Realtek® RTL8111F Gigabit Network Connection		
Intel AMT	None		
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 2W x 2 / dual array microphone, combo audio/microphone jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	AuthenTec fingerprint reader on the keyboard bezel, swipe sensor, LED indicator, supports the security chip		
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available		

| | | | Supports ThinkVantage® technologies |
| | | | 65-watt AC adapter ThinkPad Roll Cage (bottom cover) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² |

See footnotes for more detailed information
WE model(s) withdrawn effective January 2014

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Lenovo® ThinkPad T431s



Lenovo ThinkPad T431s



Lenovo ThinkPad T431s



Lenovo ThinkPad T431s



Lenovo ThinkPad T431s



Lenovo ThinkPad T431s with
ThinkPad Mini Dock Series 3 with USB 3.0 - 90W
433715U

ThinkPad T431s 20AA (TopSeller) - Onsite

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Disk SATA GB ² rpm	Backlit key-board	M.2 Card WLAN	M.2 Card WWAN/SSD	SIM card	Smart Card Reader	Intel AMT	Intel vPro	Preload	Ann Date (mm/yy)
20AA000E++	i7-3687U	4+4GB	14.0" HD+	240G FDE SSD	Backlit	Intel 6235 ²⁸	Ericsson	selectable	None	iAMT	vPro	Win7 Pro64	03/13
20AA0012++	i7-3687U	4+4GB	14.0" HD+	240G FDE SSD	Backlit	Intel 6235	Ericsson	selectable	None	iAMT	vPro	Win7 Pro64	03/13
20AA0014++	i5-3337U	4GB	14.0" HD+	180G SSD	Backlit	Intel 6235	Ericsson	selectable	Smart	None	No	Win7 Pro64	03/13
20AA0015++	i5-3337U	4GB	14.0" HD+	180G SSD	Backlit	Intel 6235	Ericsson	selectable	Smart	None	No	Win7 Pro64	03/13
20AA0016++	i5-3337U	4GB	14.0" HD+	500G 7200	Backlit	Intel 6235	24GB SSD	None	None	None	No	Win7 Pro64	03/13
20AA0018++	i5-3437U	4GB	14.0" HD+	180G SSD	Backlit	Intel 6235	Ericsson	selectable	Smart	iAMT	vPro	Win7 Pro64	03/13
20AA0019++	i5-3437U	4GB	14.0" HD+	180G SSD	Backlit	Intel 6235	Ericsson	selectable	Smart	iAMT	vPro	Win7 Pro64	03/13
20AA001A++	i5-3437U	4GB	14.0" HD+	500G 7200	Backlit	Intel 6235	24GB SSD	None	Smart	iAMT	vPro	Win7 Pro64	03/13
20AA001C++	i7-3687U	4+4GB	14.0" HD+	240G FDE SSD	Backlit	Intel 6235	Ericsson	selectable	None	iAMT	vPro	Win8 Pro64	03/13
20AA001D++	i7-3687U	4+4GB	14.0" HD+	240G FDE SSD	Backlit	Intel 6235	Ericsson	selectable	None	iAMT	vPro	Win8 Pro64	03/13
20AA001F++	i5-3337U	4GB	14.0" HD+	180G SSD	Backlit	Intel 6235	Ericsson	selectable	Smart	None	No	Win8 Pro64	03/13
20AA001G++	i5-3337U	4GB	14.0" HD+	180G SSD	Backlit	Intel 6235	Ericsson	selectable	Smart	None	No	Win8 Pro64	03/13
20AA001H++	i5-3337U	4GB	14.0" HD+	500G 7200	Backlit	Intel 6235	24GB SSD	None	None	None	No	Win8 Pro64	03/13
20AA001K++	i5-3437U	4GB	14.0" HD+	180G SSD	Backlit	Intel 6235	Ericsson	selectable	Smart	iAMT	vPro	Win8 Pro64	03/13
20AA001L++	i5-3437U	4GB	14.0" HD+	180G SSD	Backlit	Intel 6235	Ericsson	selectable	Smart	iAMT	vPro	Win8 Pro64	03/13
20AA001M++	i5-3437U	4GB	14.0" HD+	500G 7200	Backlit	Intel 6235	24GB SSD	None	Smart	iAMT	vPro	Win8 Pro64	03/13

Country Code"+": AT (Austria), FR (France), GB (Germany w/ English OS), GE (Germany w/ German OS), IV (Israel), IW (Iceland), IX (Italy), MB (Belgium), MD (Denmark), MH (Netherlands), ML (Luxembourg), MN (Norway), MS (Sweden), MZ (Switzerland), NX (Netherlands), PG (Portugal), SP (Spain), UK (United Kingdom)

Note: models listed above might not be available in all WE countries

Positioning Processor	<i>Thin and light enterprise-class Ultrabook™; one spindle</i> Intel® Core™ i5-3337U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.70GHz), HT technology Intel Core i5-3437U processor (2 cores, 1.90GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology Intel Core i7-3687U processor (2 cores, 2.10GHz, 4MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology								Preloaded operating system^{20F} - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit				
Memory	12GB max ⁷ / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, 4GB memory soldered to systemboard, one 204-pin SO-DIMM socket								Preloaded applications⁵ (only some listed)				
Optical SATA disk	None Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™								<ul style="list-style-type: none"> - Windows 7 models <ul style="list-style-type: none"> • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® - Windows 8 models <ul style="list-style-type: none"> • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch - All models <ul style="list-style-type: none"> • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions) • Skype™ • AccuWeather • Amazon Kindle • Intel AppUp® • Nitro Pro • PC Device Stage • Evernote 				
M.2 SSD	Some: M.2 Solid State Drive (SSD), via M.2 Card slot												
Widescreen display	14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 400:1 contrast ratio												
Camera	HD720p resolution, low light sensitive, face tracking, fixed focus												
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution: 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)</i>												
Keyboard UltraNav™ ThinkLight™	6-row, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device and glass surface touchpad, integrated five buttons, multi-touch None												
Dimensions ³ Weight ² Case color Case material	<i>14.0W" (WxDxH): 13.03" x 8.90" x 0.81"; 331mm x 226mm x 20.65mm</i> 3-cell: from 3.6 lb (1.63kg) Graphite Black <i>Display cover: Carbon-fiber / Glass-fiber hybrid;</i> Base: Magnesium alloy												
Battery - type Battery - life ¹⁰	Integrated Li-Polymer 3-cell (47Whr), HW Authentication <i>MobileMark® 2007: Windows 7: up to 9.0 hr</i> <i>MobileMark 2012: Windows 7: up to 5.9 hr; Windows 8: up to 6.4 hr</i>												
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM77 Express Chipset None Some: Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45), Dock connector												
PCIe WLAN ⁴ PCIe WWAN SIM card Bluetooth™ Ethernet Intel AMT Audio support	11a/b/g/n, M.2 Card, Intel Centrino® Advanced-N 6235, 2x2, Wi-Fi + BT combo adapter Some: Wireless WAN, Ericsson® N5321, HSPA+ 21Mbps/GSM/GPRS/EDGE, GPS, M.2 Card Some: User selectable, contract required with service provider Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter Intel 82579LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Some: Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W x 2 / dual array microphone, combo audio/microphone jack												
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant AuthenTec fingerprint reader on the keyboard bezel, 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 public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available								Supports ThinkVantage® technologies 45-watt AC adapter EPEAT™ Silver rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				

See footnotes for more detailed information

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ThinkPad T431s 20AA (TopSeller) - Onsite - II

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Disk SATA GB ⁵ rpm	Backlit key-board	M.2 Card WLAN	M.2 Card WWAN/SSD	SIM card	Smart Card Reader	Intel AMT	Intel vPro	Preload	Ann Date (mm/yy)
20AA002A++	i7-3687U	4+4GB	14.0" HD+	256G SSD OPAL	Backlit	Intel 6235 ²⁸	Ericsson	selectable	None	iAMT	vPro	Win7 Pro64	06/13
20AA002B++	i5-3437U	4GB	14.0" HD+	256G SSD OPAL	Backlit	Intel 6235	Ericsson	selectable	Smart	iAMT	vPro	Win8 Pro64	06/13
20AA002C++	i5-3437U	4GB	14.0" HD+	256G SSD OPAL	Backlit	Intel 6235	Ericsson	selectable	Smart	iAMT	vPro	Win7 Pro64	06/13
20AA002H++	i5-3337U	4GB	14.0" HD+	256G SSD OPAL	Backlit	Intel 6235	Ericsson	selectable	Smart	None	No	Win8 Pro64	06/13
20AA002J++	i5-3337U	4GB	14.0" HD+	256G SSD OPAL	Backlit	Intel 6235	Ericsson	selectable	Smart	None	No	Win7 Pro64	06/13
20AA002P++	i5-3437U	4GB	14.0" HD+	256G SSD OPAL	None	Intel 6235	Ericsson	selectable	Smart	iAMT	vPro	Win7 Pro64	06/13
20AA002Q++	i5-3437U	4GB	14.0" HD+	256G SSD OPAL	None	Intel 6235	Ericsson	selectable	Smart	iAMT	vPro	Win8 Pro64	06/13
20AA002T++	i5-3437U	4GB	14.0" HD+	256G SSD OPAL	Backlit	Intel 6235	Ericsson	selectable	Smart	iAMT	vPro	Win7 Pro64	06/13
20AA002U++	i5-3437U	4GB	14.0" HD+	256G SSD OPAL	Backlit	Intel 6235	Ericsson	selectable	Smart	iAMT	vPro	Win8 Pro64	06/13
20AA002V++	i7-3687U	4+4GB	14.0" HD+	256G SSD OPAL	Backlit	Intel 6235	Ericsson	selectable	None	iAMT	vPro	Win8 Pro64	06/13

Country Code"+": AT (Austria), FR (France), GB (Germany w/ English OS), GE (Germany w/ German OS), IV (Israel), IW (Iceland), IX (Italy), MB (Belgium), MD (Denmark), MH (Netherlands), ML (Luxembourg), MN (Norway), MS (Sweden), MZ (Switzerland), NX (Netherlands), PG (Portugal), SP (Spain), UK (United Kingdom)

Note: models listed above might not be available in all WE countries

Positioning	Thin and light enterprise-class Ultrabook™; one spindle											
Processor	Intel® Core™ i5-3337U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.70GHz), HT technology Intel Core i5-3437U processor (2 cores, 1.90GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology Intel Core i7-3687U processor (2 cores, 2.10GHz, 4MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology											
Memory	12GB max ⁷ / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, 4GB memory soldered to systemboard, one 204-pin SO-DIMM socket											
Optical	None											
SATA disk	<i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/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, Shock Mounted Hard Drive, Active Protection System™											
M.2 SSD	None											
Widescreen display	14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 400:1 contrast ratio											
Camera	HD720p resolution, low light sensitive, face tracking, fixed focus											
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)											
Keyboard	6-row, spill-resistant, multimedia Fn keys, optional LED backlight											
UltraNav™	TrackPoint® pointing device and glass surface touchpad, integrated five buttons, multi-touch											
ThinkLight™	None											
Dimensions ³	14.0W" (WxDxH): 13.03" x 8.90" x 0.81"; 331mm x 226mm x 20.65mm											
Weight ²	3-cell: from 3.6 lb (1.63kg)											
Case color	Graphite Black											
Case material	<i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Base:</i> Magnesium alloy											
Battery - type	Integrated Li-Polymer 3-cell (47Whr), HW Authentication											
Battery - life ¹⁰	<i>MobileMark® 2007:</i> Windows 7: up to 9.0 hr <i>MobileMark 2012:</i> Windows 7: up to 5.9 hr; Windows 8: up to 6.4 hr											
Chipset	Mobile Intel QM77 Express Chipset											
ExpressCard	None											
Smart Card read	<i>Some:</i> Smart Card reader											
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)											
Ports	Two USB 3.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45), Dock connector											
PCIe WLAN ⁴	11a/b/g/n, M.2 Card, Intel Centrino® Advanced-N 6235, 2x2, Wi-Fi + BT combo adapter											
PCIe WWAN	Wireless WAN, Ericsson® N5321, HSPA+ 21Mbps/GSM/GPRS/EDGE, GPS, M.2 Card											
SIM card	User selectable, contract required with service provider											
Bluetooth™	Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter											
Ethernet	Intel 82579LM Gigabit Network Connection (Hanksville), PHY, PCIe x1											
Intel AMT	<i>Some:</i> Intel Active Management Technology (iAMT)											
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W x 2 / dual array microphone, combo audio/microphone jack											
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	Trusted Platform Module, TCG 1.2-compliant											
Fingerprint reader	AuthenTec fingerprint reader on the keyboard bezel, 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 public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available											

Preloaded operating system^{20F}
- Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit
- Some: Windows 8 Pro 64-bit

Preloaded applications⁵ (only some listed)

- **Windows 7 models**
 - Lenovo® Message Center Plus
 - ThinkVantage Product Recovery
 - Access Connections™
 - ThinkVantage Power Manager
 - Lenovo SimpleTap
 - Adobe® Reader®
- **Windows 8 models**
 - Lenovo Support
 - Lenovo Companion
 - Lenovo QuickLaunch
- **All models**
 - Lenovo Solution Center
 - Password Manager
 - ThinkVantage System Update
 - Fingerprint Software (fingerprint models)
 - Lenovo Cloud Storage by SugarSync
 - Microsoft® Office preloaded; purchase a product key to activate
 - Norton™ Internet Security (30 days of virus definitions)
 - Skype™
 - AccuWeather
 - Amazon Kindle
 - Intel AppUp®
 - Nitro Pro
 - PC Device Stage
 - Evernote

Supports ThinkVantage® technologies

45-watt AC adapter
 EPEAT™ Silver rating
 ENERGY STAR® 5.0-compliant
 GREENGUARD® certified
 RoHS-compliant
 International Warranty Service¹⁷
 24 hour x 7 day¹⁸ toll-free support during the warranty period¹²

See footnotes for more detailed information

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 (G-ST1-3) August 2013

ThinkPad T431s 20AC

Product Specifications Reference (PSREF)

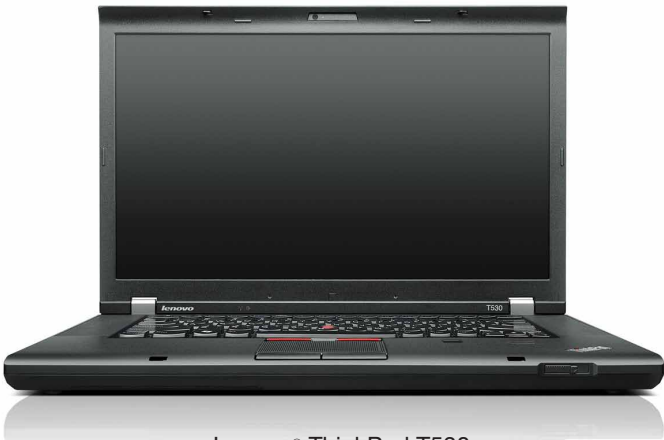
Type-model	Processor	Memory	Wide-screen display	Disk SATA GB ⁹ rpm	Backlit key-board	M.2 Card WLAN	M.2 Card WWAN/SSD	Finger print reader	Blue-tooth	Bat-tery cells	Intel vPro	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
20AC000A++	i5-3437U	4GB	14.0" HD+	500G 7200	Backlit	Intel 6235 ²⁸	24GB	Finger	BT	3	vPro	G	Win8 Pro64	03/13

Country Code "++": AT (Austria), FR (France), GB (Germany w/ English OS), GE (Germany w/ German OS), IV (Israel), IW (Iceland), IX (Italy), MB (Belgium), MD (Denmark), MH (Netherlands), ML (Luxembourg), MN (Norway), MS (Sweden), MZ (Switzerland), NX (Netherlands), PG (Portugal), SP (Spain), UK (United Kingdom)
 Note: models listed above might not be available in all WE countries

Positioning Processor	<i>Thin and light enterprise-class Ultrabook™; one spindle</i> Intel® Core™ i5-3437U processor (2 cores, 1.90GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology		Preloaded operating system ^{20F} - Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models <ul style="list-style-type: none">• Lenovo® Message Center Plus• ThinkVantage Product Recovery• Access Connections™• ThinkVantage Power Manager• Lenovo SimpleTap• Adobe® Reader® - Windows 8 models <ul style="list-style-type: none">• Lenovo Support• Lenovo Companion• Lenovo QuickLaunch - All models <ul style="list-style-type: none">• Lenovo Solution Center• Password Manager• ThinkVantage System Update• Fingerprint Software (fingerprint models)• Lenovo Cloud Storage by SugarSync• Microsoft® Office preloaded; purchase a product key to activate• Norton™ Internet Security (30 days of virus definitions)• Skype™• AccuWeather• Amazon Kindle• Intel AppUp®• Nitro Pro• PC Device Stage• Evernote Supports ThinkVantage® technologies 45-watt AC adapter EPEAT™ Silver rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Memory	12GB max ⁷ / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, 4GB memory soldered to systemboard, one 204-pin SO-DIMM socket		
Optical SATA disk	None <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/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, Shock Mounted Hard Drive, Active Protection System™		
M.2 SSD	M.2 Solid State Drive (SSD), via M.2 Card slot		
Widescreen display	14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 400:1 contrast ratio		
Camera	HD720p resolution, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		
Keyboard UltraNav™ ThinkLight™	6-row, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device and glass surface touchpad, integrated five buttons, multi-touch None		
Dimensions ³ Weight ² Case color Case material	14.0W" (WxDxH): 13.03" x 8.90" x 0.81"; 331mm x 226mm x 20.65mm <i>3-cell:</i> from 3.6 lb (1.63kg) Graphite Black <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Base:</i> Magnesium alloy Integrated Li-Polymer 3-cell (47Whr), HW Authentication <i>MobileMark® 2007:</i> Windows 7: up to 9.0 hr <i>MobileMark 2012:</i> Windows 7: up to 5.9 hr; Windows 8: up to 6.4 hr		
Battery - type Battery - life ¹⁰			
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM77 Express Chipset None None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45), Dock connector		
PCle WLAN ⁴ PCle WWAN SIM card Bluetooth™ Ethernet Intel AMT Audio support	11a/b/g/n, M.2 Card, Intel Centrino® Advanced-N 6235, 2x2, Wi-Fi + BT combo adapter None None None Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter Intel 82579LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W x 2 / dual array microphone, combo audio/microphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant AuthenTec fingerprint reader on the keyboard bezel, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Security Security chip Fingerprint reader			
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for more detailed information

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Lenovo® ThinkPad T530



Lenovo ThinkPad T530



Lenovo ThinkPad T530



Lenovo ThinkPad T530



Lenovo ThinkPad T530



Lenovo ThinkPad T530

ThinkPad T530 2392 (TopSeller)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	SIM card	Finger print reader	Blue-tooth	Bat-tery cells	Intel vPro	Preload(mm/yy)	Ann Date
2392-38G	i5-3210M	4GBx1	15.6" HD	720p	500G 7200	Backlit	Intel 6205 ²⁸	WWAN upg	None	Finger	BT	6	None	Pro 64	06/12

- **Small and medium business (SMB) model(s), part of the WE TopSeller™ Program**
- **A depot repair service 3-year limited warranty**

Positioning Processor	Premiere performance; two spindles Intel® Core™ i5-3210M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology		Preloaded operating system²⁰ Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • RapidBoot HDD Accelerator • Symantec™ VIP • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
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 6.0Gb/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 <i>Some:</i> 15.6" (396mm) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material	<i>15.6W" (WxDxH):</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>6-cell:</i> starting at 5.39 lb (2.45kg); <i>9-cell:</i> starting at 5.76 lb (2.62kg) <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 as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 9.1 hr; <i>9-cell (94Whr):</i> up to 15.3 hr; <i>9-cell plus 9-cell Slice battery (94Whr):</i> up to 30.6 hr		
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)		
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN SIM card Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 None HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W 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 AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades²² available		

See footnotes for more detailed information

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ThinkPad T530 2392 (TopSeller) - Windows 8

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Disk SATA GB ⁹ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	Smart Card Reader	Finger print reader	Battery cells	Intel AMT	Intel vPro	Preload	Ann Date (mm/yy)
2392-AWG	i5-3320M	4GBx1	15.6" HD+	500G 7200	None	Intel 6205 ²⁸	WWAN upg	Smart	Finger	6	iAMT	vPro	Win7 Pro64	10/12
2392-AUG	i5-3210M	4GBx1	15.6" HD	500G 7200	None	Intel 6205	WWAN upg	Smart	Finger	6	None	None	Win7 Pro64	10/12
2392-EKG	i3-3120M	4GBx1	15.6" HD+	180G SSD	Backlit	Intel 6205	WWAN upg	None	None	6	None	None	Win8 Pro64	06/13
2392-EJG	i3-3120M	4GBx1	15.6" HD+	180G SSD	Backlit	Intel 6205	WWAN upg	None	None	6	None	None	Win7 Pro64	06/13
2392-EHG	i3-3120M	4GBx1	15.6" HD	500G 7200	Backlit	Intel 2200	WWAN upg	None	None	6	None	None	Win8 Pro64	06/13
2392-EGG	i3-3120M	4GBx1	15.6" HD	500G 7200	Backlit	Intel 2200	WWAN upg	None	None	6	None	None	Win7 Pro64	06/13

- **Small and medium business (SMB) model(s), part of the WE TopSeller™ Program**
- **A depot repair service 3-year limited warranty**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i3-3120M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Hyper-Threading technology Intel Core i5-3210M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology										Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit			
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller										Preloaded applications⁵ (only some listed) - Windows 7 models <ul style="list-style-type: none"> • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models <ul style="list-style-type: none"> • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • AccuWeather • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models <ul style="list-style-type: none"> • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions) 			
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 6.0Gb/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 <i>Some:</i> 15.6" (396mm) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut													
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus													
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)													
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case material	15.6W" (WxDxH): 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm 6-cell: starting at 5.39 lb (2.45kg); 9-cell: starting at 5.76 lb (2.62kg) <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 as 2nd battery, HW Authentication 6-cell (57Whr): up to 9.1 hr; 9-cell (94Whr): up to 15.3 hr; 9-cell plus 9-cell Slice battery (94Whr): up to 30.6 hr													
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) <i>Some:</i> Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)													
PCIe Mini Card PCIe WLAN ⁴	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2													
PCIe WWAN SIM card Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Wireless WAN upgradable None None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>Some:</i> Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W 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 Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip													
Security Security chip Fingerprint reader														
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 GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²			

See footnotes for more detailed information

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ThinkPad T530 2392 (Optimus) - TopSeller

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	SIM card	Finger-print reader	Battery cells	Intel vPro	Preload	Ann Date (mm/yy)
2392-37G	i5-3210M	4GBx1	15.6" HD+	720p	500G 7200	Backlit	Intel 6205 ²⁸	Ericsson	selectable	Finger	6	None	Pro 64	06/12

- **Small and medium business (SMB) model(s), part of the WE TopSeller™ Program**
- **A depot repair service 3-year limited warranty**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-3210M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000. DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology										Preloaded operating system²⁰ Genuine Windows® 7 Professional 64			
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller										Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager			
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 6.0Gb/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										Preloaded applications¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • RapidBoot HDD Accelerator • Symantec™ VIP • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)			
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 <i>Some:</i> 15.6" (396mm) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut													
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus													
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA NVS™ 5400M , PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)													
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case material	15.6W" (WxDxH): 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>6-cell:</i> starting at 5.73 lb (2.60kg); <i>9-cell:</i> starting at 6.10 lb (2.77kg) <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 as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 7.7 hr; <i>9-cell (94Whr):</i> up to 12.8 hr; <i>9-cell plus 9-cell Slice battery (94Whr):</i> up to 25.6 hr													
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)													
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS													
SIM card Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	User selectable, contract required with service provider None IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 None HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W 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 AuthenTec 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 GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²			

See footnotes for more detailed information

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(G-KN4-2) August 2013

ThinkPad T530 2392 (Optimus) - TopSeller (Windows 8)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Disk SATA GB ⁵ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	Smart Card Reader	Finger print reader	Battery cells	Intel AMT	Intel vPro	Preload	Ann Date (mm/yy)
2392-AYG	i7-3520M	4GBx2	15.6" FHD	500G 7200	None	Intel 6205 ²⁸	WWAN upg	Smart	Finger	9	iAMT	vPro	Win7 Pro64	10/12
2392-AXG	i7-3520M	4GBx2	15.6" HD+	1T 5400	None	Intel 6205	WWAN upg	Smart	Finger	9	iAMT	vPro	Win7 Pro64	10/12
2392-AVG	i5-3320M	4GBx1	15.6" HD	500G 7200	None	Intel 6300 ²⁸	WWAN upg	Smart	Finger	6	iAMT	vPro	Win7 Pro64	10/12
2392-ATG	i5-3210M	4GBx1	15.6" HD+	500G 7200	None	Intel 6205	WWAN upg	None	Finger	6	None	None	Win7 Pro64	10/12

- **Small and medium business (SMB) model(s), part of the WE TopSeller™ Program**
- **A depot repair service 3-year limited warranty**

Positioning Processor	Premiere performance; two spindles Intel® Core™ i5-3210M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system²⁰ - Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit Preloaded applications⁵ (only some listed) - Windows 7 models <ul style="list-style-type: none">• Lenovo® Message Center Plus• ThinkVantage Product Recovery• Access Connections™• ThinkVantage Power Manager• Lenovo SimpleTap• Adobe® Reader®• Windows Live™ Essentials• Corel® WinDVD® (DVD±RW)• Corel Burn.Now™ Lenovo Edition (DVD±RW)• Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models <ul style="list-style-type: none">• Lenovo Support• Lenovo Companion• Lenovo QuickLaunch• AccuWeather• PC Device Stage• Cyberlink Power2Go (DVD±RW)• Cyberlink PowerProducer (DVD±RW) - All models <ul style="list-style-type: none">• Lenovo Solution Center• Password Manager• ThinkVantage System Update• Fingerprint Software (fingerprint models)• Lenovo Cloud Storage by SugarSync• Microsoft® Office preloaded; purchase a product key to activate• Norton™ Internet Security (30 days of virus definitions)
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
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 6.0Gb/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 <i>Some:</i> 15.6" (396mm) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA NVS™ 5400M , PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material	15.6W" (WxDxH): 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>6-cell:</i> starting at 5.73 lb (2.60kg); <i>9-cell:</i> starting at 6.10 lb (2.77kg) <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 as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 7.7 hr; <i>9-cell (94Whr):</i> up to 12.8 hr; <i>9-cell plus 9-cell Slice battery (94Whr):</i> up to 25.6 hr		
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) <i>Some:</i> Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)		
PCIe Mini Card PCIe 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		
PCIe WWAN SIM card Modem	Wireless WAN upgradable None None		
IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>Some:</i> Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W 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 AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades²² available		

See footnotes for more detailed information

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Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN / mSATA	Smart Card Reader	Finger print reader	Blue-tooth	Bat-tery cells	Intel AMT	Global (G) Intel vPro (P) Preload	Ann Date (mm/yy)
2394-5UG	i5-3320M	4GBx1	15.6" HD+	720p	180G SSD	None	Intel 6205 ²⁸	upg	None	Finger	BT	6	iAMT	vPro G	Pro 64 06/12
2394-5VG	i5-3320M	4GBx1	15.6" HD+	720p	128G SSD	None	Intel 6205	upg	None	Finger	BT	6	iAMT	vPro G	Pro 64 06/12
2394-5YG	i7-3520M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205	upg	None	Finger	BT	6	iAMT	vPro G	Pro 64 06/12
2394-62G	i5-3320M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205	upg	None	Finger	BT	6	iAMT	vPro G	Pro 64 06/12
2394-63G	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	None	Intel 6205	upg	None	Finger	BT	6	iAMT	vPro G	Pro 64 06/12
2394-64G	i5-3320M	4GBx1	15.6" HD	None	320G 7200	None	Intel 6205	upg	Smart	None	No	9	iAMT	vPro G	Pro 64 06/12
2394-23G	i7-3520M	4GBx1	15.6" HD	720p	500G 7200	None	Intel 6205	upg	None	Finger	BT	6	iAMT	vPro G	Pro 64 06/12
2394-22G	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	None	Intel 6205	upg	None	Finger	BT	6	iAMT	vPro G	Pro 64 06/12
2394-70G	i5-3320M	4GBx1	15.6" HD+	720p	320G 7200	None	Intel 6205	upg	Smart	Finger	BT	6	iAMT	vPro G	Pro 64 07/12
2394-7DG	i5-2520M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205	upg	None	Finger	BT	6	None	No	Pro 64 10/12
2394-7HG	i5-2520M	4GBx1	15.6" HD	720p	320G 7200	None	Intel 6205	upg	None	Finger	BT	6	None	No	Pro 64 10/12

• A depot repair service 3-year limited warranty

Positioning Processor	Premiere performance; two spindles Intel® Core™ i5-2520M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 3000 , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager	
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo® Solution Center• Lenovo Message Center Plus• ThinkVantage Product Recovery• Access Connections™• Fingerprint Software (fingerprint models)• ThinkVantage System Update• ThinkVantage Power Manager• Lenovo Cloud Storage by SugarSync• Lenovo SimpleTap• Microsoft® Office preloaded; purchase a product key to activate• Norton™ Internet Security 2012 (30 days of virus definitions)• Adobe® Reader®• Skype™ for Windows• Evernote®• Intel Small Business Advantage• RapidBoot HDD Accelerator• Symantec™ VIP• Windows Live™ Essentials• Corel® WinDVD® (DVD±RW)• Corel Burn.Now™ Lenovo Edition (DVD±RW)• Corel DVD MovieFactory® Lenovo Edition (DVD±RW)	
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 6.0Gb/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 <i>Some:</i> 15.6" (396mm) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut			
Camera	<i>Some:</i> HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus			
Graphics	Intel HD Graphics 3000 or 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)			
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions			
Dimensions ³ Weight ² Case material	15.6W" (WxDxH): 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>6-cell:</i> starting at 5.39 lb (2.45kg); <i>9-cell:</i> starting at 5.76 lb (2.62kg) <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 as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 9.1 hr; <i>9-cell (94Whr):</i> up to 15.3 hr; <i>9-cell plus 9-cell Slice battery (94Whr):</i> up to 30.6 hr			
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) <i>Some:</i> Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)			
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN SIM card Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None None <i>Some:</i> Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>Some:</i> Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W 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 Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip			
Security Security chip Fingerprint reader			Supports ThinkVantage® technologies	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²	

See footnotes for more detailed information

ThinkPad T530 2394 (Windows 8)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	Finger print reader	Blue-tooth	Bat-tery cells	Intel vPro	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
2394-42G	i7-3520M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205 ²⁸	WWAN upg	Finger	BT	6	vPro	G	Win8 Pro64	10/12
2394-43G	i5-3320M	4GBx1	15.6" HD+	720p	180G SSD	None	Intel 6205	WWAN upg	Finger	BT	6	vPro	G	Win8 Pro64	10/12
2394-44G	i5-3320M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	6	vPro	G	Win8 Pro64	10/12
2394-45G	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	None	Intel 6205	WWAN upg	Finger	BT	6	vPro	G	Win8 Pro64	10/12

• A depot repair service 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology			Preloaded operating system ²⁰ - Windows® 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • AccuWeather • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions)
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller			
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 6.0Gb/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 <i>Some:</i> 15.6" (396mm) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut			
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus			
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)			
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions			
Dimensions ³ Weight ² Case material	15.6W" (WxDxH): 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>6-cell:</i> starting at 5.39 lb (2.45kg); <i>9-cell:</i> starting at 5.76 lb (2.62kg) <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 as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 9.1 hr; <i>9-cell (94Whr):</i> up to 15.3 hr; <i>9-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> up to 30.6 hr			
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)			
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN SIM card Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W 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 AuthenTec 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

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ThinkPad T530 2394 (Optimus)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Disk SATA GB ² rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	SIM card	Smart Card Reader	Finger print reader	Bat-tery cells	Intel AMT	Intel vPro	Global (G) GMP (P)Preload	Ann Date (mm/yy)
2394-5RG	i7-3520M	4GBx1	15.6" FHD	180G SSD	None	Intel 6205 ²⁸	WWAN upg	None	None	Finger	9	iAMT	vPro	G	Pro 64 06/12
2394-5TG	i7-3520M	4GBx1	15.6" HD+	180G SSD	None	Intel 6205	WWAN upg	None	None	Finger	9	iAMT	vPro	G	Pro 64 06/12
2394-5WG	i7-3520M	4GBx1	15.6" FHD	500G 7200	None	Intel 6205	WWAN upg	None	None	Finger	9	iAMT	vPro	G	Pro 64 06/12
2394-5XG	i7-3520M	4GBx1	15.6" HD+	500G 7200	None	Intel 6205	WWAN upg	None	None	Finger	9	iAMT	vPro	G	Pro 64 06/12
2394-5ZG	i5-3320M	4GBx1	15.6" FHD	500G 7200	None	Intel 6205	WWAN upg	None	None	Finger	9	iAMT	vPro	G	Pro 64 06/12
2394-61G	i5-3320M	4GBx1	15.6" HD+	500G 7200	None	Intel 6205	WWAN upg	None	None	Finger	9	iAMT	vPro	G	Pro 64 06/12
2394-65G	i5-3320M	4GBx1	15.6" HD+	320G 7200	None	Intel 6205	WWAN upg	None	None	Finger	9	iAMT	vPro	G	Pro 64 06/12
2394-7GG	i5-2520M	4GBx1	15.6" FHD	180G SSD	Backlit	Intel 6300 ²⁸	Ericsson	selectable	Smart	Finger	9	None	No		Pro 64 10/12
2394-7FG	i5-2520M	4GBx1	15.6" FHD	128G SSD	None	Intel 6205	WWAN upg	None	None	Finger	9	None	No		Pro 64 10/12
2394-7EG	i5-2520M	4GBx1	15.6" HD+	500G 7200	Backlit	Intel 6205	Ericsson	selectable	Smart	Finger	9	None	No		Pro 64 10/12
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-2520M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 3000, DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology										Preloaded operating system²⁰ Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • RapidBoot HDD Accelerator • Symantec™ VIP • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)				
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller														
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 6.0Gb/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 <i>Some:</i> 15.6" (396mm) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut														
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus														
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 or 4000 in processor, and NVIDIA NVS™ 5400M , PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)														
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ² Case material	15.6W" (WxDxH): 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm 6-cell: starting at 5.73 lb (2.60kg); 9-cell: starting at 6.10 lb (2.77kg) 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 as 2nd battery, HW Authentication 6-cell (57Whr): up to 7.7 hr; 9-cell (94Whr): up to 12.8 hr; 9-cell plus 9-cell Slice battery (94Whr): up to 25.6 hr														
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) <i>Some:</i> Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)														
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN	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 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS														
SIM card Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> User selectable, contract required with service provider None IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>Some:</i> Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W 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 AuthenTec 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 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				

See footnotes for more detailed information

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ThinkPad T530 2394 (Optimus) - Windows 8

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	Finger print reader	Battery cells	Global (G) Intel vPro	GMP (P)	Preload	Ann Date (mm/yy)
2394-41G	i7-3520M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205 ²⁸	WWAN upg	Finger	9	vPro	G	Win8 Pro64	10/12

• A depot repair service 3-year limited warranty

Positioning Processor	Premiere performance; two spindles Intel® Core™ i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system ²⁰ - Windows® 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • AccuWeather • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions)
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
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 6.0Gb/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 <i>Some:</i> 15.6" (396mm) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA NVS™ 5400M , PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material	15.6W" (WxDxH): 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>6-cell:</i> starting at 5.73 lb (2.60kg); <i>9-cell:</i> starting at 6.10 lb (2.77kg) <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 as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 7.7 hr; <i>9-cell (94Whr):</i> up to 12.8 hr; <i>9-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> up to 25.6 hr		
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)		
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN SIM card Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W 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 AuthenTec 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 GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²

See footnotes for more detailed information

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ThinkPad T530 2429 (Onsite)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Disk SATA GB ³ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	SIM card	Smart Card Reader	Battery cells	Power Adapter (watt)	Intel AMT	Intel vPro	Global (G) GMP (P)	Preload (mm/yy)	Ann Date
2429-2WG	i7-3520M	4GBx1	15.6" HD+	500G 7200	Backlit	Intel 6205 ²⁸	Ericsson	selectable	None	6	90W	iAMT	vPro		Pro 64	06/12
2429-5UG	i5-3320M	4GBx1	15.6" HD+	180G SSD	None	Intel 6205	WWAN upg	None	None	6	65W	iAMT	vPro	G P	Pro 64	06/12
2429-5VG	i5-3320M	4GBx1	15.6" HD+	128G SSD	None	Intel 6205	WWAN upg	None	None	6	65W	iAMT	vPro	G P	Pro 64	06/12
2429-5YG	i7-3520M	4GBx1	15.6" HD+	500G 7200	None	Intel 6205	WWAN upg	None	None	6	65W	iAMT	vPro	G P	Pro 64	06/12
2429-62G	i5-3320M	4GBx1	15.6" HD+	500G 7200	None	Intel 6205	WWAN upg	None	None	6	65W	iAMT	vPro	G P	Pro 64	06/12
2429-64G	i5-3320M	4GBx1	15.6" HD+	320G 7200	None	Intel 6205	WWAN upg	None	None	6	65W	iAMT	vPro	G P	Pro 64	06/12
2429-2DG	i5-3320M	4GBx1	15.6" HD+	320G 7200	None	Intel 6205	Ericsson	selectable	Smart	6	90W	iAMT	vPro		Pro 64	06/12
2429-23G	i7-3520M	4GBx1	15.6" HD	500G 7200	None	Intel 6205	WWAN upg	None	None	6	65W	iAMT	vPro	G P	Pro 64	06/12
2429-22G	i5-3320M	4GBx1	15.6" HD	320G 7200	None	Intel 6205	WWAN upg	None	None	6	65W	iAMT	vPro	G P	Pro 64	06/12
2429-70G	i5-3320M	4GBx1	15.6" HD+	320G 7200	None	Intel 6205	WWAN upg	None	Smart	6	65W	iAMT	vPro	G P	Pro 64	07/12
2429-74G	i5-2520M	4GBx1	15.6" HD+	500G 7200	None	Intel 6205	WWAN upg	None	None	6	65W	None	No		Pro 64	10/12
2429-73G	i5-2520M	4GBx1	15.6" HD	320G 7200	None	Intel 6205	WWAN upg	None	None	6	65W	None	No		Pro 64	10/12
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-2520M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 3000, DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology											Preloaded operating system²⁰ Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager				
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller											Preloaded applications¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • RapidBoot HDD Accelerator • Symantec™ VIP • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)				
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 6.0Gb/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 <i>Some:</i> 15.6" (396mm) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut															
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus															
Graphics	Intel HD Graphics 3000 or 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)															
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³ Weight ² Case material	15.6W" (WxDxH): 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>6-cell:</i> starting at 5.39 lb (2.45kg); <i>9-cell:</i> starting at 5.76 lb (2.62kg) <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 as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 9.1 hr; <i>9-cell (94Whr):</i> up to 15.3 hr; <i>9-cell plus 9-cell Slice battery (94Whr):</i> up to 30.6 hr															
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) <i>Some:</i> Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)															
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS															
SIM card Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> User selectable, contract required with service provider None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>Some:</i> Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W 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 Trusted Platform Module, TCG 1.2-compliant															
Security Security chip Fingerprint reader	AuthenTec 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 public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades 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 GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				

See footnotes for more detailed information

ThinkPad T530 2429 (Onsite) - Windows 8

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Disk SATA GB ⁶ rpm	Backlit key-board	PCle Mini Card WLAN	PCle Mini Card WWAN /mSATA	SIM card	Finger print reader	Bat-tery cells	Intel AMT	Intel vPro	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
2429-6MG	i5-3210M	4GBx1	15.6" HD	500G 7200	Backlit	Intel 6205 ²⁸	WWAN upg	None	Finger	6	None	No		Win7 Pro64	10/12
2429-6KG	i7-3520M	4GBx1	15.6" HD+	500G 7200	Backlit	Intel 6205	Ericsson	selectable	Finger	6	iAMT	vPro		Win7 Pro64	10/12
2429-42G	i7-3520M	4GBx1	15.6" HD	500G 7200	None	Intel 6205	WWAN upg	None	Finger	6	iAMT	vPro	G P	Win8 Pro64	10/12
2429-43G	i5-3320M	4GBx1	15.6" HD+	180G SSD	None	Intel 6205	WWAN upg	None	Finger	6	iAMT	vPro	G P	Win8 Pro64	10/12
2429-44G	i5-3320M	4GBx1	15.6" HD+	500G 7200	None	Intel 6205	WWAN upg	None	Finger	6	iAMT	vPro	G P	Win8 Pro64	10/12
2429-45G	i5-3320M	4GBx1	15.6" HD	320G 7200	None	Intel 6205	WWAN upg	None	Finger	6	iAMT	vPro	G P	Win8 Pro64	10/12
2429-6DG	i5-3210M	4GBx1	15.6" HD	500G 7200	Backlit	Intel 6205	WWAN upg	None	Finger	6	None	No		Win8 Pro64	10/12
2429-6BG	i7-3520M	4GBx1	15.6" HD+	500G 7200	Backlit	Intel 6205	Ericsson	selectable	Finger	6	iAMT	vPro		Win8 Pro64	10/12

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

Positioning Processor	Premiere performance; two spindles Intel® Core™ i5-3210M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology										Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit				
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller										Preloaded applications⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • AccuWeather • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions)				
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 6.0Gb/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 (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut 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) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut														
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus														
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; Maximum external resolution: 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)														
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ² Case material	15.6W" (WxDxH): 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm 6-cell: starting at 5.39 lb (2.45kg); 9-cell: starting at 5.76 lb (2.62kg) 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 as 2nd battery, HW Authentication 6-cell (57Whr): up to 9.1 hr; 9-cell (94Whr): up to 15.3 hr; 9-cell plus 9-cell Slice battery (94Whr, 0A36304): up to 30.6 hr														
Chipset ExpressCard Smart Card Reader Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)														
PCle Mini Card PCle WLAN ⁴ PCle WWAN	Two PCI Express Mini Card slots 11a/b/g/n, PCle Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Some: Wireless WAN upgradable Some: Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCle Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS														
SIM card Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Some: User selectable, contract required with service provider None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCle x1 Some: Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W 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 AuthenTec 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 public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available										Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				

See footnotes for more detailed information

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ThinkPad T530 2429 (Onsite) - Windows 8 - II

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	Finger print reader	Blue-tooth	Battery cells	Intel vPro	Preload	Ann Date (mm/yy)
2429-86G	i5-3230M	4GBx1	15.6" HD+	720p	240G FDE SSD	Backlit	Intel 6205 ²⁸	WWAN upg	Finger	BT	6	No	Win8 Pro64	03/13
2429-85G	i5-3230M	4GBx1	15.6" HD+	720p	240G FDE SSD	Backlit	Intel 6205	WWAN upg	Finger	BT	6	No	Win7 Pro64	03/13
2429-84G	i5-3230M	4GBx1	15.6" HD	720p	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	BT	6	No	Win8 Pro64	03/13
2429-7TG	i5-3230M	4GBx1	15.6" HD	720p	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	BT	6	No	Win7 Pro64	03/13
2429-8EG	i5-3230M	4GBx1	15.6" HD+	720p	240G FDE SSD	Backlit	Intel 6205	WWAN upg	None	BT	6	No	Win8 Pro64	06/13
2429-8DG	i5-3230M	4GBx1	15.6" HD+	720p	240G FDE SSD	Backlit	Intel 6205	WWAN upg	None	BT	6	No	Win7 Pro64	06/13
2429-8CG	i5-3230M	4GBx1	15.6" HD	720p	500G 7200	Backlit	Intel 6205	WWAN upg	None	BT	6	No	Win8 Pro64	06/13
2429-8BG	i5-3230M	4GBx1	15.6" HD	720p	500G 7200	Backlit	Intel 6205	WWAN upg	None	BT	6	No	Win7 Pro64	06/13
2429-8JG	i5-3230M	4GBx1	15.6" HD+	720p	256G SSD OPAL	Backlit	Intel 6205	WWAN upg	None	BT	6	No	Win8 Pro64	06/13
2429-8HG	i5-3230M	4GBx1	15.6" HD+	720p	256G SSD OPAL	Backlit	Intel 6205	WWAN upg	None	BT	6	No	Win7 Pro64	06/13

Positioning Processor	Premiere performance; two spindles Intel® Core™ i5-3230M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology		Preloaded operating system ²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • AccuWeather • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions)
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
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 6.0Gb/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 (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut 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) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material	<i>15.6W" (WxDxH):</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>6-cell:</i> starting at 5.39 lb (2.45kg); <i>9-cell:</i> starting at 5.76 lb (2.62kg) <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 as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 9.1 hr; <i>9-cell (94Whr):</i> up to 15.3 hr; <i>9-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> up to 30.6 hr		
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)		
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN SIM card Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 None HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W 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 Some: AuthenTec 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 public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available		

Supports ThinkVantage® technologies
65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²

See footnotes for more detailed information

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ThinkPad T530 2429 (Optimus) - Onsite

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Disk SATA GB ⁸ rpm	Backlit key-board	PCle Mini Card WLAN	PCle Mini Card WWAN /mSATA	SIM card	Battery cells	Power Adapter (watt)	Intel AMT	Global (G) Intel vPro GMP (P)	Ann Date (mm/yy)
2429-2VG	i7-3610QM	4GBx1	15.6" HD+	500G 7200	Backlit	Intel 6205 ²⁸	Ericsson	selectable	9	135W	None	No	Pro 64 06/12
2429-2UG	i7-3610QM	4GBx1	15.6" FHD	180G SSD	Backlit	Intel 6205	Ericsson	selectable	9	135W	None	No	Pro 64 06/12
2429-5RG	i7-3520M	4GBx1	15.6" FHD	180G SSD	None	Intel 6205	WWAN upg	None	9	90W	iAMT	vPro G P	Pro 64 06/12
2429-5TG	i7-3520M	4GBx1	15.6" HD+	180G SSD	None	Intel 6205	WWAN upg	None	9	90W	iAMT	vPro G P	Pro 64 06/12
2429-5WG	i7-3520M	4GBx1	15.6" FHD	500G 7200	None	Intel 6205	WWAN upg	None	9	90W	iAMT	vPro G P	Pro 64 06/12
2429-5XG	i7-3520M	4GBx1	15.6" HD+	500G 7200	None	Intel 6205	WWAN upg	None	9	90W	iAMT	vPro G P	Pro 64 06/12
2429-5ZG	i5-3320M	4GBx1	15.6" FHD	500G 7200	None	Intel 6205	WWAN upg	None	9	90W	iAMT	vPro G P	Pro 64 06/12
2429-61G	i5-3320M	4GBx1	15.6" HD+	500G 7200	None	Intel 6205	WWAN upg	None	9	90W	iAMT	vPro G P	Pro 64 06/12
2429-63G	i5-3320M	4GBx1	15.6" HD+	320G 7200	None	Intel 6205	WWAN upg	None	9	90W	iAMT	vPro G P	Pro 64 06/12
2429-65G	i5-3320M	4GBx1	15.6" HD	320G 7200	None	Intel 6205	WWAN upg	None	9	90W	iAMT	vPro G P	Pro 64 06/12
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology Intel Core i7-3610QM processor (4 cores, 2.30GHz, 6MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology										Preloaded operating system²⁰ Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager		
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller										Preloaded applications¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • RapidBoot HDD Accelerator • Symantec™ VIP • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)		
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 6.0Gb/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 <i>Some:</i> 15.6" (396mm) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut												
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus												
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA NVS™ 5400M , PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)												
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³ Weight ² Case material	<i>15.6W" (WxDxH):</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>6-cell:</i> starting at 5.73 lb (2.60kg); <i>9-cell:</i> starting at 6.10 lb (2.77kg) <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 as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 7.7 hr; <i>9-cell (94Whr):</i> up to 12.8 hr; <i>9-cell plus 9-cell Slice battery (94Whr):</i> up to 25.6 hr												
Chipset ExpressCard Smart Card Reader Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)												
PCle Mini Card PCle WLAN ⁴ PCle WWAN	Two PCI Express Mini Card slots 11a/b/g/n, PCle Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCle Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS												
SIM card Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> User selectable, contract required with service provider None IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCle x1 <i>Some:</i> Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W 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 AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										Supports ThinkVantage® technologies 90-watt or 135-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²		
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available												

See footnotes for more detailed information

ThinkPad T530 2429 (Optimus) - Onsite - II

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Disk SATA GB ³ rpm	Backlit key-board	PCle Mini Card WLAN	PCle Mini Card WWAN /mSATA	SIM card	Smart Card Reader	Finger print reader	Bat-tery cells	Intel vPro	Preload	Ann Date (mm/yy)
2429-77G	i5-2520M	4GBx1	15.6" FHD	180G SSD	Backlit	Intel 6300 ²⁸	Ericsson	selectable	Smart	Finger	9	None	Pro 64	10/12
2429-76G	i5-2520M	4GBx1	15.6" FHD	128G SSD	None	Intel 6205 ²⁸	WWAN upg	None	None	Finger	9	None	Pro 64	10/12
2429-75G	i5-2520M	4GBx1	15.6" HD+	500G 7200	Backlit	Intel 6205	Ericsson	selectable	Smart	Finger	9	None	Pro 64	10/12

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-2520M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 3000, DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology										Preloaded operating system²⁰ Genuine Windows® 7 Professional 64			
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller										Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager			
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 6.0Gb/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										Preloaded applications¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • RapidBoot HDD Accelerator • Symantec™ VIP • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)			
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 <i>Some:</i> 15.6" (396mm) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut													
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus													
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 in processor, and NVIDIA NVS™ 5400M , PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)													
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case material	15.6W" (WxDxH): 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>6-cell:</i> starting at 5.73 lb (2.60kg); <i>9-cell:</i> starting at 6.10 lb (2.77kg) <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 as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 7.7 hr; <i>9-cell (94Whr):</i> up to 12.8 hr; <i>9-cell plus 9-cell Slice battery (94Whr):</i> up to 25.6 hr													
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) <i>Some:</i> Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)													
PCle Mini Card PCle WLAN ⁴	Two PCI Express Mini Card slots <i>Some:</i> 11a/b/g/n, PCle Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 <i>Some:</i> 11a/b/g/n, PCle Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCle Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS													
PCle WWAN	<i>Some:</i> User selectable, contract required with service provider													
SIM card Modem	None													
IEEE 1394 Bluetooth™ Ethernet	IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCle x1													
Intel AMT Audio support	None HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W 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 AuthenTec 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 public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available										Supports ThinkVantage® technologies 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²			

See footnotes for more detailed information

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ThinkPad T530 2429 (Optimus) - Onsite (Windows 8)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Disk SATA GB ¹ rpm	Backlit key-board	PCle Mini Card WLAN	PCle Mini Card WWAN /mSATA	Smart Card Reader	Bat-tery Adapter	Power (watt)	Intel AMT	Global (G) Intel vPro	Intel GMP (P)	Preload	Ann Date (mm/yy)
2429-6LG	i5-3210M	4GBx1	15.6" HD+	500G 7200	Backlit	6205 ²⁸	Ericsson selectable	Smart	6	90W	No	No	No	Win7 Pro64	10/12
2429-6JG	i7-3630QM	4GBx1	15.6" HD+	500G 7200	Backlit	6205	Ericsson selectable	None	9	135W	No	No	No	Win7 Pro64	10/12
2429-6HG	i7-3630QM	4GBx2	15.6" FHD	180G SSD	Backlit	6205	Ericsson selectable	None	9	135W	No	No	No	Win7 Pro64	10/12
2429-41G	i7-3520M	4GBx1	15.6" HD+	500G 7200	None	6205	upg	None	9	90W	iAMT	vPro G P	No	Win8 Pro64	10/12
2429-6FG	i7-3630QM	4GBx1	15.6" HD+	500G 7200	Backlit	6205	Ericsson selectable	None	9	135W	No	No	No	Win8 Pro64	10/12
2429-6EG	i7-3630QM	4GBx2	15.6" FHD	180G SSD	Backlit	6205	Ericsson selectable	None	9	135W	No	No	No	Win8 Pro64	10/12
2429-6CG	i5-3210M	4GBx1	15.6" HD+	500G 7200	Backlit	6205	Ericsson selectable	Smart	6	90W	No	No	No	Win8 Pro64	10/12
2429-8GG	i7-3630QM	8GBx1	15.6" FHD	256G SSD OPAL	Backlit	6205	Ericsson selectable	None	9	135W	No	No	No	Win8 Pro64	06/13
2429-8FG	i7-3630QM	8GBx1	15.6" FHD	256G SSD OPAL	Backlit	6205	Ericsson selectable	None	9	135W	No	No	No	Win7 Pro64	06/13

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

Positioning Processor	Premiere performance; two spindles Intel® Core™ i5-3210M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology Intel Core i7-3630QM processor (4 cores, 2.40GHz, 6MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology										Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit				
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller										Preloaded applications⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • AccuWeather • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions)				
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 6.0Gb/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 (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut 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) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut														
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus														
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA NVS™ 5400M , PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; Maximum external resolution: 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)														
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ² Case material	15.6W" (WxDxH): 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm 6-cell: starting at 5.73 lb (2.60kg); 9-cell: starting at 6.10 lb (2.77kg) 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 as 2nd battery, HW Authentication 6-cell (57Whr): up to 7.7 hr; 9-cell (94Whr): up to 12.8 hr; 9-cell plus 9-cell Slice battery (94Whr, 0A36304): up to 25.6 hr														
Chipset ExpressCard Smart Card Reader Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) Some: Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)														
PCle Mini Card PCle WLAN ⁴ PCle WWAN	Two PCI Express Mini Card slots 11a/b/g/n, PCle Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Some: Wireless WAN upgradable Some: Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCle Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS														
SIM card Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Some: User selectable, contract required with service provider None IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCle x1 Some: Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W 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 Trusted Platform Module, TCG 1.2-compliant														
Security Security chip Fingerprint reader	AuthenTec 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 public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available										Supports ThinkVantage® technologies 90-watt or 135-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				

See footnotes for more detailed information

ThinkPad T530 2429 (Optimus) - Onsite (Windows 8) - II

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Disk SATA GB ² rpm	Backlit key-board	PCle Mini Card WLAN	PCle Mini Card WWAN	Mini Card SIM card	Smart Card Reader	Finger print reader	Battery cells	Power Adapter (watt)	Intel vPro	Preload	Ann Date (mm/yy)
2429-82G	i5-3230M	4GBx1	15.6" HD+	500G 7200	Backlit	6205 ²⁸	Ericsson	selectable	Smart	Finger	6	90W	No	Win8 Pro64	03/13
2429-7ZG	i5-3230M	4GBx1	15.6" HD+	500G 7200	Backlit	6205	Ericsson	selectable	Smart	Finger	6	90W	No	Win7 Pro64	03/13
2429-7YG	i7-3630QM	8GBx1	15.6" FHD	240G FDE SSD	Backlit	6205	Ericsson	selectable	None	Finger	9	135W	No	Win8 Pro64	03/13
2429-7XG	i7-3630QM	8GBx1	15.6" FHD	240G FDE SSD	Backlit	6205	Ericsson	selectable	None	Finger	9	135W	No	Win7 Pro64	03/13
2429-8AG	i5-3230M	4GBx1	15.6" HD+	500G 7200	Backlit	6205	Ericsson	selectable	Smart	None	6	90W	No	Win8 Pro64	06/13
2429-89G	i5-3230M	4GBx1	15.6" HD+	500G 7200	Backlit	6205	Ericsson	selectable	Smart	None	6	90W	No	Win7 Pro64	06/13

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-3230M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i7-3630QM processor (4 cores, 2.40GHz, 6MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology		Preloaded operating system ²⁰ - <i>Some:</i> Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - <i>Some:</i> Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models <ul style="list-style-type: none">• Lenovo® Message Center Plus• ThinkVantage Product Recovery• Access Connections™• ThinkVantage Power Manager• Lenovo SimpleTap• Adobe® Reader®• Windows Live™ Essentials• Corel® WinDVD® (DVD±RW)• Corel Burn.Now™ Lenovo Edition (DVD±RW)• Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models <ul style="list-style-type: none">• Lenovo Support• Lenovo Companion• Lenovo QuickLaunch• AccuWeather• PC Device Stage• Cyberlink Power2Go (DVD±RW)• Cyberlink PowerProducer (DVD±RW) - All models <ul style="list-style-type: none">• Lenovo Solution Center• Password Manager• ThinkVantage System Update• Fingerprint Software (fingerprint models)• Lenovo Cloud Storage by SugarSync• Microsoft® Office preloaded; purchase a product key to activate• Norton™ Internet Security (30 days of virus definitions)
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
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 6.0Gb/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 <i>Some:</i> 15.6" (396mm) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA NVS™ 5400M , PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material	15.6W" (WxDxH): 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm 6-cell: starting at 5.73 lb (2.60kg); 9-cell: starting at 6.10 lb (2.77kg) <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 as 2nd battery, HW Authentication 6-cell (57Whr): up to 7.7 hr; 9-cell (94Whr): up to 12.8 hr; 9-cell plus 9-cell Slice battery (94Whr, 0A36304): up to 25.6 hr		
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) <i>Some:</i> Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)		
PCle Mini Card PCle WLAN ⁴ PCle WWAN	Two PCI Express Mini Card slots 11a/b/g/n, PCle Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCle Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS		
SIM card Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	User selectable, contract required with service provider None IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCle x1 None HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W 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> AuthenTec 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 public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available		

Supports ThinkVantage® technologies
90-watt or 135-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²

See footnotes for more detailed information

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ThinkPad T530i 2392 (TopSeller)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	SIM card	Finger print reader	Blue-tooth	Bat-tery cells	Intel vPro	Preload	Ann Date (mm/yy)
2392-39G	i3-2370M	4GBx1	15.6" HD	720p	320G 7200	Backlit	Intel 2200	WWAN upg	None	Finger	BT	6	None	Pro 64	06/12

- **Small and medium business (SMB) model(s), part of the WE TopSeller™ Program**
- **A depot repair service 3-year limited warranty**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i3-2370M processor (2 cores, 2.40GHz, 3MB cache), Intel HD Graphics 3000. DDR3 memory controller (up to 1333MHz), HT technology										Preloaded operating system²⁰ Genuine Windows® 7 Professional 64				
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller										Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager				
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 6.0Gb/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										Preloaded applications¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • RapidBoot HDD Accelerator • Symantec™ VIP • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)				
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 <i>Some:</i> 15.6" (396mm) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut														
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus														
Graphics	Intel HD Graphics 3000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)														
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ² Case material	<i>15.6W" (WxDxH):</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>6-cell:</i> starting at 5.39 lb (2.45kg); <i>9-cell:</i> starting at 5.76 lb (2.62kg) <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 as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 9.1 hr; <i>9-cell (94Whr):</i> up to 15.3 hr; <i>9-cell plus 9-cell Slice battery (94Whr):</i> up to 30.6 hr														
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)														
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN SIM card Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 Wireless WAN upgradable None None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 None HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W 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 AuthenTec 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 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				

See footnotes for more detailed information

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ThinkPad T530i 2392 (TopSeller) - Windows 8

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ² rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	Finger print reader	Blue-tooth	Bat-tery	Intel vPro	Preload	Ann Date (mm/yy)
2392-AHG	i3-3110M	4GBx1	15.6" HD	720p	500G 7200	Backlit	Intel 2200	WWAN upg	Finger	BT	6	None	Win7 Pro64	10/12
2392-5WG	i3-3110M	4GBx1	15.6" HD	720p	500G 7200	Backlit	Intel 2200	WWAN upg	Finger	BT	6	None	Win8 Pro64	10/12
2392-CMG	i3-3120M	4GBx1	15.6" HD	720p	500G 7200	Backlit	Intel 2200	WWAN upg	Finger	BT	6	None	Win8 Pro64	02/13
2392-E6G	i3-3120M	4GBx1	15.6" HD+	720p	180G SSD	Backlit	Intel 6205 ²⁸	WWAN upg	Finger	BT	6	None	Win8 Pro64	03/13
2392-E5G	i3-3120M	4GBx1	15.6" HD+	720p	180G SSD	Backlit	Intel 6205	WWAN upg	Finger	BT	6	None	Win7 Pro64	03/13
2392-E4G	i3-3120M	4GBx1	15.6" HD	720p	500G 7200	Backlit	Intel 2200	WWAN upg	Finger	BT	6	None	Win7 Pro64	03/13
2392-ENG	i3-3120M	4GBx1	15.6" HD+	720p	256G SSD OPAL	Backlit	Intel 6205	WWAN upg	None	BT	6	None	Win8 Pro64	06/13
2392-EMG	i3-3120M	4GBx1	15.6" HD+	720p	256G SSD OPAL	Backlit	Intel 6205	WWAN upg	None	BT	6	None	Win7 Pro64	06/13

- **Small and medium business (SMB) model(s), part of the WE TopSeller™ Program**
- **A depot repair service 3-year limited warranty**

Positioning Processor	Premiere performance; two spindles Intel® Core™ i3-3110M processor (2 cores, 2.40GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Hyper-Threading technology Intel Core i3-3120M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Hyper-Threading technology		Preloaded operating system ²⁰ - <i>Some:</i> Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - <i>Some:</i> Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • AccuWeather • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions)
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
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 6.0Gb/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 <i>Some:</i> 15.6" (396mm) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material	15.6W" (WxDxH): 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>6-cell:</i> starting at 5.39 lb (2.45kg); <i>9-cell:</i> starting at 5.76 lb (2.62kg) <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 as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 9.1 hr; <i>9-cell (94Whr):</i> up to 15.3 hr; <i>9-cell plus 9-cell Slice battery (94Whr):</i> up to 30.6 hr		
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)		
PCIe Mini Card PCIe WLAN ⁴	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2		
PCIe WWAN SIM card Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Wireless WAN upgradable None None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 None HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W 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 Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Security Security chip Fingerprint reader			
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

| Supports ThinkVantage® technologies | | |
| 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² | | |

See footnotes for more detailed information

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Lenovo® ThinkPad W530



Lenovo ThinkPad W530



Lenovo ThinkPad W530



Lenovo ThinkPad W530



Lenovo ThinkPad W530 with
four displays



Lenovo ThinkPad W530

ThinkPad W530 2438 (Optimus) - TopSeller (Windows 8)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Discrete graphics	Disk SATA GB ⁵ rpm	RAID	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Color calib	Battery cells	Intel vPro	Preload	Ann Date (mm/yy)
2438-4GG	i7-3720QM	4GBx1	15.6" HD+	K1000M	1x500G 7200	No	None	Intel 6205 ²⁸	WWAN upg	None	6	vPro	Win7 Pro64	10/12
2438-4FG	i7-3820QM	4GBx1	15.6" FHD	K1000M	1x500G 7200	No	None	Intel 6205	WWAN upg	None	6	vPro	Win7 Pro64	10/12
2438-4EG	i7-3720QM	4GBx1	15.6" HD	K1000M	1x320G 7200	No	None	Intel 6205	WWAN upg	None	6	vPro	Win7 Pro64	10/12

- **Small and medium business (SMB) model(s), part of the WE TopSeller™ Program**
- **A depot repair service 3-year limited warranty**
- **Power-packed engineering with Open GL graphics and ISV certifications**

Positioning Processor	Mobile workstation; two spindles Intel® Core™ i7-3720QM processor (4 cores, 2.60GHz, 6MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology Intel Core i7-3820QM processor (4 cores, 2.70GHz, 8MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.70GHz), HT technology									Preloaded operating system²⁰ - Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit Preloaded applications⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • AccuWeather • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions)				
Memory	<i>dual-core model:</i> 16GB max ⁷ , two 204-pin SO-DIMM sockets <i>quad-core model:</i> 32GB max, four 204-pin SO-DIMM sockets <i>All:</i> PC3-12800 1600MHz 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 6.0Gb/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> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 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, 60% Gamut <i>Some:</i> 15.6" (396mm) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut													
Color calibration Camera	None HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus													
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA Quadro® K1000M or K2000M , PCI Express® x16, 2GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 3840x2160@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)													
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case material	<i>15.6W" (WxDxH):</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>6-cell:</i> starting at 5.76 lb (2.62kg); <i>9-cell:</i> starting at 6.19 lb (2.81kg) <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 as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 7.7 hr; <i>9-cell (94Whr):</i> up to 12.8 hr; <i>9-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> up to 25.6 hr													
Chipset ExpressCard Smart Card Reader Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN SIM card Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W 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 AuthenTec 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 170-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				

See footnotes for more detailed information

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ThinkPad W530 2441 (Optimus)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Discrete graphics	Disk SATA GB ³	rpm	RAID	SATA optical	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Bat-tery cells	Global (G) Intel vPro	GMP (P) Preload (mm/yy)	Ann Date
2441-3TG	i7-3720QM	4GBx1	15.6" FHD	K1000M	2x500G	7200	1	None	None	Intel 6205 ²⁸	upg	Finger	9	vPro	G	Pro 64 06/12
2441-3SG	i7-3720QM	4GBx1	15.6" FHD	K1000M	2x500G	7200	0	None	None	Intel 6205	upg	Finger	9	vPro	G	Pro 64 06/12
2441-23G	i7-3820QM	4GBx2	15.6" FHD	K2000M	1x500G	7200	No	DVD±RW	None	Intel 6205	upg	Finger	9	vPro	G	Pro 64 06/12
2441-22G	i7-3720QM	4GBx1	15.6" HD+	K1000M	1x320G	7200	No	DVD±RW	None	Intel 6205	upg	Finger	9	vPro	G	Pro 64 06/12
2441-5RG	i7-3740QM	4GBx1	15.6" HD+	K1000M	1x320G	7200	No	DVD±RW	None	Intel 6205	upg	Finger	9	vPro	G	Pro 64 02/13
2441-5QG	i7-3840QM	4GBx2	15.6" FHD	K2000M	1x500G	7200	No	DVD±RW	None	Intel 6205	upg	Finger	9	vPro	G	Pro 64 02/13

- A depot repair service 3-year limited warranty
- Power-packed engineering with Open GL graphics and ISV certifications

Positioning Processor	<i>Mobile workstation; two spindles</i> Intel® Core™ i7-3720QM processor (4 cores, 2.60GHz, 6MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology Intel Core i7-3740QM processor (4 cores, 2.70GHz, 6MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.70GHz), HT technology Intel Core i7-3820QM processor (4 cores, 2.70GHz, 8MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.70GHz), HT technology Intel Core i7-3840QM processor (4 cores, 2.80GHz, 8MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.80GHz), HT technology		Preloaded operating system²⁰ Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo® Solution Center• Lenovo Message Center Plus• ThinkVantage Product Recovery• Access Connections™• Fingerprint Software (fingerprint models)• ThinkVantage System Update• ThinkVantage Power Manager• Lenovo Cloud Storage by SugarSync• Lenovo SimpleTap• Microsoft® Office preloaded; purchase a product key to activate• Norton™ Internet Security 2012 (30 days of virus definitions)• Adobe® Reader®• Skype™ for Windows• Evernote®• Intel Small Business Advantage• RapidBoot HDD Accelerator• Symantec™ VIP• Windows Live™ Essentials• Corel® WinDVD® (DVD±RW)• Corel Burn.Now™ Lenovo Edition (DVD±RW)• Corel DVD MovieFactory® Lenovo Edition (DVD±RW)• X-Rite® Pantone® Color Calibrator (color calibration models)
Memory	<i>dual-core model:</i> 16GB max ⁷ , two 204-pin SO-DIMM sockets <i>quad-core model:</i> 32GB max, four 204-pin SO-DIMM sockets <i>All:</i> PC3-12800 1600MHz DDR3, non-parity, dual-channel capable		
Optical Ultrabay SATA disk	<i>Some:</i> 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 6.0Gb/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) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut		
Color calibration Camera	None HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA Quadro® K1000M or K2000M , PCI Express® x16, 2GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 3840x2160@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material	<i>15.6W"</i> (WxDxH): 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>6-cell:</i> starting at 5.76 lb (2.62kg); <i>9-cell:</i> starting at 6.19 lb (2.81kg) <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 as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 7.7 hr; <i>9-cell (94Whr):</i> up to 12.8 hr; <i>9-cell plus 9-cell Slice battery (94Whr):</i> up to 25.6 hr		
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN SIM card Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W 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 AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		Supports ThinkVantage® technologies 170-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for more detailed information

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ThinkPad W530 2441 (Optimus) - Windows 8

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Discrete graphics	Disk SATA GB ^a rpm	RAID	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Finger print reader	Bat-tery cells	Global (G) Intel GMP vPro (P)	Preload	Ann Date (mm/yy)
2441-45G	i7-3820QM	4GBx2	15.6" FHD	K2000M	1x500G 7200	No	None	Intel 6205 ²⁸	WWAN upg	Finger	9	vPro G	Win8 Pro64	10/12
2441-46G	i7-3720QM	4GBx1	15.6" HD+	K1000M	1x500G 7200	No	None	Intel 6205	WWAN upg	Finger	9	vPro G	Win8 Pro64	10/12

- A depot repair service 3-year limited warranty
- Power-packed engineering with Open GL graphics and ISV certifications

Positioning Processor	Mobile workstation; two spindles Intel® Core™ i7-3720QM processor (4 cores, 2.60GHz, 6MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology Intel Core i7-3820QM processor (4 cores, 2.70GHz, 8MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.70GHz), HT technology		Preloaded operating system ²⁰ - Windows® 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models <ul style="list-style-type: none">• Lenovo® Message Center Plus• ThinkVantage Product Recovery• Access Connections™• ThinkVantage Power Manager• Lenovo SimpleTap• Adobe® Reader®• Windows Live™ Essentials• Corel® WinDVD® (DVD±RW)• Corel Burn.Now™ Lenovo Edition (DVD±RW)• Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models <ul style="list-style-type: none">• Lenovo Support• Lenovo Companion• Lenovo QuickLaunch• AccuWeather• PC Device Stage• Cyberlink Power2Go (DVD±RW)• Cyberlink PowerProducer (DVD±RW) - All models <ul style="list-style-type: none">• Lenovo Solution Center• Password Manager• ThinkVantage System Update• Fingerprint Software (fingerprint models)• Lenovo Cloud Storage by SugarSync• Microsoft® Office preloaded; purchase a product key to activate• Norton™ Internet Security (30 days of virus definitions)
Memory	<i>dual-core model:</i> 16GB max ⁷ , two 204-pin SO-DIMM sockets <i>quad-core model:</i> 32GB max, four 204-pin SO-DIMM sockets <i>All:</i> PC3-12800 1600MHz 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 6.0Gb/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) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut		
Color calibration Camera	Pantone® color calibrator by X-Rite® color calibration sensor in palm rest, LED indicator HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA Quadro® K1000M or K2000M , PCI Express® x16, 2GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 3840x2160@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material	<i>15.6W" (WxDxH):</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>6-cell:</i> starting at 5.76 lb (2.62kg); <i>9-cell:</i> starting at 6.19 lb (2.81kg) <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 as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 7.7 hr; <i>9-cell (94Whr):</i> up to 12.8 hr; <i>9-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> up to 25.6 hr		
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN SIM card Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W 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 AuthenTec 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 | | |
| 170-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² | | |

See footnotes for more detailed information

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ThinkPad W530 2447 (Optimus) - Onsite

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Discrete graphics	Disk SATA GB ⁸ rpm	RAID	SATA optical	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Smart Card Reader	Bat- tery calib cells	Global (G) Intel AMT vPro (P) Preload
2447-44G	i7-3720QM	4GBx1	HD+	K1000M	1x500G 7200	No	DVD±RW	Backlit 6300 ²⁸	upg	None	Smart	X-Rite 9	iAMT vPro Pro 64
2447-43G	i7-3820QM	4GBx2	FHD	K2000M	1x500G 7200	No	DVD±RW	Backlit 6300	upg	None	None	X-Rite 9	iAMT vPro Pro 64
2447-3TG	i7-3720QM	4GBx1	FHD	K1000M	2x500G 7200	1	None	None	6205 ²⁸	upg	None	None	9 iAMT vPro G P Pro 64
2447-3SG	i7-3720QM	4GBx1	FHD	K1000M	2x500G 7200	0	None	None	6205	upg	None	None	9 iAMT vPro G P Pro 64
2447-2EG	i7-3610QM	4GBx1	HD+	K1000M	1x500G 7200	No	DVD±RW	Backlit 6300	upg	None	None	None	9 None None Pro 64
2447-29G	i7-3720QM	4GBx2	FHD	K1000M	1x180G SSD	No	DVD±RW	None	6205	Ericsson	Lenovo	Smart	None 9 iAMT vPro Pro 64
2447-23G	i7-3820QM	4GBx2	FHD	K2000M	1x500G 7200	No	DVD±RW	None	6205	upg	None	None	9 iAMT vPro G P Pro 64
2447-22G	i7-3720QM	4GBx1	HD+	K1000M	1x320G 7200	No	DVD±RW	None	6205	upg	None	None	9 iAMT vPro G P Pro 64
Positioning Processor	<i>Mobile workstation; two spindles</i> Intel® Core™ i7-3610QM processor (4 cores, 2.30GHz, 6MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3720QM processor (4 cores, 2.60GHz, 6MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology Intel Core i7-3820QM processor (4 cores, 2.70GHz, 8MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.70GHz), HT technology											Preloaded operating system²⁰ Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager	
Memory	<i>dual-core model:</i> 16GB max ⁷ , two 204-pin SO-DIMM sockets <i>quad-core model:</i> 32GB max, four 204-pin SO-DIMM sockets <i>All:</i> PC3-12800 1600MHz DDR3, non-parity, dual-channel capable											Preloaded applications¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • RapidBoot HDD Accelerator • Symantec™ VIP • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) • X-Rite® Pantone® Color Calibrator (color calibration models)	
Optical Ultrabay SATA disk	<i>Some:</i> 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 6.0Gb/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) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut												
Color calibration Camera	<i>Some:</i> Pantone® color calibrator by X-Rite® color calibration sensor in palm rest, LED indicator HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus												
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA Quadro® K1000M or K2000M , PCI Express® x16, 2GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 3840x2160@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)												
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³ Weight ² Case material	<i>15.6W" (WxDxH):</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>6-cell:</i> starting at 5.76 lb (2.62kg); <i>9-cell:</i> starting at 6.19 lb (2.81kg) <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 as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 7.7 hr; <i>9-cell (94Whr):</i> up to 12.8 hr; <i>9-cell plus 9-cell Slice battery (94Whr):</i> up to 25.6 hr												
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) <i>Some:</i> Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)												
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN	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 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS												
SIM card Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> Lenovo SIM, out-of-box service, pay-as-you-go via credit card, no contract required None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>Some:</i> Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, 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 AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip											170-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant	
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available											International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²	

See footnotes for more detailed information

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ThinkPad W530 2447 (Optimus) - Onsite - II

Product Specifications Reference (PSREF)

Type-SATA	Processor	Memory	Wide-screen display	Discrete graphics	Disk SATA GB ⁸ rpm	RAID	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	SIM card	Smart Card Reader	Color calib	Bat-tery cells	Intel vPro	Pre-load (mm/yy)	Ann Date (mm/yy)
2447-42G	i7-3720QM	4GBx2	15.6" FHD	K1000M	1x180G SSD	No	Backlit	6300 ²⁸	WWAN upg	None	Smart	X-Rite	9	vPro	Pro 64	07/12
2447-3ZG	i7-3720QM	4GBx2	15.6" FHD	K1000M	1x128G SSD	No	None	6205 ²⁸	Ericsson	Lenovo	Smart	None	9	vPro	Pro 64	07/12
2447-2BG	i7-3720QM	4GBx1	15.6" HD+	K1000M	1x500G 7200	No	Backlit	6300	16GB mSATA	None	Smart	X-Rite	9	vPro	Pro 64	07/12
2447-2AG	i7-3820QM	4GBx2	15.6" FHD	K2000M	1x500G 7200	No	Backlit	6300	16GB mSATA	None	None	X-Rite	9	vPro	Pro 64	07/12
2447-48G	i7-3720QM	4GBx1	15.6" HD+	K1000M	1x500G 7200	No	Backlit	6300	32GB mSATA	None	Smart	X-Rite	9	vPro	Pro 64	07/12
2447-47G	i7-3820QM	4GBx2	15.6" FHD	K2000M	1x500G 7200	No	Backlit	6300	32GB mSATA	None	None	X-Rite	9	vPro	Pro 64	07/12

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

Positioning Processor	Mobile workstation; two spindles Intel® Core™ i7-3720QM processor (4 cores, 2.60GHz, 6MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology Intel Core i7-3820QM processor (4 cores, 2.70GHz, 8MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.70GHz), HT technology										Preloaded operating system²⁰ Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • RapidBoot HDD Accelerator • Symantec™ VIP • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) • X-Rite® Pantone® Color Calibrator (color calibration models)			
Memory	<i>dual-core model:</i> 16GB max ⁷ , two 204-pin SO-DIMM sockets <i>quad-core model:</i> 32GB max, four 204-pin SO-DIMM sockets <i>All:</i> PC3-12800 1600MHz 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 6.0Gb/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, upgradeable, supports the second disk, Shock Mounted Hard Drive <i>Some:</i> mSATA Solid State Drive (SSD), via PCIe Mini Card slot													
mSATA™ SSD														
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) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut													
Color calibration Camera	<i>Some:</i> Pantone® color calibrator by X-Rite® color calibration sensor in palm rest, LED indicator HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus													
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA Quadro® K1000M or K2000M, PCI Express® x16, 2GB memory , supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 3840x2160@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)													
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case material	15.6W" (WxDxH): 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm 6-cell: starting at 5.76 lb (2.62kg); 9-cell: starting at 6.19 lb (2.81kg) <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 as 2nd battery, HW Authentication 6-cell (57Whr): up to 7.7 hr; 9-cell (94Whr): up to 12.8 hr; 9-cell plus 9-cell Slice battery (94Whr): up to 25.6 hr													
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) <i>Some:</i> Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN	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 <i>Some:</i> Wireless WAN upgradeable <i>Some:</i> Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS													
SIM card Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> Lenovo SIM, out-of-box service, pay-as-you-go via credit card, no contract required None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W 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 AuthenTec 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 public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available										Supports ThinkVantage® technologies 170-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²			

See footnotes for more detailed information

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(G-KN4W-3) August 2012

ThinkPad W530 2447 (Optimus) - Onsite (Windows 8)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Discrete graphics	Disk SATA GB ³ rpm	Backlit key-board	RAID	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Smart Card Reader	Bat-tery cells	Global (G) Intel vPro (P)	Ann Date (mm/yy)
2447-45G	i7-3720QM	4GBx1	15.6" HD+	K1000M	1x500G 7200	No	None	Intel 6205 ²⁸	WWAN upg	None	9	vPro G P	Win8 Pro64 10/12
2447-46G	i7-3820QM	4GBx2	15.6" FHD	K2000M	1x500G 7200	No	None	Intel 6205	WWAN upg	None	9	vPro G P	Win8 Pro64 10/12
2447-4JG	i7-3720QM	4GBx1	15.6" HD+	K1000M	1x500G 7200	No	Backlit	Intel 6300 ²⁸	32GB mSATA	Smart	9	vPro	Win7 Pro64 10/12
2447-4HG	i7-3720QM	4GBx2	15.6" FHD	K2000M	1x240G FDE SSD	No	Backlit	Intel 6300	WWAN upg	Smart	9	vPro	Win7 Pro64 10/12
2447-4GG	i7-3820QM	4GBx2	15.6" FHD	K2000M	1x500G 7200	No	Backlit	Intel 6300	32GB mSATA	None	9	vPro	Win7 Pro64 10/12
2447-4BG	i7-3720QM	4GBx1	15.6" HD+	K1000M	1x500G 7200	No	Backlit	Intel 6300	32GB mSATA	Smart	9	vPro	Win8 Pro64 10/12
2447-4AG	i7-3720QM	4GBx2	15.6" FHD	K2000M	1x240G FDE SSD	No	Backlit	Intel 6300	WWAN upg	Smart	9	vPro	Win8 Pro64 10/12
2447-49G	i7-3820QM	4GBx2	15.6" FHD	K2000M	1x500G 7200	No	Backlit	Intel 6300	32GB mSATA	None	9	vPro	Win8 Pro64 10/12

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

Positioning Processor	<i>Mobile workstation; two spindles</i> Intel® Core™ i7-3720QM processor (4 cores, 2.60GHz, 6MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology Intel Core i7-3820QM processor (4 cores, 2.70GHz, 8MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.70GHz), HT technology		Preloaded operating system ²⁰ - <i>Some:</i> Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - <i>Some:</i> Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • AccuWeather • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions)
Memory	<i>dual-core model:</i> 16GB max ⁷ , two 204-pin SO-DIMM sockets <i>quad-core model:</i> 32GB max, four 204-pin SO-DIMM sockets <i>All:</i> PC3-12800 1600MHz 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 6.0Gb/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 <i>Some:</i> mSATA Solid State Drive (SSD), via PCIe Mini Card slot		
mSATA™ SSD			
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) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut		
Color calibration Camera	Pantone® color calibrator by X-Rite® color calibration sensor in palm rest, LED indicator HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA Quadro® K1000M or K2000M , PCI Express® x16, 2GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 3840x2160@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material	15.6W" (WxDxH): 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm 6-cell: starting at 5.76 lb (2.62kg); 9-cell: starting at 6.19 lb (2.81kg) <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 as 2nd battery, HW Authentication 6-cell (57Whr): up to 7.7 hr; 9-cell (94Whr): up to 12.8 hr; 9-cell plus 9-cell Slice battery (94Whr, 0A36304): up to 25.6 hr		
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) <i>Some:</i> Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		
PCIe Mini Card PCIe 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 <i>Some:</i> Wireless WAN upgradable		
PCIe WWAN SIM card Modem Bluetooth™ Ethernet Intel AMT Audio support	None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W 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 AuthenTec 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 public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available		

See footnotes for more detailed information

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ThinkPad W530 2447 (Optimus) - Onsite (Windows 8) - II

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Discrete graphics	Disk SATA GB ³ rpm	RAID	Backlit key-board	PCIe Mini Card WLAN	Color calib	Bat-tery cells	Power Adapter (watt)	Intel AMT	Intel vPro	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
2447-4MG	i5-3320M	4GBx1	15.6" HD+	K1000M	1x500G 7200	No	Backlit	Intel 6300 ²⁸	None	9	135W	iAMT	vPro		Win7 Pro64	10/12
2447-4LG	i5-3320M	4GBx1	15.6" FHD	K1000M	1x500G 7200	No	Backlit	Intel 6300	None	9	135W	iAMT	vPro		Win7 Pro64	10/12
2447-4KG	i7-3630QM	4GBx1	15.6" HD+	K1000M	1x500G 7200	No	Backlit	Intel 6300	None	9	170W	None	No		Win7 Pro64	10/12
2447-4EG	i7-3630QM	4GBx1	15.6" HD+	K1000M	1x500G 7200	No	Backlit	Intel 6300	None	9	170W	None	No		Win8 Pro64	10/12
2447-4DG	i5-3320M	4GBx1	15.6" HD+	K1000M	1x500G 7200	No	Backlit	Intel 6300	None	9	135W	iAMT	vPro		Win8 Pro64	10/12
2447-4CG	i5-3320M	4GBx1	15.6" FHD	K1000M	1x500G 7200	No	Backlit	Intel 6300	None	9	135W	iAMT	vPro		Win8 Pro64	10/12
2447-5KG	i7-3840QM	4GBx1	15.6" FHD	K2000M	1x500G 7200	No	None	Intel 6205 ²⁸	X-Rite	9	170W	iAMT	vPro	G P	Win8 Pro64	05/13
2447-5JG	i7-3840QM	4GBx1	15.6" FHD	K1000M	1x500G 7200	No	None	Intel 6205	X-Rite	9	170W	iAMT	vPro	G P	Win8 Pro64	05/13
2447-5HG	i7-3840QM	4GBx2	15.6" FHD	K2000M	1x500G 7200	No	None	Intel 6205	X-Rite	9	170W	iAMT	vPro	G P	Win8 Pro64	05/13
2447-5GG	i7-3840QM	4GBx2	15.6" HD+	K2000M	1x500G 7200	No	None	Intel 6205	X-Rite	9	170W	iAMT	vPro	G P	Win8 Pro64	05/13
2447-5FG	i7-3740QM	4GBx1	15.6" HD+	K1000M	1x500G 7200	No	None	Intel 6205	X-Rite	9	170W	iAMT	vPro	G P	Win8 Pro64	05/13
Positioning Processor	Mobile workstation; two spindles Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3630QM processor (4 cores, 2.40GHz, 6MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology Intel Core i7-3740QM processor (4 cores, 2.70GHz, 6MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.70GHz), HT technology Intel Core i7-3840QM processor (4 cores, 2.80GHz, 8MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.80GHz), HT technology											Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit Preloaded applications⁵ (only some listed)				
Memory	dual-core model: 16GB max ⁷ , two 204-pin SO-DIMM sockets quad-core model: 32GB max, four 204-pin SO-DIMM sockets All: PC3-12800 1600MHz DDR3, non-parity, dual-channel capable											- Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • AccuWeather • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions)				
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 6.0Gb/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) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut															
Color calibration Camera	Some: Pantone® color calibrator by X-Rite® color calibration sensor in palm rest, LED indicator HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus															
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA Quadro® K1000M or K2000M , PCI Express® x16, 2GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; Maximum external resolution: 3840x2160@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)															
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³ Weight ² Case material	15.6W" (WxDxH): 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm 6-cell: starting at 5.76 lb (2.62kg); 9-cell: starting at 6.19 lb (2.81kg) 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 as 2nd battery, HW Authentication 6-cell (57Whr): up to 7.7 hr; 9-cell (94Whr): up to 12.8 hr; 9-cell plus 9-cell Slice battery (94Whr, 0A36304): up to 25.6 hr															
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)															
PCIe Mini Card PCIe WLAN ⁴	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															
PCIe WWAN SIM card Modem Bluetooth™ Ethernet Intel AMT Audio support	Wireless WAN upgradable None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Some: Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W 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 Trusted Platform Module, TCG 1.2-compliant AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip															
Security Security chip Fingerprint reader																
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available											Supports ThinkVantage® technologies 135-watt or 170-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				

See footnotes for more detailed information

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ThinkPad W530 2447 (Optimus) - Onsite (Windows 8) - III

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Discrete graphics	Disk SATA GB ⁸ rpm	RAID	SATA optical	Backlit key-board	PCIe Mini Card WWAN/ mSATA	Smart Card Reader	Bat- tery cells	Power Adapter (watt)	Intel vPro	Ann Date (mm/yy)
2447-59G	i7-3840QM	8GBx1	15.6" FHD	K2000M	1T 5400 + 240G FDE SSD	No	None	Backlit	WWAN upg	None	9	170W	vPro	03/13
2447-58G	i7-3740QM	4GBx1	15.6" HD+	K1000M	1x500G 7200	No	DVD±RW	Backlit	32GB mSATA	Smart	9	135W	vPro	03/13
2447-57G	i7-3740QM	8GBx1	15.6" FHD	K2000M	1x240G FDE SSD	No	DVD±RW	Backlit	WWAN upg	Smart	9	170W	vPro	03/13
2447-54G	i7-3840QM	8GBx1	15.6" FHD	K2000M	1x500G 7200	No	DVD±RW	Backlit	32GB mSATA	None	9	170W	vPro	03/13
2447-5MG	i7-3840QM	8GBx1	15.6" FHD	K2000M	1T 5400 + 256G SSD OPAL	No	None	Backlit	WWAN upg	None	9	170W	vPro	06/13
2447-5LG	i7-3740QM	8GBx1	15.6" FHD	K2000M	1x256G SSD OPAL	No	DVD±RW	Backlit	WWAN upg	Smart	9	170W	vPro	06/13

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

Positioning Processor	<i>Mobile workstation; two spindles</i> Intel® Core™ i7-3740QM processor (4 cores, 2.70GHz, 6MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.70GHz), HT technology Intel Core i7-3840QM processor (4 cores, 2.80GHz, 8MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.80GHz), HT technology										Preloaded operating system²⁰ - Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit Preloaded applications⁵ (only some listed) - Windows 7 models <ul style="list-style-type: none"> • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models <ul style="list-style-type: none"> • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • AccuWeather • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models <ul style="list-style-type: none"> • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions) 				
Memory	<i>dual-core model:</i> 16GB max ⁷ , two 204-pin SO-DIMM sockets <i>quad-core model:</i> 32GB max, four 204-pin SO-DIMM sockets <i>All:</i> PC3-12800 1600MHz DDR3, non-parity, dual-channel capable														
Optical Ultrabay SATA disk	<i>Some:</i> 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 6.0Gb/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 <i>Some:</i> mSATA Solid State Drive (SSD), via PCIe Mini Card slot														
mSATA™ SSD															
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) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut														
Color calibration Camera	Pantone® color calibrator by X-Rite® color calibration sensor in palm rest, LED indicator HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus														
Graphics	NVIDIA™ Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA Quadro® K1000M or K2000M , PCI Express® x16, 2GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 3840x2160@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)														
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ² Case material	15.6W" (WxDxH): 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>6-cell:</i> starting at 5.76 lb (2.62kg); <i>9-cell:</i> starting at 6.19 lb (2.81kg) <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 as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 7.7 hr; <i>9-cell (94Whr):</i> up to 12.8 hr; <i>9-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> up to 25.6 hr														
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) <i>Some:</i> Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN SIM card Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Ultimate-N 6300, 3x3 <i>Some:</i> Wireless WAN upgradable None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W 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 AuthenTec 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 public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available										Supports ThinkVantage® technologies 135-watt or 170-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				

See footnotes for more detailed information

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Lenovo® ThinkPad X131e



Lenovo ThinkPad X131e



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Lenovo ThinkPad X131e

ThinkPad X131e 3368 (Intel) - TopSeller

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	SIM card	Top color	Finger print reader	Blue-tooth	Bat-tery cells	Preload (mm/yy)	Ann Date
3368-2NG	i3-2367M	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	07/12
3368-3XG	i3-3227U	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	02/13

- Small and medium business (SMB) model(s), part of the WE TopSeller™ Program

Positioning Processor	Entry ultraportable for excellent usability and reliability; one spindle Intel® Core™ i3-2367M processor (2 cores, 1.40GHz, 3MB cache), Intel HD Graphics 3000 , DDR3 memory controller (up to 1333MHz), Hyper-Threading technology Intel Core i3-3227U processor (2 cores, 1.90GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), HT technology		Preloaded operating system²⁰ Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • Symantec™ VIP • Windows Live™ Essentials
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz 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, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm, upgradable, Active Protection System™		
mSATA™ SSD	None		
Widescreen display	11.6" (295mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 3000 or 4000 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> 2048x1536 (VGA) @75Hz; 1920x1200 (HDMI) @60Hz		
Keyboard	6-row, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint pointing device, Internet Scroll Bar ¹³		
Touch pad	UltraNav™, buttonless touchpad below keyboard, multi-touch		
ThinkLight™	None		
Dimensions ³	<i>11.6W" (WxDxH):</i> 11.6" x 8.5" x 1.27"; 293.4mm x 216mm x 32.3mm		
Weight ²	<i>6-cell:</i> from 3.92 lb (1.78kg)		
Case color	Midnight black or Heatwave red (top); black bottom		
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic		
Battery - type	Lithium Ion 6-cell, HW Authentication		
Battery - life ¹⁰	<i>6-cell (62.4Whr):</i> up to 8.5 hr		
Chipset	Mobile Intel HM77 Express Chipset		
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)		
ExpressCard	None		
Ports	Two USB 3.0, one powered USB 2.0, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, ThinkPad a/b/g/n, 2x2, Wi-Fi + Bluetooth combo adapter		
PCIe WWAN	Wireless WAN upgradable		
SIM card	None		
Modem	None		
Bluetooth™	Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter		
Ethernet	Realtek® RTL8111F Gigabit Network Connection		
Intel AMT	None		
Audio support	HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 2 watt x 2 / monaural digital 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		

| Supports ThinkVantage® technologies | | |
| 65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 6.0-compliant GREENGUARD® certified ROHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² | | |

See footnotes for more detailed information

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ThinkPad X131e 3368 (Intel) - TopSeller (Windows 8)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	SIM card	Top color	Finger print reader	Blue-tooth	Battery cells	Preload	Ann Date (mm/yy)
3368-42G	i3-3227U	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Red	None	BT	6	Win7 Pro64	02/13
3368-3ZG	i3-3227U	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win8 Pro64	02/13
3368-3YG	i3-3227U	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	02/13
3368-5KG	i3-3227U	4GBx1	11.6" HD	720p	500G 7200	TP 11a/b/g/n	Ericsson	select	Black	None	BT	6	Win8 Pro64	03/14
3368-5GG	i3-3227U	4GBx1	11.6" HD	720p	500G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win8 Pro64	03/14
3368-5JG	i3-3227U	4GBx1	11.6" HD	720p	500G 7200	TP 11a/b/g/n	Ericsson	select	Black	None	BT	6	Win7 Pro64	03/14
3368-5HG	i3-3227U	4GBx1	11.6" HD	720p	500G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	03/14

• Small and medium business (SMB) model(s), part of the WE TopSeller™ Program

Positioning Processor	Entry ultraportable for excellent usability and reliability; one spindle Intel® Core™ i3-3227U processor (2 cores, 1.90GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), HT technology			Preloaded operating system ²⁰ - <i>Some:</i> Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - <i>Some:</i> Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • PC Device Stage - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions) • Skype™
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz 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, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm, upgradable, Active Protection System™			
mSATA™ SSD	None			
Widescreen display	11.6" (295mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio			
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus			
Graphics	Intel HD Graphics 4000 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> 2048x1536 (VGA) @75Hz; 1920x1200 (HDMI) @60Hz			
Keyboard	6-row, spill-resistant, multimedia Fn keys			
TrackPoint®	TrackPoint pointing device, Internet Scroll Bar ¹³			
Touch pad	UltraNav™, buttonless touchpad below keyboard, multi-touch			
ThinkLight™	None			
Dimensions ³	<i>11.6W"</i> (WxDxH): 11.6" x 8.5" x 1.27"; 293.4mm x 216mm x 32.3mm			
Weight ²	<i>6-cell:</i> from 3.92 lb (1.78kg)			
Case color	Midnight black or Heatwave red (top); black bottom			
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic			
Battery - type	Lithium Ion 6-cell, HW Authentication			
Battery - life ¹⁰	<i>6-cell (62.4Whr):</i> up to 8.5 hr			
Chipset	Mobile Intel HM77 Express Chipset			
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)			
ExpressCard	None			
Ports	Two USB 3.0, one powered USB 2.0, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)			
PCIe Mini Card	Two PCI Express Mini Card slots			
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + BT combo adapter			
PCIe WWAN	<i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS			
SIM card	<i>Some:</i> User selectable, contract required with service provider			
Modem	None			
Bluetooth™	Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter			
Ethernet	Realtek® RTL8111F Gigabit Network Connection			
Intel AMT	None			
Audio support	HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 2 watt x 2 / monaural digital 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			

| Supports ThinkVantage® technologies 65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 6.0-compliant GREENGUARD® certified ROHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² | | | |

See footnotes for more detailed information

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ThinkPad X131e 3368 (Intel) - TopSeller (DOS)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	SIM card	Top color	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Ann Date (mm/yy)
3368-5FG	i3-3227U	4GBx1	11.6" HD	720p	500G 7200	Intel 2230	WWAN upg	None	Black	None	BT	6	DOS-Lic.	03/14

- Small and medium business (SMB) model(s), part of the WE TopSeller™ Program

Positioning Processor	Entry ultraportable for excellent usability and reliability; one spindle Intel® Core™ i3-3227U processor (2 cores, 1.90GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), HT technology	Preloaded operating system ²⁰ - DOS-Lic.
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz 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, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm, upgradable, Active Protection System™	
mSATA™ SSD	None	
Widescreen display	11.6" (295mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio	
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus	
Graphics	Intel HD Graphics 4000 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> 2048x1536 (VGA)@75Hz; 1920x1200 (HDMI)@60Hz	
Keyboard	6-row, spill-resistant, multimedia Fn keys	
TrackPoint®	TrackPoint pointing device, Internet Scroll Bar ¹³	
Touch pad	UltraNav™, buttonless touchpad below keyboard, multi-touch	
ThinkLight™	None	
Dimensions ³	11.6W" (WxDxH): 11.6" x 8.5" x 1.27"; 293.4mm x 216mm x 32.3mm	
Weight ²	6-cell: from 3.92 lb (1.78kg)	
Case color	Midnight black or Heatwave red (top); black bottom	
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic	
Battery - type	Lithium Ion 6-cell, HW Authentication	
Battery - life ¹⁰	6-cell (62.4Whr): up to 8.5 hr	
Chipset	Mobile Intel HM77 Express Chipset	
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)	
ExpressCard	None	
Ports	Two USB 3.0, one powered USB 2.0, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)	
PCIe Mini Card	Two PCI Express Mini Card slots	
PCIe WLAN ⁴	11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, 2x2, Wi-Fi + BT combo adapter	
PCIe WWAN	Wireless WAN upgradable	
SIM card	None	
Modem	None	
Bluetooth™	Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter	
Ethernet	Realtek® RTL8111F Gigabit Network Connection	
Intel AMT	None	
Audio support	HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 2 watt x 2 / monaural digital 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	Supports ThinkVantage® technologies
		65-watt AC Adapter ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²

See footnotes for more detailed information

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ThinkPad X131e 3367 (Intel) - Windows 8

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁶ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	SIM card	Top color	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Ann Date (mm/yy)
3367-98G	Cel 1007U	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	02/13

Positioning Processor	<i>Entry ultraportable for excellent usability and reliability; one spindle</i> Intel® Celeron® 1007U processor (2 cores, 1.50GHz, 2MB cache), Intel HD Graphics, DDR3 memory controller (up to 1600MHz)			Preloaded operating system ²⁰ - Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models <ul style="list-style-type: none">• Lenovo® Message Center Plus• ThinkVantage Product Recovery• Access Connections™• ThinkVantage Power Manager• Lenovo SimpleTap - Windows 8 models <ul style="list-style-type: none">• Lenovo Support• Lenovo Companion• Lenovo QuickLaunch - All models <ul style="list-style-type: none">• Lenovo Solution Center• Password Manager• ThinkVantage System Update• Fingerprint Software (fingerprint models)• Lenovo Cloud Storage by SugarSync• Microsoft® Office preloaded; purchase a product key to activate• Skype™
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz 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, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm, upgradable, Active Protection System™			
mSATA™ SSD	None			
Widescreen display	11.6" (295mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio			
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus			
Graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI™ (supporting HDCP to output protected content); supports dual independent display; <i>Maximum external resolution:</i> 2048x1536 (VGA) @75Hz; 1920x1200 (HDMI) @60Hz			
Keyboard	6-row, spill-resistant, multimedia Fn keys			
TrackPoint®	TrackPoint pointing device, Internet Scroll Bar ¹³			
Touch pad	UltraNav™, buttonless touchpad below keyboard, multi-touch			
ThinkLight™	None			
Dimensions ³	11.6W" (WxDxH): 11.6" x 8.5" x 1.27"; 293.4mm x 216mm x 32.3mm			
Weight ²	6-cell: from 3.92 lb (1.78kg)			
Case color	Midnight black or Heatwave red (top); black bottom			
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic			
Battery - type	Lithium Ion 6-cell, HW Authentication			
Battery - life ¹⁰	6-cell (62.4Whr): up to 8.5 hr			
Chipset	Mobile Intel HM77 Express Chipset			
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)			
ExpressCard	None			
Ports	Two USB 3.0, one powered USB 2.0, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)			
PCIe Mini Card	Two PCI Express Mini Card slots			
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + Bluetooth combo adapter			
PCIe WWAN	Wireless WAN upgradable			
SIM card	None			
Modem	None			
Bluetooth™	Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter			
Ethernet	Realtek® RTL8111F Gigabit Network Connection			
Intel AMT	None			
Audio support	HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 2 watt x 2 / monaural digital 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			

Supports ThinkVantage® technologies
65-watt AC Adapter EPEAT™ Gold rating (except Celeron models) ENERGY STAR® 6.0-compliant (except Celeron models) GREENGUARD® certified (except Celeron models) ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²

See footnotes for more detailed information

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ThinkPad X131e 3372 (AMD) - TopSeller

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁶ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	SIM card	Top color	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Ann Date (mm/yy)
3372-2KG	E2-1800	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Red	None	BT	6	Pro 64	07/12

- **Small and medium business (SMB) model(s), part of the WE TopSeller™ Program**

Positioning Processor	Entry ultraportable for excellent usability and reliability; one spindle AMD Accelerated Processor E2-1800 (2 cores, 1.70GHz, 1MB L2 cache) , integrated AMD Radeon™ HD 7340 Graphics, integrated DDR3 memory controller (up to 1333MHz)		Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications ¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Symantec™ VIP • Windows Live™ Essentials
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, two 204-pin SO-DIMM sockets * System clocks down for processors with 1066MHz or 1333MHz 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, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm, upgradable, Active Protection System™		
mSATA™ SSD	None		
Widescreen display	11.6" (295mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	AMD Radeon HD 7340 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> 1920x1080 (VGA or HDMI)		
Keyboard	6-row, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint pointing device, Internet Scroll Bar ¹³		
Touch pad	UltraNav™, buttonless touchpad below keyboard, multi-touch		
ThinkLight™	None		
Dimensions ³	11.6W" (WxDxH): 11.6" x 8.5" x 1.27"; 293.4mm x 216mm x 32.3mm		
Weight ²	6-cell: from 3.92 lb (1.78kg)		
Case color	Midnight black or Heatwave red (top); black bottom		
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic		
Battery - type	Lithium Ion 6-cell, HW Authentication		
Battery - life ¹⁰	6-cell (62.4Whr): up to 8.5 hr		
Chipset	AMD A68M FCH Chipset		
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)		
ExpressCard	None		
Ports	Two USB 3.0, one powered USB 2.0, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + Bluetooth combo adapter		
PCIe WWAN	Wireless WAN upgradable		
SIM card	None		
Modem	None		
Bluetooth™	Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter		
Ethernet	Realtek® RTL8111F Gigabit Network Connection		
Audio support	HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 2 watt x 2 / monaural digital microphone, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	None		
Fingerprint reader	None		
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available		

| Supports ThinkVantage® technologies | | |
| 65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 6.0-compliant GREENGUARD® certified ROHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² | | |

See footnotes for more detailed information

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ThinkPad X131e 3371 (AMD) - Windows 8

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁶ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	SIM card	Top color	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Ann Date (mm/yy)
3371-8HG	E1-1200	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Red	None	BT	6	Win7 Pro64	04/13

Positioning Processor	Entry ultraportable for excellent usability and reliability; one spindle AMD Accelerated Processor E1-1200 (2 cores, 1.40GHz, 1MB L2 cache), integrated AMD Radeon™ HD 7310 Graphics, integrated DDR3 memory controller (up to 1066MHz)			Preloaded operating system ²⁰ - Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate • Skype™
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, two 204-pin SO-DIMM sockets * System clocks down for processors with 1066MHz or 1333MHz 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, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm, upgradable, Active Protection System™			
mSATA™ SSD	None			
Widescreen display	11.6" (295mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio			
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus			
Graphics	AMD Radeon HD 7310 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> 1920x1080 (VGA or HDMI)			
Keyboard	6-row, spill-resistant, multimedia Fn keys			
TrackPoint®	TrackPoint pointing device, Internet Scroll Bar ¹³			
Touch pad	UltraNav™, buttonless touchpad below keyboard, multi-touch			
ThinkLight™	None			
Dimensions ³	11.6W" (WxDxH): 11.6" x 8.5" x 1.27"; 293.4mm x 216mm x 32.3mm			
Weight ²	6-cell: from 3.92 lb (1.78kg)			
Case color	Midnight black or Heatwave red (top); black bottom			
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic			
Battery - type	Lithium Ion 6-cell, HW Authentication			
Battery - life ¹⁰	6-cell (62.4Whr): up to 8.5 hr			
Chipset	AMD A68M FCH Chipset			
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)			
ExpressCard	None			
Ports	Two USB 3.0, one powered USB 2.0, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)			
PCIe Mini Card	Two PCI Express Mini Card slots			
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + Bluetooth combo adapter			
PCIe WWAN	Wireless WAN upgradable			
SIM card	None			
Modem	None			
Bluetooth™	Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter			
Ethernet	Realtek® RTL8111F Gigabit Network Connection			
Audio support	HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 2 watt x 2 / monaural digital microphone, combo audio/mic jack			
Security	Power-on password, hard disk password, supervisor password, security keyhole			
Security chip	None			
Fingerprint reader	None			
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available			

| Supports ThinkVantage® technologies | | | |
| 65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 6.0-compliant GREENGUARD® certified ROHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² | | | |

See footnotes for more detailed information

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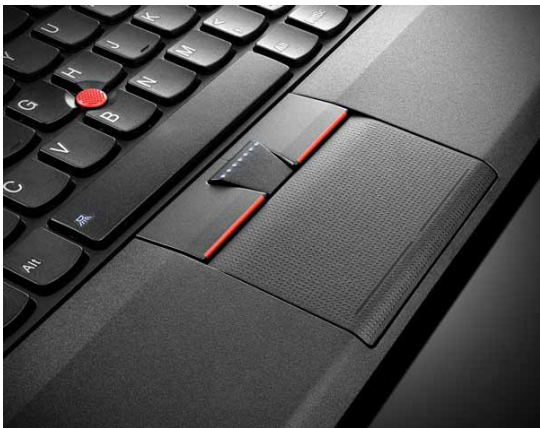
Lenovo® ThinkPad X230



Lenovo ThinkPad X230



Lenovo ThinkPad X230



Lenovo ThinkPad X230



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Lenovo ThinkPad X230

ThinkPad X230 (2324)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ⁸ rpm	Optical in UltraBase Series 3	ThinkPad Backlit key-board	PCIe Mini Card WLAN	Smart Card Reader	Finger print reader	Bat- tery Blue- tooth cells	Global (G) Intel vPro (P)	Ann Date (mm/yy)
2324-3WG	i5-3320M	4GBx1	12.5" HD Prem	720p	500G 7200	Optional	Opt	None	Intel 6205 ²⁸	None	Fing BT	6 vPro	G Pro 64 06/12
2324-3VG	i5-3320M	4GBx1	12.5" HD Prem	720p	500G 7200	DVD±RW	UltraB	None	Intel 6205	None	Fing BT	6 vPro	G Pro 64 06/12
2324-3QG	i5-3320M	4GBx1	12.5" HD Prem	720p	320G 7200	Optional	Opt	None	Intel 6205	None	Fing BT	6 vPro	G Pro 64 06/12
2324-3PG	i5-3320M	4GBx1	12.5" HD	720p	320G 7200	DVD±RW	UltraB	None	Intel 6205	None	Fing BT	6 vPro	G Pro 64 06/12
2324-23G	i7-3520M	4GBx1	12.5" HD Prem	No	180G SSD	Optional	Opt	None	Intel 6300 ²⁸	None	Fing BT	9 vPro	G Pro 64 06/12
2324-22G	i5-3360M	4GBx1	12.5" HD	720p	320G 7200	Optional	Opt	None	Intel 6205	None	No No	6 vPro	G Pro 64 06/12
2324-5SG	i5-3320M	4GBx1	12.5" HD Prem	720p	320G 7200	Optional	Opt	None	Intel 6205	None	Fing BT	6 vPro	G Pro 64 07/12
2324-5RG	i5-3320M	4GBx1	12.5" HD	720p	500G 7200	DVD±RW	UltraB	None	Intel 6205	None	Fing BT	6 vPro	G Pro 64 07/12
2324-5QG	i5-3320M	4GBx1	12.5" HD	720p	180G SSD	Optional	Opt	None	Intel 6205	None	Fing BT	6 vPro	G Pro 64 07/12
2324-5NG	i5-3320M	4GBx1	12.5" HD	720p	320G 7200	Optional	Opt	None	Intel 6205	None	No BT	6 vPro	G Pro 64 07/12
2324-5PG	i5-3320M	4GBx1	12.5" HD	720p	320G 7200	DVD±RW	UltraB	None	Intel 6205	Gemplus	Fing BT	6 vPro	G Pro 64 07/12

• A depot repair service 3-year limited warranty

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5-3320M processor (dual-core, 2.60GHz, 3MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i5-3360M processor (dual-core, 2.80GHz, 3MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology Intel Core i7-3520M processor (dual-core, 2.90GHz, 4MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager		
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Preloaded applications¹⁴ (only some listed) • Norton™ Internet Security 2012 (30 days of virus definitions) • Access Connections™ • ThinkVantage Power Manager • ThinkVantage Tools • Fingerprint Software (fingerprint models) • ThinkVantage System Update • Adobe® Reader® • Microsoft® Office preloaded; purchase a product key to activate • Skype™ for Windows		
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 6.0Gb/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, wide view angle, low light sensitive, face tracking, fixed focus												
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)												
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight 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	<i>without UltraBase; 4/6-cell:</i> 12.0" x 8.13" x 0.75-1.05"; 305mm x 206.5mm x 19.0-26.6mm <i>4-cell:</i> from 2.96 lb (1.34kg); <i>6-cell:</i> from 3.31 lb (1.50kg); <i>9-cell:</i> from 3.67 lb (1.67kg)										Supports ThinkVantage® technologies		
Case material	<i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy												
Standard Battery	Li-Ion 4-cell, 6-cell, or 9-cell, HW Authentication; optional external battery as 2nd battery												
External Battery	None												
Battery - life ¹⁰	<i>4-cell (28.8Whr):</i> up to 4.6 hr; <i>6-cell (62.4Whr):</i> up to 10.3 hr; <i>9-cell (93.6Whr):</i> up to 15.5 hr; <i>external battery (64Whr):</i> up to 10.6 hr; <i>9-cell plus external battery:</i> up to 26.1 hr												
Chipset	Mobile Intel QM77 Express Chipset												
Ultrabase	<i>Some:</i> ThinkPad Ultrabase Series 3 (see right side)												
Multicard reader	4-in-1 reader (SD, SDHC, SDXC, MMC)												
ExpressCard	One slot (ExpressCard/34, ExpressCard/54)												
Smart Card Read	<i>Some:</i> Gemplus Smart Card Reader in ExpressCard slot												
Ports	Two USB 3.0, one powered USB 2.0 external monitor (VGA DB-15, Mini DisplayPort), ethernet (RJ-45)												
PCIe Mini Card	Two PCI Express Mini Card slots												
PCIe WLAN ⁴	<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												
PCIe WWAN	Wireless WAN upgradable												
SIM card	None												
Modem	None												
Bluetooth™	<i>Some:</i> Bluetooth 4.0 wireless												
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1												
Intel AMT	Intel Active Management Technology (iAMT)												
Audio support	High Definition (HD) Audio, Realtek® ALC3202 codec / stereo speakers, 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	<i>Some:</i> AuthenTec 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

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ThinkPad X230 (2324) - Windows 8

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ³ rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	Backlit key-board	PCIe Mini Card WLAN	Finger print reader	Blue-tooth	Bat-tery cells	Intel AMT	Global (G) Intel vPro (P)	Ann date (mm/yy)
2324-67G	i5-3320M	4GBx1	12.5" HD	No	320G 7200	Optional	Opt	None	Intel 2200	None	No	6	No	No	G Win8 Pro64 10/12
2324-66G	i7-3520M	4GBx1	12.5" HD	720p	180G SSD	Optional	Opt	None	Intel 6205 ²⁸	Finger BT	6	iAMT	vPro	G Win8 Pro64	10/12
2324-65G	i7-3520M	4GBx1	12.5" HD	720p	500G 7200	Optional	Opt	None	Intel 6205	Finger BT	6	iAMT	vPro	G Win8 Pro64	10/12
2324-64G	i5-3320M	4GBx1	12.5" HD	720p	180G SSD	Optional	Opt	None	Intel 6205	Finger BT	6	iAMT	vPro	G Win8 Pro64	10/12
2324-63G	i5-3320M	4GBx1	12.5" HD	720p	500G 7200	Optional	Opt	None	Intel 6205	Finger BT	6	iAMT	vPro	G Win8 Pro64	10/12
2324-62G	i5-3320M	4GBx1	12.5" HD	720p	320G 7200	Optional	Opt	None	Intel 6205	Finger BT	6	iAMT	vPro	G Win8 Pro64	10/12

• A depot repair service 3-year limited warranty

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5-3320M processor (dual-core, 2.60GHz, 3MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (dual-core, 2.90GHz, 4MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology										Preloaded operating system²⁰ - Windows® 8 Pro 64-bit Preloaded applications⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • ThinkVantage Power Manager • Lenovo SimpleTap - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch - All models • Lenovo Solution Center • Password Manager • Microsoft® Office preloaded; purchase a product key to activate				
Memory	16GB max ⁷ / PC3-12800 1600MHz 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 6.0Gb/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	<i>Some:</i> HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus														
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)														
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight 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:</i> 4/6-cell: 12.0" x 8.13" x 0.75-1.05"; 305mm x 206.5mm x 19.0-26.6mm 4-cell: from 2.96 lb (1.34kg); 6-cell: from 3.31 lb (1.50kg); 9-cell: from 3.67 lb (1.67kg) <i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy Li-Ion 4-cell, 6-cell, or 9-cell, HW Authentication; optional external battery as 2nd battery 4-cell (28.8Whr): up to 4.6 hr; 6-cell (62.4Whr): up to 10.3 hr; 9-cell (93.6Whr): up to 15.5 hr; external battery (64Whr, 0A36280): up to 10.6 hr; 9-cell plus external battery: up to 26.1 hr														
Chipset Ultrabase Multicard reader ExpressCard Smart Card Read Ports	Mobile Intel QM77 Express Chipset <i>Option:</i> ThinkPad Ultrabase Series 3 (see right side) 4-in-1 reader (SD, SDHC, SDXC, MMC) One slot (ExpressCard/34, ExpressCard/54) None Two USB 3.0, one powered USB 2.0 external monitor (VGA DB-15, Mini DisplayPort), ethernet (RJ-45)														
PCIe Mini Card PCIe WLAN ⁴	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2 Wireless WAN upgradable														
PCIe WWAN SIM card Modem Bluetooth™ Ethernet Intel AMT Audio support	None None <i>Some:</i> Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>Some:</i> Intel Active Management Technology (iAMT) High Definition (HD) Audio, Realtek® ALC3202 codec / stereo speakers, 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 Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> AuthenTec 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

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Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	Optical in UltraB	ThinkPad Ultrabay Series 3	Backlit key-board	PCle Mini Card WLAN	PCle Mini Card WWAN	SIM card	Smart Card Reader	Finger print reader	Bat- tery	Global (G) IntelGMP (P)	Ann Date (mm/yy)	
2325-2UG	i5-3320M	4GBx1	12.5" HD	720p	180G SSD	Optional	Opt	None	6205 ²⁸	upg	None	None	Fing	BT	6 vPro	G P	06/12
2325-2SG	i5-3320M	4GBx1	12.5" HD	720p	500G 7200	DVD±RW	UltraB	None	6205	upg	None	None	Fing	BT	6 vPro	G P	06/12
2325-2QG	i5-3320M	4GBx1	12.5" HD Prem	720p	320G 7200	Optional	Opt	None	6205	upg	None	None	Fing	BT	6 vPro	G P	06/12
2325-2EG	i7-3520M	4GBx2	12.5" HD Prem	720p	180G SSD	Optional	Opt	Backlit	6205	Ericsson select	None	None	Fing	BT	9 vPro	G P	06/12
2325-2DG	i7-3520M	4GBx1	12.5" HD Prem	720p	500G 7200	DVD±RW	UltraB	Backlit	6205	Ericsson select	None	None	Fing	BT	9 vPro	G P	06/12
2325-2CG	i5-3320M	4GBx1	12.5" HD	720p	320G 7200	Optional	Opt	None	6205	Ericsson select	Gemplus	Fing	BT	6 vPro	G P	06/12	
2325-23G	i7-3520M	4GBx1	12.5" HD Prem	No	180G SSD	Optional	Opt	None	6300 ²⁸	upg	None	None	Fing	BT	9 vPro	G P	06/12
2325-22G	i5-3360M	4GBx1	12.5" HD	720p	320G 7200	Optional	Opt	None	6205	upg	None	None	No	No	6 vPro	G P	06/12

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

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5-3320M processor (dual-core, 2.60GHz, 3MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i5-3360M processor (dual-core, 2.80GHz, 3MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology Intel Core i7-3520M processor (dual-core, 2.90GHz, 4MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications ¹⁴ (only some listed) • Norton™ Internet Security 2012 (30 days of virus definitions) • Access Connections™ • ThinkVantage Power Manager • ThinkVantage Tools • Fingerprint Software (fingerprint models) • ThinkVantage System Update • Adobe® Reader® • Microsoft® Office preloaded; purchase a product key to activate • Skype™ for Windows
Memory	16GB max ⁷ / PC3-12800 1600MHz 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 6.0Gb/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, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight 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 19.0-26.6mm <i>4-cell:</i> from 2.96 lb (1.34kg); <i>6-cell:</i> from 3.31 lb (1.50kg); <i>9-cell:</i> from 3.67 lb (1.67kg) <i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy Li-Ion 4-cell, 6-cell, or 9-cell, HW Authentication; optional external battery as 2nd battery None <i>4-cell (28.8Whr):</i> up to 4.6 hr; <i>6-cell (62.4Whr):</i> up to 10.3 hr; <i>9-cell (93.6Whr):</i> up to 15.5 hr; <i>external battery (64Whr):</i> up to 10.6 hr; <i>9-cell plus external battery:</i> up to 26.1 hr		
Chipset Ultrabase Multicard reader ExpressCard Smart Card Read Ports	Mobile Intel QM77 Express Chipset <i>Some:</i> ThinkPad Ultrabase Series 3 (see right side) 4-in-1 reader (SD, SDHC, SDXC, MMC) One slot (ExpressCard/34, ExpressCard/54) <i>Some:</i> Gemplus Smart Card Reader in ExpressCard slot Two USB 3.0, one powered USB 2.0 external monitor (VGA DB-15, Mini DisplayPort), ethernet (RJ-45)		
PCle Mini Card PCle WLAN ⁴ PCle WWAN	Two PCI Express Mini Card slots <i>Some:</i> 11a/b/g/n, PCle Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 <i>Some:</i> 11a/b/g/n, PCle Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCle Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS <i>Some:</i> User selectable, contract required with service provider		
SIM card Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCle x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Realtek® ALC3202 codec / stereo speakers, 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 Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Security Security chip Fingerprint reader			
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available		

Supports ThinkVantage® technologies	
ThinkPad Ultrabase Series 3	
• Provides desktop expansion and cable management for X230 and X230 Tablet • Easily connects to the bottom of the X230 or X230 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side	
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; 630g	
65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²	

See footnotes for more detailed information

ThinkPad X230 (2325) - Onsite - II

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Disk SATA GB ⁹ rpm	Optical in UltraB	ThinkPad Ultrab Series 3	Backlit key-board	PCIe Mini Card WWAN	SIM card	Smart Card Reader	Finger-print reader	Bat-tery cells	Ext Battery cells	Intel AMT	Global (G) Intel vPro (P)	Ann Date (mm/yy)
2325-2GG	i5-3210M	4GBx1	12.5" HD	500G 7200	Optional	Opt	Backlit	Ericsson select	None	None	Fing	6	No	None	No	06/12
2325-2FG	i5-3210M	4GBx1	12.5" HD	500G 7200	DVD±RW	UltraB	Backlit	Ericsson select	None	None	Fing	6	No	None	No	06/12
2325-5VG	i5-3210M	4GBx1	12.5" HD	500G 7200	Optional	Opt	Backlit	upg	None	None	Fing	6	No	None	No	07/12
2325-5UG	i5-3210M	4GBx1	12.5" HD	500G 7200	Optional	Opt	Backlit	Ericsson select	None	None	Fing	6	6	None	No	07/12
2325-5TG	i5-3320M	4GBx1	12.5" HD Prem	320G 7200	DVD±RW	UltraB	None	upg	None	None	Fing	6	No	iAMT	vPro G P	07/12
2325-3QG	i5-3320M	4GBx1	12.5" HD Prem	320G 7200	Optional	Opt	None	upg	None	None	Fing	6	No	iAMT	vPro G P	07/12
2325-5SG	i5-3320M	4GBx1	12.5" HD Prem	500G 7200	DVD±RW	UltraB	None	upg	None	None	Fing	6	No	iAMT	vPro G P	07/12
2325-5RG	i5-3320M	4GBx1	12.5" HD Prem	500G 7200	Optional	Opt	None	upg	None	None	Fing	6	No	iAMT	vPro G P	07/12
2325-5PG	i5-3320M	4GBx1	12.5" HD	320G 7200	DVD±RW	UltraB	None	upg	None	Gemplus	Fing	6	No	iAMT	vPro G P	07/12
2325-5NG	i5-3320M	4GBx1	12.5" HD	320G 7200	Optional	Opt	None	upg	None	None	No	6	No	iAMT	vPro G P	07/12

• Limited onsite service²⁴ 3-year limited warranty

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5-3210M processor (2 cores, 2.50GHz, 3MB cache) , Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache) , Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology		Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications ¹⁴ (only some listed) • Access Connections™ • ThinkVantage Power Manager • ThinkVantage Tools • Fingerprint Software (fingerprint models) • ThinkVantage System Update • Microsoft® Office preloaded; purchase a product key to activate • Skype™ for Windows
Memory	16GB max ⁷ / PC3-12800 1600MHz 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 6.0Gb/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	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight 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 19.0-26.6mm <i>4-cell:</i> from 2.96 lb (1.34kg); <i>6-cell:</i> from 3.31 lb (1.50kg); <i>9-cell:</i> from 3.67 lb (1.67kg) <i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy Li-Ion 4-cell, 6-cell, or 9-cell, HW Authentication; optional external battery as 2nd battery <i>Some:</i> Slim external Lithium Ion 6-cell battery (ThinkPad Battery 19+, 0A36280) <i>4-cell (28.8Whr):</i> up to 4.6 hr; <i>6-cell (62.4Whr):</i> up to 10.3 hr; <i>9-cell (93.6Whr):</i> up to 15.5 hr; <i>external battery (64Whr):</i> up to 10.6 hr; <i>9-cell plus external battery:</i> up to 26.1 hr		
Chipset Ultrabase Multicard reader ExpressCard Smart Card Read Ports	Mobile Intel QM77 Express Chipset <i>Some:</i> ThinkPad Ultrabase Series 3 (see right side) 4-in-1 reader (SD, SDHC, SDXC, MMC) One slot (ExpressCard/34, ExpressCard/54) <i>Some:</i> Gemplus Smart Card Reader in ExpressCard slot Two USB 3.0, one powered USB 2.0 external monitor (VGA DB-15, Mini DisplayPort), ethernet (RJ-45)		
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS		
SIM card Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> User selectable, contract required with service provider None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>Some:</i> Intel Active Management Technology (iAMT) High Definition (HD) Audio, Realtek® ALC3202 codec / stereo speakers, 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 <i>Some:</i> AuthenTec 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 public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available		

Supports ThinkVantage® technologies	
ThinkPad Ultrabase Series 3 <ul style="list-style-type: none">• Provides desktop expansion and cable management for X230 and X230 Tablet• Easily connects to the bottom of the X230 or X230 Tablet for traveling• Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side	
Other features: <ul style="list-style-type: none">• 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; 630g	
65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²	

See footnotes for more detailed information

ThinkPad X230 (2325) - Onsite (Windows 8)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Disk SATA GB ⁹ rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	Backlit key-board	PCIe Mini Card WWAN	SIM card	Battery cells	Ext Battery cells	Intel AMT	Intel vPro	Preload	Ann Date (mm/yy)
2325-7BG	i5-3210M	4GBx1	12.5" HD Prem	500G 7200	Optional	Opt	Backlit	Ericsson	selectable	6	6	None	No	Win7 Pro64	10/12
2325-7AG	i5-3210M	4GBx1	12.5" HD Prem	500G 7200	Optional	Opt	Backlit	WWAN upg	None	6	No	None	No	Win7 Pro64	10/12
2325-79G	i5-3210M	4GBx1	12.5" HD Prem	500G 7200	DVD±RW	UltraB	Backlit	Ericsson	selectable	6	No	None	No	Win7 Pro64	10/12
2325-78G	i7-3520M	4GBx2	12.5" HD Prem	180G SSD	Optional	Opt	Backlit	Ericsson	selectable	9	No	iAMT	vPro	Win7 Pro64	10/12
2325-77G	i7-3520M	4GBx1	12.5" HD Prem	500G 7200	DVD±RW	UltraB	Backlit	Ericsson	selectable	9	No	iAMT	vPro	Win7 Pro64	10/12
2325-6GG	i5-3210M	4GBx1	12.5" HD Prem	500G 7200	Optional	Opt	Backlit	Ericsson	selectable	6	6	None	No	Win8 Pro64	10/12
2325-6FG	i5-3210M	4GBx1	12.5" HD Prem	500G 7200	Optional	Opt	Backlit	WWAN upg	None	6	No	None	No	Win8 Pro64	10/12
2325-6EG	i5-3210M	4GBx1	12.5" HD Prem	500G 7200	DVD±RW	UltraB	Backlit	Ericsson	selectable	6	No	None	No	Win8 Pro64	10/12
2325-6DG	i7-3520M	4GBx2	12.5" HD Prem	180G SSD	Optional	Opt	Backlit	Ericsson	selectable	9	No	iAMT	vPro	Win8 Pro64	10/12
2325-6CG	i7-3520M	4GBx1	12.5" HD Prem	500G 7200	DVD±RW	UltraB	Backlit	Ericsson	selectable	9	No	iAMT	vPro	Win8 Pro64	10/12
2325-7MG	i5-3320M	4GBx1	12.5" HD Prem	500G 7200	Optional	Opt	Backlit	WWAN upg	None	6	No	iAMT	vPro	Win7 Pro64	10/12
Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5-3210M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (dual-core, 2.90GHz, 4MB Cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology										Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit				
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Preloaded applications⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • ThinkVantage Power Manager • Lenovo SimpleTap - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch - All models • Lenovo Solution Center • Password Manager • Microsoft® Office preloaded; purchase a product key to activate				
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 6.0Gb/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	(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	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus														
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)														
Keyboard	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight														
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 19.0-26.6mm														
Weight ²	<i>4-cell:</i> from 2.96 lb (1.34kg); <i>6-cell:</i> from 3.31 lb (1.50kg); <i>9-cell:</i> from 3.67 lb (1.67kg)														
Case material	<i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy														
Standard Battery	Li-Ion 4-cell, 6-cell, or 9-cell, HW Authentication; optional external battery as 2nd battery														
External Battery	Some: Slim external Lithium Ion 6-cell battery (ThinkPad Battery 19+, 0A36280)														
Battery - life ¹⁰	<i>4-cell (28.8Whr):</i> up to 4.6 hr; <i>6-cell (62.4Whr):</i> up to 10.3 hr; <i>9-cell (93.6Whr):</i> up to 15.5 hr; <i>external battery (64Whr, 0A36280):</i> up to 10.6 hr; <i>9-cell plus external battery:</i> up to 26.1 hr														
Chipset	Mobile Intel QM77 Express Chipset														
Ultrabase	Some: ThinkPad Ultrabase Series 3 (see right side)														
Multicard reader	4-in-1 reader (SD, SDHC, SDXC, MMC)														
ExpressCard	One slot (ExpressCard/34, ExpressCard/54)														
Smart Card Read	None														
Ports	Two USB 3.0, one powered USB 2.0, external monitor (VGA DB-15, Mini DisplayPort), ethernet (RJ-45)														
PCIe Mini Card	Two PCI Express Mini Card slots														
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2														
PCIe WWAN	Some: Wireless WAN upgradable Some: Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS														
SIM card	Some: User selectable, contract required with service provider														
Modem	None														
Bluetooth™	Bluetooth 4.0 wireless														
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1														
Intel AMT	Some: Intel Active Management Technology (iAMT)														
Audio support	High Definition (HD) Audio, Realtek® ALC3202 codec / stereo speakers, 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	AuthenTec 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 public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available										65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				

See footnotes for more detailed information

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ThinkPad X230 (2325) - Onsite (Windows 8) - II

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ^a rpm	Optical in UltraBase Series 3	ThinkPad Backlit key-board	PCIe Mini Card WLAN	Finger print reader	Bat- tery Blue- toothcells	Intel AMT	Intel vPro	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
2325-67G	i5-3320M	4GBx1	12.5" HD	No	320G 7200	Optional	Opt	None	Intel 2200	None	No	No	G P	Win8 Pro64	10/12
2325-66G	i7-3520M	4GBx1	12.5" HD	720p	180G SSD	Optional	Opt	None	Intel 6205 ²⁸	Finger BT	6	iAMT vPro	G P	Win8 Pro64	10/12
2325-65G	i7-3520M	4GBx1	12.5" HD	720p	500G 7200	Optional	Opt	None	Intel 6205	Finger BT	6	iAMT vPro	G P	Win8 Pro64	10/12
2325-64G	i5-3320M	4GBx1	12.5" HD	720p	180G SSD	Optional	Opt	None	Intel 6205	Finger BT	6	iAMT vPro	G P	Win8 Pro64	10/12
2325-63G	i5-3320M	4GBx1	12.5" HD	720p	500G 7200	Optional	Opt	None	Intel 6205	Finger BT	6	iAMT vPro	G P	Win8 Pro64	10/12
2325-62G	i5-3320M	4GBx1	12.5" HD	720p	320G 7200	Optional	Opt	None	Intel 6205	Finger BT	6	iAMT vPro	G P	Win8 Pro64	10/12

• Part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5-3320M processor (dual-core, 2.60GHz, 3MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (dual-core, 2.90GHz, 4MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology										Preloaded operating system²⁰ - Windows® 8 Pro 64-bit Preloaded applications⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • ThinkVantage Power Manager • Lenovo SimpleTap - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch - All models • Lenovo Solution Center • Password Manager • Microsoft® Office preloaded; purchase a product key to activate				
Memory	16GB max ⁷ / PC3-12800 1600MHz 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 6.0Gb/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 <i>Some:</i> HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus														
Camera	<i>Some:</i> HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus														
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)														
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight 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:</i> 4/6-cell: 12.0" x 8.13" x 0.75-1.05"; 305mm x 206.5mm x 19.0-26.6mm 4-cell: from 2.96 lb (1.34kg); 6-cell: from 3.31 lb (1.50kg); 9-cell: from 3.67 lb (1.67kg) <i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy Li-Ion 4-cell, 6-cell, or 9-cell, HW Authentication; optional external battery as 2nd battery None 4-cell (28.8Whr): up to 4.6 hr; 6-cell (62.4Whr): up to 10.3 hr; 9-cell (93.6Whr): up to 15.5 hr; <i>external battery (64Whr, 0A36280):</i> up to 10.6 hr; 9-cell <i>plus external battery:</i> up to 26.1 hr														
Chipset Ultrabase Multicard reader ExpressCard Smart Card Read Ports	Mobile Intel QM77 Express Chipset <i>Option:</i> ThinkPad Ultrabase Series 3 (see right side) 4-in-1 reader (SD, SDHC, SDXC, MMC) One slot (ExpressCard/34, ExpressCard/54) None Two USB 3.0, one powered USB 2.0, external monitor (VGA DB-15, Mini DisplayPort), ethernet (RJ-45)														
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN SIM card Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2 Wireless WAN upgradable None None <i>Some:</i> Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>Some:</i> Intel Active Management Technology (iAMT) High Definition (HD) Audio, Realtek® ALC3202 codec / stereo speakers, 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 Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip														
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> AuthenTec 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 public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available														

See footnotes for more detailed information

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ThinkPad X230 (2325) - Onsite (Windows 8) - III

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Disk SATA GB ⁸ rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	Backlit key-board	PCle Mini Card WWAN	SIM card cells	Battery cells	Ext Battery cells	Intel AMT	Intel vPro	Preload	Ann Date (mm/yy)
2325-ALG	i5-3320M	4GBx1	12.5" HD Prem	500G 7200	Optional	Opt	Backlit	WWAN upg	None	6	No	iAMT	vPro	Win8 Pro64	03/13
2325-AKG	i5-3230M	4GBx1	12.5" HD Prem	180G SSD	Optional	Opt	Backlit	Ericsson	selectable	6	No	None	No	Win8 Pro64	03/13
2325-AJG	i5-3230M	4GBx1	12.5" HD Prem	180G SSD	Optional	Opt	Backlit	Ericsson	selectable	6	No	None	No	Win7 Pro64	03/13
2325-AHG	i5-3230M	4GBx1	12.5" HD Prem	500G 7200	Optional	Opt	Backlit	Ericsson	selectable	6	6	None	No	Win8 Pro64	03/13
2325-AGG	i5-3230M	4GBx1	12.5" HD Prem	500G 7200	Optional	Opt	Backlit	Ericsson	selectable	6	6	None	No	Win7 Pro64	03/13
2325-AFG	i5-3230M	4GBx1	12.5" HD Prem	500G 7200	Optional	Opt	Backlit	WWAN upg	None	6	No	None	No	Win8 Pro64	03/13
2325-AEG	i5-3230M	4GBx1	12.5" HD Prem	500G 7200	Optional	Opt	Backlit	WWAN upg	None	6	No	None	No	Win7 Pro64	03/13
2325-ADG	i5-3230M	4GBx1	12.5" HD Prem	500G 7200	DVD±RW	UltraB	Backlit	Ericsson	selectable	6	No	None	No	Win8 Pro64	03/13
2325-ACG	i5-3230M	4GBx1	12.5" HD Prem	500G 7200	DVD±RW	UltraB	Backlit	Ericsson	selectable	6	No	None	No	Win7 Pro64	03/13
2325-B3G	i5-3380M	4GBx1	12.5" HD	500G 7200	Optional	Opt	Backlit	WWAN upg	None	6	No	iAMT	vPro	Win7 Pro64	05/13
Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5-3230M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i5-3380M processor (2 cores, 2.90GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology										Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit Preloaded applications⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • ThinkVantage Power Manager • Lenovo SimpleTap - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch - All models • Lenovo Solution Center • Password Manager • Microsoft® Office preloaded; purchase a product key to activate				
Memory	16GB max ⁷ / PC3-12800 1600MHz 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 6.0Gb/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	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus														
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; Maximum external resolution: 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)														
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight 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 Case material Standard Battery External Battery Battery - life ¹⁰	without UltraBase; 4/6-cell: 12.0" x 8.13" x 0.75-1.05"; 305mm x 206.5mm x 19.0-26.6mm 4-cell: from 2.96 lb (1.34kg); 6-cell: from 3.31 lb (1.50kg); 9-cell: from 3.67 lb (1.67kg) Display cover: Magnesium + PCABS; Bottom: Magnesium alloy Li-Ion 4-cell, 6-cell, or 9-cell, HW Authentication; optional external battery as 2nd battery Some: Slim external Lithium Ion 6-cell battery (ThinkPad Battery 19+, 0A36280) 4-cell (28.8Whr): up to 4.6 hr; 6-cell (62.4Whr): up to 10.3 hr; 9-cell (93.6Whr): up to 15.5 hr; external battery (64Whr, 0A36280): up to 10.6 hr; 9-cell plus external battery: up to 26.1 hr										ThinkPad Ultrabase Series 3 • Provides desktop expansion and cable management for X230 and X230 Tablet • Easily connects to the bottom of the X230 or X230 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 Disks supported (some): • 128GB SSD 6.0Gb/s 0A65629 • 180GB SSD 6.0Gb/s 0A65630 • 500GB Disk 7200 rpm 0A65632				
Chipset Ultrabase Multicard reader ExpressCard Smart Card Read Ports	Mobile Intel QM77 Express Chipset Some: ThinkPad Ultrabase Series 3 (see right side) 4-in-1 reader (SD, SDHC, SDXC, MMC) One slot (ExpressCard/34, ExpressCard/54) None Two USB 3.0, one powered USB 2.0, external monitor (VGA DB-15, Mini DisplayPort), ethernet (RJ-45)														
PCle Mini Card PCle WLAN ⁴ PCle WWAN	Two PCI Express Mini Card slots 11a/b/g/n, PCle Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Some: Wireless WAN upgradable Some: Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCle Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS														
SIM card Modem Bluetooth™ Ethernet Intel AMT Audio support	Some: User selectable, contract required with service provider None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCle x1 Some: Intel Active Management Technology (iAMT) High Definition (HD) Audio, Realtek® ALC3202 codec / stereo speakers, 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 Trusted Platform Module, TCG 1.2-compliant														
Security Security chip Fingerprint reader	Power On Authentication, supports the security chip AuthenTec 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 GREENGUARD® certified ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available														

See footnotes for more detailed information

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ThinkPad X230 (2325) - Onsite (Windows 8) - IV

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Disk SATA GB ⁵ rpm	Optical in UltraBase Series 3	ThinkPad Ultrabase Series 3	Backlit key-board	PCIe Mini Card WWAN	SIM card	Finger print reader	Bat- tery cells	Ext Battery cells	Intel AMT	Intel vPro	Preload	Ann Date (mm/yy)
2325-BDG	i5-3320M	4GBx1	12.5" HD Prem	500G 7200	Optional	Opt	Backlit	upg	None	None	6	No	iAMT	vPro	Win8 Pro64	06/13
2325-BCG	i5-3320M	4GBx1	12.5" HD Prem	500G 7200	Optional	Opt	Backlit	upg	None	None	6	No	iAMT	vPro	Win7 Pro64	06/13
2325-BBG	i5-3230M	4GBx1	12.5" HD Prem	180G SSD	Optional	Opt	Backlit	Ericsson	select	None	6	No	No	No	Win8 Pro64	06/13
2325-BAG	i5-3230M	4GBx1	12.5" HD Prem	180G SSD	Optional	Opt	Backlit	Ericsson	select	None	6	No	No	No	Win7 Pro64	06/13
2325-B9G	i5-3230M	4GBx1	12.5" HD Prem	500G 7200	Optional	Opt	Backlit	Ericsson	select	None	6	No	No	No	Win8 Pro64	06/13
2325-B8G	i5-3230M	4GBx1	12.5" HD Prem	500G 7200	Optional	Opt	Backlit	Ericsson	select	None	6	No	No	No	Win7 Pro64	06/13
2325-B7G	i5-3230M	4GBx1	12.5" HD Prem	500G 7200	Optional	Opt	Backlit	upg	None	None	6	No	No	No	Win8 Pro64	06/13
2325-B6G	i5-3230M	4GBx1	12.5" HD Prem	500G 7200	Optional	Opt	Backlit	upg	None	None	6	No	No	No	Win7 Pro64	06/13
2325-B5G	i5-3230M	4GBx1	12.5" HD Prem	500G 7200	DVD±RW	UltraB	Backlit	Ericsson	select	None	6	No	No	No	Win8 Pro64	06/13
2325-B4G	i5-3230M	4GBx1	12.5" HD Prem	500G 7200	DVD±RW	UltraB	Backlit	Ericsson	select	None	6	No	No	No	Win7 Pro64	06/13
2325-BHG	i5-3230M	4GBx1	12.5" HD Prem	256G SSD OPAL	Optional	Opt	Backlit	Ericsson	select	None	6	No	No	No	Win8 Pro64	06/13
2325-BGG	i5-3230M	4GBx1	12.5" HD Prem	256G SSD OPAL	Optional	Opt	Backlit	Ericsson	select	None	6	No	No	No	Win7 Pro64	06/13
2325-BFG	i7-3520M	8GBx1	12.5" HD Prem	256G SSD OPAL	Optional	Opt	Backlit	Ericsson	select	Finger	9	No	iAMT	vPro	Win7 Pro64	06/13
2325-BEG	i7-3520M	8GBx1	12.5" HD Prem	256G SSD OPAL	Optional	Opt	Backlit	Ericsson	select	Finger	9	No	iAMT	vPro	Win8 Pro64	06/13

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5-3230M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-3230M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (dual-core, 2.90GHz, 4MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system ²⁰ - <i>Some:</i> Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - <i>Some:</i> Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • ThinkVantage Power Manager • Lenovo SimpleTap - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch - All models • Lenovo Solution Center • Password Manager • Microsoft® Office preloaded; purchase a product key to activate
Memory	16GB max ⁷ / PC3-12800 1600MHz 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 6.0Gb/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 Camera	(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) HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight 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 19.0-26.6mm <i>4-cell:</i> from 2.96 lb (1.34kg); <i>6-cell:</i> from 3.31 lb (1.50kg); <i>9-cell:</i> from 3.67 lb (1.67kg) <i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy Li-Ion 4-cell, 6-cell, or 9-cell, HW Authentication; optional external battery as 2nd battery <i>Some:</i> Slim external Lithium Ion 6-cell battery (ThinkPad Battery 19+, 0A36280) <i>4-cell (28.8Whr):</i> up to 4.6 hr; <i>6-cell (62.4Whr):</i> up to 10.3 hr; <i>9-cell (93.6Whr):</i> up to 15.5 hr; <i>external battery (64Whr, 0A36280):</i> up to 10.6 hr; <i>9-cell plus external battery:</i> up to 26.1 hr		
Chipset Ultrabase Multicard reader ExpressCard Smart Card Read Ports	Mobile Intel QM77 Express Chipset <i>Some:</i> ThinkPad Ultrabase Series 3 (see right side) 4-in-1 reader (SD, SDHC, SDXC, MMC) One slot (ExpressCard/34, ExpressCard/54) None Two USB 3.0, one powered USB 2.0, external monitor (VGA DB-15, Mini DisplayPort), ethernet (RJ-45)		
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS		
SIM card Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> User selectable, contract required with service provider None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>Some:</i> Intel Active Management Technology (iAMT) High Definition (HD) Audio, Realtek® ALC3202 codec / stereo speakers, 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 Trusted Platform Module, TCG 1.2-compliant		
Security Security chip Fingerprint reader	<i>Some:</i> AuthenTec 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 public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available		

ThinkPad Ultrabase Series 3 • Provides desktop expansion and cable management for X230 and X230 Tablet • Easily connects to the bottom of the X230 or X230 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 Disks supported (some): • 128GB SSD 6.0Gb/s 0A65629 • 180GB SSD 6.0Gb/s 0A65630 • 500GB Disk 7200 rpm 0A65632	
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; 630g	
65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified ROHS-compliant	
International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²	

See footnotes for more detailed information

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ThinkPad X230i (2320) - TopSeller

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ^a rpm	Optical in UltraB	ThinkPad Ultrab Series 3	Backlit key-board	PCle Mini Card WLAN	PCle Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery cells	Intel vPro	Pre-load	Ann date (mm/yy)
2320-2DG	i3-2370M	4GBx1	12.5" HD	720p	320G 7200	Opt	Opt	Backlit	Intel 6205 ²⁸	upg	Fing	BT	6	None	Pro 64	06/12

- **Small and medium business (SMB) model(s), part of the WE TopSeller™ Program**
- **A depot repair service 3-year limited warranty**

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i3-2370M processor (dual-core, 2.40GHz, 3MB Cache), Intel HD Graphics 3000, DDR3 memory controller (up to 1333MHz), HT technology		Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications ¹⁴ (only some listed) • Access Connections™ • ThinkVantage Power Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • Microsoft® Office preloaded; purchase a product key to activate • Skype™ for Windows
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
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 6.0Gb/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 Camera	12.5" (317.5mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 3000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight 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 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 19.0-26.6mm <i>4-cell:</i> from 2.96 lb (1.34kg); <i>6-cell:</i> from 3.31 lb (1.50kg); <i>9-cell:</i> from 3.67 lb (1.67kg) <i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy Li-Ion 4-cell, 6-cell, or 9-cell, HW Authentication; optional external battery as 2nd battery None <i>4-cell (28.8Whr):</i> up to 4.6 hr; <i>6-cell (62.4Whr):</i> up to 10.3 hr; <i>9-cell (93.6Whr):</i> up to 15.5 hr; <i>external battery (64Whr):</i> up to 10.6 hr; <i>9-cell plus external battery:</i> up to 26.1 hr		ThinkPad Ultrabase Series 3 • Provides desktop expansion and cable management for X230 and X230 Tablet • Easily connects to the bottom of the X230 or X230 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side 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; 630g
Chipset Ultrabase Multicard reader ExpressCard Smart Card Read Ports	Mobile Intel QM77 Express Chipset <i>Option:</i> ThinkPad Ultrabase Series 3 (see right side) 4-in-1 reader (SD, SDHC, SDXC, MMC) One slot (ExpressCard/34, ExpressCard/54) None Two USB 3.0, one powered USB 2.0 external monitor (VGA DB-15, Mini DisplayPort), ethernet (RJ-45)		
PCle Mini Card PCle WLAN ⁴ PCle WWAN SIM card Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCle Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCle x1 None High Definition (HD) Audio, Realtek® ALC3202 codec / stereo speakers, 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 AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²

See footnotes for more detailed information

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ThinkPad X230i (2324)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ⁸ rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Finger-print reader	Bat-tery cells	Intel vPro	Pre-load	Ann Date (mm/yy)
2324-97G	Cel 877	4GBx1	12.5" HD	720p	320G 7200	Optional	Opt	Backlit	Intel 2200	WWAN upg	Finger	6	No	Pro 64	03/13

- A depot repair service 3-year limited warranty

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Celeron® 877 processor (2 cores, 1.40GHz, 2MB cache), Intel HD Graphics, DDR3 memory controller (up to 1333MHz)		Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications ¹⁴ (only some listed) • Norton™ Internet Security 2012 (30 days of virus definitions) • Access Connections™ • ThinkVantage Power Manager • ThinkVantage Tools • Fingerprint Software (fingerprint models) • ThinkVantage System Update • Adobe® Reader® • Microsoft® Office preloaded; purchase a product key to activate • Skype™ for Windows
Memory	16GB max ⁷ / PC3-12800 1600MHz 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 6.0Gb/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 X230 and X230 Tablet • Easily connects to the bottom of the X230 or X230 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side 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; 630g 65-watt AC Adapter EPEAT™ Gold rating (except Celeron models) ENERGY STAR® 5.0-compliant (except Celeron models) GREENGUARD® certified (except Celeron models) ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		
Keyboard TrackPoint®	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight		
Touchpad	TrackPoint pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass		
ThinkLight™	UltraNav™, buttonless touchpad below keyboard, multi-touch 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 19.0-26.6mm		
Weight ²	<i>4-cell:</i> from 2.96 lb (1.34kg); <i>6-cell:</i> from 3.31 lb (1.50kg); <i>9-cell:</i> from 3.67 lb (1.67kg)		
Case material	<i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy		
Standard Battery	Li-Ion 4-cell, 6-cell, or 9-cell, HW Authentication; optional external battery as 2nd battery		
External Battery	None		
Battery - life ¹⁰	<i>4-cell (28.8Whr):</i> up to 4.6 hr; <i>6-cell (62.4Whr):</i> up to 10.3 hr; <i>9-cell (93.6Whr):</i> up to 15.5 hr; <i>external battery (64Whr):</i> up to 10.6 hr; <i>9-cell plus external battery:</i> up to 26.1 hr		
Chipset	Mobile Intel QM77 Express Chipset		
Ultrabase	<i>Option:</i> ThinkPad Ultrabase Series 3 (see right side)		
Multicard reader	4-in-1 reader (SD, SDHC, SDXC, MMC)		
ExpressCard	One slot (ExpressCard/34, ExpressCard/54)		
Smart Card Read	None		
Ports	Two USB 3.0, one powered USB 2.0 external monitor (VGA DB-15, Mini DisplayPort), ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2		
PCIe WWAN	Wireless WAN upgradable		
SIM card	None		
Modem	None		
Bluetooth™	Bluetooth 4.0 wireless		
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1		
Intel AMT	None		
Audio support	High Definition (HD) Audio, Realtek® ALC3202 codec / stereo speakers, 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	AuthenTec 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

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ThinkPad X230i (2324) - Windows 8

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Disk SATA GB ⁵ rpm	Optical in UltraB	ThinkPad Ultrab Series 3	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Finger print reader	Bat-tery cells	Intel vPro	Preload	Ann Date (mm/yy)
2324-7PG	i3-3110M	4GBx1	12.5" HD	320G 7200	Optional	Opt	Backlit	Intel 6205 ²⁸	WWAN upg	Finger	6	None	Win7 Pro64	10/12
2324-6SG	i3-3110M	4GBx1	12.5" HD	320G 7200	Optional	Opt	Backlit	Intel 6205	WWAN upg	Finger	6	None	Win8 Pro64	10/12
2324-96G	i3-3120M	4GBx1	12.5" HD	320G 7200	Optional	Opt	Backlit	Intel 6205	WWAN upg	Finger	6	None	Win8 Pro64	03/13
2324-95G	i3-3120M	4GBx1	12.5" HD	320G 7200	Optional	Opt	Backlit	Intel 6205	WWAN upg	Finger	6	None	Win7 Pro64	03/13
2324-9GG	i3-3120M	4GBx1	12.5" HD	320G 7200	Optional	Opt	Backlit	Intel 6205	WWAN upg	None	6	None	Win8 Pro64	06/13
2324-9FG	i3-3120M	4GBx1	12.5" HD	320G 7200	Optional	Opt	Backlit	Intel 6205	WWAN upg	None	6	None	Win7 Pro64	06/13

• A depot repair service 3-year limited warranty

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i3-3110M processor (2 cores, 2.40GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Hyper-Threading technology Intel Core i3-3120M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Hyper-Threading technology		Preloaded operating system ²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • ThinkVantage Power Manager • Lenovo SimpleTap - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch - All models • Lenovo Solution Center • Password Manager • Microsoft® Office preloaded; purchase a product key to activate
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
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 6.0Gb/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, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight 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	<i>without UltraBase;</i> 4/6-cell: 12.0" x 8.13" x 0.75-1.05"; 305mm x 206.5mm x 19.0-26.6mm		
Weight ²	4-cell: from 2.96 lb (1.34kg); 6-cell: from 3.31 lb (1.50kg); 9-cell: from 3.67 lb (1.67kg)		
Case material	Display cover: Magnesium + PCABS; Bottom: Magnesium alloy		
Standard Battery	Li-Ion 4-cell, 6-cell, or 9-cell, HW Authentication; optional external battery as 2nd battery		
External Battery	None		
Battery - life ¹⁰	4-cell (28.8Whr): up to 4.6 hr; 6-cell (62.4Whr): up to 10.3 hr; 9-cell (93.6Whr): up to 15.5 hr; external battery (64Whr): up to 10.6 hr; 9-cell plus external battery: up to 26.1 hr		
Chipset	Mobile Intel QM77 Express Chipset		
Ultrabase	Option: ThinkPad Ultrabase Series 3 (see right side)		
Multicard reader	4-in-1 reader (SD, SDHC, SDXC, MMC)		
ExpressCard	One slot (ExpressCard/34, ExpressCard/54)		
Smart Card Read Ports	None Two USB 3.0, one powered USB 2.0 external monitor (VGA DB-15, Mini DisplayPort), ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2		
PCIe WWAN	Wireless WAN upgradable		
SIM card	None		
Modem	None		
Bluetooth™	Bluetooth 4.0 wireless		
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1		
Intel AMT	None		
Audio support	High Definition (HD) Audio, Realtek® ALC3202 codec / stereo speakers, 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	<i>Some:</i> AuthenTec 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 ThinkPad Ultrabase Series 3 • Provides desktop expansion and cable management for X230 and X230 Tablet • Easily connects to the bottom of the X230 or X230 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side 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; 630g 65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²

See footnotes for more detailed information

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ThinkPad X230i (2325) - Onsite (Windows 8)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Disk SATA GB ⁵ rpm	Optical in UltraBase Series 3	ThinkPad Ultrabase Series 3	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN	SIM card	Battery cells	Intel vPro	Preload	Ann Date (mm/yy)
2325-A9G	i3-3130M	4GBx1	12.5" HD	500G 7200	Optional	Opt	Backlit	Intel 6205 ²⁸	WWAN upg	None	6	None	Win7 Pro64	02/13
2325-A8G	i3-3120M	4GBx1	12.5" HD	500G 7200	Optional	Opt	Backlit	Intel 6205	WWAN upg	None	6	None	Win7 Pro64	02/13

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i3-3120M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Hyper-Threading technology Intel Core i3-3130M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Hyper-Threading technology		Preloaded operating system ²⁰ - Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • ThinkVantage Power Manager • Lenovo SimpleTap - Windows 8 models • Lenovo Support - All models • Lenovo Solution Center • Password Manager • Microsoft® Office preloaded; purchase a product key to activate
Memory	16GB max ⁷ / PC3-12800 1600MHz 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 6.0Gb/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 Camera	12.5" (317.5mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		Supports ThinkVantage® technologies ThinkPad Ultrabase Series 3 • Provides desktop expansion and cable management for X230 and X230 Tablet • Easily connects to the bottom of the X230 or X230 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 Disks supported (some): • 128GB SSD 6.0Gb/s 0A65629 • 180GB SSD 6.0Gb/s 0A65630 • 500GB Disk 7200 rpm 0A65632 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; 630g 65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight 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 19.0-26.6mm <i>4-cell:</i> from 2.96 lb (1.34kg); <i>6-cell:</i> from 3.31 lb (1.50kg); <i>9-cell:</i> from 3.67 lb (1.67kg) <i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy Li-Ion 4-cell, 6-cell, or 9-cell, HW Authentication; optional external battery as 2nd battery None <i>4-cell (28.8Whr):</i> up to 4.6 hr; <i>6-cell (62.4Whr):</i> up to 10.3 hr; <i>9-cell (93.6Whr):</i> up to 15.5 hr; <i>external battery (64Whr, 0A36280):</i> up to 10.6 hr; <i>9-cell plus external battery:</i> up to 26.1 hr		
Chipset Ultrabase Multicard reader ExpressCard Smart Card Read Ports	Mobile Intel QM77 Express Chipset <i>Option:</i> ThinkPad Ultrabase Series 3 (see right side) 4-in-1 reader (SD, SDHC, SDXC, MMC) One slot (ExpressCard/34, ExpressCard/54) None Two USB 3.0, one powered USB 2.0, external monitor (VGA DB-15, Mini DisplayPort), ethernet (RJ-45)		
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN SIM card Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 None High Definition (HD) Audio, Realtek® ALC3202 codec / stereo speakers, 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 Trusted Platform Module, TCG 1.2-compliant AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant AuthenTec 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 public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available		

See footnotes for more detailed information

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Lenovo® ThinkPad X230 Tablet



Lenovo ThinkPad X230 Tablet



Lenovo ThinkPad X230 Tablet



Lenovo ThinkPad X230 Tablet



Lenovo ThinkPad X230 Tablet

ThinkPad X230 Tablet (3437)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ⁸ rpm	Optical in UltraB	ThinkPad Ultrab Series 3	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Bat-tery cells	Global (G) Intel vPro (P)	Ann Date (mm/yy)
3437-3LG	i5-3320M	4GBx1	12.5" HD <i>Multi</i>	720p	320G 7200	Optional	Optional	None	Intel 6205 ²⁸	WWAN upg	6	vPro	G Pro 64 06/12
3437-2YG	i7-3520M	4GBx1	12.5" HD <i>Multi</i>	720p	500G 7200	Optional	Optional	None	Intel 6205	WWAN upg	6	vPro	G Pro 64 06/12
3437-2WG	i5-3320M	4GBx1	12.5" HD <i>Multi</i>	720p	500G 7200	Optional	Optional	None	Intel 6205	WWAN upg	6	vPro	G Pro 64 06/12
3437-2TG	i5-3320M	4GBx1	12.5" HD <i>Out</i>	720p	320G 7200	Optional	Optional	None	Intel 6205	WWAN upg	6	vPro	G Pro 64 06/12
3437-2SG	i5-3320M	4GBx1	12.5" HD <i>Multi</i>	720p	320G 7200	DVD±RW	UltraBase	None	Intel 6205	WWAN upg	6	vPro	G Pro 64 06/12
3437-2AG	i5-3320M	4GBx1	12.5" HD <i>Multi</i>	720p	320G 7200	Optional	Optional	None	Intel 6205	WWAN upg	6	vPro	G Pro 64 06/12
3437-23G	i7-3520M	4GBx1	12.5" HD <i>Multi</i>	720p	180G SSD	DVD±RW	UltraBase	None	Intel 6205	WWAN upg	6	vPro	G Pro 64 06/12
3437-22G	i5-3320M	4GBx1	12.5" HD <i>Out</i>	720p	320G 7200	DVD±RW	UltraBase	None	Intel 6205	WWAN upg	6	vPro	G Pro 64 06/12
3437-3KG	i7-3520M	4GBx1	12.5" HD <i>Multi</i>	720p	128G SSD	Optional	Optional	None	Intel 6205	WWAN upg	6	vPro	G Pro 64 07/12
3437-2ZG	i5-3320M	4GBx1	12.5" HD <i>Out</i>	720p	128G SSD	Optional	Optional	None	Intel 6205	WWAN upg	6	vPro	G Pro 64 07/12

• A depot repair service 3-year limited warranty

Positioning Processor	<i>Convertible tablet ultraportable; one spindle</i> Intel® Core™ i5-3320M processor (dual-core, 2.60GHz, 3MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (dual-core, 2.90GHz, 4MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications¹⁴ (only some listed) • Norton™ Internet Security 2012 (30 days of virus definitions) • Access Connections™ • ThinkVantage Power Manager • ThinkVantage Tools • Fingerprint Software (fingerprint models) • ThinkVantage System Update • Adobe® Reader® • Microsoft® Office preloaded; purchase a product key to activate • Skype™ for Windows		
Memory	16GB max ⁷ / PC3-12800 1600MHz 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 6.0Gb/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>Outdoor:</i> 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare display with scratch resistant Corning® Gorilla® Glass, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, IPS <i>MultiTouch:</i> 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, MultiTouch screen supports pen & five-finger gesture <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), rotate and swivel hinge , power, reset, and rotation buttons on display bottom												
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus												
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via DisplayPort; 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, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, buttonless touchpad below keyboard, Tap Zones, multi-touch None												
Dimensions ³	<i>without UltraBase; 3-cell:</i> 12.0" x 9.0" x 1.1-1.23"; 305mm x 228.7mm x 27-31.3mm												
Weight ²	<i>3-cell:</i> from 3.67 lb (1.66kg); <i>6-cell:</i> from 3.97 lb (1.80kg)												
Case material	<i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy												
Battery - type	Li-Polymer 3-cell or Li-Ion 6-cell, HW Authentication; optional external battery as 2nd battery												
Extended Battery	None												
Battery - life ¹⁰	<i>3-cell (30Whr):</i> up to 4.7 hr; <i>6-cell (66Whr):</i> up to 9.9 hr; <i>external battery (64Whr):</i> up to 10.2 hr; <i>6-cell plus external battery:</i> up to 20.1 hr												
Chipset Ultrabase	Mobile Intel QM77 Express Chipset <i>Some:</i> ThinkPad Ultrabase Series 3 (see right side)												
Multicard Reader	4-in-1 reader (SD, SDHC, SDXC, MMC)												
ExpressCard	One slot (ExpressCard/34, ExpressCard/54)												
Smart Card Read Ports	None Two USB 3.0, one powered USB 2.0, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)												
PCIe Mini Card	Two PCI Express Mini Card slots												
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2												
PCIe WWAN	Wireless WAN upgradable												
SIM card	None												
Modem	None												
Bluetooth™	Bluetooth 4.0 wireless												
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1												
Intel AMT	Intel Active Management Technology (iAMT)												
Audio support	High Definition (HD) Audio, Realtek® ALC3202 codec / stereo speakers, 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	AuthenTec fingerprint reader (right base of display), used in tablet/notebook mode, 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

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ThinkPad X230 Tablet (3438) - Onsite

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Disk SATA GB ⁵ rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN	SIM card	Battery cells	Global (G)Ann Date (mm/yy)
3438-3UG	i5-3320M	4GBx1	12.5" HD <i>Multi</i>	320G 7200	DVD±RW	UltraBase	None	Intel 6205 ²⁸	WWAN upg	None	6 vPro	G P 06/12
3438-3TG	i5-3320M	4GBx1	12.5" HD <i>Multi</i>	320G 7200	Optional	Optional	None	Intel 6205	WWAN upg	None	6 vPro	G P 06/12
3438-2BG	i5-3320M	4GBx1	12.5" HD <i>Multi</i>	500G 7200	Optional	Optional	Backlit	Intel 6205	Ericsson	selectable	6 vPro	06/12
3438-2AG	i5-3320M	4GBx1	12.5" HD <i>Multi</i>	180G SSD	Optional	Optional	Backlit	Intel 6205	Ericsson	selectable	6 vPro	06/12
3438-27G	i5-3320M	4GBx1	12.5" HD <i>Out</i>	320G 7200	Optional	Optional	None	Intel 6205	WWAN upg	None	6 vPro	G P 06/12
3438-26G	i5-3320M	4GBx1	12.5" HD <i>Multi</i>	320G 7200	Optional	Optional	None	Intel 6205	WWAN upg	None	6 vPro	G P 06/12
3438-25G	i7-3520M	4GBx1	12.5" HD <i>Multi</i>	500G 7200	Optional	Optional	None	Intel 6205	WWAN upg	None	6 vPro	G P 06/12
3438-24G	i5-3320M	4GBx1	12.5" HD <i>Multi</i>	500G 7200	Optional	Optional	None	Intel 6205	WWAN upg	None	6 vPro	G P 06/12
3438-23G	i7-3520M	4GBx1	12.5" HD <i>Multi</i>	180G SSD	DVD±RW	UltraBase	None	Intel 6205	WWAN upg	None	6 vPro	G P 06/12
3438-22G	i5-3320M	4GBx1	12.5" HD <i>Out</i>	320G 7200	DVD±RW	UltraBase	None	Intel 6205	WWAN upg	None	6 vPro	G P 06/12
Positioning Processor	<i>Convertible tablet ultraportable; one spindle</i> Intel® Core™ i5-3320M processor (dual-core, 2.60GHz, 3MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (dual-core, 2.90GHz, 4MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications¹⁴ (only some listed) • Norton™ Internet Security 2012 (30 days of virus definitions) • Access Connections™ • ThinkVantage Power Manager • ThinkVantage Tools • Fingerprint Software (fingerprint models) • ThinkVantage System Update • Adobe® Reader® • Microsoft® Office preloaded; purchase a product key to activate • Skype™ for Windows	
Memory	16GB max ⁷ / PC3-12800 1600MHz 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 6.0Gb/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>Outdoor:</i> 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare display with scratch resistant Corning® Gorilla® Glass, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, IPS <i>MultiTouch:</i> 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, MultiTouch screen supports pen & five-finger gesture <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), rotate and swivel hinge , power, reset, and rotation buttons on display bottom											
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus											
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via DisplayPort; 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, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, buttonless touchpad below keyboard, Tap Zones, multi-touch None											
Dimensions ³ Weight ² Case material Battery - type Extended Battery Battery - life ¹⁰	<i>without UltraBase; 3-cell:</i> 12.0" x 9.0" x 1.1-1.23"; 305mm x 228.7mm x 27-31.3mm <i>3-cell:</i> from 3.67 lb (1.66kg); <i>6-cell:</i> from 3.97 lb (1.80kg) <i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy Li-Polymer 3-cell or Li-Ion 6-cell, HW Authentication; optional external battery as 2nd battery <i>3-cell (30Whr):</i> up to 4.7 hr; <i>6-cell (66Whr):</i> up to 9.9 hr; <i>external battery (64Whr):</i> up to 10.2 hr; <i>6-cell plus external battery:</i> up to 20.1 hr											
Chipset Ultrabase Multicard Reader ExpressCard Smart Card Read Ports	Mobile Intel QM77 Express Chipset <i>Some:</i> ThinkPad Ultrabase Series 3 (see right side) 4-in-1 reader (SD, SDHC, SDXC, MMC) One slot (ExpressCard/34, ExpressCard/54) None Two USB 3.0, one powered USB 2.0, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)										Supports ThinkVantage® technologies ThinkPad Ultrabase Series 3 • Provides desktop expansion and cable management for X230 and X230 Tablet • Easily connects to the bottom of the X230 or X230 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side	
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Ericsson® F5521gw Mobile Broadband Module, PCIe Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS										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; 630g	
SIM card Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> User selectable, contract required with service provider None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Realtek® ALC3202 codec / stereo speakers, 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 AuthenTec fingerprint reader (right base of display), used in tablet/notebook mode, LED indicator, Power On Authentication, supports the security chip										65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²	
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available											

See footnotes for more detailed information

ThinkPad X230 Tablet (3438) - Onsite - II

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Disk SATA GB ^a rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Battery cells	Intel vPro	Global (G) GMP (P)	Ann Date (mm/yy)
3438-3SG	i5-3320M	4GBx1	12.5" HD <i>Out</i>	128G SSD	Optional	Optional	None	Intel 6205 ²⁸	WWAN upg	6	vPro	G P	07/12
3438-2RG	i7-3520M	4GBx1	12.5" HD <i>Multi</i>	128G SSD	Optional	Optional	None	Intel 6205	WWAN upg	6	vPro	G P	07/12

- **Part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty**

Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ i5-3320M processor (dual-core, 2.60GHz, 3MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (dual-core, 2.90GHz, 4MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications ¹⁴ (only some listed) • Norton™ Internet Security 2012 (30 days of virus definitions) • Access Connections™ • ThinkVantage Power Manager • ThinkVantage Tools • Fingerprint Software (fingerprint models) • ThinkVantage System Update • Adobe® Reader® • Microsoft® Office preloaded; purchase a product key to activate • Skype™ for Windows
Memory	16GB max ⁷ / PC3-12800 1600MHz 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 6.0Gb/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>Outdoor:</i> 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare display with scratch resistant Corning® Gorilla® Glass, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, IPS <i>MultiTouch:</i> 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, MultiTouch screen supports pen & five-finger gesture <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), rotate and swivel hinge , power, reset, and rotation buttons on display bottom		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via DisplayPort; 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, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, buttonless touchpad below keyboard, Tap Zones, multi-touch None		
Dimensions ³ Weight ² Case material Battery - type Extended Battery Battery - life ¹⁰	<i>without UltraBase; 3-cell:</i> 12.0" x 9.0" x 1.1-1.23"; 305mm x 228.7mm x 27-31.3mm <i>3-cell:</i> from 3.67 lb (1.66kg); <i>6-cell:</i> from 3.97 lb (1.80kg) <i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy Li-Polymer 3-cell or Li-Ion 6-cell, HW Authentication; optional external battery as 2nd battery None <i>3-cell (30Whr):</i> up to 4.7 hr; <i>6-cell (66Whr):</i> up to 9.9 hr; <i>external battery (64Whr):</i> up to 10.2 hr; <i>6-cell plus external battery:</i> up to 20.1 hr		Supports ThinkVantage® technologies ThinkPad Ultrabase Series 3 • Provides desktop expansion and cable management for X230 and X230 Tablet • Easily connects to the bottom of the X230 or X230 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side 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; 630g 65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Chipset Ultrabase Multicard Reader ExpressCard Smart Card Read Ports	Mobile Intel QM77 Express Chipset <i>Option:</i> ThinkPad Ultrabase Series 3 (see right side) 4-in-1 reader (SD, SDHC, SDXC, MMC) One slot (ExpressCard/34, ExpressCard/54) None Two USB 3.0, one powered USB 2.0, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)		
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN SIM card Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Realtek® ALC3202 codec / stereo speakers, 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 Trusted Platform Module, TCG 1.2-compliant		
Security Security chip Fingerprint reader	AuthenTec fingerprint reader (right base of display), used in tablet/notebook mode, 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 public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available		

See footnotes for more detailed information



Lenovo® ThinkPad X1 Carbon (1st Gen)



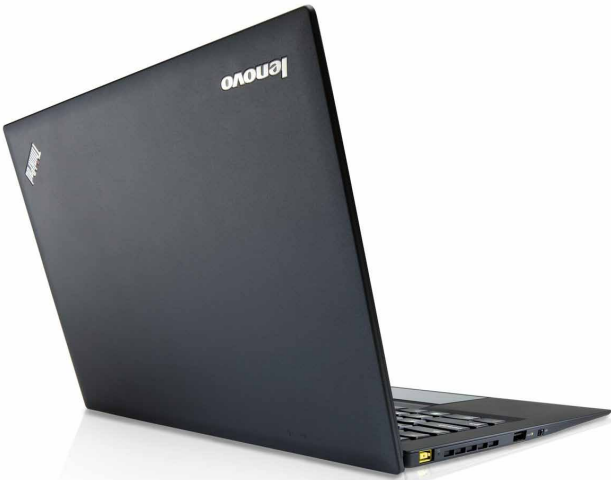
Lenovo ThinkPad X1 Carbon (1st Gen)



Lenovo ThinkPad X1 Carbon (1st Gen)



Lenovo ThinkPad X1 Carbon (1st Gen)



Lenovo ThinkPad X1 Carbon (1st Gen)



Lenovo ThinkPad X1 Carbon (1st Gen)

ThinkPad X1 Carbon (1st Gen) 3444 (TopSeller)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	SIM card	Finger print reader	Blue-tooth	Intel AMT	Intel vPro	Preload	Ann Date (mm/yy)
3444-57G	i7-3667U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S ²⁸	Ericsson	Lenovo	Finger	BT	iAMT	vPro	Pro 64	08/12
3444-ATG	i5-3317U	4GBx1	14.0" HD	720p	120G SSD	Intel 6205S	None	None	Finger	BT	None	None	Prem 64	10/12

- **Small and medium business (SMB) model(s), part of the WE TopSeller™ Program**
- **A depot repair service 3-year limited warranty**

Positioning Processor	Ultralight, durable, secure, and stylish Ultrabook™; one spindle Intel® Core™ i5-3317U processor (2 cores, 1.70GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.60GHz), HT technology Intel Core i7-3667U processor (2 cores, 2.0GHz, 4MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology		Preloaded operating system ²⁰ <i>Some:</i> Genuine Windows® 7 Home Premium 64 <i>Some:</i> Genuine Windows 7 Professional 64 Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications ¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote™ • Symantec™ VIP • Windows Live™ Essentials
Memory	4GB or 8GB / PC3-10600 1333MHz DDR3L / soldered to systemboard, no sockets		
Optical	None		
SATA disk	Solid State Drive (SSD) / SATA 6.0Gb/s, Small Form Factor		
mSATA™ SSD	None		
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 400:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) TFT color , anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 400:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via Mini DisplayPort (supports VGA analog monitor via Mini DisplayPort to VGA Monitor Cable 0A36536); supports dual independent display; <i>Max external resolution:</i> 2560x1600 (Mini-DisplayPort)@60Hz		
Keyboard	6-row, ThinkVantage button, LED backlit, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³		
Touchpad	UltraNav™, buttonless glass surface touchpad below keyboard, multi-touch		
ThinkLight™	None		
Dimensions ³	<i>14.0W" (WxDxH):</i> 13.0" x 8.9" x 0.31-0.74"; 331mm x 226mm x 8.0-18.8mm		
Weight ²	<i>Integrated battery:</i> from 3.0 lb (1.36kg)		
Case material	<i>Display cover:</i> Carbon Fiber; <i>Bottom:</i> Magnesium/Aluminum		
Battery - type	Integrated Lithium Polymer 4-cell RapidCharge battery		
Battery - life ¹⁰	<i>Integrated battery (45.8Whr):</i> up to 8.2 hr		
Chipset	Mobile Intel QS77 Express Chipset		
Multicard reader	4-in-1 reader (SD, SDHC, SDXC, MMC)		
ExpressCard	None		
Ports	One USB 3.0, one powered USB 2.0, external monitor (Mini DisplayPort)		
Monitor Cable	None		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	11a/b/g/n, PCIe Small Form Factor Mini Card, Intel Centrino® Advanced-N 6205S, 2x2		
PCIe WWAN	<i>Some:</i> Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS		
SIM card	<i>Some:</i> Lenovo SIM, out-of-box service, pay-as-you-go via credit card, no contract required		
Modem	None		
Bluetooth™	Bluetooth 4.0 wireless		
Ethernet	None		
Intel AMT	<i>Some:</i> Intel Active Management Technology (iAMT)		
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 2 watt x 2 / volume up, down, mute buttons / dual array microphone, mic mute button, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole, reset switch		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	AuthenTec 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 (RapidCharge) ThinkPad Roll Cage (bottom cover) EPEAT™ Gold rating ENERGY STAR® 5.2-compliant ROHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² | | |

See footnotes for more detailed information

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(G-GS1-3) November 2012

ThinkPad X1 Carbon (1st Gen) 3444 (TopSeller) - Windows 8

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ⁹ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	SIM card	Finger print reader	Blue-tooth	Intel AMT	Intel vPro	Preload	Ann Date (mm/yy)
3444-AVG	i5-3427U	4GBx1	14.0" HD+	720p	120G SSD	Intel 6205S ²⁸	None	None	Finger	BT	iAMT	vPro	Win8 Pro64	10/12
3444-6PG	i5-3317U	4GBx1	14.0" HD+	720p	120G SSD	Intel 6205S	None	None	Finger	BT	None	None	Win8 Pro64	10/12

- **Small and medium business (SMB) model(s), part of the WE TopSeller™ Program**
- **A depot repair service 3-year limited warranty**

Positioning Processor	<i>Ultralight, durable, secure, and stylish Ultrabook™; one spindle</i> Intel® Core™ i5-3317U processor (2 cores, 1.70GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.60GHz), HT technology Intel Core i5-3427U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.80GHz), HT technology		Preloaded operating system ²⁰ - Windows® 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models <ul style="list-style-type: none">• Lenovo® Message Center Plus• ThinkVantage Product Recovery• Access Connections™• ThinkVantage Power Manager• Lenovo SimpleTap - Windows 8 models <ul style="list-style-type: none">• Lenovo Support• Lenovo Companion• Lenovo QuickLaunch - All models <ul style="list-style-type: none">• Lenovo Solution Center• Password Manager• ThinkVantage System Update• Fingerprint Software (fingerprint models)• Lenovo Cloud Storage by SugarSync• Microsoft® Office preloaded; purchase a product key to activate
Memory	4GB or 8GB / PC3-10600 1333MHz DDR3L / soldered to systemboard, no sockets		
Optical	None		
SATA disk	Solid State Drive (SSD) / SATA 6.0Gb/s, Small Form Factor		
mSATA™ SSD	None		
Widescreen display	14.0" (355mm) HD+ (1600x900) TFT color , anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 400:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via Mini DisplayPort (supports VGA analog monitor via Mini DisplayPort to VGA Monitor Cable 0A36536); supports dual independent display; <i>Max external resolution: 2560x1600 (Mini-DisplayPort)@60Hz</i>		
Keyboard	6-row, ThinkVantage button, LED backlit, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³		
Touchpad	UltraNav™, buttonless glass surface touchpad below keyboard, multi-touch		
ThinkLight™	None		
Dimensions ³	14.0W" (WxDxH): 13.0" x 8.9" x 0.31-0.74"; 331mm x 226mm x 8.0-18.8mm		
Weight ²	<i>Integrated battery:</i> from 3.0 lb (1.36kg)		
Case material	<i>Display cover:</i> Carbon Fiber; <i>Bottom:</i> Magnesium/Aluminum		
Battery - type	Integrated Lithium Polymer 4-cell RapidCharge battery		
Battery - life ¹⁰	<i>Integrated battery (45.8Whr):</i> up to 8.2 hr		
Chipset	Mobile Intel QS77 Express Chipset		
Multicard reader	4-in-1 reader (SD, SDHC, SDXC, MMC)		
ExpressCard	None		
Ports	One USB 3.0, one powered USB 2.0, external monitor (Mini DisplayPort)		
Monitor Cable	None		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	11a/b/g/n, PCIe Small Form Factor Mini Card, Intel Centrino® Advanced-N 6205S, 2x2		
PCIe WWAN	None		
SIM card	None		
Modem	None		
Bluetooth™	Bluetooth 4.0 wireless		
Ethernet	None		
Intel AMT	<i>Some:</i> Intel Active Management Technology (iAMT)		
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 2 watt x 2 / volume up, down, mute buttons / dual array microphone, mic mute button, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole, reset switch		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	AuthenTec 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 (RapidCharge) ThinkPad Roll Cage (bottom cover) EPEAT™ Gold rating ENERGY STAR® 5.2-compliant ROHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² | | |

See footnotes for more detailed information

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(G-GS1-6) November 2012

ThinkPad X1 Carbon (1st Gen) 3448

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ^a rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	SIM card	Finger print reader	Blue-tooth	Intel vPro	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
3448-34G	i5-3427U	8GBx1	14.0" HD+	720p	128G SSD	Intel 6205S ²⁸	None	None	Finger	BT	vPro	G	Pro 64	08/12
3448-35G	i5-3427U	8GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Pro 64	08/12
3448-25G	i7-3667U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Pro 64	08/12
3448-24G	i7-3667U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Pro 64	08/12
3448-23G	i5-3427U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Pro 64	08/12
3448-22G	i5-3427U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Pro 64	08/12

• A depot repair service 3-year limited warranty

Positioning Processor	<i>Ultralight, durable, secure, and stylish Ultrabook™; one spindle</i> Intel® Core™ i5-3427U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.80GHz), HT technology Intel Core i7-3667U processor (2 cores, 2.0GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology									Preloaded operating system²⁰ Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Symantec™ VIP • Windows Live™ Essentials				
Memory	4GB or 8GB / PC3-10600 1333MHz DDR3L / soldered to systemboard, no sockets													
Optical	None													
SATA disk	Solid State Drive (SSD) / SATA 6.0Gb/s, Small Form Factor													
mSATA™ SSD	None													
Widescreen display	14.0" (355mm) HD+ (1600x900) TFT color , anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 400:1 contrast ratio													
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus													
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via Mini DisplayPort (supports VGA analog monitor via Mini DisplayPort to VGA Monitor Cable 0A36536); supports dual independent display; <i>Max external resolution: 2560x1600 (Mini-DisplayPort) @60Hz</i>													
Keyboard	6-row, ThinkVantage button, LED backlit, spill-resistant, multimedia Fn keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³													
Touchpad	UltraNav™, buttonless glass surface touchpad below keyboard, multi-touch													
ThinkLight™	None													
Dimensions ³	14.0W" (WxDxH): 13.0" x 8.9" x 0.31-0.74"; 331mm x 226mm x 8.0-18.8mm													
Weight ²	Integrated battery: from 3.0 lb (1.36kg)													
Case material	Display cover: Carbon Fiber; Bottom: Magnesium/Aluminum													
Battery - type	Integrated Lithium Polymer 4-cell RapidCharge battery													
Battery - life ¹⁰	Integrated battery (45.8Whr): up to 8.2 hr													
Chipset	Mobile Intel QS77 Express Chipset													
Multicard reader	4-in-1 reader (SD, SDHC, SDXC, MMC)													
ExpressCard	None													
Ports	One USB 3.0, one powered USB 2.0, external monitor (Mini DisplayPort)													
Monitor Cable	None													
PCIe Mini Card	Two PCI Express Mini Card slots													
PCIe WLAN ⁴	11a/b/g/n, PCIe Small Form Factor Mini Card, Intel Centrino® Advanced-N 6205S, 2x2													
PCIe WWAN	None													
SIM card	None													
Modem	None													
Bluetooth™	Bluetooth 4.0 wireless													
Ethernet	None													
Intel AMT	Intel Active Management Technology (iAMT)													
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 2 watt x 2 / volume up, down, mute buttons / dual array microphone, mic mute button, combo audio/mic jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole, reset switch													
Security chip	Trusted Platform Module, TCG 1.2-compliant													
Fingerprint reader	AuthenTec 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

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(G-GS1-1) August 2012

ThinkPad X1 Carbon (1st Gen) 3448 (Windows 8)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ^a rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	SIM card	Finger print reader	Blue-tooth	Global (G) Intel vPro	GMP (P)	Preload	Ann Date (mm/yy)
3448-5DG	i7-3667U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S ²⁸	None	None	Finger	BT	vPro	G	Win8 Pro64	10/12
3448-5CG	i7-3667U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win8 Pro64	10/12
3448-5BG	i5-3427U	8GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win8 Pro64	10/12
3448-5AG	i5-3427U	8GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win8 Pro64	10/12
3448-59G	i5-3427U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win8 Pro64	10/12
3448-58G	i5-3427U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win8 Pro64	10/12
3448-AYG	i7-3667U	8GBx1	14.0" HD+	720p	240G FDE SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win8 Pro64	10/12
3448-AXG	i7-3667U	8GBx1	14.0" HD+	720p	180G SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win8 Pro64	10/12
3448-AWG	i7-3667U	8GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win8 Pro64	10/12
3448-AVG	i7-3667U	8GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win8 Pro64	10/12
3448-C4G	i5-3427U	4GBx1	14.0" HD+	720p	240G FDE SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win8 Pro64	02/13

• A depot repair service 3-year limited warranty

Positioning Processor	Ultralight, durable, secure, and stylish Ultrabook™; one spindle Intel® Core™ i5-3427U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.80GHz), HT technology Intel Core i7-3667U processor (2 cores, 2.0GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology		Preloaded operating system ²⁰ - Windows® 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate
Memory	4GB or 8GB / PC3-10600 1333MHz DDR3L / soldered to systemboard, no sockets		
Optical	None		
SATA disk	Solid State Drive (SSD) / SATA 6.0Gb/s, Small Form Factor		
mSATA™ SSD	None		
Widescreen display	14.0" (355mm) HD+ (1600x900) TFT color , anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 400:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via Mini DisplayPort (supports VGA analog monitor via Mini DisplayPort to VGA Monitor Cable 0A36536); supports dual independent display; <i>Max external resolution: 2560x1600 (Mini-DisplayPort)@60Hz</i>		
Keyboard	6-row, ThinkVantage button, LED backlit, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³		
Touchpad	UltraNav™, buttonless glass surface touchpad below keyboard, multi-touch		
ThinkLight™	None		
Dimensions ³	14.0W" (WxDxH): 13.0" x 8.9" x 0.31-0.74"; 331mm x 226mm x 8.0-18.8mm		
Weight ²	<i>Integrated battery:</i> from 3.0 lb (1.36kg)		
Case material	<i>Display cover:</i> Carbon Fiber; <i>Bottom:</i> Magnesium/Aluminum		
Battery - type	Integrated Lithium Polymer 4-cell RapidCharge battery		
Battery - life ¹⁰	<i>Integrated battery (45.8Whr):</i> up to 8.2 hr		
Chipset	Mobile Intel QS77 Express Chipset		
Multicard reader	4-in-1 reader (SD, SDHC, SDXC, MMC)		
ExpressCard	None		
Ports	One USB 3.0, one powered USB 2.0, external monitor (Mini DisplayPort)		
Monitor Cable	None		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	11a/b/g/n, PCIe Small Form Factor Mini Card, Intel Centrino® Advanced-N 6205S, 2x2		
PCIe WWAN	None		
SIM card	None		
Modem	None		
Bluetooth™	Bluetooth 4.0 wireless		
Ethernet	None		
Intel AMT	Intel Active Management Technology (iAMT)		
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 2 watt x 2 / volume up, down, mute buttons / dual array microphone, mic mute button, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole, reset switch		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	AuthenTec 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 (RapidCharge) ThinkPad Roll Cage (bottom cover) EPEAT™ Gold rating ENERGY STAR® 5.2-compliant ROHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² | | |

See footnotes for more detailed information

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(G-GS1-4) February 2013

ThinkPad X1 Carbon (1st Gen) 3448 (Windows 8) - MultiTouch

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ⁹ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	PCIe Mini Card SIM card	Finger print reader	Blue-tooth	Intel vPro	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
3448-8SG	i5-3427U	4GBx1	14.0" HD+ Multi	720p	240G FDE SSD	Intel 6205S ²⁸	None	None	Finger	BT	vPro	G	Win8 Pro64	12/12
3448-8RG	i5-3427U	4GBx1	14.0" HD+ Multi	720p	180G SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win8 Pro64	12/12
3448-7NG	i5-3427U	4GBx1	14.0" HD+ Multi	720p	240G FDE SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win8 Pro64	12/12
3448-7MG	i5-3427U	4GBx1	14.0" HD+ Multi	720p	180G SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win8 Pro64	12/12
3448-C8G	i7-3667U	8GBx1	14.0" HD+ Multi	720p	180G SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win8 Pro64	02/13
3448-C7G	i7-3667U	8GBx1	14.0" HD+ Multi	720p	240G FDE SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win8 Pro64	02/13
3448-C6G	i7-3667U	8GBx1	14.0" HD+ Multi	720p	256G SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win8 Pro64	02/13
3448-C5G	i7-3667U	8GBx1	14.0" HD+ Multi	720p	128G SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win8 Pro64	02/13

• A depot repair service 3-year limited warranty

Positioning Processor	Ultralight, durable, secure, and stylish Ultrabook™; one spindle Intel® Core™ i5-3427U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.80GHz), HT technology Intel Core i7-3667U processor (2 cores, 2.0GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology		Preloaded operating system ²⁰ - Windows® 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • ThinkVantage Power Manager • Lenovo SimpleTap - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch - All models • Lenovo Solution Center • Password Manager • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions)
Memory	4GB or 8GB / PC3-10600 1333MHz DDR3L / soldered to systemboard, no sockets		
Optical	None		
SATA disk	Solid State Drive (SSD) / SATA 6.0Gb/s, Small Form Factor		
mSATA™ SSD	None		
Widescreen display	14.0" (355mm) HD+ (1600x900) TFT color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 400:1 contrast ratio, MultiTouch screen supports ten-finger gesture		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via Mini DisplayPort (supports VGA analog monitor via Mini DisplayPort to VGA Monitor Cable 0A36536); supports dual independent display; <i>Max external resolution: 2560x1600 (Mini-DisplayPort)@60Hz</i>		
Keyboard	6-row, ThinkVantage button, LED backlit, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³		
Touchpad	UltraNav™, buttonless glass surface touchpad below keyboard, multi-touch		
ThinkLight™	None		
Dimensions ³	14.0W" (WxDxH): 13.0" x 8.9" x 0.39-0.82"; 331mm x 226mm x 10.0-20.8mm		
Weight ²	Integrated battery: from 3.4 lb (1.54kg)		
Case material	Display cover: Carbon Fiber; Bottom: Magnesium/Aluminum		
Battery - type	Integrated Lithium Polymer 4-cell RapidCharge battery		
Battery - life ¹⁰	Integrated battery (45.8Whr): up to 8.2 hr		
Chipset	Mobile Intel QS77 Express Chipset		
Multicard reader	4-in-1 reader (SD, SDHC, SDXC, MMC)		
ExpressCard	None		
Ports	One USB 3.0, one powered USB 2.0, external monitor (Mini DisplayPort)		
Monitor Cable	None		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	11a/b/g/n, PCIe Small Form Factor Mini Card, Intel Centrino® Advanced-N 6205S, 2x2		
PCIe WWAN	None		
SIM card	None		
Modem	None		
Bluetooth™	Bluetooth 4.0 wireless		
Ethernet	None		
Intel AMT	Intel Active Management Technology (iAMT)		
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 2 watt x 2 / volume up, down, mute buttons / dual array microphone, mic mute button, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole, reset switch		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	AuthenTec 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 (RapidCharge) ThinkPad Roll Cage (bottom cover) EPEAT™ Gold rating ENERGY STAR® 5.2-compliant ROHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² | | |

See footnotes for more detailed information

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ThinkPad X1 Carbon (1st Gen) 3460 (Onsite)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ² rpm	PCle Mini Card WLAN	PCle Mini Card WWAN/ mSATA	SIM card	Mini DP to VGA Cable	USB 2.0 Ethernet Adapter	Intel AMT	Intel vPro	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
3460-35G	i5-3427U	8GBx1	14.0" HD+	720p	256G SSD	Intel 6205S ²⁸	None	None	None	None	iAMT	vPro	G P	Pro 64	08/12
3460-34G	i5-3427U	8GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	None	None	iAMT	vPro	G P	Pro 64	08/12
3460-25G	i7-3667U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	Ericsson	selectable	None	None	iAMT	vPro	G P	Pro 64	08/12
3460-24G	i7-3667U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	None	None	iAMT	vPro	G P	Pro 64	08/12
3460-23G	i5-3427U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	None	None	iAMT	vPro	G P	Pro 64	08/12
3460-22G	i5-3427U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	None	None	iAMT	vPro	G P	Pro 64	08/12
3460-B6G	i5-3317U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	mDP-VGA	Ethernet	None	No		Pro 64	11/12
3460-B5G	i5-3317U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	mDP-VGA	Ethernet	None	No		Pro 64	11/12
3460-B4G	i5-3317U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	Ericsson	selectable	mDP-VGA	Ethernet	None	No		Pro 64	11/12
3460-B3G	i5-3317U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	Ericsson	selectable	mDP-VGA	Ethernet	None	No		Pro 64	11/12
3460-CZG	i5-3337U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	Ericsson	selectable	mDP-VGA	Ethernet	None	No		Pro 64	03/13
3460-CYG	i5-3337U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	mDP-VGA	Ethernet	None	No		Pro 64	03/13
3460-CXG	i5-3337U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	mDP-VGA	Ethernet	None	No		Pro 64	03/13
3460-CWG	i5-3337U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	Ericsson	selectable	mDP-VGA	Ethernet	None	No		Pro 64	03/13

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

Positioning Processor	Ultralight, durable, secure, and stylish Ultrabook™; one spindle Intel® Core™ i5-3317U processor (2 cores, 1.70GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.60GHz), HT technology Intel Core i5-3337U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.70GHz), HT technology Intel Core i5-3427U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.80GHz), HT technology Intel Core i7-3667U processor (2 cores, 2.0GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology										Preloaded operating system²⁰ Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Symantec™ VIP • Windows Live™ Essentials					
Memory	4GB or 8GB / PC3-10600 1333MHz DDR3L / soldered to systemboard, no sockets															
Optical	None															
SATA disk	Solid State Drive (SSD) / SATA 6.0Gb/s, Small Form Factor															
mSATA™ SSD	None															
Widescreen display	14.0" (355mm) HD+ (1600x900) TFT color , anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 400:1 contrast ratio															
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus															
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via Mini DisplayPort (supports VGA analog monitor via Mini DisplayPort to VGA Monitor Cable 0A36536); supports dual independent display; Max external resolution: 2560x1600 (Mini-DisplayPort)@60Hz															
Keyboard	6-row, ThinkVantage button, LED backlit, spill-resistant, multimedia Fn keys															
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³															
Touchpad	UltraNav™, buttonless glass surface touchpad below keyboard, multi-touch															
ThinkLight™	None															
Dimensions ³	14.0W" (WxDxH): 13.0" x 8.9" x 0.31-0.74"; 331mm x 226mm x 8.0-18.8mm															
Weight ²	Integrated battery: from 3.0 lb (1.36kg)															
Case material	Display cover: Carbon Fiber; Bottom: Magnesium/Aluminum															
Battery - type	Integrated Lithium Polymer 4-cell RapidCharge battery															
Battery - life ¹⁰	Integrated battery (45.8Whr): up to 8.2 hr															
Chipset	Mobile Intel QS77 Express Chipset															
Multicard reader	4-in-1 reader (SD, SDHC, SDXC, MMC)															
ExpressCard	None															
Ports	One USB 3.0, one powered USB 2.0, external monitor (Mini DisplayPort)															
Monitor Cable	Some: Mini DisplayPort to VGA Monitor Cable (0A36536)															
PCle Mini Card	Two PCI Express Mini Card slots															
PCle WLAN ⁴	11a/b/g/n, PCIe Small Form Factor Mini Card, Intel Centrino® Advanced-N 6205S, 2x2															
PCle WWAN	Some: Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS															
SIM card	Some: User selectable, contract required with service provider															
Modem	None															
Bluetooth™	Bluetooth 4.0 wireless															
Ethernet	Some: Lenovo USB 2.0 Ethernet Adapter															
Intel AMT	Some: Intel Active Management Technology (iAMT)															
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 2 watt x 2 / volume up, down, mute buttons / dual array microphone, mic mute button, combo audio/mic jack															
Security	Power-on password, hard disk password, supervisor password, security keyhole, reset switch															
Security chip	Trusted Platform Module, TCG 1.2-compliant															
Fingerprint reader	AuthenTec 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 public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available										Supports ThinkVantage® technologies 90-watt AC Adapter (RapidCharge) ThinkPad Roll Cage (bottom cover) EPEAT™ Gold rating ENERGY STAR® 5.2-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²					

See footnotes for more detailed information

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ThinkPad X1 Carbon (1st Gen) 3460 (Onsite) - Windows 8

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ⁸ rpm	PCle Mini Card WLAN	PCle Mini Card WWAN/ mSATA	SIM card	Finger print reader	Blue- tooth	Intel AMT	Global (G) Intel vPro	GMP (P)	Preload	Ann Date (mm/yy)
3460-8XG	i5-3427U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S ²⁸	Ericsson	selectable	Finger	BT	iAMT	vPro		Win7 Pro64	10/12
3460-7XG	i5-3317U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	None	No		Win7 Pro64	10/12
3460-4KG	i5-3317U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	None	No		Win8 Pro64	10/12
3460-5CG	i7-3667U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	G P	Win8 Pro64	10/12
3460-5DG	i7-3667U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	G P	Win8 Pro64	10/12
3460-5BG	i5-3427U	8GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	G P	Win8 Pro64	10/12
3460-5AG	i5-3427U	8GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	G P	Win8 Pro64	10/12
3460-59G	i5-3427U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	G P	Win8 Pro64	10/12
3460-58G	i5-3427U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	G P	Win8 Pro64	10/12
3460-AYG	i7-3667U	8GBx1	14.0" HD+	720p	240G FDE SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	G P	Win8 Pro64	10/12
3460-AXG	i7-3667U	8GBx1	14.0" HD+	720p	180G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	G P	Win8 Pro64	10/12
3460-AWG	i7-3667U	8GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	G P	Win8 Pro64	10/12
3460-AVG	i7-3667U	8GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	G P	Win8 Pro64	10/12
3460-8YG	i5-3317U	4GBx1	14.0" HD	720p	120G SSD	Intel 6205S	None	None	Finger	BT	None	No		Win8 Pro64	10/12
3460-82G	i5-3427U	8GBx1	14.0" HD+	720p	180G SSD	Intel 6205S	Ericsson	selectable	Finger	BT	iAMT	vPro		Win7 Pro64	10/12
3460-7ZG	i7-3667U	8GBx1	14.0" HD+	720p	180G SSD	Intel 6205S	Ericsson	selectable	Finger	BT	iAMT	vPro		Win7 Pro64	10/12
3460-7YG	i5-3317U	4GBx1	14.0" HD+	720p	120G SSD	Intel 6205S	None	None	Finger	BT	None	No		Win7 Pro64	10/12
3460-7UG	i5-3427U	4GBx1	14.0" HD+	720p	180G SSD	Intel 6205S	Ericsson	selectable	Finger	BT	iAMT	vPro		Win7 Pro64	10/12
3460-5PG	i5-3317U	4GBx1	14.0" HD+	720p	120G SSD	Intel 6205S	None	None	Finger	BT	None	No		Win8 Pro64	10/12
3460-4MG	i5-3427U	8GBx1	14.0" HD+	720p	180G SSD	Intel 6205S	Ericsson	selectable	Finger	BT	iAMT	vPro		Win8 Pro64	10/12
3460-4LG	i7-3667U	8GBx1	14.0" HD+	720p	180G SSD	Intel 6205S	Ericsson	selectable	Finger	BT	iAMT	vPro		Win8 Pro64	10/12
3460-CBG	i5-3427U	4GBx1	14.0" HD+	720p	240G FDE SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	G P	Win8 Pro64	02/13
Positioning Processor	Ultra light , durable, secure, and stylish Ultrabook™ ; one spindle Intel® Core™ i5-3317U processor (2 cores, 1.70GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.60GHz), HT technology Intel Core i5-3427U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.80GHz), HT technology Intel Core i7-3667U processor (2 cores, 2.0GHz, 4MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology										Preloaded operating system²⁰ - <i>Some:</i> Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - <i>Some:</i> Windows 8 Pro 64-bit				
Memory	4GB or 8GB / PC3-10600 1333MHz DDR3L / soldered to systemboard, no sockets										Preloaded applications⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate				
Optical	None														
SATA disk	Solid State Drive (SSD) / SATA 6.0Gb/s, Small Form Factor														
mSATA™ SSD	None														
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 400:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) TFT color , anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 400:1 contrast ratio														
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus														
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via Mini DisplayPort (supports VGA analog monitor via Mini DisplayPort to VGA Monitor Cable 0A36536); supports dual independent display; <i>Max external resolution:</i> 2560x1600 (Mini-DisplayPort)@60Hz														
Keyboard	6-row, ThinkVantage button, LED backlit, spill-resistant, multimedia Fn keys														
TrackPoint®	TrackPoint™ pointing device, "Press-to-Select," Internet Scroll Bar ¹³														
Touchpad	UltraNav™, buttonless glass surface touchpad below keyboard, multi-touch														
ThinkLight™	None														
Dimensions ³	14.0W" (WxDxH): 13.0" x 8.9" x 0.31-0.74"; 331mm x 226mm x 8.0-18.8mm														
Weight ²	<i>Integrated battery:</i> from 3.0 lb (1.36kg)														
Case material	<i>Display cover:</i> Carbon Fiber; <i>Bottom:</i> Magnesium/Aluminum														
Battery - type	Integrated Lithium Polymer 4-cell RapidCharge battery														
Battery - life ¹⁰	<i>Integrated battery (45.8Whr):</i> up to 8.2 hr														
Chipset	Mobile Intel QS77 Express Chipset														
Multicard reader	4-in-1 reader (SD, SDHC, SDXC, MMC)														
ExpressCard	None														
Ports	One USB 3.0, one powered USB 2.0, external monitor (Mini DisplayPort)														
Monitor Cable	None														
PCle Mini Card	Two PCI Express Mini Card slots														
PCle WLAN ⁴	11a/b/g/n, PCle Small Form Factor Mini Card, Intel Centrino® Advanced-N 6205S, 2x2														
PCle WWAN	<i>Some:</i> Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCle Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS														
SIM card	<i>Some:</i> User selectable, contract required with service provider														
Modem	None														
Bluetooth™	Bluetooth 4.0 wireless														
Ethernet	None														
Intel AMT	<i>Some:</i> Intel Active Management Technology (iAMT)														
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 2 watt x 2 / volume up, down, mute buttons / dual array microphone, mic mute button, combo audio/mic jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole, reset switch														
Security chip	Trusted Platform Module, TCG 1.2-compliant														
Fingerprint reader	AuthenTec 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 public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available										Supports ThinkVantage® technologies 90-watt AC Adapter (RapidCharge) ThinkPad Roll Cage (bottom cover) EPEAT™ Gold rating ENERGY STAR® 5.2-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				

See footnotes for more detailed information

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(G-GS1-5) August 2013

ThinkPad X1 Carbon (1st Gen) 3460 (Onsite) - Windows 8 - II

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	SIM card	USB 2.0 Ethernet Adapter	Intel AMT	Global (G) Intel vPro	GMP (P)	Preload	Ann Date (mm/yy)
3460-CVG	i5-3427U	4GBx1	14.0" HD+	720p	180G SSD	Intel 6205S ²⁸	None	None	Ethernet	iAMT	vPro	No	Win8 Pro64	03/13
3460-CUG	i5-3427U	4GBx1	14.0" HD+	720p	180G SSD	Intel 6205S	None	None	Ethernet	iAMT	vPro	No	Win7 Pro64	03/13
3460-CSG	i5-3337U	4GBx1	14.0" HD+	720p	120G SSD	Intel 6205S	None	None	Ethernet	None	No	No	Win8 64	03/13
3460-CRG	i7-3667U	8GBx1	14.0" HD+	720p	240G FDE SSD	Intel 6205S	None	None	Ethernet	iAMT	vPro	No	Win8 64	03/13
3460-CQG	i5-3427U	8GBx1	14.0" HD+	720p	180G SSD	Intel 6205S	None	None	Ethernet	iAMT	vPro	No	Win8 64	03/13
3460-CPG	i5-3337U	4GBx1	14.0" HD+	720p	120G SSD	Intel 6205S	None	None	Ethernet	None	No	No	Win8 Pro64	03/13
3460-CNG	i5-3337U	4GBx1	14.0" HD+	720p	120G SSD	Intel 6205S	None	None	Ethernet	None	No	No	Win7 Pro64	03/13
3460-CMG	i7-3667U	8GBx1	14.0" HD+	720p	240G FDE SSD	Intel 6205S	Ericsson	selectable	Ethernet	iAMT	vPro	No	Win8 Pro64	03/13
3460-CLG	i7-3667U	8GBx1	14.0" HD+	720p	240G FDE SSD	Intel 6205S	Ericsson	selectable	Ethernet	iAMT	vPro	No	Win7 Pro64	03/13
3460-CKG	i5-3427U	8GBx1	14.0" HD+	720p	180G SSD	Intel 6205S	Ericsson	selectable	Ethernet	iAMT	vPro	No	Win8 Pro64	03/13
3460-CJG	i5-3427U	8GBx1	14.0" HD+	720p	180G SSD	Intel 6205S	Ericsson	selectable	Ethernet	iAMT	vPro	No	Win7 Pro64	03/13
3460-DPG	i7-3667U	8GBx1	14.0" HD+	720p	256G SSD OPAL	Intel 6205S	Ericsson	selectable	Ethernet	iAMT	vPro	No	Win8 Pro64	06/13
3460-DNG	i7-3667U	8GBx1	14.0" HD+	720p	256G SSD OPAL	Intel 6205S	Ericsson	selectable	Ethernet	iAMT	vPro	No	Win7 Pro64	06/13
Positioning Processor	<i>Ultralight, durable, secure, and stylish Ultrabook™; one spindle</i> Intel® Core™ i5-3337U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.70GHz), HT technology Intel Core i5-3427U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.80GHz), HT technology Intel Core i7-3667U processor (2 cores, 2.0GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology									Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 64-bit - Some: Windows 8 Pro 64-bit				
Memory	4GB or 8GB / PC3-10600 1333MHz DDR3L / soldered to systemboard, no sockets									Preloaded applications⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate				
Optical	None													
SATA disk	Solid State Drive (SSD) / SATA 6.0Gb/s, Small Form Factor													
mSATA™ SSD	None													
Widescreen display	<i>Some: 14.0" (355mm) HD (1366x768) TFT color, anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 400:1 contrast ratio</i> <i>Some: 14.0" (355mm) HD+ (1600x900) TFT color, anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 400:1 contrast ratio</i>													
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus													
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via Mini DisplayPort (supports VGA analog monitor via Mini DisplayPort to VGA Monitor Cable 0A36536); supports dual independent display; <i>Max external resolution: 2560x1600 (Mini-DisplayPort)@60Hz</i>													
Keyboard	6-row, ThinkVantage button, LED backlit, spill-resistant, multimedia Fn keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³													
Touchpad	UltraNav™, buttonless glass surface touchpad below keyboard, multi-touch													
ThinkLight™	None													
Dimensions ³	<i>14.0W" (WxDxH): 13.0" x 8.9" x 0.31-0.74"; 331mm x 226mm x 8.0-18.8mm</i>													
Weight ²	<i>Integrated battery: from 3.0 lb (1.36kg)</i>													
Case material	<i>Display cover: Carbon Fiber;</i> <i>Bottom: Magnesium/Aluminum</i>													
Battery - type	Integrated Lithium Polymer 4-cell RapidCharge battery													
Battery - life ¹⁰	<i>Integrated battery (45.8Whr): up to 8.2 hr</i>													
Chipset	Mobile Intel QS77 Express Chipset													
Multicard reader	4-in-1 reader (SD, SDHC, SDXC, MMC)													
ExpressCard	None													
Ports	One USB 3.0, one powered USB 2.0, external monitor (Mini DisplayPort)													
Monitor Cable	None													
PCIe Mini Card	Two PCI Express Mini Card slots													
PCIe WLAN ⁴	11a/b/g/n, PCIe Small Form Factor Mini Card, Intel Centrino® Advanced-N 6205S, 2x2													
PCIe WWAN	<i>Some: Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS</i>													
SIM card	<i>Some: User selectable, contract required with service provider</i>													
Modem	None													
Bluetooth™	Bluetooth 4.0 wireless													
Ethernet	Lenovo USB 2.0 Ethernet Adapter													
Intel AMT	<i>Some: Intel Active Management Technology (iAMT)</i>													
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 2 watt x 2 / volume up, down, mute buttons / dual array microphone, mic mute button, combo audio/mic jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole, reset switch													
Security chip	Trusted Platform Module, TCG 1.2-compliant													
Fingerprint reader	AuthenTec 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 public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available									Supports ThinkVantage® technologies 90-watt AC Adapter (RapidCharge) ThinkPad Roll Cage (bottom cover) EPEAT™ Gold rating ENERGY STAR® 5.2-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				

See footnotes for more detailed information

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ThinkPad X1 Carbon (1st Gen) 3460 (Onsite) - Win 8 (MultiTouch)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ⁵ rpm	PCle Mini Card WLAN	PCle Mini Card WWAN/ mSATA	SIM card	USB 2.0 Ethernet Adapter	Intel AMT	Intel vPro	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
3460-ATG	i7-3667U	8GBx1	14.0" HD+	Multi	720p 256G SSD	Intel 6205S ²⁸	Ericsson	selectable	None	iAMT	vPro	Win7 Pro64	12/12	
3460-ASG	i7-3667U	8GBx1	14.0" HD+	Multi	720p 256G SSD	Intel 6205S	Ericsson	selectable	None	iAMT	vPro	Win8 Pro64	12/12	
3460-ARG	i7-3667U	8GBx1	14.0" HD+	Multi	720p 240G FDE SSD	Intel 6205S	Ericsson	selectable	None	iAMT	vPro	Win7 Pro64	12/12	
3460-AQG	i7-3667U	8GBx1	14.0" HD+	Multi	720p 240G FDE SSD	Intel 6205S	Ericsson	selectable	None	iAMT	vPro	Win8 Pro64	12/12	
3460-APG	i5-3427U	4GBx1	14.0" HD+	Multi	720p 180G SSD	Intel 6205S	Ericsson	selectable	None	iAMT	vPro	Win7 Pro64	12/12	
3460-ANG	i5-3427U	4GBx1	14.0" HD+	Multi	720p 180G SSD	Intel 6205S	Ericsson	selectable	None	iAMT	vPro	Win8 Pro64	12/12	
3460-AMG	i5-3427U	4GBx1	14.0" HD+	Multi	720p 180G SSD	Intel 6205S	None	None	None	iAMT	vPro	G P Win8 Pro64	12/12	
3460-ALG	i5-3427U	4GBx1	14.0" HD+	Multi	720p 240G FDE SSD	Intel 6205S	None	None	None	iAMT	vPro	G P Win8 Pro64	12/12	
3460-9SG	i5-3427U	4GBx1	14.0" HD+	Multi	720p 240G FDE SSD	Intel 6205S	None	None	None	iAMT	vPro	G P Win8 Pro64	12/12	
3460-9RG	i5-3427U	4GBx1	14.0" HD+	Multi	720p 180G SSD	Intel 6205S	None	None	None	iAMT	vPro	G P Win8 Pro64	12/12	
3460-CGG	i7-3667U	8GBx1	14.0" HD+	Multi	720p 256G SSD	Intel 6205S	None	None	None	iAMT	vPro	G P Win8 Pro64	02/13	
3460-CEG	i7-3667U	8GBx1	14.0" HD+	Multi	720p 240G FDE SSD	Intel 6205S	None	None	None	iAMT	vPro	G P Win8 Pro64	02/13	
3460-CDG	i7-3667U	8GBx1	14.0" HD+	Multi	720p 180G SSD	Intel 6205S	None	None	None	iAMT	vPro	G P Win8 Pro64	02/13	
3460-CCG	i7-3667U	8GBx1	14.0" HD+	Multi	720p 128G SSD	Intel 6205S	None	None	None	iAMT	vPro	G P Win8 Pro64	02/13	
3460-D7G	i7-3667U	8GBx1	14.0" HD+	Multi	720p 240G FDE SSD	Intel 6205S	None	None	Ethernet	iAMT	vPro	Win8 64	03/13	
3460-D6G	i5-3337U	4GBx1	14.0" HD+	Multi	720p 180G SSD	Intel 6205S	None	None	Ethernet	None	No	Win8 64	03/13	
3460-D5G	i7-3667U	8GBx1	14.0" HD+	Multi	720p 240G FDE SSD	Intel 6205S	Ericsson	selectable	Ethernet	iAMT	vPro	Win8 Pro64	03/13	
3460-D4G	i7-3667U	8GBx1	14.0" HD+	Multi	720p 240G FDE SSD	Intel 6205S	Ericsson	selectable	Ethernet	iAMT	vPro	Win7 Pro64	03/13	
3460-D3G	i5-3337U	4GBx1	14.0" HD+	Multi	720p 180G SSD	Intel 6205S	Ericsson	selectable	Ethernet	None	No	Win8 Pro64	03/13	
3460-D2G	i5-3337U	4GBx1	14.0" HD+	Multi	720p 180G SSD	Intel 6205S	Ericsson	selectable	Ethernet	None	No	Win7 Pro64	03/13	
3460-DRG	i7-3667U	8GBx1	14.0" HD+	Multi	720p 256G SSD OPAL	Intel 6205S	Ericsson	selectable	Ethernet	iAMT	vPro	Win8 Pro64	06/13	
3460-DQG	i7-3667U	8GBx1	14.0" HD+	Multi	720p 256G SSD OPAL	Intel 6205S	Ericsson	selectable	Ethernet	iAMT	vPro	Win7 Pro64	06/13	
Positioning Processor	Ultralight, durable, secure, and stylish Ultrabook™; one spindle Intel® Core™ i5-3337U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.70GHz), HT technology Intel Core i5-3427U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.80GHz), HT technology Intel Core i7-3667U processor (2 cores, 2.0GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology									Preloaded operating system ²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 64-bit - Some: Windows 8 Pro 64-bit				
Memory	4GB or 8GB / PC3-10600 1333MHz DDR3L / soldered to systemboard, no sockets									Preloaded applications ⁵ (only some listed)				
Optical	None									- Windows 7 models				
SATA disk	Solid State Drive (SSD) / SATA 6.0Gb/s, Small Form Factor									• Lenovo® Message Center Plus				
mSATA™ SSD	None									• ThinkVantage Product Recovery				
Widescreen display	14.0" (355mm) HD+ (1600x900) TFT color, anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 400:1 contrast ratio, MultiTouch screen supports ten-finger gesture									• Access Connections™				
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus									• ThinkVantage Power Manager				
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via Mini DisplayPort (supports VGA analog monitor via Mini DisplayPort to VGA Monitor Cable 0A36536); supports dual independent display; Max external resolution: 2560x1600 (Mini-DisplayPort)@60Hz									• Lenovo SimpleTap				
Keyboard	6-row, ThinkVantage button, LED backlit, spill-resistant, multimedia Fn keys									- Windows 8 models				
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³									• Lenovo Support				
Touchpad	UltraNav™, buttonless glass surface touchpad below keyboard, multi-touch									• Lenovo Companion				
ThinkLight™	None									• Lenovo QuickLaunch				
Dimensions ³	14.0W" (WxDxH): 13.0" x 8.9" x 0.39-0.82"; 331mm x 226mm x 10.0-20.8mm									- All models				
Weight ²	Integrated battery: from 3.4 lb (1.54kg)									• Lenovo Solution Center				
Case material	Display cover: Carbon Fiber; Bottom: Magnesium/Aluminum									• Password Manager				
Battery - type	Integrated Lithium Polymer 4-cell RapidCharge battery									• ThinkVantage System Update				
Battery - life ¹⁰	Integrated battery (45.8Whr): up to 8.2 hr									• Fingerprint Software (fingerprint models)				
Chipset	Mobile Intel QS77 Express Chipset									• Lenovo Cloud Storage by SugarSync				
Multicard reader	4-in-1 reader (SD, SDHC, SDXC, MMC)									• Microsoft® Office preloaded; purchase a product key to activate				
ExpressCard	None									• Norton™ Internet Security (30 days of virus definitions)				
Ports	One USB 3.0, one powered USB 2.0, external monitor (Mini DisplayPort)													
Monitor Cable	None													
PCle Mini Card	Two PCI Express Mini Card slots													
PCle WLAN ⁴	11a/b/g/n, PCIe Small Form Factor Mini Card, Intel Centrino® Advanced-N 6205S, 2x2													
PCle WWAN	Some: Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS													
SIM card	Some: User selectable, contract required with service provider													
Modem	None													
Bluetooth™	Bluetooth 4.0 wireless													
Ethernet	Some: Lenovo USB 2.0 Ethernet Adapter													
Intel AMT	Some: Intel Active Management Technology (iAMT)													
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 2 watt x 2 / volume up, down, mute buttons / dual array microphone, mic mute button, combo audio/mic jack									Supports ThinkVantage® technologies				
Security	Power-on password, hard disk password, supervisor password, security keyhole, reset switch									90-watt AC Adapter (RapidCharge)				
Security chip	Trusted Platform Module, TCG 1.2-compliant									ThinkPad Roll Cage (bottom cover)				
Fingerprint reader	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip									EPEAT™ Gold rating				
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available									ENERGY STAR® 5.2-compliant				
										ROHS-compliant				
										International Warranty Service ¹⁷				
										24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				

See footnotes for more detailed information

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Availability: All offers subject to availability. Lenovo reserves the right to alter product offerings and specifications at any time, without notice. Lenovo is not responsible for photographic or typographic errors.

Warranty: For a copy of applicable product warranties, go to http://support.lenovo.com/en_US/product-service/warranty-status/WarrantyPolicies.page. 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 Depot or Courier service, Lenovo will attempt to diagnose and resolve the problem remotely before sending a courier.
- ¹⁹ **Depot repair service:** 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 **Lenovo 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 Lenovo Warranty Services 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. Support unrelated to a warranty issue may be subject to additional charges. Lenovo onsite repair (LOR), 8 am to 5 pm, Monday through Friday coverage excluding holidays, next business day (NBD) response time.

²⁶ **Full-size keyboard:** As defined by ISO/IEC 15412.

²⁷ **Based on IEEE 802.11a and 802.11b.** A customer can not upgrade to a different wireless Mini PCI adapter due to FCC regulations. Security screws prevent removal of this adapter. This wireless LAN product has been designed to permit legal operation world-wide in regions which it is approved. This product has been tested and certified to be interoperable by the Wireless Ethernet Compatibility Alliance and is authorized to carry the Wi-Fi logo.

²⁸ **The IEEE 802.11n specification (MIMO)** has been finalized and is currently in IEEE 802.11n-2009 release. The maximum speed depends on the access point device and the number of integrated antenna used for connection. An adapter with 11a/b, 11a/b/g, 11b/g/n, or 11a/b/g/n can communicate on any of its supported formats.

³⁰ **Measures only maximum** data transfer rate, not application performance. Many factors affect application performance.

³² **Wireless:** Based on IEEE 802.11a, 802.11b, and 802.11g respectively. An adapter with 11a/b, 11b/g, or 11a/b/g can communicate on either/any of these listed formats respectively, the actual connection will be based on the access point to which it connects.

³⁶ **Wireless upgradable** allows the system to be wireless-enabled with an optional wireless Mini PCI or Mini PCI Express card. Designed to operate only with Lenovo options.

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

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