



Product Specifications Reference Lenovo® ThinkPad® Notebooks 2013 to present - withdrawn

April 2015 - Version 471



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This section describes the withdrawn products which are added in this edition and in previous editions.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► Withdrawn product(s)

ThinkPad X131e is withdrawn and added in the book

ThinkPad T430u is withdrawn and added in the book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► Withdrawn product(s)

ThinkPad L430 is withdrawn and added in the book

ThinkPad L530 is withdrawn and added in the book

ThinkPad T430 is withdrawn and added in the book

ThinkPad T430s is withdrawn and added in the book

ThinkPad T431s is withdrawn and added in the book

ThinkPad T530 is withdrawn and added in the book

ThinkPad W530 is withdrawn and added in the book

ThinkPad X230 is withdrawn and added in the book

ThinkPad X230 Tablet is withdrawn and added in the book

ThinkPad ThinkPad X1 Carbon is withdrawn and added in the book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► Withdrawn product(s)

ThinkPad X131e is withdrawn and added in the book

ThinkPad X140e is withdrawn and added in the book

April 15, 2015 - Version 471

► Withdrawn product(s)

ThinkPad W540 is withdrawn and added in the book



Lenovo® ThinkPad L430



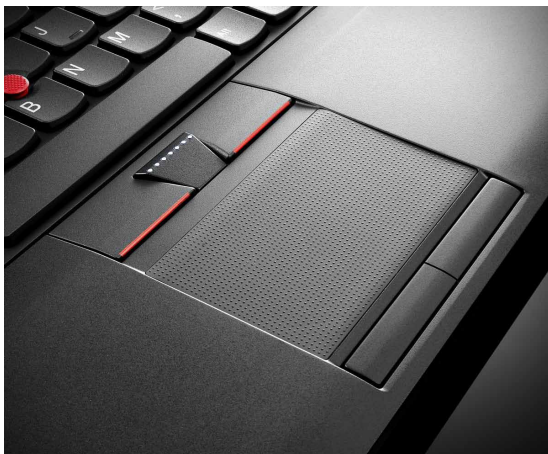
Lenovo ThinkPad L430



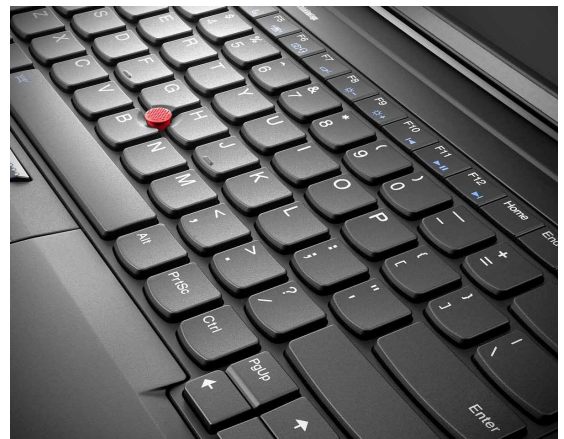
Lenovo ThinkPad L430



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 ^B 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)
2468-2AU	i3-2370M	4GBx1	14.0" HD	720p	320G 7200	Intel 2200	WWAN upg	Express 54	None	None	6	Pro 64	06/12
2468-3AU	i5-2520M	4GBx1	14.0" HD	720p	500G 7200	Intel 2200	WWAN upg	None	None	None	6	Pro 64	07/12

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

Positioning Processor	<p><i>Mainstream business 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 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</p>								<p>Preloaded operating system²⁰ Genuine Windows® 7 Professional 64</p>				
Memory	<p>8GB max⁷ / 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</p>								<p>Ready to install applications¹⁴ (only some listed)</p> <ul style="list-style-type: none"> • Rescue and Recovery™ • Password Manager 				
Optical SATA disk	<p>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™</p>								<p>Preloaded applications¹⁴ (only some listed)</p> <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) 				
mSATA™ SSD	None												
Widescreen display	<p><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</p>												
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus												
Graphics	<p>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)</p>												
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	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)								Supports ThinkVantage® technologies				
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												
Carrier	None												
Modem	None												
Bluetooth™	None												
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								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				
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, TCG 1.2-compliant								For compatible accessories, please go to O-L430 sheet;				
Fingerprint reader	None								For Lenovo service ²² upgrade options, please go to QP-TA sheet				
Limited warranty ¹² 1-year - depot repair service / service upgrades ²² available													

See footnotes for more detailed information

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(CD1-1) August 2012

ThinkPad L430 2468 (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	Card slot	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Ann Date (mm/yy)
2468-3BU	i5-2520M	4GBx1	14.0" HD	720p	500G 7200	Intel 2200	WWAN upg	None	None	No	6	Win8 Pro64	10/12
2468-4YU	i5-3230M	4GBx1	14.0" HD	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	Express 54	Finger	BT	6	Win7 Pro64	02/13
2468-4XU	i5-3230M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	Express 54	Finger	BT	6	Win7 Pro64	02/13
2468-62U	i3-2348M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	Express 54	Finger	BT	6	Win7 Pro64	05/13
2468-63U	i3-3110M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	Express 54	None	BT	6	Win7 Pro64	06/13

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

Positioning Processor	<p><i>Mainstream business performance; two spindles</i> Intel® Core™ i3-2348M processor (2 cores, 2.30GHz, 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 i5-3230M 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</p>										<p>Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit</p> <p>Preloaded applications⁵ (only some listed)</p>	
Memory	<p>8GB max⁷ / 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</p>										<ul style="list-style-type: none"> - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) 	
Optical SATA disk	<p>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™</p>										<ul style="list-style-type: none"> • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) 	
mSATA™ SSD	None											
Widescreen display	<p>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</p>										<ul style="list-style-type: none"> - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) 	
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus											
Graphics	<p>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)</p>										<ul style="list-style-type: none"> - 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) 	
Keyboard TrackPoint® Touch pad ThinkLight™	<p>6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar¹³, magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch None</p>											
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<p><i>14.0W" (WxDxH):</i> 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</p>											
Chipset ExpressCard Smart Card read Multicard Reader Ports	<p>Mobile Intel HM76 Express Chipset Some: 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)</p>											
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<p>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 Wireless WAN upgradable None None Some: 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</p>										<p>Supports ThinkVantage® technologies</p> <p>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</p>	
Security Security chip Fingerprint reader	<p>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</p>										<p>For compatible accessories, please go to O-L430 sheet; For Lenovo service²² upgrade options, please go to QP-TA sheet</p>	
<p>Limited warranty¹² 1-year - depot repair service / service upgrades²² available</p>												

See footnotes for more detailed information

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ThinkPad L430 2469 (TopSeller)

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	Bat-tery cells	Preload	Ann Date (mm/yy)
2469-24U	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205 ²⁸	WWAN upg	None	Finger	BT	6	Pro 64	06/12
2469-25U	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	Intel 6205	WWAN upg	None	Finger	BT	6	Pro 64	06/12
2469-26U	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	None	None	None	6	Pro 64	06/12
2469-27U	i5-3210M	4GBx1	14.0" HD	720p	320G 7200	Intel 2200	WWAN upg	None	None	None	6	Pro 64	06/12
2469-28U	i3-2370M	4GBx1	14.0" HD	720p	500G 7200	Intel 2200	WWAN upg	None	Finger	BT	6	Pro 64	06/12

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

Positioning Processor	<p><i>Mainstream business 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 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</p>										<p>Preloaded operating system²⁰ Genuine Windows® 7 Professional 64</p> <p>Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager</p>	
Memory	<p>8GB max⁷ / 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</p>										<p>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)</p>	
Optical SATA disk	<p>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™</p>											
mSATA™ SSD	None											
Widescreen display	<p><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</p>											
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus											
Graphics	<p>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)</p>											
Keyboard TrackPoint® Touch pad ThinkLight™	<p>6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar¹³, magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch None</p>											
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<p><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</p>											
Chipset ExpressCard Smart Card read Multicard Reader Ports	<p>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)</p>											
PCIe Mini Card PCIe WLAN ⁴	<p>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</p>										Supports ThinkVantage® technologies	
PCIe WWAN Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<p>Wireless WAN upgradable None None <i>Some:</i> 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</p>										<p>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</p>	
Security Security chip Fingerprint reader	<p>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</p>										<p>For compatible accessories, please go to O-L430 sheet; For Lenovo service²² upgrade options, please go to QP-TA sheet</p>	
<p>Limited warranty¹² 3-years/1-yr battery - depot repair service / service upgrades²² available</p>												

See footnotes for more detailed information

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ThinkPad L430 2469 (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	Card slot	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Ann Date (mm/yy)
2469-2TU	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	Express 54	Finger	BT	6	Win7 Pro64	10/12
2469-2SU	i5-3210M	4GBx1	14.0" HD	720p	500G 7200	Intel 2200	WWAN upg	Express 54	None	None	6	Win7 Pro64	10/12
2469-2RU	i3-3110M	4GBx1	14.0" HD	720p	320G 7200	Intel 2200	WWAN upg	Express 54	None	None	6	Win7 Pro64	10/12
2469-32U	i5-3230M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	None	Finger	BT	6	Win7 Pro64	02/13
2469-2ZU	i5-3230M	4GBx1	14.0" HD	720p	320G 7200	Intel 2200	WWAN upg	None	None	None	6	Win7 Pro64	02/13
2469-2YU	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	None	Finger	BT	6	Win7 Pro64	02/13
2469-2XU	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	None	None	None	6	Win7 Pro64	02/13
2469-2WU	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	WLAN upg	WWAN upg	None	Finger	BT	6	Win7 Pro64	02/13

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

Positioning Processor	<p><i>Mainstream business 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), 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 i5-3230M 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</p>										<p>Preloaded operating system²⁰ - Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit</p> <p>Preloaded applications⁵ (only some listed)</p> <ul style="list-style-type: none"> - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • 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 • 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	<p>8GB max⁷ / 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</p>										
Optical SATA disk	<p>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™</p>										
mSATA™ SSD	None										
Widescreen display	<p><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</p>										
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus										
Graphics	<p>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)</p>										
Keyboard TrackPoint® Touch pad ThinkLight™	<p>6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar¹³, magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch None</p>										
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<p>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</p>										
Chipset ExpressCard Smart Card read Multicard Reader Ports	<p>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)</p>										
PCIe Mini Card PCIe WLAN ⁴	<p>Two PCI Express Mini Card slots <i>Some:</i> Wireless LAN upgradable <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</p>										
PCIe WWAN Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<p>Wireless WAN upgradable None None <i>Some:</i> 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</p>										
Security Security chip Fingerprint reader	<p>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</p>										
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available										<p>Supports ThinkVantage® technologies</p> <p>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</p> <p>For compatible accessories, please go to O-L430 sheet; For Lenovo service²² upgrade options, please go to QP-TA sheet</p>

See footnotes for more detailed information

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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	Mini Card Carrier	Smart Card Reader	Card slot	Finger print reader	Blue-tooth	Bat-tery cells	Workhorse (W) Global (G)	Pre-load (mm/yy)	Ann Date (mm/yy)
2465-33U	i5-3360M	4GBx1	14.0" HD	720p	500G 7200	Intel 6205 ²⁸	upg	None	Smart	Exp 54	Finger	BT	6	W G	Pro 64	06/12
2465-32U	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	upg	None	Smart	Exp 54	Finger	BT	6	W G	Pro 64	06/12
2465-28U	i7-3520M	4GBx1	14.0" HD+	720p	320G 7200	Intel 6205	upg	None	None	None	Finger	BT	9	G	Pro 64	06/12
2465-29U	i5-3360M	4GBx1	14.0" HD+	720p	500G 7200	Intel 6205	upg	None	None	Exp 54	Finger	BT	9	G	Pro 64	06/12
2465-2AU	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	Intel 6205	upg	None	None	Exp 54	Finger	BT	6	G	Pro 64	06/12
2465-2BU	i5-3360M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	upg	None	None	Exp 54	Finger	BT	6	G	Pro 64	06/12
2465-2CU	i5-3320M	4GBx1	14.0" HD	None	320G 7200	Intel 2200	upg	None	None	Exp 54	None	BT	6	G	Pro 64	06/12
2465-2DU	i5-3360M	4GBx1	14.0" HD+	720p	320G 7200	Intel 6205	upg	None	None	Exp 54	Finger	BT	9	G	Pro 64	06/12
2465-2EU	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	upg	None	None	Exp 54	Finger	BT	6	G	Pro 64	06/12
2465-2FU	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	upg	None	None	Exp 54	None	No	6	G	Pro 64	06/12
2465-2GU	i5-3320M	4GBx1	14.0" HD+	720p	320G 7200	Intel 6205	Gobi	select	None	None	Finger	BT	9	G	Pro 64	06/12
2465-2HU	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	Gobi	select	None	None	Finger	BT	6	G	Pro 64	06/12
2465-2JU	i5-3320M	4GBx1	14.0" HD	None	500G 7200	Intel 2200	upg	None	None	None	None	No	6	G	Pro 64	06/12
2465-2KU	i5-3320M	4GBx1	14.0" HD	None	320G 7200	Intel 2200	upg	None	None	None	None	No	6	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 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 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> 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 <i>Some:</i> One slot (ExpressCard/34, ExpressCard/54) <i>Some:</i> 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	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 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS	
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> User selectable, AT&T®, Verizon®, or Sprint®, contract required with service provider None <i>Some:</i> 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	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
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	For compatible accessories, please go to O-L430 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet
Limited warranty ¹² 3-years/1-yr battery - depot repair service / service upgrades ²² available		

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 ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Carrier	Finger print reader	Blue-tooth	Bat-tery cells	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
2465-62U	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	None	Finger	BT	6	G	Win8 Pro64	10/12
2465-65U	i5-3320M	4GBx1	14.0" HD	None	320G 7200	Intel 2200	WWAN upg	None	None	No	6	G	Win8 Pro64	10/12
2465-63U	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	None	Finger	BT	6	G	Win8 Pro64	10/12
2465-64U	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	<i>Mainstream business 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 system²⁰ - Windows® 8 Pro 64-bit Preloaded applications⁵ (only some listed)			
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										- Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • 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™										- Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW)			
mSATA™ SSD	None										- 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™			
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										Supports ThinkVantage® technologies			
Camera	<i>Some:</i> HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus										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			
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)										For compatible accessories, please go to O-L430 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet			
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										Limited warranty ¹² 3-years/1-yr battery - depot repair service / service upgrades ²² available			
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰ Chipset ExpressCard Smart Card read Multicard Reader Ports	<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 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 Carrier 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 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 <i>Some:</i> AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, supports the security chip													

See footnotes for more detailed information

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ThinkPad L430 2465 (Windows 8) - II

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ 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)
2465-7BU	i5-3360M	4GBx1	14.0" HD+	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	Express 54	Finger	BT	9	Win7 Pro64	02/13
2465-7AU	i5-3360M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	Express 54	Finger	BT	6	Win7 Pro64	02/13
2465-79U	i5-3360M	4GBx1	14.0" HD+	720p	320G 7200	Intel 6205	WWAN upg	Express 54	Finger	BT	9	Win7 Pro64	02/13
2465-78U	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	Express 54	Finger	BT	6	Win7 Pro64	02/13
2465-77U	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	Express 54	None	No	6	Win7 Pro64	02/13
2465-7QU	i3-2348M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	Express 54	Finger	BT	6	Win7 Pro64	02/13
2465-7PU	i3-2348M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	Express 54	Finger	BT	9	Win7 Pro64	02/13
2465-7NU	i5-3230M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	Express 54	Finger	BT	9	Win7 Pro64	02/13
2465-7MU	i5-3230M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	Express 54	Finger	BT	6	Win8 Pro64	02/13
2465-7GU	i5-3230M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	Express 54	Finger	BT	6	Win7 Pro64	02/13

Positioning Processor	<p><i>Mainstream business performance; two spindles</i> Intel® Core™ i3-2348M processor (2 cores, 2.30GHz, 3MB cache), Intel HD Graphics 3000, DDR3 memory controller (up to 1333MHz), 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 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</p>										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)
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										- Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • 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 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™										- Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW)
mSATA™ SSD	None										- 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™
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										Supports ThinkVantage® technologies
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus										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
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: 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)</i>										For compatible accessories, please go to O-L430 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet
Keyboard TrackPoint®	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys										
Touch pad ThinkLight™	TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch 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	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2										
PCIe WWAN	Wireless WAN upgradable										
Carrier	None										
Modem	None										
Bluetooth™	Some: 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 3-years/1-yr battery - depot repair service / service upgrades ²² available											

See footnotes for more detailed information

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	Battery cells	Preload	Ann Date (mm/yy)
2465-27U	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	Intel 6205 ²⁸	None	Express 54	Finger	BT	9	Pro 64	06/12

• A depot repair service 3-year limited warranty

Positioning Processor	<i>Mainstream business performance; two spindles</i> 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				
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 applications¹⁴ (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 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)				
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 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® 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 5.16 lb (2.34kg); <i>9-cell:</i> from 5.52 lb (2.51kg) Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell or 9-cell, HW Authentication <i>6-cell (57Whr):</i> up to 5.6 hr; <i>9-cell (94Whr):</i> up to 9.3 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 Carrier 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 None 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								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, supports the security chip								90-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-yr battery - depot repair service / service upgrades²² available								For compatible accessories, please go to O-L430 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet				

See footnotes for more detailed information

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ThinkPad L430 2465 (Optimus) - 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	Card slot	Finger print reader	Blue-tooth	Battery cells	Preload	Ann Date (mm/yy)
2465-7DU	i7-3520M	4GBx2	14.0" HD+	720p	180G SSD	Intel 6205 ²⁸	None	Express 54	Finger	BT	9	Win7 Pro64	02/13
2465-7CU	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	Intel 6205	None	Express 54	Finger	BT	9	Win7 Pro64	02/13

• A depot repair service 3-year limited warranty

Positioning Processor	<i>Mainstream business performance; two spindles</i> 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 • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • 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 • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - 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	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	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® 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 Chipset ExpressCard Smart Card read Multicard Reader Ports	14.0W" (WxDxH): 13.94" x 9.57" x 1.17–1.24"; 354mm x 243mm x 29.6–31.4mm 6-cell: from 5.16 lb (2.34kg); 9-cell: from 5.52 lb (2.51kg) Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell or 9-cell, HW Authentication 6-cell (57Whr): up to 5.6 hr; 9-cell (94Whr): up to 9.3 hr 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 Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support Security Security chip Fingerprint reader	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 None 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 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-yr battery - depot repair service / service upgrades ²² available										Supports ThinkVantage® technologies 90-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 For compatible accessories, please go to O-L430 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet

See footnotes for more detailed information

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ThinkPad L430 2466 (Onsite)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Card Carrier	Smart Card Reader	Card slot	Finger print reader	Blue-tooth	Bat-tery cells	Workhorse (W) Global (G) Pre-load (P)	Ann Date (mm/yy)
2466-33U	i5-3360M	4GBx1	14.0" HD	720p	500G 7200	Intel 6205 ²⁸	upg	None	Smart	Exp 54	Finger	BT	6	W G P	Pro 64 06/12
2466-32U	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	upg	None	Smart	Exp 54	Finger	BT	6	W G P	Pro 64 06/12
2466-3AU	i7-3520M	4GBx1	14.0" HD+	720p	320G 7200	Intel 6205	upg	None	None	Exp 54	Finger	BT	9		Pro 64 06/12
2466-3BU	i5-3360M	4GBx1	14.0" HD+	720p	500G 7200	Intel 6205	upg	None	None	Exp 54	Finger	BT	9	G P	Pro 64 06/12
2466-3CU	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	Intel 6205	upg	None	None	Exp 54	Finger	BT	6	G P	Pro 64 06/12
2466-3DU	i5-3360M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	upg	None	None	Exp 54	Finger	BT	6	G P	Pro 64 06/12
2466-3EU	i5-3360M	4GBx1	14.0" HD+	720p	320G 7200	Intel 6205	upg	None	None	Exp 54	Finger	BT	9	G P	Pro 64 06/12
2466-3FU	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	upg	None	None	Exp 54	Finger	BT	6	G P	Pro 64 06/12
2466-3GU	i5-3320M	4GBx1	14.0" HD+	720p	320G 7200	Intel 6205	Gobi	select	None	Exp 54	Finger	BT	9		Pro 64 06/12
2466-3HU	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	Gobi	select	None	Exp 54	Finger	BT	6		Pro 64 06/12
2466-3JU	i5-3320M	4GBx1	14.0" HD	None	500G 7200	Intel 2200	upg	None	None	Exp 54	None	No	6		Pro 64 06/12
2466-3KU	i5-3320M	4GBx1	14.0" HD	None	320G 7200	Intel 2200	upg	None	None	Exp 54	None	No	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 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	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	<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 One slot (ExpressCard/34, ExpressCard/54) <i>Some:</i> 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	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 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS	Supports ThinkVantage® technologies
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> User selectable, AT&T®, Verizon®, or Sprint®, contract required with service provider None <i>Some:</i> 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	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
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	For compatible accessories, please go to O-L430 sheet;
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available	For Lenovo service ²² upgrade options, please go to QP-TA sheet

See footnotes for more detailed information

ThinkPad L430 2466 (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	Smart Card Reader	Smart Card slot	Finger print reader	Blue-tooth	Bat-tery cells	Global (G) (P)	Preload	Ann Date (mm/yy)
2466-62U	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	None	None	Finger	BT	6	G P	Win8 Pro64	10/12
2466-63U	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	None	None	Finger	BT	6	G P	Win8 Pro64	10/12
2466-64U	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	Intel 6205	WWAN upg	None	None	Finger	BT	6	G P	Win8 Pro64	10/12
2466-5UU	i5-2520M	4GBx1	14.0" HD	720p	500G 7200	Intel 2200	WWAN upg	None	None	None	No	6		Win7 Pro64	02/13
2466-5TU	i5-3320M	2GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	None	Exp 54	Finger	BT	6		Win7 Pro64	02/13
2466-5SU	i5-3320M	2GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	Smart	Exp 54	Finger	BT	6		Win7 Pro64	02/13

• 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™ i5-2520M 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 - 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 applications⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • 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 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™	• Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW)
mSATA™ SSD	None	- 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™
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	Supports ThinkVantage® technologies
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus	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
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)	For compatible accessories, please go to O-L430 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet
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 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 Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	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 Wireless WAN upgradable None None Some: 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	3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available	

See footnotes for more detailed information

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ThinkPad L430 2466 (Optimus) - 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	Card slot	Finger print reader	Blue-tooth	Bat-tery cells	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
2466-39U	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	Intel 6205 ²⁸	None	Express 54	Finger	BT	9	No	Pro 64	06/12

Positioning Processor	<i>Mainstream business performance; two spindles</i> 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
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 applications¹⁴ (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 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)
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 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® 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 5.16 lb (2.34kg); <i>9-cell:</i> from 5.52 lb (2.51kg) Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell or 9-cell, HW Authentication <i>6-cell (57Whr):</i> up to 5.6 hr; <i>9-cell (94Whr):</i> up to 9.3 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 Carrier 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 None 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											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, supports the security chip											90-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 holidays, next business day response time / service upgrades ²² available											For compatible accessories, please go to O-L430 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet

See footnotes for more detailed information

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Memory

2GB PC3-12800 DDR3 SODIMM	0A65722	ann 06/05/12
4GB PC3-12800 DDR3 SODIMM	0A65723	ann 06/05/12

Storage and removable storage

ThinkPad 16GB mSATA Solid State Cache Drive	0B47309	ann 12/11/12
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 3.0 Secure 500GB Hard Drive	0A65619	ann 11/29/11
USB 3.0 Secure 750GB Hard Drive	0A65616	ann 11/29/11
USB 3.0 Secure 1TB Hard Drive	0A65621	ann 08/28/12
Lenovo Slim USB Portable DVD Burner	0A33988	ann 06/14/11

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann 05/12/09
ThinkPad Port Replicator Series 3 with USB 3.0	433615W	ann 06/05/12
ThinkPad Mini Dock Series 3 - 90W	433710U	ann 06/23/09
ThinkPad Mini Dock Series 3 w/ USB 3.0 - 90W	433715U	ann 06/05/12
TP Mini Dock Plus Series 3 w/ USB 3.0 - 90W	433815U	ann 06/05/12
TP Mini Dock Plus Series 3 w/ USB 3.0 - 170W	433835U	ann 06/05/12

Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
Ultraslim Plus Wireless Keyboard and Mouse ⁵²	0A34032	ann 04/05/11
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann 08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

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

Mouse

Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann 12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann 06/04/02
ThinkPad Bluetooth Laser Mouse	0A36407	ann 06/26/12
Lenovo Wireless Laser Mouse ⁵²	0A36188	ann 12/20/11

Multimedia

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

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

3M 14.0W Privacy Filter from Lenovo	0A61769	ann 04/05/11
Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06
ExpressCard Gemplus Smart Card Reader ⁵⁷	41N3043	ann 06/27/06

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

Batteries

ThinkPad Battery 70+ (6-cell)	0A36302	ann 06/05/12
ThinkPad Battery 70++ (9-cell)	0A36303	ann 06/05/12
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann 09/20/05

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

More information at www.lenovo.com/alldaycomputing

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

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

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

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

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

More information at www.lenovopowertips.com

Carrying Cases

Up to 15.6" widescreen models:

Lenovo Messenger Max	41U5253	ann 05/01/07
Lenovo Performance BackPack	41U5254	ann 05/01/07
ThinkPad Business Topload Case	43R2476	ann 05/13/08
ThinkPad Business Backpack	43R2482	ann 05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann 05/13/08
ThinkPad Executive Leather Case	43R2480	ann 05/13/08
Lenovo Sport Backpack - Red	0A33896	ann 02/28/12
Lenovo Sport Slimcase - Red	0A33897	ann 02/28/12
Lenovo Sport Messenger - Red	0A33898	ann 02/28/12

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

Monitors

ThinkVision LT1952p Wide 19" (VGA, DP, DVI-D) ⁶⁹	2448MB6	ann 09/13/11
ThinkVision L2251x Wide 22" (VGA, DP) ⁶⁹	2578HB6	ann 10/20/09

⁶⁹ DisplayPort cable is not included.

ThinkVision LT1421 Wide 14" Mobile Monitor with Protective Screen Cover (USB 2.0)	1452DS6	ann 08/16/11
ThinkVision LT1421 Wide 14" Mobile Monitor with Protective Case (USB 2.0)	1452DB6	ann 08/16/11

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

Monitor Accessories⁴⁶

Lenovo USB 3.0 to DVI/VGA Monitor Adapter	0B47072	ann 08/14/12
Lenovo Mini-DisplayPort to VGA Monitor Cable	0A36536	ann 05/17/11
Mini-DisplayPort to Single-link DVI Monitor Cable	0B47090	ann 06/26/12
Mini-DisplayPort to DisplayPort Monitor Cable	0B47091	ann 07/24/12
Lenovo USB Soundbar	0A36190	ann 05/01/12
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

For more information on accessories:

www.lenovo.com/accessories

Purchase Lenovo accessories

www.lenovo.com/support/accessories

Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide

Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com

An Options Compatibility Configurator for Lenovo systems



Lenovo® ThinkPad L530



Lenovo ThinkPad L530



Lenovo ThinkPad L530



Lenovo ThinkPad L530



Lenovo ThinkPad L530



Lenovo Sport Backpack - Blue 0B47298
Lenovo Sport Backpack - Red 0A33896
Lenovo Sport Backpack - Grey 0B47301

ThinkPad L530 2481 (TopSeller)

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	Battery cells	Preload	Ann Date (mm/yy)
2481-26U	i3-2370M	4GBx1	15.6" HD	720p	320G 7200	Intel 2200	WWAN upg	None	None	None	6	Pro 64	06/12
2481-34U	i5-2520M	4GBx1	15.6" HD	720p	500G 7200	Intel 2200	WWAN upg	None	None	None	6	Pro 64	07/12

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

Positioning Processor	<p><i>Mainstream business 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 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</p>										<p>Preloaded operating system²⁰ Genuine Windows® 7 Professional 64</p>	
Memory	<p>8GB max⁷ / 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</p>										<p>Ready to install applications¹⁴ (only some listed)</p> <ul style="list-style-type: none"> • Rescue and Recovery™ • Password Manager 	
Optical SATA disk	<p>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™</p>										<p>Preloaded applications¹⁴ (only some listed)</p> <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) 	
mSATA™ SSD	None											
Widescreen display	<p><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</p>											
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus											
Graphics	<p>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)</p>											
Keyboard TrackPoint®	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys											
Touch pad ThinkLight™	<p>TrackPoint® pointing device, Internet Scroll Bar¹³, magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch None</p>											
Dimensions ³ Weight ²	<p><i>15.6W" (WxDxH):</i> 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)</p>											
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	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										<p>Supports ThinkVantage® technologies</p>	
PCIe WLAN ⁴	11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2											
PCIe WWAN	Wireless WAN upgradable											
Carrier	None											
Modem	None											
Bluetooth™	None											
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	None										<p>For compatible accessories, please go to O-L530 sheet;</p> <p>For Lenovo service²² upgrade options, please go to QP-TA sheet</p>	
<p>Limited warranty¹² 1-year - depot repair service / service upgrades²² available</p>												

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 ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Smart Card Reader	Card slot	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Ann Date (mm/yy)
2481-33U	i5-2520M	4GBx1	15.6" HD	720p	500G 7200	Intel 2200	WWAN upg	None	None	None	No	6	Win8 Pro64	10/12
2481-4RU	i3-2348M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	None	Express 54	Finger	BT	9	Win7 Pro64	02/13
2481-4QU	i3-2348M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	None	Express 54	Finger	BT	6	Win7 Pro64	02/13
2481-55U	i5-3230M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	Smart	Express 54	Finger	BT	6	Win7 Pro64	05/13
2481-5RU	i5-3230M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	None	Express 54	Finger	BT	6	Win7 Pro64	06/13
2481-56U	i3-3110M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	None	Express 54	None	BT	6	Win7 Pro64	06/13

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

Positioning Processor	<p><i>Mainstream business performance; two spindles</i> Intel® Core™ i3-2348M processor (2 cores, 2.30GHz, 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 i5-3230M 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</p>										<p>Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit</p> <p>Preloaded applications⁵ (only some listed)</p>			
Memory	<p>8GB max⁷ / 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</p>										<p>- Windows 7 models</p> <ul style="list-style-type: none"> Lenovo® Message Center Plus ThinkVantage Product Recovery Access Connections™ ThinkVantage Power Manager Lenovo SimpleTap Corel® WinDVD® (DVD±RW) Corel Burn.Now™ Lenovo Edition (DVD±RW) Corel DVD MovieFactory® Lenovo Edition (DVD±RW) 			
Optical SATA disk	<p>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™</p>										<ul style="list-style-type: none"> Lenovo Support Lenovo Companion Lenovo QuickLaunch Cyberlink Power2Go (DVD±RW) Cyberlink PowerProducer (DVD±RW) 			
mSATA™ SSD	None										<p>- Windows 8 models</p> <ul style="list-style-type: none"> Lenovo Support Lenovo Companion Lenovo QuickLaunch Cyberlink Power2Go (DVD±RW) Cyberlink PowerProducer (DVD±RW) 			
Widescreen display	<p>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</p>										<p>- All models</p> <ul style="list-style-type: none"> 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) 			
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus													
Graphics	<p>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)</p>													
Keyboard TrackPoint® Touch pad ThinkLight™	<p>6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar¹³, magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch None</p>													
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<p><i>15.6W" (WxDxH):</i> 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</p>													
Chipset ExpressCard Smart Card read Multicard Reader Ports	<p>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)</p>													
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<p>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 Wireless WAN upgradable None None Some: 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</p>										<p>Supports ThinkVantage® technologies</p> <p>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</p>			
Security Security chip Fingerprint reader	<p>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</p>										<p>For compatible accessories, please go to O-L530 sheet; For Lenovo service²² upgrade options, please go to QP-TA sheet</p>			
<p>Limited warranty¹² 1-year - depot repair service / service upgrades²² available</p>														

See footnotes for more detailed information

ThinkPad L530 2485 (TopSeller)

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	Card slot	Finger print reader	Blue-tooth	Battery cells	Preload (mm/yy)	Ann Date
2485-22U	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	None	Finger	BT	6	Pro 64	06/12
2485-23U	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	None	Finger	BT	6	Pro 64	06/12
2485-24U	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	None	None	None	6	Pro 64	06/12
2485-25U	i5-3210M	4GBx1	15.6" HD	720p	320G 7200	Intel 2200	WWAN upg	None	None	None	6	Pro 64	06/12
2485-26U	i3-2370M	4GBx1	15.6" HD	720p	500G 7200	Intel 2200	WWAN upg	None	Finger	BT	6	Pro 64	06/12

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

Positioning Processor	<p><i>Mainstream business 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 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</p>								<p>Preloaded operating system²⁰ Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager</p>			
Memory	<p>8GB max⁷ / 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</p>								<p>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)</p>			
Optical SATA disk	<p>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™</p>											
mSATA™ SSD	None											
Widescreen display	<p><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</p>											
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus											
Graphics	<p>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)</p>											
Keyboard TrackPoint® Touch pad ThinkLight™	<p>6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar¹³, magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch None</p>											
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<p><i>15.6W" (WxDxH):</i> 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</p>											
Chipset ExpressCard Smart Card read Multicard Reader Ports	<p>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)</p>											
PCIe Mini Card PCIe WLAN ⁴	<p>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</p>								Supports ThinkVantage® technologies			
PCIe WWAN Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<p>Wireless WAN upgradable None None <i>Some:</i> 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</p>								<p>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</p>			
Security Security chip Fingerprint reader	<p>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</p>								<p>For compatible accessories, please go to O-L530 sheet; For Lenovo service²² upgrade options, please go to QP-TA sheet</p>			
<p>Limited warranty¹² 3-years/1-yr battery - depot repair service / service upgrades²² available</p>												

See footnotes for more detailed information

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ThinkPad L530 2478

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Card Carrier	Smart Card Reader	Card slot	Finger print reader	Blue-tooth	Bat-tery cells	Workhorse (W) Global (G)	Pre-load	Ann Date (mm/yy)
2478-23U	i7-3520M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205 ²⁸	upg	None	None	None	Finger	BT	9			Pro 64 06/12
2478-24U	i7-3520M	4GBx1	15.6" HD+	720p	320G 7200	Intel 6205	upg	None	None	None	Finger	BT	9			Pro 64 06/12
2478-25U	i5-3360M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205	upg	None	None	None	Finger	BT	9	G		Pro 64 06/12
2478-26U	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	upg	None	None	None	Finger	BT	6	G		Pro 64 06/12
2478-27U	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	upg	None	None	None	None	No	6	G		Pro 64 06/12
2478-28U	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 2200	upg	None	None	None	Finger	BT	6	G		Pro 64 06/12
2478-29U	i5-3320M	4GBx1	15.6" HD	None	320G 7200	Intel 2200	upg	None	None	None	None	BT	6	G		Pro 64 06/12
2478-2AU	i5-3360M	4GBx1	15.6" HD+	720p	320G 7200	Intel 6205	upg	None	None	None	Finger	BT	9	G		Pro 64 06/12
2478-2BU	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	upg	None	None	None	Finger	BT	6	G		Pro 64 06/12
2478-2CU	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	upg	None	None	None	None	No	6	G		Pro 64 06/12
2478-2DU	i5-3360M	4GBx1	15.6" HD+	720p	320G 7200	Intel 6205	Gobi select	None	None	None	Finger	BT	9			Pro 64 06/12
2478-2FU	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	Gobi select	None	None	None	Finger	BT	6			Pro 64 06/12
2478-2GU	i5-3320M	4GBx1	15.6" HD	None	500G 7200	Intel 2200	upg	None	None	None	None	No	6			Pro 64 06/12
2478-2HU	i5-3320M	4GBx1	15.6" HD	None	320G 7200	Intel 2200	upg	None	None	None	None	No	6			Pro 64 06/12
2478-2XU	i5-3360M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	upg	None	Smart	Exp 54	Finger	BT	9	G		Pro 64 06/12
2478-2YU	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	upg	None	Smart	Exp 54	Finger	BT	6	G		Pro 64 06/12
2478-32U	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	upg	None	Smart	Exp 54	Finger	BT	6	W G		Pro 64 06/12
2478-33U	i5-3360M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	upg	None	Smart	Exp 54	Finger	BT	9	W G		Pro 64 06/12

Positioning Processor	<i>Mainstream business 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 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 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	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> 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 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>15.6W"</i> (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 <i>Some:</i> One slot (ExpressCard/34, ExpressCard/54) <i>Some:</i> 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	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 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS	Supports ThinkVantage® technologies
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> User selectable, AT&T®, Verizon®, or Sprint®, contract required with service provider None <i>Some:</i> 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	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
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	For compatible accessories, please go to O-L530 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet
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 ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Smart Card Reader	Card slot	Finger print reader	Bat- tery tooth cells	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
2478-62U	i7-3520M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	None	None	Finger	BT	6 G	Win8 Pro64	10/12
2478-4NU	i5-3320M	4GBx1	15.6" HD	None	320G 7200	Intel 2200	WWAN upg	None	None	None	No	6 G	Win8 Pro64	10/12
2478-63U	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	None	None	Finger	BT	6 G	Win8 Pro64	10/12
2478-64U	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	WWAN upg	None	None	Finger	BT	6 G	Win8 Pro64	10/12
2478-5RU	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	WWAN upg	None	None	Finger	BT	6	Win7 Pro64	02/13
2478-5QU	i5-3230M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	WWAN upg	None	None	Finger	BT	6	Win7 Pro64	02/13
2478-5PU	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	WWAN upg	None	None	None	No	6	Win7 Pro64	02/13
2478-5NU	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	None	None	Finger	BT	6	Win7 Pro64	02/13
2478-5MU	i5-3320M	4GBx1	15.6" HD	None	320G 7200	Intel 2200	WWAN upg	None	None	None	No	6	Win7 Pro64	02/13
2478-5LU	i5-3230M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	Smart	Exp 54	Finger	BT	6	Win7 Pro64	02/13
2478-5KU	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	Smart	Exp 54	Finger	BT	6	Win7 Pro64	02/13
2478-5SU	i5-3230M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	None	Exp 54	Finger	BT	6	Win7 Pro64	02/13

• A depot repair service 3-year limited warranty

Positioning Processor	Mainstream business 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 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	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® • 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 • 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 • Skype™
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	Some: 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>15.6W" (WxDxH):</i> 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 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	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 Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	Wireless WAN upgradable None None Some: 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	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 Some: AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, 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-yr battery - depot repair service / service upgrades²² available	For compatible accessories, please go to O-L530 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet

See footnotes for more detailed information

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ThinkPad L530 2479 (Onsite)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/MSATA	Card Carrier	Smart Card Reader	Card slot	Finger print reader	Blue-tooth	Bat-tery cells	Workhorse (W) Global (G)	Pre-load	Ann Date (mm/yy)
2479-32U	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205 ²⁸	upg	None	Smart	Exp 54	Finger	BT	6	W G P	Pro 64	06/12
2479-33U	i5-3360M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	upg	None	Smart	Exp 54	Finger	BT	9	W G P	Pro 64	06/12
2479-39U	i7-3520M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205	upg	None	None	None	Finger	BT	9		Pro 64	06/12
2479-3AU	i7-3520M	4GBx1	15.6" HD+	720p	320G 7200	Intel 6205	upg	None	None	None	Finger	BT	9		Pro 64	06/12
2479-3BU	i5-3360M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205	upg	None	None	None	Finger	BT	9	G P	Pro 64	06/12
2479-3CU	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	upg	None	None	None	Finger	BT	6	G P	Pro 64	06/12
2479-3DU	i5-3360M	4GBx1	15.6" HD+	720p	320G 7200	Intel 6205	upg	None	None	None	Finger	BT	9	G P	Pro 64	06/12
2479-3EU	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	upg	None	None	None	Finger	BT	6	G P	Pro 64	06/12
2479-3GU	i5-3360M	4GBx1	15.6" HD+	720p	320G 7200	Intel 6205	Gobi	select	None	None	Finger	BT	9		Pro 64	06/12
2479-53U	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	Gobi	select	None	None	Finger	BT	6		Pro 64	06/12
2479-3MU	i5-3320M	4GBx1	15.6" HD	None	500G 7200	Intel 2200	upg	None	None	None	None	No	6		Pro 64	06/12
2479-3PU	i5-3320M	4GBx1	15.6" HD	None	320G 7200	Intel 2200	upg	None	None	None	None	No	6		Pro 64	06/12
2479-44U	i5-3360M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	upg	None	Smart	Exp 54	Finger	BT	9		Pro 64	06/12
2479-45U	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	upg	None	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 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	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> 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 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>15.6W" (WxDxH):</i> 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 <i>Some:</i> One slot (ExpressCard/34, ExpressCard/54) <i>Some:</i> 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	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 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS	
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> User selectable, AT&T®, Verizon®, or Sprint®, contract required with service provider None <i>Some:</i> 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	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 <i>Some:</i> AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, 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 holidays, next business day response time / service upgrades ²² available	For compatible accessories, please go to O-L530 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet

See footnotes for more detailed information

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	Smart Card Reader	Smart Card slot	Finger print reader	Bat- tery Blue- tooth cells	Global (G) (P)	Preload	Ann Date (mm/yy)
2479-62U	i7-3520M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	None	None	Finger	BT 6	G P	Win8 Pro64	10/12
2479-63U	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	None	None	Finger	BT 6	G P	Win8 Pro64	10/12
2479-64U	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	WWAN upg	None	None	Finger	BT 6	G P	Win8 Pro64	10/12
2479-5LU	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	Smart	Exp 54	Finger	BT 6		Win7 Pro64	02/13
2479-5KU	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	None	None	Finger	BT 6		Win7 Pro64	02/13

• 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 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	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)
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™	- Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • 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 • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW)
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	- 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™
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; 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)	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® 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	For compatible accessories, please go to O-L530 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet
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 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 Carrier 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 holidays, next business day response time / service upgrades ²² available	

See footnotes for more detailed information

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Memory		
2GB PC3-12800 DDR3 SODIMM	0A65722	ann 06/05/12
4GB PC3-12800 DDR3 SODIMM	0A65723	ann 06/05/12

Storage and removable storage		
ThinkPad 16GB mSATA Solid State Cache Drive	0B47309	ann 12/11/12
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 3.0 Secure 500GB Hard Drive	0A65619	ann 11/29/11
USB 3.0 Secure 750GB Hard Drive	0A65616	ann 11/29/11
USB 3.0 Secure 1TB Hard Drive	0A65621	ann 08/28/12
Lenovo Slim USB Portable DVD Burner	0A33988	ann 06/14/11

ThinkPad Expansion		
Lenovo® Essential Notebook Stand	45J9292	ann 05/12/09
ThinkPad Port Replicator Series 3 with USB 3.0	433615W	ann 06/05/12
ThinkPad Mini Dock Series 3 - 90W	433710U	ann 06/23/09
ThinkPad Mini Dock Series 3 w/ USB 3.0 - 90W	433715U	ann 06/05/12
TP Mini Dock Plus Series 3 w/ USB 3.0 - 90W	433815U	ann 06/05/12
TP Mini Dock Plus Series 3 w/ USB 3.0 - 170W	433835U	ann 06/05/12

Keyboard		
TrackPoint Cap Collection	73P2698	ann 12/16/03
Ultraslim Plus Wireless Keyboard and Mouse ⁵²	0A34032	ann 04/05/11
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann 08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.		

Mouse		
Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann 12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann 06/04/02
ThinkPad Bluetooth Laser Mouse	0A36407	ann 06/26/12
Lenovo Wireless Laser Mouse ⁵²	0A36188	ann 12/20/11

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

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

Security		
3M 15.6W Privacy Filter from Lenovo	0A61771	ann 04/05/11
Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06
ExpressCard Gemplus Smart Card Reader ⁵⁷	41N3043	ann 06/27/06
⁵⁷ Only compatible with the models having 54mm Express card slot.		

Batteries		
ThinkPad Battery 70+ (6-cell)	0A36302	ann 06/05/12
ThinkPad Battery 70++ (9-cell)	0A36303	ann 06/05/12
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann 09/20/05
⁴⁴ Requires the <i>ThinkPad 90W AC Adapter 40Y7659</i> or the adapter provided with the system.		

More information at www.lenovo.com/alldaycomputing		
ThinkPad 65W AC Adapter ⁴⁵	40Y7696	ann 01/05/06
⁴⁵ Only compatible with the integrated graphics models.		
ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
90W Ultraslim AC/DC Combo Adapter	41R4493	ann 09/22/09

More info at www.lenovo.com/support/poweradapters		
<i>Charging tips for 90W Ultraslim AC/DC Combo Adapter 41R4493</i>		
• iPod and iPhone Charge Tip (L10a)	41R4481	ann 12/18/07
• Generic Micro USB charge tip (L18)	41R4490	ann 01/06/09

More information at www.lenovopowertips.com

Carrying Cases		
<i>Up to 15.6" widescreen models:</i>		
Lenovo Messenger Max	41U5253	ann 05/01/07
Lenovo Performance Backpack	41U5254	ann 05/01/07
ThinkPad Business Topload Case	43R2476	ann 05/13/08
ThinkPad Business Backpack	43R2482	ann 05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann 05/13/08
ThinkPad Executive Leather Case	43R2480	ann 05/13/08
Lenovo Sport Backpack - Red	0A33896	ann 02/28/12
Lenovo Sport Slimcase - Red	0A33897	ann 02/28/12
Lenovo Sport Messenger - Red	0A33898	ann 02/28/12
Lenovo Sport Backpack - Blue	0B47298	ann 08/28/12
Lenovo Sport Slimcase - Blue	0B47300	ann 08/28/12
Lenovo Sport Messenger - Blue	0B47299	ann 08/28/12
Lenovo Sport Backpack - Grey	0B47301	ann 08/28/12
Lenovo Sport Slimcase - Grey	0B47303	ann 08/28/12
Lenovo Sport Messenger - Grey	0B47302	ann 08/28/12

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

Monitors		
ThinkVision LT1952p Wide 19" (VGA, DP, DVI-D) ⁶⁹	2448MB6	ann 09/13/11
ThinkVision L2251x Wide 22" (VGA, DP) ⁶⁹	2578HB6	ann 10/20/09
⁶⁹ DisplayPort cable is not included.		
ThinkVision LT1421 Wide 14" Mobile Monitor with Protective Screen Cover (USB 2.0)	1452DS6	ann 08/16/11
ThinkVision LT1421 Wide 14" Mobile Monitor with Protective Case (USB 2.0)	1452DB6	ann 08/16/11

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

Monitor Accessories⁴⁶		
Lenovo USB 3.0 to DVI/VGA Monitor Adapter	0B47072	ann 08/14/12
Lenovo Mini-DisplayPort to VGA Monitor Cable	0A36536	ann 05/17/11
Mini-DisplayPort to Single-link DVI Monitor Cable	0B47090	ann 06/26/12
Mini-DisplayPort to DisplayPort Monitor Cable	0B47091	ann 07/24/12
Lenovo USB Soundbar	0A36190	ann 05/01/12
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09
⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.		

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

For more information on accessories:
www.lenovo.com/accessories
 Purchase Lenovo accessories
www.lenovo.com/support/accessories
 Product specifications on Lenovo Support
www.lenovo.com/accessoriesguide
 Option Compatibility Matrix (OCM) and accessory brochures
www.lenovoquickpick.com
 An Options Compatibility Configurator for Lenovo systems



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 2342 (TopSeller)

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	Battery cells	Intel AMT	Intel vPro	Preload (mm/yy)	Ann Date
2342-38U	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 6205 ²⁸	WWAN upg	None	No	6	iAMT	vPro	Pro 64	06/12
2342-37U	i5-3320M	4GBx2	14.0" HD	720p	320G 7200	None	Intel 6205	WWAN upg	None	No	6	iAMT	vPro	Pro 64	06/12
2342-36U	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	None	Intel 6205	WWAN upg	None	No	6	iAMT	vPro	Pro 64	06/12
2342-35U	i5-3210M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 2200	WWAN upg	None	No	6	None	No	Pro 64	06/12
2342-34U	i5-3210M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 2200	WWAN upg	None	No	6	None	No	Pro 64	06/12
2342-33U	i5-3210M	4GBx1	14.0" HD+	720p	320G 7200	None	Intel 2200	WWAN upg	None	No	6	None	No	Pro 64	06/12
2342-32U	i5-3210M	4GBx1	14.0" HD	720p	320G 7200	None	Intel 2200	WWAN upg	None	No	6	None	No	Pro 64	06/12
2342-4AU	i5-2520M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 2200	WWAN upg	None	No	6	None	No	Pro 64	07/12
2342-6CU	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	BT	6	iAMT	vPro	Pro 64	09/12

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

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	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	<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)	
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	Supports ThinkVantage® technologies
PCIe WWAN Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	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	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
Security Security chip Fingerprint reader	Power On Authentication, 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	For compatible accessories, please go to O-T430 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet
Limited warranty ¹² 1-year - depot repair service / service upgrades ²² available		

See footnotes for more detailed information

ThinkPad T430 2342 (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	Finger print reader	Blue-tooth	Bat-tery cells	Intel AMT	Intel vPro	Preload	Ann Date (mm/yy)
2342-6FU	i5-3210M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 2200	WWAN upg	None	No	6	None	No	Win7 Pro64	10/12
2342-6DU	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	Backlit	Intel 6205 ²⁸	WWAN upg	Finger	BT	6	iAMT	vPro	Win8 Pro64	10/12
2342-49U	i5-2520M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 2200	WWAN upg	None	No	6	None	No	Win8 Pro64	10/12
2342-48U	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 6205	WWAN upg	None	No	6	iAMT	vPro	Win8 Pro64	10/12
2342-47U	i5-3210M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 2200	WWAN upg	None	No	6	None	No	Win8 Pro64	10/12
2342-7PU	i5-3230M	4GBx1	14.0" HD+	720p	128G SSD	None	Intel 6205	WWAN upg	Finger	BT	6	None	No	Win7 Pro64	02/13
2342-7NU	i5-3230M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 2200	WWAN upg	None	No	6	None	No	Win8 Pro64	02/13
2342-6QU	i5-3230M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 2200	WWAN upg	None	No	6	None	No	Win7 Pro64	02/13
2342-7YU	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 6205	WWAN upg	None	No	6	iAMT	vPro	Win7 Pro64	04/13

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

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 i5-3230M 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 Preloaded applications⁵ (only some listed)
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	- Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • 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	- Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW)
mSATA™ SSD	None	- 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™
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 <i>6-cell:</i> from 4.77 lb (2.17kg); <i>9-cell:</i> from 5.13 lb (2.33kg)	
Battery - type Battery - life ¹⁰	<i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Carbon-Fiber Reinforced Plastic 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)	
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	Supports ThinkVantage® technologies
PCIe WWAN Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	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	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
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	For compatible accessories, please go to O-T430 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

See footnotes for more detailed information

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ThinkPad T430 2344 (TopSeller)

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	Bat-Blue- tooth cells	Intel AMT	Intel vPro	Ann Date Preload (mm/yy)
2344-5NU	i7-3520M	4GBx2	14.0" HD+	720p	500G 7200	None	Intel 6205 ²⁸	WWAN upg	Finger	BT 6	iAMT	vPro	Pro 64 06/12
2344-5MU	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT 6	iAMT	vPro	Pro 64 06/12
2344-5LU	i7-3520M	4GBx2	14.0" HD	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT 6	iAMT	vPro	Pro 64 06/12
2344-5KU	i7-3520M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT 6	iAMT	vPro	Pro 64 06/12
2344-5HU	i5-3320M	4GBx1	14.0" HD+	720p	180G SSD	None	Intel 6205	WWAN upg	Finger	BT 6	iAMT	vPro	Pro 64 06/12
2344-5FU	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT 6	iAMT	vPro	Pro 64 06/12
2344-5EU	i5-3320M	8GBx1	14.0" HD	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT 6	iAMT	vPro	Pro 64 06/12
2344-5DU	i5-3210M	4GBx1	14.0" HD+	720p	128G SSD	None	Intel 6205	WWAN upg	Finger	BT 6	None	None	Pro 64 06/12
2344-2HU	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT 6	iAMT	vPro	Pro 64 06/12
2344-6XU	i5-3320M	4GBx1	14.0" HD+	720p	180G SSD	Backlit	Intel 6205	WWAN upg	Finger	BT 6	iAMT	vPro	Pro 64 07/12
2344-6RU	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	BT 6	iAMT	vPro	Pro 64 07/12

- **Small and medium business (SMB) model(s), part of the US 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 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	DVD burner, 12.7mm Ultrabay Enhanced, removable	
Ultrabay	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access	
SATA disk	<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	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): 13.4" 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, 0A36304): 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	Supports ThinkVantage® technologies
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2	
PCIe WWAN	Wireless WAN upgradable	
Carrier	None	
Modem	None	
IEEE 1394	None	
Bluetooth™	Bluetooth 4.0 wireless	
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1	
Intel AMT	<i>Some:</i> Intel Active Management Technology (iAMT)	
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	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
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	For compatible accessories, please go to O-T430 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet
Limited warranty ¹² 3-years/1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for more detailed information

ThinkPad T430 2344 (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	Finger print reader	Blue-tooth	Battery cells	Intel AMT	Intel vPro	Preload	Ann Date (mm/yy)
2344-BZU	i5-3320M	4GBx1	14.0" HD+	500G 7200	Backlit	Intel 6205 ²⁸	WWAN upg	Finger	BT	6	iAMT	vPro	Win7 Pro64	10/12
2344-BYU	i5-3320M	4GBx1	14.0" HD+	500G 7200	None	Intel 6205	WWAN upg	None	No	6	iAMT	vPro	Win8 Pro64	10/12
2344-BNU	i5-3320M	4GBx1	14.0" HD+	180G SSD	Backlit	Intel 6205	WWAN upg	Finger	BT	6	iAMT	vPro	Win7 Pro64	10/12
2344-BKU	i5-3320M	4GBx1	14.0" HD+	500G 7200	None	Intel 6205	WWAN upg	None	No	6	iAMT	vPro	Win7 Pro64	10/12
2344-6ZU	i7-3520M	4GBx1	14.0" HD+	500G 7200	Backlit	Intel 2200	WWAN upg	Finger	BT	6	None	No	Win8 Pro64	10/12
2344-6YU	i5-3320M	4GBx1	14.0" HD+	180G SSD	Backlit	Intel 6205	WWAN upg	Finger	BT	6	iAMT	vPro	Win8 Pro64	10/12
2344-6SU	i5-3320M	4GBx1	14.0" HD	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	BT	6	iAMT	vPro	Win8 Pro64	10/12
2344-C4U	i5-3320M	4GBx1	14.0" HD	500G 7200	None	Intel 6205	WWAN upg	None	No	6	iAMT	vPro	Win7 Pro64	10/12
2344-FQU	i5-3320M	4GBx1	14.0" HD+	500G 7200	Backlit	Intel 6205	WWAN upg	None	BT	6	iAMT	vPro	Win7 Pro64	06/13
2344-GRU	i5-3320M	4GBx1	14.0" HD+	180G SSD	Backlit	Intel 6205	WWAN upg	None	BT	6	iAMT	vPro	Win7 Pro64	07/13
2344-GQU	i5-3320M	4GBx1	14.0" HD+	256G SSD OPAL	Backlit	Intel 6205	WWAN upg	None	BT	6	iAMT	vPro	Win7 Pro64	07/13
2344-GPU	i5-3320M	4GBx1	14.0" HD+	256G SSD OPAL	Backlit	Intel 6205	WWAN upg	Finger	BT	6	iAMT	vPro	Win7 Pro64	07/13
2344-GNU	i5-3320M	4GBx1	14.0" HD	320G 7200 OPAL	None	Intel 6205	WWAN upg	None	BT	6	iAMT	vPro	Win7 Pro64	07/13
2344-GMU	i5-3320M	4GBx1	14.0" HD+	320G 7200 OPAL	None	Intel 6205	WWAN upg	None	BT	6	iAMT	vPro	Win7 Pro64	07/13

- **Small and medium business (SMB) model(s), part of the US TopSeller™ Program**
- **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 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® • 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 • 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 • Skype™
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)	Supports ThinkVantage® technologies
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	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
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	For compatible accessories, please go to O-T430 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet
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)	
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 Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	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	
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-yr battery - depot repair service / service upgrades²² available	

See footnotes for more detailed information

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(NZ4-11) July 2013

ThinkPad T430 2342 (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	Finger print reader	Blue-tooth	Bat-tery cells	Intel vPro	Preload (mm/yy)	Ann Date
2342-4BU	i5-2520M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 2200	WWAN upg	None	None	6	None	Pro 64	07/12

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

Positioning	<i>Premiere performance; two spindles</i>										Preloaded operating system ²⁰
Processor	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										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	DVD burner, 12.7mm Ultrabay Enhanced, removable										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)
Ultrabay	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access										
SATA disk	<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 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, 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	<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										
Weight ²	<i>6-cell:</i> from 4.77 lb (2.17kg); <i>9-cell:</i> 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	<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, 0A36304):</i> up to 31.6 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)										Supports ThinkVantage® technologies
PCIe Mini Card	Two PCI Express Mini Card slots										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
PCIe WLAN ⁴	11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2										
PCIe WWAN	Wireless WAN upgradable										
Carrier	None										
Modem	None										
IEEE 1394	None										
Bluetooth™	None										
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										For compatible accessories, please go to O-T430 sheet;
Security chip	Trusted Platform Module, TCG 1.2-compliant										For Lenovo service ²² upgrade options, please go to QP-TA sheet
Fingerprint reader	None										
Limited warranty ¹² 1-year - depot repair service / service upgrades ²² available											

See footnotes for more detailed information

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(NZ4-8) August 2012

ThinkPad T430 2342 (Optimus) - 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)
2342-4CU	i5-2520M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 2200	WWAN upg	None	6	None	Win8 Pro64	10/12

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

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 - 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® • 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 • 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) • Skype™	
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	<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>6-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> up to 31.6 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)										Supports ThinkVantage® technologies	
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier 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 None 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										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	
Security Security chip Fingerprint reader	Trusted Platform Module, TCG 1.2-compliant None										For compatible accessories, please go to O-T430 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet	
Limited warranty ¹² 1-year - depot repair service / service upgrades ²² available												

See footnotes for more detailed information

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(NZ4-10) October 2012

ThinkPad T430 2344 (Optimus) - TopSeller

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	Backlit keyboard	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Battery cells	Intel vPro	Preload (mm/yy)	Ann Date
2344-5PU	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205 ²⁸	WWAN upg	Finger	BT	9	vPro	Pro 64	06/12
2344-5JU	i5-3320M	4GBx1	14.0" HD+	720p	180G SSD	None	Intel 6205	WWAN upg	Finger	BT	9	vPro	Pro 64	06/12
2344-5GU	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	9	vPro	Pro 64	06/12
2344-6VU	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	BT	9	vPro	Pro 64	07/12
2344-6TU	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	BT	9	vPro	Pro 64	07/12

- **Small and medium business (SMB) model(s), part of the US TopSeller™ Program**
- **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 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 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, 0A36304):</i> up to 31.6 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 Carrier 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	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	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
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades²² available	For compatible accessories, please go to O-T430 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet

See footnotes for more detailed information

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(NZ4-3) August 2012

ThinkPad T430 2344 (Optimus) - 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	Bat-tery Intel vPro	Blue-tooth cells	Preload	Ann Date (mm/yy)
2344-BPU	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	Backlit	Intel 6205 ²⁸	WWAN upg	Finger	BT 9	vPro	Win7 Pro64	10/12
2344-BMU	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	BT 9	vPro	Win7 Pro64	10/12
2344-6WU	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	BT 9	vPro	Win8 Pro64	10/12
2344-6UU	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	BT 9	vPro	Win8 Pro64	10/12
2344-FSU	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	Backlit	Intel 6205	WWAN upg	None	BT 9	vPro	Win7 Pro64	06/13
2344-GSU	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	Backlit	Intel 6205	WWAN upg	None	BT 9	vPro	Win7 Pro64	07/13

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

Positioning	<i>Premiere performance; two spindles</i>										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 • 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 • 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™
Processor	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										
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	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	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, 0A36304): up to 31.6 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 Carrier 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										
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-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										
	For compatible accessories, please go to O-T430 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet										

See footnotes for more detailed information

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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	Carrier	Finger print reader	Blue-tooth cells	Battery Intel vPro	Global (G) GMP (P)	Ann Date (mm/yy)
2347-GAU	i5-3320M	4GBx1	14.0" HD+	720p	180G SSD	None	Intel 6205 ²⁸	upg	None	Finger	BT 6	vPro	G	Pro 64 06/12
2347-H9U	i5-3320M	4GBx1	14.0" HD	720p	180G SSD	None	Intel 6205	upg	None	Finger	BT 6	vPro	G	Pro 64 06/12
2347-G8U	i5-3320M	4GBx1	14.0" HD+	720p	128G SSD	None	Intel 6205	upg	None	Finger	BT 6	vPro	G	Pro 64 06/12
2347-GBU	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	upg	None	Finger	BT 6	vPro	G	Pro 64 06/12
2347-G5U	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	upg	None	Finger	BT 6	vPro	G	Pro 64 06/12
2347-H8U	i7-3520M	4GBx1	14.0" HD	No	500G 7200	None	Intel 6205	upg	None	None	No 6	vPro		Pro 64 06/12
2347-H7U	i5-3320M	4GBx1	14.0" HD	No	320G 7200	None	Intel 6205	upg	None	None	No 6	vPro		Pro 64 06/12
2347-H6U	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	None	Intel 6205	upg	None	Finger	BT 6	vPro		Pro 64 06/12
2347-H2U	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 6205	upg	None	Finger	BT 6	vPro		Pro 64 06/12
2347-GZU	i5-3320M	4GBx1	14.0" HD	720p	128G SSD	None	Intel 6205	upg	None	Finger	BT 6	vPro		Pro 64 06/12
2347-G3U	i7-3520M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 6205	upg	None	Finger	BT 6	vPro	G	Pro 64 06/12
2347-G2U	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	None	Intel 6205	upg	None	Finger	BT 6	vPro	G	Pro 64 06/12
2347-K9U	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	Gobi	AT&T	Finger	BT 6	vPro		Pro 64 09/12
2347-K8U	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	Gobi	Verizon	Finger	BT 6	vPro		Pro 64 09/12

• 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 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	<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	<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)	
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, Qualcomm® Gobi™ 4000 chipset, PCIe Mini Card, LTE, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS	Supports ThinkVantage® technologies
Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> AT&T® or Verizon® LTE (4G), contract required with service provider None None <i>Some:</i> 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	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
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	For compatible accessories, please go to O-T430 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet
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-JKU	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205 ²⁸	WWAN upg	Finger	BT	6	vPro	Win8 Pro64	10/12
2347-JGU	i5-3320M	4GBx1	14.0" HD+	720p	180G SSD	None	Intel 6205	WWAN upg	Finger	BT	6	vPro	Win8 Pro64	10/12
2347-JBU	i7-3520M	4GBx1	14.0" HD	No	500G 7200	None	Intel 6205	WWAN upg	None	No	6	vPro	Win8 Pro64	10/12
2347-JAU	i5-3320M	4GBx1	14.0" HD	No	320G 7200	None	Intel 6205	WWAN upg	None	No	6	vPro	Win8 Pro64	10/12
2347-J9U	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	6	vPro	G Win8 Pro64	10/12
2347-J8U	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	None	Intel 6205	WWAN upg	Finger	BT	6	vPro	G Win8 Pro64	10/12
2347-L4U	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	6	vPro	Win7 Pro64	12/12
2347-L3U	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	6	vPro	Win7 Pro64	12/12

• 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 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	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 • 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 • 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 • Skype™
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	<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)	
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier 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 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	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 <i>Some:</i> AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant 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	For compatible accessories, please go to O-T430 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet

See footnotes for more detailed information

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(NZ4-13) December 2012

ThinkPad T430 2347 (Optimus)

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	Bat-Blue- tooth cells	Global (G) Intel vPro	Global (G) GMP (P) Preload (mm/yy)	Ann Date
2347-G9U	i7-3520M	4GBx1	14.0" HD+	720p	180G SSD	None	Intel 6205 ²⁸	WWAN upg	Finger	BT 9	vPro G	Pro 64	06/12
2347-G7U	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT 9	vPro G	Pro 64	06/12
2347-G6U	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT 9	vPro G	Pro 64	06/12
2347-G4U	i5-3320M	4GBx1	14.0" HD+	720p	320G 7200	None	Intel 6205	WWAN upg	Finger	BT 9	vPro G	Pro 64	06/12

• 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 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 applications ¹⁴ (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 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)	
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) <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 9.4 hr; 9-cell (94Whr): up to 15.8 hr; 9-cell plus 9-cell Slice battery (94Whr, 0A36304): up to 31.6 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)											Supports ThinkVantage® technologies
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier 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											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
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										For compatible accessories, please go to O-T430 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet	
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) - Windows 8

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	Bat-tery Intel vPro	Blue-tooth cells	Preload	Ann Date (mm/yy)
2347-L5U	i7-3520M	4GBx1	14.0" HD+	720p	180G SSD	Backlit	Intel 6205 ²⁸	WWAN upg	Finger	BT	9	vPro Win7 Pro64	12/12

• A depot repair service 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> 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 • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • 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 • 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 • Skype™
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) <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 9.4 hr; 9-cell (94Whr): up to 15.8 hr; 9-cell plus 9-cell Slice battery (94Whr, 0A36304): up to 31.6 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 Carrier 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										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										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
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available										For compatible accessories, please go to O-T430 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet

See footnotes for more detailed information

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ThinkPad T430 2349 (Onsite)

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	Mini Card Carrier	Smart Card Reader	Finger print reader	Blue-tooth	Bat-tery cells	Global (G) Intel vPro (P)	Global (G) GMP Preload	Ann Date (mm/yy)
2349-GAU	i5-3320M	4GBx1	14.0" HD+	720p	180G SSD	None	Intel 6205 ²⁸	upg	None	None	Fing	BT	6	vPro	G P	Pro 64 06/12
2349-GDU	i5-3320M	4GBx1	14.0" HD	720p	128G SSD	None	Intel 6205	upg	None	None	Fing	BT	6	vPro	G P	Pro 64 06/12
2349-G8U	i5-3320M	4GBx1	14.0" HD+	720p	128G SSD	None	Intel 6205	upg	None	None	Fing	BT	6	vPro	G P	Pro 64 06/12
2349-G5U	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	upg	None	None	Fing	BT	6	vPro	G P	Pro 64 06/12
2349-GCU	i5-3320M	4GBx1	14.0" HD+	720p	320G 7200	None	Intel 6205	upg	None	None	Fing	BT	6	vPro	G P	Pro 64 06/12
2349-GWU	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	None	Intel 6205	upg	None	None	Fing	BT	6	vPro	G P	Pro 64 06/12
2349-GVU	i7-3520M	4GBx1	14.0" HD	No	500G 7200	None	Intel 6205	upg	None	None	No	No	6	vPro		Pro 64 06/12
2349-GUU	i5-3320M	4GBx1	14.0" HD	No	320G 7200	None	Intel 6205	upg	None	None	No	No	6	vPro		Pro 64 06/12
2349-GRU	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 6205	upg	None	None	Fing	BT	6	vPro		Pro 64 06/12
2349-G3U	i7-3520M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 6205	upg	None	None	Fing	BT	6	vPro	G P	Pro 64 06/12
2349-G2U	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	None	Intel 6205	upg	None	None	Fing	BT	6	vPro	G P	Pro 64 06/12
2349-HFU	i5-3320M	4GBx1	14.0" HD+	720p	320G 7200	None	Intel 6205	upg	None	Smart	Fing	BT	6	vPro	G P	Pro 64 06/12
2349-HNU	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	None	Intel 6205	upg	None	None	No	BT	6	vPro	G P	Pro 64 07/12
2349-JTU	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 6205	Gobi	AT&T	None	Fing	BT	6	vPro		Pro 64 09/12
2349-JSU	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 6205	Gobi	Verizon	None	Fing	BT	6	vPro		Pro 64 09/12

• 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™ i5-3320M 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	<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	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, 0A36304):</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 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, Qualcomm® Gobi™ 4000 chipset, PCIe Mini Card, LTE, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS	Supports ThinkVantage® technologies
Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> AT&T® or Verizon® LTE (4G), contract required with service provider None None <i>Some:</i> 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	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
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	For compatible accessories, please go to O-T430 sheet;
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available	For Lenovo service ²² upgrade options, please go to QP-TA sheet

See footnotes for more detailed information

ThinkPad T430 2349 (Onsite) - 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	Bat-tery Blue-tooth cells	Global (G) Intel vPro (P)	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
2349-JQU	i7-3520M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 6205 ²⁸	WWAN upg	Finger	BT 6	vPro	G P	Win8 Pro64	10/12
2349-JPU	i5-3320M	4GBx1	14.0" HD+	720p	180G SSD	None	Intel 6205	WWAN upg	Finger	BT 6	vPro	G P	Win8 Pro64	10/12
2349-JNU	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT 6	vPro	G P	Win8 Pro64	10/12
2349-JMU	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	None	Intel 6205	WWAN upg	Finger	BT 6	vPro	G P	Win8 Pro64	10/12
2349-LTU	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT 6	vPro		Win7 Pro64	12/12
2349-LSU	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT 6	vPro		Win7 Pro64	12/12
2349-LRU	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT 6	vPro		Win7 Pro64	12/12

• 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™ i5-3320M 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)
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® • 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 • 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 • Skype™
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)	Supports ThinkVantage® technologies
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	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
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	For compatible accessories, please go to O-T430 sheet;
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	For Lenovo service ²² upgrade options, please go to QP-TA sheet
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 Carrier 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-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available	

See footnotes for more detailed information

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ThinkPad T430 2349 (Optimus) - Onsite

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	Bat-tery Blue-tooth cells	Global (G) Intel vPro	Global (G) GMP (P)	Preload (mm/yy)	Ann Date
2349-G9U	i7-3520M	4GBx1	14.0" HD+	720p	180G SSD	None	Intel 6205 ²⁸	WWAN upg	Finger	BT	9	vPro G P	Pro 64	06/12
2349-G7U	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	9	vPro G P	Pro 64	06/12
2349-G6U	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	9	vPro G P	Pro 64	06/12
2349-G4U	i5-3320M	4GBx1	14.0" HD+	720p	320G 7200	None	Intel 6205	WWAN upg	Finger	BT	9	vPro G P	Pro 64	06/12

• 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™ i5-3320M 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: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high</i> <i>Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™</i> <i>All: removable, upgradable, supports the second disk, Shock Mounted Hard Drive</i>										
mSATA™ SSD	None										
Widescreen display	<i>Some: 14.0" (355mm) HD (1366x768) color, anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio</i> <i>Some: 14.0" (355mm) HD+ (1600x900) color, anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio</i>										
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: 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)</i>										
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): 13.4" x 9.13" x 1.17–1.18"; 340.5mm x 232.0mm x 29.8–29.9mm</i> <i>6-cell: from 4.77 lb (2.17kg); 9-cell: from 5.13 lb (2.33kg)</i> <i>Display cover: Carbon-fiber / Glass-fiber hybrid;</i> <i>Bottom: Carbon-Fiber Reinforced Plastic</i>										
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): up to 9.4 hr; 9-cell (94Whr): up to 15.8 hr;</i> <i>9-cell plus 9-cell Slice battery (94Whr, 0A36304): up to 31.6 hr</i>										
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 Carrier 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										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
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										For compatible accessories, please go to O-T430 sheet;
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available										For Lenovo service ²² upgrade options, please go to QP-TA sheet

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	Camera	Disk SATA GB ⁵ rpm	Backlit keyboard	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Bat-tery Intel vPro	Preload	Ann Date (mm/yy)
2349-LUU	i7-3520M	4GBx1	14.0" HD+	720p	180G SSD	Backlit	Intel 6205 ²⁸	WWAN upg	Finger	BT 9	vPro Win7 Pro64	12/12

Positioning Processor	<i>Premiere performance; two spindles</i> 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 • 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 • 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) • Skype™
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	<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, OA36304):</i> up to 31.6 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 Carrier 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										
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 holidays, next business day response time / service upgrades ²² available										
	Supports ThinkVantage® technologies										
	90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²										
	For compatible accessories, please go to O-T430 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet										

See footnotes for more detailed information

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ThinkPad T430i 2342 (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	Battery cells	Intel AMT	Intel vPro	Preload (mm/yy)	Ann Date
2342-2ZU	i3-2370M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 2200	WWAN upg	None	None	6	None	None	Pro 64	06/12
2342-2YU	i3-2370M	4GBx1	14.0" HD	720p	320G 7200	None	Intel 2200	WWAN upg	None	None	6	None	None	Pro 64	06/12

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, 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	
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier 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 None None 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											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	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None											For compatible accessories, please go to O-T430 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet	
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available												

See footnotes for more detailed information

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Memory

2GB PC3-12800 DDR3 SODIMM	0A65722	ann	06/05/12
4GB PC3-12800 DDR3 SODIMM	0A65723	ann	06/05/12
8GB PC3-12800 DDR3 SODIMM	0A65724	ann	06/05/12

Ultrabay Enhanced 12.7mm

Serial ATA Hard Drive 12.7mm Bay Adapter III	0A65623	ann	02/28/12
DVD Burner Ultrabay Enhanced Drive III	0A65625	ann	06/05/12

Storage and removable storage

ThinkPad 16GB mSATA Solid State Cache Drive	0B47309	ann	12/11/12
500GB 5400rpm SATA 3.0Gb/s 7mm 4K HDD ⁴¹	0A65631	ann	06/05/12
500GB 7200rpm SATA 3.0Gb/s 7mm 4K HDD ⁴¹	0A65632	ann	06/05/12
320GB 7200rpm SATA 3.0Gb/s 7mm 4K HDD ⁴¹	0A65635	ann	06/05/12
320GB 7200rpm SATA 3.0Gb/s 7mm			
Self Encrypting (SED) OPAL Capable HDD ⁴¹	0A65636	ann	08/21/12
128GB SATA 6.0Gb/s 7mm Solid State Drive ⁴¹	0A65629	ann	06/05/12
180GB SATA 6.0Gb/s 7mm Solid State Drive ⁴¹	0A65630	ann	06/05/12
256GB 2.5" SATA 6.0Gb/s OPAL-capable SSD ⁴¹	0A65620	ann	05/15/12

⁴¹ Can be used as the main HDD or with Serial ATA Hard Drive 12.7mm Bay Adapter III 0A65623 in the Ultrabay.

USB 2.0 Portable 500GB Hard Disk	45K1690	ann	05/26/09
USB 3.0 Secure 500GB Hard Drive	0A65619	ann	11/29/11
USB 3.0 Secure 750GB Hard Drive	0A65616	ann	11/29/11
USB 3.0 Secure 1TB Hard Drive	0A65621	ann	08/28/12
Lenovo Slim USB Portable DVD Burner	0A33988	ann	06/14/11

Wireless WAN (Mini PCI Express)

<i>Only WWAN upgradable models:</i>			
ThinkPad Gobi™ 3000 Mobile Broadband	0A36185	ann	04/12/11
ThinkPad Gobi 4000 Mobile Broadband - AT&T®	0A36320	ann	06/05/12
ThinkPad Gobi 4000 Mobile Broadband - Verizon®	0A36318	ann	06/26/12

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann	05/12/09
ThinkPad Port Replicator Series 3 with USB 3.0	433615W	ann	06/05/12
ThinkPad Mini Dock Series 3 - 90W	433710U	ann	06/23/09
ThinkPad Mini Dock Series 3 w/ USB 3.0 - 90W	433715U	ann	06/05/12
TP Mini Dock Plus Series 3 w/ USB 3.0 - 90W	433815U	ann	06/05/12
TP Mini Dock Plus Series 3 w/ USB 3.0 - 170W	433835U	ann	06/05/12

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
Ultralim Plus Wireless Keyboard and Mouse ⁵²	0A34032	ann	04/05/11
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann	08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

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

Mouse

Lenovo Optical Mouse (USB)	06P4069	ann	05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann	01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann	12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann	08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann	06/04/02
ThinkPad Bluetooth Laser Mouse	0A36407	ann	06/26/12
Lenovo Wireless Laser Mouse ⁵²	0A36188	ann	12/20/11

Multimedia

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

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

3M 14.0W Privacy Filter from Lenovo	0A61769	ann	04/05/11
Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06

Batteries

ThinkPad Battery 70+ (6-cell)	0A36302	ann	06/05/12
ThinkPad Battery 70++ (9-cell)	0A36303	ann	06/05/12
ThinkPad Battery 28++ (9 cell, slice) ⁴³	0A36304	ann	06/05/12

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

ThinkPad External Battery Charger ⁴⁴	40Y7625	ann	09/20/05
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⁴⁴ Requires the *ThinkPad 90W AC Adapter 40Y7659* or the adapter provided with the system.

More information at www.lenovo.com/alldaycomputing

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

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

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

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

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

More information at www.lenovopowertips.com

Carrying Cases

Up to 15.6" widescreen models:

Lenovo Messenger Max	41U5253	ann	05/01/07
Lenovo Performance Backpack	41U5254	ann	05/01/07
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08
Lenovo Sport Backpack - Red	0A33896	ann	02/28/12
Lenovo Sport Slimcase - Red	0A33897	ann	02/28/12
Lenovo Sport Messenger - Red	0A33898	ann	02/28/12

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

Monitors

ThinkVision LT1952p Wide 19" (VGA, DP, DVI-D) ⁶⁹	2448MB6	ann	09/13/11
ThinkVision L2251x Wide 22" (VGA, DP) ⁶⁹	2578HB6	ann	10/20/09

⁶⁹ DisplayPort cable is not included.

ThinkVision LT1421 Wide 14" Mobile Monitor with Protective Screen Cover (USB 2.0)	1452DS6	ann	08/16/11
ThinkVision LT1421 Wide 14" Mobile Monitor with Protective Case (USB 2.0)	1452DB6	ann	08/16/11

More information at www.lenovo.com/support/monitors
www.lenovo.com/support/thinkpad/optimus-monitors

Monitor Accessories⁴⁶

Lenovo USB 3.0 to DVI/VGA Monitor Adapter	0B47072	ann	08/14/12
Lenovo Mini-DisplayPort to VGA Monitor Cable	0A36536	ann	05/17/11
Mini-DisplayPort to Single-link DVI Monitor Cable	0B47090	ann	06/26/12
Mini-DisplayPort to DisplayPort Monitor Cable	0B47091	ann	07/24/12
Lenovo USB Soundbar	0A36190	ann	05/01/12
Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

For more information on accessories:

www.lenovo.com/accessories

Purchase Lenovo accessories

www.lenovo.com/support/accessories

Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide

Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com

An Options Compatibility Configurator for Lenovo systems



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

ThinkPad T430s 2352 (TopSeller)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Disk SATA GB ⁸ rpm	Optical or Blank bezel	Backlit keyboard	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Finger print reader	Bay battery cells	Bat-tery cells	Intel AMT	Intel vPro	Pre-load	Ann Date (mm/yy)
2352-2KU	i5-3320M	4GBx1	14.0" HD+	128G SSD	Blank bezel	None	Intel 6205 ²⁸	upg	Finger	3	6	iAMT	vPro	Pro 64	06/12
2352-2JU	i5-3320M	4GBx1	14.0" HD+	320G 7200	DVD±RW	None	TP 11b/g/n	upg	None	No	6	None	None	Pro 64	06/12

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

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 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 Bay battery Ultrabay SATA disk	<i>Some:</i> DVD burner, 9.5mm Ultrabay slim, removable <i>Some:</i> ThinkPad Battery 43 (3-cell, bay) (0A36310), used in Option Bay 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	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® 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	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2	Supports ThinkVantage® technologies
PCIe WWAN Carrier 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® Home Theater® v4 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack	65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ 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
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	For compatible accessories, please go to O-T430-S sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

See footnotes for more detailed information

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(SN4-1) November 2012

ThinkPad T430s 2353 (TopSeller)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Disk SATA GB ³ rpm	Optical or battery	Backlit keyboard	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Finger print reader	Bat- tery cells	Power Adapter (watt)	Intel vPro	Preload (mm/yy)	Ann Date
2353-2NU	i7-3520M	4GBx1	14.0" HD+	180G SSD	DVD±RW	None	Intel 6205 ²⁸	WWAN upg	Finger	6	90W	vPro	Pro 64	06/12
2353-2MU	i5-3320M	4GBx1	14.0" HD+	500G 7200	DVD±RW	None	Intel 6205	WWAN upg	Finger	6	65W	vPro	Pro 64	06/12
2353-2LU	i5-3320M	4GBx1	14.0" HD+	128G SSD	DVD±RW	None	Intel 6205	WWAN upg	Finger	6	65W	vPro	Pro 64	06/12
2353-6GU	i7-3520M	4GBx1	14.0" HD+	500G 7200	DVD±RW	Backlit	Intel 6205	WWAN upg	Finger	6	65W	vPro	Pro 64	07/12
2353-6FU	i7-3520M	4GBx1	14.0" HD+	180G SSD	DVD±RW	Backlit	Intel 6205	WWAN upg	Finger	6	65W	vPro	Pro 64	07/12
2353-6DU	i5-3320M	4GBx1	14.0" HD+	180G SSD	DVD±RW	Backlit	Intel 6205	WWAN upg	Finger	6	65W	vPro	Pro 64	07/12
2353-6AU	i5-3320M	4GBx1	14.0" HD+	128G SSD	DVD±RW	Backlit	Intel 6205	WWAN upg	Finger	6	65W	vPro	Pro 64	07/12
2353-69U	i5-3320M	4GBx1	14.0" HD+	500G 7200	DVD±RW	Backlit	Intel 6205	WWAN upg	Finger	6	65W	vPro	Pro 64	07/12

- **Small and medium business (SMB) model(s), part of the US TopSeller™ Program**
- **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 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 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 Carrier 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® 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 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
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	For compatible accessories, please go to O-T430-S sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades²² available	

See footnotes for more detailed information

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(SN4-2) November 2012

ThinkPad T430s 2353 (TopSeller) - Windows 8

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Disk SATA GB ² rpm	Optical or battery	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Finger print reader	Bat-tery cells	Intel vPro	Preload	Ann Date (mm/yy)
2353-9VU	i7-3520M	4GBx1	14.0" HD+	500G 7200	DVD±RW	None	Intel 6205 ²⁸	WWAN upg	Finger	6	vPro	Win7 Pro64	10/12
2353-9MU	i5-3320M	4GBx1	14.0" HD+	128G SSD	DVD±RW	Backlit	Intel 6205	WWAN upg	Finger	6	vPro	Win7 Pro64	10/12
2353-9LU	i5-3320M	4GBx1	14.0" HD+	500G 7200	DVD±RW	Backlit	Intel 6205	WWAN upg	Finger	6	vPro	Win7 Pro64	10/12
2353-6HU	i7-3520M	4GBx1	14.0" HD+	500G 7200	DVD±RW	Backlit	Intel 6205	WWAN upg	Finger	6	vPro	Win8 Pro64	10/12
2353-6EU	i7-3520M	4GBx1	14.0" HD+	180G SSD	DVD±RW	Backlit	Intel 6205	WWAN upg	Finger	6	vPro	Win8 Pro64	10/12
2353-6CU	i5-3320M	4GBx1	14.0" HD+	180G SSD	DVD±RW	Backlit	Intel 6205	WWAN upg	Finger	6	vPro	Win8 Pro64	10/12
2353-6BU	i5-3320M	4GBx1	14.0" HD+	128G SSD	DVD±RW	Backlit	Intel 6205	WWAN upg	Finger	6	vPro	Win8 Pro64	10/12
2353-68U	i5-3320M	4GBx1	14.0" HD+	500G 7200	DVD±RW	Backlit	Intel 6205	WWAN upg	Finger	6	vPro	Win8 Pro64	10/12
2353-B5U	i5-3320M	4GBx1	14.0" HD+	128G SSD	DVD±RW	Backlit	Intel 6205	WWAN upg	None	6	vPro	Win7 Pro64	07/13
2353-B4U	i5-3320M	4GBx1	14.0" HD+	500G 7200	DVD±RW	Backlit	Intel 6205	WWAN upg	None	6	vPro	Win7 Pro64	07/13
2353-AZU	i5-3320M	4GBx1	14.0" HD+	256G SSD OPAL	DVD±RW	Backlit	Intel 6205	WWAN upg	None	6	vPro	Win7 Pro64	07/13
2353-AYU	i5-3320M	4GBx1	14.0" HD+	256G SSD OPAL	DVD±RW	Backlit	Intel 6205	WWAN upg	Finger	6	vPro	Win7 Pro64	07/13
2353-AXU	i5-3320M	4GBx1	14.0" HD+	320G 7200 OPAL	DVD±RW	Backlit	Intel 6205	WWAN upg	None	6	vPro	Win7 Pro64	07/13

- **Small and medium business (SMB) model(s), part of the US TopSeller™ Program**
- **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 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 Bay battery	DVD burner, 9.5mm Ultrabay slim, removable None	- Windows 7 models
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	<ul style="list-style-type: none"> • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
mSATA™ SSD	None	- Windows 8 models
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	<ul style="list-style-type: none"> • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW)
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus	- All models
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)	<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™
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	<i>14.0W" (WxDxH):</i> 13.5" x 9.05" x 0.83–1.02"; 343mm x 230mm x 21.2–26.0mm	
Weight ²	<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, 0A36310):</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	Supports ThinkVantage® technologies
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2	
PCIe WWAN	Wireless WAN upgradable	
Carrier	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	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
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	For compatible accessories, please go to O-T430-S sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet
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 T430s 2353 (Optimus) - TopSeller

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	Optical or battery	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Bat-tery Intel vPro	Pre-load	Ann Date (mm/yy)	
2353-5UU	i5-3210M	4GBx1	14.0" HD	720p	500G 7200	DVD±RW	None	Intel 6205 ²⁸	WWAN upg	None	No	6	None	Pro 64	07/12
2353-66U	i5-3210M	4GBx1	14.0" HD	720p	500G 7200	DVD±RW	Backlit	Intel 6205	WWAN upg	Finger	BT	6	None	Pro 64	07/12

Positioning Processor	<i>Premiere performance and ultraportability; 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 Bay battery	DVD burner, 9.5mm Ultrabay slim, removable										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)				
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®	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight														
Touchpad UltraNav™	ThinkPoint® 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; 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										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				
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2														
PCIe WWAN	Wireless WAN upgradable														
Carrier	None														
Modem	None														
IEEE 1394	None														
Bluetooth™	<i>Some:</i> 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® 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										For compatible accessories, please go to O-T430-S sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet				
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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(SN4-7) April 2013

ThinkPad T430s 2353 (Optimus) - TopSeller (Windows 8)

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	Finger print reader	Battery cells	Intel AMT	Intel vPro	Preload	Ann Date (mm/yy)
2353-9WU	i7-3520M	4GBx1	14.0" HD+	720p	180G SSD	Backlit	Intel 6205 ²⁸	WWAN upg	Finger	6	iAMT	vPro	Win7 Pro64	10/12
2353-9KU	i5-3210M	4GBx1	14.0" HD+	720p	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	6	None	No	Win7 Pro64	10/12
2353-67U	i5-3210M	4GBx1	14.0" HD	720p	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	6	None	No	Win8 Pro64	10/12
2353-ALU	i5-3230M	4GBx1	14.0" HD	720p	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	6	None	No	Win8 Pro64	02/13
2353-ABU	i5-3230M	4GBx1	14.0" HD+	720p	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	6	None	No	Win7 Pro64	02/13
2353-B7U	i5-3230M	4GBx1	14.0" HD+	720p	500G 7200	Backlit	Intel 6205	WWAN upg	None	6	None	No	Win7 Pro64	07/13
2353-B6U	i7-3520M	4GBx1	14.0" HD+	720p	180G SSD	Backlit	Intel 6205	WWAN upg	None	6	iAMT	vPro	Win7 Pro64	07/13
2353-B3U	i7-3520M	4GBx1	14.0" HD+	720p	256G SSD OPAL	Backlit	Intel 6205	WWAN upg	Finger	6	iAMT	vPro	Win7 Pro64	07/13
2353-B2U	i7-3520M	4GBx1	14.0" HD+	720p	256G SSD OPAL	Backlit	Intel 6205	WWAN upg	None	6	iAMT	vPro	Win7 Pro64	07/13

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

Positioning Processor	<i>Premiere performance and ultraportability; 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 - <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	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 • 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 • 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™
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 <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, auto 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	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, 0A36310): up to 13.2 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) 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 Carrier 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® 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 <i>Some:</i> AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ 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
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades²² available	For compatible accessories, please go to O-T430-S sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet

See footnotes for more detailed information

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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	Carrier	Finger print reader	Bat-tery cells	Bay battery cells	Global (G) Intel vPro	GMP (P)	Pre-load	Ann Date (mm/yy)
2355-HMU	i7-3520M	4GBx1	14.0" HD+	720p	320G 7200	None	Intel 6205 ²⁸	WWAN upg	None	Finger	6	No	vPro	G	Pro 64	06/12
2355-HLU	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	None	Finger	6	No	vPro	G	Pro 64	06/12
2355-HKU	i7-3520M	4GBx2	14.0" HD+	720p	180G SSD	None	Intel 6205	WWAN upg	None	Finger	6	No	vPro	G	Pro 64	06/12
2355-HFU	i5-3320M	4GBx1	14.0" HD+	720p	128G SSD	None	Intel 6205	WWAN upg	None	Finger	6	No	vPro	G	Pro 64	06/12
2355-HEU	i5-3320M	4GBx1	14.0" HD+	720p	128G SSD	None	Intel 6205	Gobi 3000	select	Finger	6	No	vPro	G	Pro 64	06/12
2355-HDU	i5-3320M	4GBx1	14.0" HD+	None	320G 7200	None	Intel 6205	WWAN upg	None	Finger	6	3	vPro	G	Pro 64	06/12
2355-HCU	i5-3320M	4GBx1	14.0" HD+	720p	128G SSD	None	Intel 6205	WWAN upg	None	Finger	6	3	vPro	G	Pro 64	06/12
2355-GUU	i5-3320M	4GBx1	14.0" HD+	720p	320G 7200	None	Intel 6205	WWAN upg	None	None	6	No	vPro	G	Pro 64	06/12
2355-GTU	i5-3320M	4GBx1	14.0" HD+	720p	128G SSD	None	Intel 6205	WWAN upg	None	None	6	No	vPro	G	Pro 64	06/12
2355-GMU	i7-3520M	4GBx1	14.0" HD+	720p	320G 7200	None	Intel 6205	WWAN upg	None	None	6	No	vPro	G	Pro 64	06/12
2355-G3U	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	None	Finger	6	No	vPro	G	Pro 64	06/12
2355-G2U	i5-3320M	4GBx1	14.0" HD+	720p	320G 7200	None	Intel 6205	WWAN upg	None	Finger	6	No	vPro	G	Pro 64	06/12
2355-K8U	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	Gobi 4000	AT&T	Finger	6	No	vPro	G	Pro 64	09/12

• 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 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 Bay battery	DVD burner, 9.5mm Ultrabay slim, removable <i>Some:</i> ThinkPad Battery 43 (3-cell, bay) (0A36310), used in Option Bay	
Ultrabay	One modular bay for interchangeable devices (right side), 9.5mm high, bottom access	
SATA disk	<i>Some:</i> Solid State Drive (SSD) / SATA 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 <i>None</i>	
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	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 (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	<i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS <i>Some:</i> Wireless WAN, Qualcomm Gobi™ 4000 chipset, PCIe Mini Card, LTE, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS	
Carrier	<i>Some:</i> User selectable, AT&T®, Verizon®, or Sprint®, contract required with service provider <i>Some:</i> AT&T® LTE (4G), 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	
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 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
		For compatible accessories, please go to O-T430-S sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet

ThinkPad T430s 2355 (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	Bay battery cells	Global (G) Intel vPro (P)	Ann Date (mm/yy)
2355-K7U	i7-3520M	4GBx1	14.0" HD+	720p	180G SSD	None	Intel 6205 ²⁸	WWAN upg	Finger	6	No	vPro G	Win8 Pro64 10/12
2355-JQU	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	6	No	vPro	Win8 Pro64 10/12
2355-JCU	i5-3320M	4GBx1	14.0" HD+	720p	320G 7200	None	Intel 6205	WWAN upg	Finger	6	No	vPro	Win8 Pro64 10/12
2355-KNU	i5-3320M	4GBx1	14.0" HD+	720p	180G SSD	None	Intel 6205	WWAN upg	Finger	6	No	vPro	Win7 Pro64 12/12
2355-KMU	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	6	No	vPro	Win7 Pro64 12/12

• 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 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 Bay battery	DVD burner, 9.5mm Ultrabay slim, removable	- Windows 7 models
Ultrabay SATA disk	None 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	<ul style="list-style-type: none"> Lenovo® Message Center Plus ThinkVantage Product Recovery Access Connections™ ThinkVantage Power Manager Lenovo SimpleTap Corel® WinDVD® (DVD±RW) Corel Burn.Now™ Lenovo Edition (DVD±RW) Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
mSATA™ SSD	None	- Windows 8 models
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	<ul style="list-style-type: none"> Lenovo Support Lenovo Companion Lenovo QuickLaunch PC Device Stage Cyberlink Power2Go (DVD±RW) Cyberlink PowerProducer (DVD±RW)
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus	- All models
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)	<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™
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 (Mini DP / Thunderbolt™ combo port on i7 integrated model, switch via BIOS)	
PCIe Mini Card	Two PCI Express Mini Card slots	Supports ThinkVantage® technologies
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2	
PCIe WWAN	Wireless WAN upgradable	
Carrier	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	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
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	For compatible accessories, please go to O-T430-S sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet
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 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	Bat-tery Blue-tooth cells	Global (G) Intel vPro (P)	Ann Date (mm/yy)
2355-HJU	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-HHU	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-HGU	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 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 Bay battery	DVD burner, 9.5mm Ultrabay slim, removable	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)
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	14.0W" (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, 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	
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier 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® 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	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
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	For compatible accessories, please go to O-T430-S sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet

See footnotes for more detailed information

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(SN4-4) November 2012

ThinkPad T430s 2355 (Optimus) - 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	Bat-tery cells	Global (G) Intel vPro	GMP (P)	Preload	Ann Date (mm/yy)
2355-K6U	i5-3320M	4GBx1	14.0" HD+	720p	180G SSD	None	Intel 6205 ²⁸	WWAN upg	Finger	6	vPro	G	Win8 Pro64	10/12
2355-JEU	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	6	vPro	G	Win8 Pro64	10/12
2355-KPU	i7-3520M	4GBx1	14.0" HD+	720p	240G FDE SSD	Backlit	Intel 6205	WWAN upg	Finger	6	vPro	G	Win7 Pro64	12/12

• 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 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	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 Bay battery Ultrapay SATA disk	DVD burner, 9.5mm Ultrapay slim, removable None 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	- Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • 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 • 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) • Skype™
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	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 Ultrapay 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 Carrier 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® 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	Supports ThinkVantage® technologies
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	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
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	For compatible accessories, please go to O-T430-S sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet

See footnotes for more detailed information

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ThinkPad T430s 2356 (Onsite)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	Optical or battery	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Carrier	Finger-print reader	Bat-tery cells	Global (G) Intel vPro (P)	Ann Date (mm/yy)
2356-HCU	i7-3520M	4GBx1	14.0" HD	720p	500G 7200	DVD±RW	None	Intel 6205 ²⁸	WWAN upg	None	Finger	6	vPro G P	Pro 64 06/12
2356-HBU	i7-3520M	4GBx1	14.0" HD+	720p	320G 7200	DVD±RW	None	Intel 6205	WWAN upg	None	Finger	6	vPro G P	Pro 64 06/12
2356-HAU	i7-3520M	4GBx2	14.0" HD+	720p	180G SSD	DVD±RW	None	Intel 6205	WWAN upg	None	Finger	6	vPro G P	Pro 64 06/12
2356-GUU	i7-3520M	4GBx1	14.0" HD+	720p	320G 7200	DVD±RW	None	Intel 6205	WWAN upg	None	None	6	vPro G P	Pro 64 06/12
2356-GTU	i5-3320M	4GBx1	14.0" HD+	None	320G 7200	DVD±RW	None	Intel 6205	WWAN upg	None	Finger	6	vPro G P	Pro 64 06/12
2356-GRU	i5-3320M	4GBx1	14.0" HD+	720p	128G SSD	DVD±RW	None	Intel 6205	WWAN upg	None	Finger	6	vPro G P	Pro 64 06/12
2356-GPU	i5-3320M	4GBx1	14.0" HD+	720p	320G 7200	DVD±RW	None	Intel 6205	WWAN upg	None	None	6	vPro G P	Pro 64 06/12
2356-GJU	i5-3320M	4GBx1	14.0" HD+	720p	128G SSD	DVD±RW	None	Intel 6205	WWAN upg	None	None	6	vPro G P	Pro 64 06/12
2356-G3U	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	DVD±RW	None	Intel 6205	WWAN upg	None	Finger	6	vPro G P	Pro 64 06/12
2356-G2U	i5-3320M	4GBx1	14.0" HD+	720p	320G 7200	DVD±RW	None	Intel 6205	WWAN upg	None	Finger	6	vPro G P	Pro 64 06/12

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

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5-3320M 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
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 Bay battery	DVD burner, 9.5mm Ultrabay slim, removable None	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)
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	<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	<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 Carrier 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® 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 <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 holidays, next business day response time / service upgrades ²² available	Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² For compatible accessories, please go to O-T430-S sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet

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 ³ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Battery cells	Global (G) Intel vPro (P)	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
2356-LDU	i7-3520M	4GBx1	14.0" HD+	720p	180G SSD	None	Intel 6205 ²⁸	WWAN upg	Finger	6	vPro	G P	Win8 Pro64	10/12
2356-LAU	i5-3320M	4GBx1	14.0" HD+	720p	320G 7200	None	Intel 6205	WWAN upg	Finger	6	vPro	G P	Win8 Pro64	10/12
2356-MHU	i5-3320M	4GBx1	14.0" HD+	720p	180G SSD	None	Intel 6205	WWAN upg	Finger	6	vPro		Win7 Pro64	12/12
2356-MGU	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	6	vPro		Win7 Pro64	12/12

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

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5-3320M 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)
Optical Bay battery	DVD burner, 9.5mm Ultrabay slim, removable None	- Windows 7 models
Ultrabay SATA disk	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	<ul style="list-style-type: none"> Lenovo® Message Center Plus ThinkVantage Product Recovery Access Connections™ ThinkVantage Power Manager Lenovo SimpleTap Adobe® Reader® Corel® WinDVD® (DVD±RW) Corel Burn.Now™ Lenovo Edition (DVD±RW) Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
mSATA™ SSD	None	- Windows 8 models
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	<ul style="list-style-type: none"> Lenovo Solution Center Lenovo Companion Lenovo QuickLaunch PC Device Stage Cyberlink Power2Go (DVD±RW) Cyberlink PowerProducer (DVD±RW)
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus	- All models
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>	<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™
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	<i>14.0W" (WxDxH): 13.5" x 9.05" x 0.83–1.02"; 343mm x 230mm x 21.2–26.0mm</i>	
Weight ²	<i>6-cell: from 3.96 lb (1.79kg)</i>	
Case material	<i>Display cover: Hybrid Carbon-fiber reinforced plastic; Bottom: Magnesium alloy</i>	
Battery - type	Lithium Ion 6-cell, supports optional Ultrabay Slim battery as 2nd battery, HW authentication	
Battery - life ¹⁰	<i>6-cell (43.2Whr): up to 7.6 hr; 6-cell plus 3-cell Bay battery (31.3Whr, 0A36310): up to 13.2 hr</i>	
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	Supports ThinkVantage® technologies
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2	
PCIe WWAN	Wireless WAN upgradable	
Carrier	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	For compatible accessories, please go to O-T430-S sheet;
Limited warranty ¹²	3-years /1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available	For Lenovo service ²² upgrade options, please go to QP-TA sheet

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 ³ rpm	Optical or battery	Backlit keyboard	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Bat-tery cells	Global (G) Intel vPro	Global (G) GMP (P)	Pre-load	Ann Date (mm/yy)
2356-H9U	i5-3320M	4GBx2	14.0" HD+	720p	180G SSD	DVD±RW	None	Intel 6205 ²⁸	WWAN upg	Finger	BT	6	vPro	G P	Pro 64	06/12
2356-H8U	i5-3320M	4GBx1	14.0" HD+	720p	320G 7200	DVD±RW	None	Intel 6205	WWAN upg	Finger	BT	6	vPro	G P	Pro 64	06/12
2356-H7U	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	DVD±RW	None	Intel 6205	WWAN upg	Finger	BT	6	vPro	G P	Pro 64	06/12

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

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5-3320M 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 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 Bay battery	DVD burner, 9.5mm Ultrabay slim, removable	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)
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®	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 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, 0A36310):</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	Supports ThinkVantage® technologies
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2	
PCIe WWAN	Wireless WAN upgradable	
Carrier	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	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
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 holidays, next business day response time / service upgrades ²² available	For compatible accessories, please go to O-T430-S sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet

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	Camera	Disk SATA GB ⁹ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Finger print reader	Bat-tery cells	Intel vPro	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
2356-LCU	i5-3320M	4GBx1	14.0" HD+	720p	180G SSD	None	Intel 6205 ²⁸	WWAN upg	Finger	6	vPro	G P	Win8 Pro64	10/12
2356-LBU	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	6	vPro	G P	Win8 Pro64	10/12
2356-L9U	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	6	vPro		Win8 Pro64	10/12
2356-MJU	i7-3520M	4GBx1	14.0" HD+	720p	240G FDE SSD	Backlit	Intel 6205	WWAN upg	Finger	6	vPro		Win7 Pro64	12/12

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

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5-3320M 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)
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 <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® • 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	- Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW)
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)	- 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™
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	
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier 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® 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 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
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	For compatible accessories, please go to O-T430-S sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet
Limited warranty ¹²	3-years /1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available	

See footnotes for more detailed information

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ThinkPad T430s Accessories

Product Specifications Reference (PSREF)

Memory		
2GB PC3-12800 DDR3 SODIMM	0A65722	ann 06/05/12
4GB PC3-12800 DDR3 SODIMM	0A65723	ann 06/05/12
8GB PC3-12800 DDR3 SODIMM	0A65724	ann 06/05/12

Ultrabay Slim 9.5mm		
Serial ATA Hard Drive 9.5mm Bay Adapter III	43N3412	ann 06/23/09
DVD ROM Ultrabay Slim Drive III	0A65628	ann 06/05/12
DVD Burner Ultrabay Slim Drive III	0A65626	ann 06/05/12

Storage and removable storage		
ThinkPad 16GB mSATA Solid State Cache Drive	0B47309	ann 12/11/12
500GB 5400rpm SATA 3.0Gb/s 7mm 4K HDD ⁴¹	0A65631	ann 06/05/12
500GB 7200rpm SATA 3.0Gb/s 7mm 4K HDD ⁴¹	0A65632	ann 06/05/12
320GB 7200rpm SATA 3.0Gb/s 7mm 4K HDD ⁴¹	0A65635	ann 06/05/12
320GB 7200rpm SATA 3.0Gb/s 7mm Self Encrypting (SED) OPAL Capable HDD ⁴¹	0A65636	ann 08/21/12
128GB SATA 6.0Gb/s 7mm Solid State Drive ⁴¹	0A65629	ann 06/05/12
180GB SATA 6.0Gb/s 7mm Solid State Drive ⁴¹	0A65630	ann 06/05/12
256GB 2.5" SATA 6.0Gb/s OPAL-capable SSD ⁴¹	0A65620	ann 05/15/12

⁴¹ Can be used as the main HDD or with Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 in the Ultrabay.

USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 3.0 Secure 500GB Hard Drive	0A65619	ann 11/29/11
USB 3.0 Secure 750GB Hard Drive	0A65616	ann 11/29/11
USB 3.0 Secure 1TB Hard Drive	0A65621	ann 08/28/12
Lenovo Slim USB Portable DVD Burner	0A33988	ann 06/14/11

Wireless WAN (Mini PCI Express)		
<i>Only WWAN upgradable models:</i>		
ThinkPad Gobi™ 3000 Mobile Broadband	0A36185	ann 04/12/11
ThinkPad Gobi 4000 Mobile Broadband - AT&T®	0A36320	ann 06/05/12
ThinkPad Gobi 4000 Mobile Broadband - Verizon®	0A36318	ann 06/26/12

ThinkPad Expansion		
Lenovo® Essential Notebook Stand	45J9292	ann 05/12/09
ThinkPad Port Replicator Series 3 with USB 3.0	433615W	ann 06/05/12
ThinkPad Mini Dock Series 3 - 90W	433710U	ann 06/23/09
ThinkPad Mini Dock Series 3 w/ USB 3.0 - 90W	433715U	ann 06/05/12
TP Mini Dock Plus Series 3 w/ USB 3.0 - 90W	433815U	ann 06/05/12
TP Mini Dock Plus Series 3 w/ USB 3.0 - 170W	433835U	ann 06/05/12

Keyboard		
TrackPoint Cap Collection	73P2698	ann 12/16/03
Ultrastim Plus Wireless Keyboard and Mouse ⁵²	0A34032	ann 04/05/11
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann 08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

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

Mouse		
Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann 12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann 06/04/02
ThinkPad Bluetooth Laser Mouse	0A36407	ann 06/26/12
Lenovo Wireless Laser Mouse ⁵²	0A36188	ann 12/20/11

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

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

Security		
3M 14.0W Privacy Filter from Lenovo	0A61769	ann 04/05/11
Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06

Batteries		
ThinkPad Battery 81+ (6-cell)	0A36309	ann 06/05/12
ThinkPad Battery 43 (3-cell, bay) ⁴²	0A36310	ann 06/05/12
⁴² Used in Ultrabay Slim bay.		
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann 09/20/05
⁴⁴ Requires the <i>ThinkPad 90W AC Adapter 40Y7659</i> or the adapter provided with the system.		

More information at www.lenovo.com/alldaycomputing

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

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

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

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

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

More information at www.lenovopowertips.com

Carrying Cases		
<i>Up to 14" widescreen models:</i>		
ThinkPad Ultralight Backpack	0B47306	ann 12/11/12
ThinkPad Ultralight Topload	0B47307	ann 12/11/12

<i>Up to 15.6" widescreen models:</i>		
Lenovo Messenger Max	41U5253	ann 05/01/07
Lenovo Performance Backpack	41U5254	ann 05/01/07
ThinkPad Business Topload Case	43R2476	ann 05/13/08
ThinkPad Business Backpack	43R2482	ann 05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann 05/13/08
ThinkPad Executive Leather Case	43R2480	ann 05/13/08
Lenovo Sport Backpack - Red	0A33896	ann 02/28/12
Lenovo Sport Slimcase - Red	0A33897	ann 02/28/12
Lenovo Sport Messenger - Red	0A33898	ann 02/28/12

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

Monitors		
ThinkVision LT1952p Wide 19" (VGA, DP, DVI-D) ⁶⁹	2448MB6	ann 09/13/11
ThinkVision L2251x Wide 22" (VGA, DP) ⁶⁹	2578HB6	ann 10/20/09
⁶⁹ DisplayPort cable is not included.		
ThinkVision LT1421 Wide 14" Mobile Monitor with Protective Screen Cover (USB 2.0)	1452DS6	ann 08/16/11
ThinkVision LT1421 Wide 14" Mobile Monitor with Protective Case (USB 2.0)	1452DB6	ann 08/16/11

More information at www.lenovo.com/support/monitors
www.lenovo.com/support/thinkpad/optimus-monitors

Monitor Accessories ⁴⁶		
Lenovo USB 3.0 to DVI/VGA Monitor Adapter	0B47072	ann 08/14/12
Lenovo Mini-DisplayPort to VGA Monitor Cable	0A36536	ann 05/17/11
Mini-DisplayPort to Single-link DVI Monitor Cable	0B47090	ann 06/26/12
Mini-DisplayPort to DisplayPort Monitor Cable	0B47091	ann 07/24/12
Lenovo USB Soundbar	0A36190	ann 05/01/12
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

For more information on accessories:
www.lenovo.com/accessories
 Purchase Lenovo accessories
www.lenovo.com/support/accessories
 Product specifications on Lenovo Support
www.lenovo.com/accessoriesguide
 Option Compatibility Matrix (OCM) and accessory brochures
www.lenovoquickpick.com
 An Options Compatibility Configurator for Lenovo systems



Lenovo® ThinkPad T430u



Lenovo ThinkPad T430u



Lenovo ThinkPad T430u



Lenovo ThinkPad T430u



Lenovo ThinkPad T430u



Lenovo ThinkPad T430u

ThinkPad T430u 3351 (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	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Ann Date (mm/yy)
3351-4VU	i5-3317U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n	24GB mSATA	None	BT	3	Pro 64	08/12
3351-33U	i5-3317U	4GBx1	14.0" HD	720p	320G 7200	TP 11a/b/g/n	24GB mSATA	Finger	BT	3	Pro 64	08/12

- **Small and medium business (SMB) model(s), part of the US TopSeller™ Program**
- **Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Mainstream 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	Preloaded operating system^{20F} Genuine Windows® 7 Professional 64
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	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 • 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 • Microsoft® Office 2010 preloaded; purchase product key to activate
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	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 TrackPoint® pointing device, Internet Scroll Bar ¹³	
Touchpad ThinkLight™	UltraNav™, buttonless touchpad below keyboard, multi-touch 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 4.08 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	<i>3-cell (47Whr):</i> 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	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
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	
Carrier	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	<i>Some:</i> AuthenTec fingerprint reader on the keyboard bezel, swipe sensor, LED indicator, supports the security chip	
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	For compatible accessories, please go to O-T430-U sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet

See footnotes for more detailed information

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ThinkPad T430u 3351 (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	Finger print reader	Blue-tooth	Battery cells	Preload	Ann Date (mm/yy)
3351-8EU	i5-3317U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n	24GB mSATA	None	BT	3	Win7 Pro64	10/12
3351-7BU	i5-3427U	4GBx1	14.0" HD	720p	500G 7200	Intel 2230	24GB mSATA	Finger	BT	3	Win8 Pro64	10/12
3351-7AU	i5-3317U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n	24GB mSATA	Finger	BT	3	Win8 Pro64	10/12
3351-B4U	i5-3427U	4GBx1	14.0" HD	720p	500G 7200	Intel 2230	24GB mSATA	Finger	BT	3	Win7 Pro64	02/13
3351-B3U	i5-3337U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n	24GB mSATA	None	BT	3	Win8 Pro64	02/13
3351-B2U	i5-3337U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n	24GB mSATA	None	BT	3	Win7 Pro64	02/13
3351-99U	i5-3337U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n	24GB mSATA	None	BT	3	Win7 Pro64	02/13

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

Positioning	Mainstream Ultrabook™; one spindle										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 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™
Processor	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										
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	None										
SATA disk	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	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; Maximum external resolution: 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	Display cover: Aluminum; Bottom: 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	Some: 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + BT combo adapter Some: 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, 2x2, Wi-Fi + Bluetooth combo adapter										
PCIe WWAN	None										
Carrier	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	Some: AuthenTec fingerprint reader on the keyboard bezel, 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 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										
	For compatible accessories, please go to O-T430-U sheet;										
	For Lenovo service ²² upgrade options, please go to S-TA sheet										

See footnotes for more detailed information

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ThinkPad T430u 8614 (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	Finger print reader	Blue-tooth	Battery cells	Preload	Ann Date (mm/yy)
8614-45U	i5-3427U	4GBx1	14.0" HD	720p	128G SSD	TP 11a/b/g/n	None	Finger	BT	3	Pro 64	08/12
8614-3KU	i5-3427U	4GBx1	14.0" HD	720p	128G SSD	TP 11a/b/g/n	None	Finger	BT	3	Pro 64	08/12
8614-3JU	i5-3427U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n	24GB mSATA	Finger	BT	3	Pro 64	08/12

- Small and medium business (SMB) model(s), part of the US TopSeller™ Program
- 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 ²⁰ 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 TrackPoint® pointing device, Internet Scroll Bar ¹³	
Touchpad ThinkLight™	UltraNav™, buttonless touchpad below keyboard, multi-touch 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 4.08 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	<i>3-cell (47Whr):</i> 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	Supports ThinkVantage® technologies
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	
Carrier	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	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
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	For compatible accessories, please go to O-T430-U sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

See footnotes for more detailed information

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ThinkPad T430u 8614 (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	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Ann Date (mm/yy)
8614-8BU	i5-3427U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n	24GB mSATA	Finger	BT	3	Win7 Pro64	10/12
8614-6WU	i5-3427U	4GBx1	14.0" HD	720p	128G SSD	Intel 2230	None	Finger	BT	3	Win8 Pro64	10/12
8614-6VU	i5-3427U	4GBx1	14.0" HD	720p	500G 7200	Intel 2230	24GB mSATA	Finger	BT	3	Win8 Pro64	10/12
8614-ANU	i5-3427U	4GBx1	14.0" HD	720p	128G SSD	Intel 2230	None	Finger	BT	3	Win7 Pro64	02/13

- **Small and medium business (SMB) model(s), part of the US TopSeller™ Program**
- **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 - 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™
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 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	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 ThinkLight™	UltraNav™, buttonless touchpad below keyboard, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material	14.0W" (WxDxH): 13.39" x 9.29" x 0.83"; 340mm x 236mm x 21mm <i>3-cell:</i> from 4.08 lb (1.85kg) <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 7.1 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	Two PCI Express Mini Card slots Some: 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + BT combo adapter Some: 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, 2x2, Wi-Fi + Bluetooth combo adapter	
PCIe WWAN Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	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-yr battery - depot repair service / service upgrades²² 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	
	For compatible accessories, please go to O-T430-U sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet	

See footnotes for more detailed information

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ThinkPad T430u 3351 (Optimus) - TopSeller

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	Preload	Ann Date (mm/yy)
3351-3ZU	i7-3517U	4GBx1	14.0" HD	720p	128G SSD	TP 11a/b/g/n	None	Finger	BT	3	Pro 64	08/12
3351-3YU	i7-3517U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n	24GB mSATA	Finger	BT	3	Pro 64	08/12
3351-3XU	i7-3517U	4GBx1	14.0" HD	720p	320G 7200	TP 11a/b/g/n	24GB mSATA	Finger	BT	3	Pro 64	08/12
3351-3WU	i3-3217U	4GBx1	14.0" HD	720p	320G 7200	TP 11b/g/n	24GB mSATA	None	No	3	Pro 64	08/12
3351-34U	i5-3317U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n	24GB mSATA	Finger	BT	3	Pro 64	08/12

- Small and medium business (SMB) model(s), part of the US TopSeller™ Program
- Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<p><i>Mainstream Ultrabook™; one spindle</i> Intel® Core™ i3-3217U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), HT technology 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 i7-3517U processor (2 cores, 1.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.0GHz), HT technology</p>										<p>Preloaded operating system^{20F} Genuine Windows® 7 Professional 64</p> <p>Ready to install applications¹⁴ (only some listed)</p> <ul style="list-style-type: none"> • Rescue and Recovery™ • Password Manager
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										<p>Preloaded applications¹⁴ (only some listed)</p> <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 • 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 • Microsoft® Office 2010 preloaded; purchase product key to activate
Optical SATA disk	None <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable 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	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	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	<i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + BT combo adapter										
PCIe WWAN	None										
Carrier	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	<i>Some:</i> AuthenTec fingerprint reader on the keyboard bezel, 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 T430u 8614 (Optimus) - TopSeller

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	Preload	Ann Date (mm/yy)
8614-3MU	i7-3517U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n	24GB mSATA	Finger	BT	3	Pro 64	08/12
8614-3LU	i7-3517U	4GBx1	14.0" HD	720p	128G SSD	TP 11a/b/g/n	None	Finger	BT	3	Pro 64	08/12
8614-3HU	i5-3317U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n	24GB mSATA	None	BT	3	Pro 64	08/12

- **Small and medium business (SMB) model(s), part of the US TopSeller™ Program**
- **A depot repair service 3-year limited warranty**
- **Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Mainstream 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 i7-3517U processor (2 cores, 1.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.0GHz), HT technology							Preloaded operating system^{20F} Genuine Windows® 7 Professional 64				
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets							Ready to install applications¹⁴ (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 applications¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models)				
mSATA™ SSD	<i>Some:</i> mSATA Solid State Drive (SSD), via PCIe Mini Card slot							• ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • 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 • Microsoft® Office 2010 preloaded; purchase product key to activate				
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	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							Supports ThinkVantage® technologies				
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											
Carrier	None											
Modem	None											
IEEE 1394	None											
Bluetooth™	Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter							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				
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	<i>Some:</i> AuthenTec fingerprint reader on the keyboard bezel, swipe sensor, LED indicator, supports the security chip							For compatible accessories, please go to O-T430-U sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet				
Limited warranty ¹² 3-years/1-yr battery - depot repair service / service upgrades ²² available												

See footnotes for more detailed information

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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 ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Ann Date (mm/yy)
8614-8CU	i7-3517U	4GBx1	14.0" HD	720p	128G SSD	TP 11a/b/g/n	None	Finger	BT	3	Win7 Pro64	10/12
8614-6YU	i7-3517U	4GBx1	14.0" HD	720p	128G SSD	Intel 2230	None	Finger	BT	3	Win8 Pro64	10/12
8614-6XU	i7-3517U	4GBx1	14.0" HD	720p	500G 7200	Intel 2230	24GB mSATA	Finger	BT	3	Win8 Pro64	10/12
8614-ARU	i7-3537U	4GBx1	14.0" HD	720p	500G 7200	Intel 2230	24GB mSATA	Finger	BT	3	Win7 Pro64	02/13
8614-AQU	i7-3537U	4GBx1	14.0" HD	720p	500G 7200	Intel 2230	24GB mSATA	Finger	BT	3	Win8 Pro64	02/13
8614-APU	i7-3537U	4GBx1	14.0" HD	720p	128G SSD	Intel 2230	None	Finger	BT	3	Win8 Pro64	02/13
8614-8WU	i7-3537U	4GBx1	14.0" HD	720p	128G SSD	TP 11a/b/g/n	None	Finger	BT	3	Win7 Pro64	02/13

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

Positioning Processor	Mainstream Ultrabook™; one spindle Intel® Core™ i7-3517U processor (2 cores, 1.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.0GHz), HT technology Intel Core i7-3537U processor (2 cores, 2.0GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.1GHz), HT technology							Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit				
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							- Some: Windows 8 Pro 64-bit 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, Active Protection System™							<ul style="list-style-type: none"> - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® 				
mSATA™ SSD	Some: 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							<ul style="list-style-type: none"> - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch 				
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>							<ul style="list-style-type: none"> - 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™ 				
Keyboard	6-row, spill-resistant, multimedia Fn keys							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				
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	Some: 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + BT combo adapter Some: 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, 2x2, Wi-Fi + Bluetooth combo adapter											
PCIe WWAN	None											
Carrier	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							For compatible accessories, please go to O-T430-U sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet				

See footnotes for more detailed information

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ThinkPad T430u 3352

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Bat- tery (G)	Global GMP (P)	Preload	Ann Date (mm/yy)
3352-2SU	i5-3427U	4GBx1	14.0" HD	720p	128G SSD	TP 11a/b/g/n	None	Finger	BT	3	G	Pro 64	08/12
3352-2NU	i5-3427U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n	24GB mSATA	Finger	BT	3		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 ²⁰ 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 TrackPoint® pointing device, Internet Scroll Bar ¹³	
Touchpad ThinkLight™	UltraNav™, buttonless touchpad below keyboard, multi-touch 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 4.08 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	<i>3-cell (47Whr):</i> 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	Supports ThinkVantage® technologies
PCIe WWAN	None	
Carrier	None	
Modem	None	
IEEE 1394	None	
Bluetooth™	Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter	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
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	For compatible accessories, please go to O-T430-U sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades²² available	

See footnotes for more detailed information

ThinkPad T430u 3352 (Windows 8)

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)
3352-3CU	i5-3427U	4GBx1	14.0" HD	720p	128G SSD	Intel 2230	None	Finger	BT	3	G	Win8 Pro64	10/12
3352-33U	i5-3427U	4GBx1	14.0" HD	720p	500G 7200	Intel 2230	24GB mSATA	Finger	BT	3		Win8 Pro64	10/12
3352-3TU	i5-3427U	4GBx1	14.0" HD	720p	128G SSD	TP 11a/b/g/n	None	Finger	BT	3		Win7 Pro64	12/12
3352-3SU	i5-3427U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n	24GB mSATA	Finger	BT	3		Win7 Pro64	12/12
3352-4ZU	i5-3427U	4GBx1	14.0" HD	720p	128G SSD	TP 11a/b/g/n	None	None	BT	3		Win7 Pro64	06/13
3352-4YU	i5-3427U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n	24GB mSATA	None	BT	3		Win7 Pro64	06/13

• 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 - 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 - 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™
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 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	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; Maximum external resolution: 2560x1600 (Mini-DisplayPort or HDMI)@60Hz	
Keyboard TrackPoint®	6-row, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³	
Touchpad 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	Display cover: Aluminum; Bottom: 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	Some: 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + BT combo adapter Some: 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, 2x2, Wi-Fi + Bluetooth combo adapter	
PCIe WWAN	None	
Carrier	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	Some: 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 upgrades²² 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 For compatible accessories, please go to O-T430-U sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet

See footnotes for more detailed information

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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)
6273-2SU	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	<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 ²⁰ 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										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
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	<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 4.08 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	<i>3-cell (47Whr):</i> 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										
Carrier	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 service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available										For compatible accessories, please go to O-T430-U sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet

See footnotes for more detailed information

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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 ³ 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)
6273-23U	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
6273-24U	i5-3427U	8GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n	None	Finger	BT	3	G P	Win8 Pro64	10/12
6273-25U	i5-3427U	8GBx1	14.0" HD	720p	1T 5400	TP 11a/b/g/n	None	Finger	BT	3	G P	Win8 Pro64	10/12
6273-26U	i5-3427U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n	None	Finger	BT	3	G P	Win8 Pro64	10/12
6273-3CU	i5-3427U	4GBx1	14.0" HD	720p	128G SSD	Intel 2230	None	Finger	BT	3	G P	Win8 Pro64	10/12
6273-3DU	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	<i>Mainstream 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	Preloaded operating system²⁰ - Windows® 8 Pro 64-bit Preloaded applications⁵ (only some listed)
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	- Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader®
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™	- Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch
mSATA™ SSD	None	- 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™
Widescreen display Camera	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 500:1 contrast ratio 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® 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 4.08 lb (1.85kg) <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 7.1 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	Two PCI Express Mini Card slots <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 Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	None None None <i>Some:</i> 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	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
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	For compatible accessories, please go to O-T430-U sheet;
Limited warranty ¹²	3-years /1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available	For Lenovo service ²² upgrade options, please go to S-TA sheet

See footnotes for more detailed information

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Memory

2GB PC3-12800 DDR3 SODIMM	0A65722	ann 06/05/12
4GB PC3-12800 DDR3 SODIMM	0A65723	ann 06/05/12
8GB PC3-12800 DDR3 SODIMM	0A65724	ann 06/05/12

Storage and removable storage

USB 3.0 Secure 500GB Hard Drive	0A65619	ann 11/29/11
USB 3.0 Secure 750GB Hard Drive	0A65616	ann 11/29/11
USB 3.0 Secure 1TB Hard Drive	0A65621	ann 08/28/12
Lenovo® Slim USB Portable DVD Burner	0A33988	ann 06/14/11

ThinkPad Expansion

Lenovo Essential Notebook Stand	45J9292	ann 05/12/09
USB 2.0 Port Replicator with Digital Video	0A33942	ann 03/22/11
ThinkPad USB 3.0 Dock	0A33970	ann 05/15/12

Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
Ultraslim Plus Wireless Keyboard and Mouse ⁵²	0A34032	ann 04/05/11
USB Numeric Keypad	33L3225	ann 05/01/00
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann 08/18/09

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

Mouse

ThinkPad Travel Mouse (USB, Optical)	31P7410	ann 06/04/02
ThinkPad Bluetooth Laser Mouse	0A36407	ann 06/26/12
Lenovo Wireless Laser Mouse ⁵²	0A36188	ann 12/20/11

Multimedia

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

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

Power Adapters

ThinkPad 65W AC Adapter	40Y7696	ann 01/05/06
90W Ultraslim AC/DC Combo Adapter	41R4493	ann 09/22/09

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

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

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

More information at www.lenovopowertips.com

Carrying Cases

Up to 14" widescreen models:

ThinkPad Ultralight Backpack	0B47306	ann 12/11/12
ThinkPad Ultralight Topload	0B47307	ann 12/11/12
14W Ultrabook Topload & Standard Sleeve Set - Black	0B95750	ann 08/07/12
14W Ultrabook Topload & Standard Sleeve Set - Brown	0B95751	ann 08/07/12

Up to 15.6" widescreen models:

ThinkPad Business Topload Case	43R2476	ann 05/13/08
ThinkPad Business Backpack	43R2482	ann 05/13/08
Lenovo Sport Backpack - Red	0A33896	ann 02/28/12
Lenovo Sport Slimcase - Red	0A33897	ann 02/28/12
Lenovo Sport Messenger - Red	0A33898	ann 02/28/12

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

Monitors

ThinkVision LT1421 Wide 14" Mobile Monitor with Protective Screen Cover (USB 2.0)	1452DS6	ann 08/16/11
ThinkVision LT1421 Wide 14" Mobile Monitor with Protective Case (USB 2.0)	1452DB6	ann 08/16/11

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

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

Monitor Accessories⁴⁶

Lenovo USB 3.0 to DVI/VGA Monitor Adapter	0B47072	ann 08/14/12
Lenovo HDMI to HDMI Monitor Cable	0B47070	ann 05/22/12
Lenovo HDMI to VGA Monitor Cable	0B47069	ann 06/26/12
Lenovo Mini-DisplayPort to VGA Monitor Cable	0A36536	ann 05/17/11
Mini-DisplayPort to DisplayPort Monitor Cable	0B47091	ann 07/24/12
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

For more information on accessories:

www.lenovo.com/accessories

Purchase Lenovo accessories

www.lenovo.com/support/accessories

Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide

Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com

An Options Compatibility Configurator for Lenovo systems



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)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	Backlit key-board	M.2 Card WLAN	M.2 Card WWAN/SSD	Finger print reader	Battery cells	Intel AMT	Intel vPro	Preload	Ann Date (mm/yy)
20AA000SUS	i7-3687U	4+4GB	14.0" HD+	720p	240G FDE SSD	Backlit	Intel 6235 ²⁸	WWAN upg	Finger	3	iAMT	vPro	Win7 Pro64	03/13
20AA000TUS	i7-3687U	4+4GB	14.0" HD+	720p	240G FDE SSD	Backlit	Intel 6235	WWAN upg	Finger	3	iAMT	vPro	Win8 Pro64	03/13
20AA000KUS	i5-3437U	4GB	14.0" HD+	720p	500G 7200	Backlit	Intel 6235	24GB SSD	Finger	3	iAMT	vPro	Win8 Pro64	03/13
20AA000JUS	i5-3337U	4GB	14.0" HD+	720p	180G SSD	Backlit	Intel 6235	WWAN upg	Finger	3	None	No	Win7 Pro64	03/13
20AA000UUS	i7-3687U	4+4GB	14.0" HD+	720p	180G SSD	Backlit	Intel 6235	WWAN upg	Finger	3	iAMT	vPro	Win8 Pro64	03/13
20AA000GUS	i5-3337U	4GB	14.0" HD+	720p	500G 7200	Backlit	Intel 6235	24GB SSD	Finger	3	None	No	Win8 Pro64	03/13
20AA000PUS	i5-3437U	4GB	14.0" HD+	720p	500G 7200	Backlit	Intel 6235	24GB SSD	Finger	3	iAMT	vPro	Win7 Pro64	03/13
20AA000QUS	i7-3687U	4+4GB	14.0" HD+	720p	500G 7200	Backlit	Intel 6235	24GB SSD	Finger	3	iAMT	vPro	Win7 Pro64	03/13
20AA000VUS	i7-3687U	4+4GB	14.0" HD+	720p	500G 7200	Backlit	Intel 6235	24GB SSD	Finger	3	iAMT	vPro	Win8 Pro64	03/13
20AA000LUS	i5-3437U	4GB	14.0" HD+	720p	180G SSD	Backlit	Intel 6235	WWAN upg	Finger	3	iAMT	vPro	Win8 Pro64	03/13
20AA000BUS	i5-3337U	4GB	14.0" HD+	720p	500G 7200	Backlit	Intel 6235	24GB SSD	Finger	3	None	No	Win7 Pro64	03/13
20AA000MUS	i5-3437U	4GB	14.0" HD+	720p	180G SSD	Backlit	Intel 6235	WWAN upg	Finger	3	iAMT	vPro	Win7 Pro64	03/13
20AA000RUS	i7-3687U	4+4GB	14.0" HD+	720p	180G SSD	Backlit	Intel 6235	WWAN upg	Finger	3	iAMT	vPro	Win7 Pro64	03/13
20AA000HUS	i5-3337U	4GB	14.0" HD+	720p	180G SSD	Backlit	Intel 6235	WWAN upg	Finger	3	None	No	Win8 Pro64	03/13
20AA000XUS	i5-3337U	4GB	14.0" HD+	720p	500G 7200	None	Intel 6235	24GB SSD	Finger	3	None	No	Win7 Pro64	03/13
20AA000NUS	i5-3437U	4GB	14.0" HD+	720p	500G 7200	None	Intel 6235	24GB SSD	Finger	3	iAMT	vPro	Win7 Pro64	04/13
20AA0032US	i7-3687U	4+4GB	14.0" HD+	720p	256G SSD OPAL	Backlit	Intel 6235	WWAN upg	Finger	3	iAMT	vPro	Win7 Pro64	07/13
20AA002WUS	i7-3687U	4+4GB	14.0" HD+	720p	256G SSD OPAL	Backlit	Intel 6235	WWAN upg	None	3	iAMT	vPro	Win7 Pro64	07/13
20AA0030US	i5-3437U	4GB	14.0" HD+	720p	256G SSD OPAL	Backlit	Intel 6235	WWAN upg	Finger	3	iAMT	vPro	Win7 Pro64	07/13
20AA002YUS	i5-3337U	4GB	14.0" HD+	720p	256G SSD OPAL	Backlit	Intel 6235	WWAN upg	None	3	None	No	Win7 Pro64	07/13
20AA0031US	i5-3437U	4GB	14.0" HD+	720p	256G SSD OPAL	Backlit	Intel 6235	WWAN upg	None	3	iAMT	vPro	Win7 Pro64	07/13
20AA0034US	i5-3337U	4GB	14.0" HD+	720p	256G SSD OPAL	Backlit	Intel 6235	WWAN upg	Finger	3	None	No	Win7 Pro64	07/13
20AA001WUS	i5-3337U	4GB	14.0" HD+	720p	500G 7200	Backlit	Intel 6235	24GB SSD	None	3	None	No	Win7 Pro64	07/13

Positioning	<i>Thin and light enterprise-class Ultrabook™; one spindle</i>										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 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™ • Amazon Kindle • Nitro Pro • PC Device Stage • Evernote
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	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™										
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; 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, 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	Display cover: Carbon-fiber / Glass-fiber hybrid; Base: Magnesium alloy										
Battery - type	Integrated Li-Polymer 3-cell (47Whr), HW Authentication										
Battery - life ¹⁰	MobileMark® 2007: Windows 7: up to 9.0 hr MobileMark 2012: 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	None										
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	Some: Wireless WAN upgradable										
Carrier	None										
Bluetooth™	Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter										
Ethernet	Intel 82579LM Gigabit Network Connection (Hanksville), PHY, PCIe x1										
Intel AMT	Some: 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	Some: AuthenTec fingerprint reader on the keyboard bezel, 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										
	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										
	For Lenovo service ²² upgrade options, please go to QP-TA sheet										

See footnotes for more detailed information

ThinkPad T431s 20AC

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	Backlit key-board	M.2 Card WLAN	M.2 Card WWAN/SSD	Carrier	Finger-print reader	Bat-tery cells	Intel vPro	Preload	Ann Date (mm/yy)
20AC000PUS	i5-3437U	4GB	14.0" HD+	720p	180G SSD	Backlit	Intel 6235 ²⁸	WWAN upg	None	None	3	vPro	Win7 Pro64	03/13
20AC000FUS	i7-3687U	4+4GB	14.0" HD+	720p	240G FDE SSD	Backlit	Intel 6235	WWAN upg	None	Finger	3	vPro	Win7 Pro64	03/13
20AC000MUS	i5-3437U	4GB	14.0" HD+	720p	180G SSD	Backlit	Intel 6235	WWAN upg	None	Finger	3	vPro	Win7 Pro64	03/13
20AC000EUS	i7-3687U	4+4GB	14.0" HD+	720p	240G FDE SSD	Backlit	Intel 6235	WWAN upg	None	Finger	3	vPro	Win8 Pro64	03/13
20AC0006US	i5-3437U	4GB	14.0" HD+	720p	180G SSD	Backlit	Intel 6235	WWAN upg	None	None	3	vPro	Win8 Pro64	03/13
20AC0005US	i5-3437U	4GB	14.0" HD+	720p	500G 7200	Backlit	Intel 6235	24GB SSD	None	None	3	vPro	Win8 Pro64	03/13
20AC000BUS	i5-3437U	4GB	14.0" HD+	720p	180G SSD	Backlit	Intel 6235	WWAN upg	None	Finger	3	vPro	Win8 Pro64	03/13
20AC000DUS	i7-3687U	4+4GB	14.0" HD+	720p	180G SSD	Backlit	Intel 6235	WWAN upg	None	Finger	3	vPro	Win8 Pro64	03/13
20AC000CUS	i7-3687U	4+4GB	14.0" HD+	720p	500G 7200	Backlit	Intel 6235	24GB SSD	None	Finger	3	vPro	Win8 Pro64	03/13
20AC000HUS	i7-3687U	4+4GB	14.0" HD+	720p	180G SSD	Backlit	Intel 6235	WWAN upg	None	Finger	3	vPro	Win7 Pro64	03/13
20AC000KUS	i7-3687U	4+4GB	14.0" HD+	720p	500G 7200	Backlit	Intel 6235	24GB SSD	None	Finger	3	vPro	Win7 Pro64	03/13
20AC000RUS	i5-3437U	4GB	14.0" HD+	720p	500G 7200	Backlit	Intel 6235	24GB SSD	None	None	3	vPro	Win7 Pro64	03/13

• A depot repair service 3-year limited warranty

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 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 system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in 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	- Some: 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, Shock Mounted Hard Drive, Active Protection System™	Preloaded applications⁵ (only some listed)
M.2 SSD	<i>Some:</i> M.2 Solid State Drive (SSD), via M.2 Card slot	- Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader®
Widescreen display Camera	14.0" (355mm) HD+ (1600x900) color, anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 400:1 contrast ratio HD720p resolution, low light sensitive, face tracking, fixed focus	- Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch
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)	- 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™ • Amazon Kindle • Nitro Pro • PC Device Stage • Evernote
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 3-cell: from 3.6 lb (1.63kg) Graphite Black <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Base:</i> Magnesium alloy	
Battery - type Battery - life ¹⁰	Integrated Li-Polymer 3-cell (<i>47Whr</i>), 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	
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	
PCIe WLAN ⁴ PCIe WWAN Carrier Bluetooth™ Ethernet Intel AMT Audio support	11a/b/g/n, M.2 Card, Intel Centrino® Advanced-N 6235, 2x2, Wi-Fi + BT combo adapter <i>Some:</i> Wireless WAN upgradable 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	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
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 the keyboard bezel, 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	For Lenovo service ²² upgrade options, please go to QP-TA sheet

See footnotes for more detailed information

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ThinkPad T431s 20AC (Onsite)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ² rpm	Backlit key-board	M.2 Card WLAN	M.2 Card WWAN/SSD	Carrier	Finger-print reader	Bat-tery cells	Intel vPro	Preload	Ann Date (mm/yy)
20AC0014US	i5-3437U	4GB	14.0" HD+	720p	180G SSD	Backlit	Intel 6235 ²⁸	WWAN upg	None	Finger	3	vPro	Win7 Pro64	03/13
20AC0018US	i7-3687U	4+4GB	14.0" HD+	720p	500G 7200	Backlit	Intel 6235	24GB SSD	None	Finger	3	vPro	Win8 Pro64	03/13
20AC000XUS	i5-3437U	4GB	14.0" HD+	720p	180G SSD	Backlit	Intel 6235	WWAN upg	None	None	3	vPro	Win7 Pro64	03/13
20AC0016US	i7-3687U	4+4GB	14.0" HD+	720p	500G 7200	Backlit	Intel 6235	24GB SSD	None	Finger	3	vPro	Win7 Pro64	03/13
20AC0010US	i5-3437U	4GB	14.0" HD+	720p	500G 7200	Backlit	Intel 6235	24GB SSD	None	Finger	3	vPro	Win7 Pro64	03/13
20AC000WUS	i5-3437U	4GB	14.0" HD+	720p	180G SSD	Backlit	Intel 6235	WWAN upg	None	None	3	vPro	Win8 Pro64	03/13
20AC0012US	i5-3437U	4GB	14.0" HD+	720p	500G 7200	Backlit	Intel 6235	24GB SSD	None	Finger	3	vPro	Win8 64	03/13
20AC001AUS	i7-3687U	4+4GB	14.0" HD+	720p	180G SSD	Backlit	Intel 6235	WWAN upg	None	Finger	3	vPro	Win7 Pro64	03/13
20AC001CUS	i7-3687U	4+4GB	14.0" HD+	720p	240G FDE SSD	Backlit	Intel 6235	WWAN upg	None	Finger	3	vPro	Win7 Pro64	03/13
20AC000TUS	i5-3437U	4GB	14.0" HD+	720p	500G 7200	Backlit	Intel 6235	24GB SSD	None	None	3	vPro	Win8 Pro64	03/13
20AC000VUS	i5-3437U	4GB	14.0" HD+	720p	500G 7200	Backlit	Intel 6235	24GB SSD	None	None	3	vPro	Win8 Pro64	03/13
20AC0013US	i5-3437U	4GB	14.0" HD+	720p	180G SSD	Backlit	Intel 6235	WWAN upg	None	Finger	3	vPro	Win8 64	03/13
20AC001EUS	i7-3687U	4+4GB	14.0" HD+	720p	240G FDE SSD	Backlit	Intel 6235	WWAN upg	None	Finger	3	vPro	Win8 Pro64	03/13
20AC0019US	i7-3687U	4+4GB	14.0" HD+	720p	180G SSD	Backlit	Intel 6235	WWAN upg	None	Finger	3	vPro	Win8 Pro64	03/13

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 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 system²⁰ - <i>Some:</i> Windows® 7 Professional 64 preinstalled through downgrade rights in 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										- <i>Some:</i> Windows 8 64-bit - <i>Some:</i> 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, Shock Mounted Hard Drive, Active Protection System™										Preloaded applications⁵ (only some listed)			
M.2 SSD	<i>Some:</i> M.2 Solid State Drive (SSD), via M.2 Card slot										- Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader®			
Widescreen display	14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 400:1 contrast ratio										- Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch			
Camera	HD720p resolution, low light sensitive, face tracking, fixed focus										- 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™ • Amazon Kindle • Nitro Pro • PC Device Stage • Evernote			
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			
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										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			
Dimensions ³	<i>14.0W" (WxDxH):</i> 13.03" x 8.90" x 0.81"; 331mm x 226mm x 20.65mm										For Lenovo service ²² upgrade options, please go to QP-TA sheet			
Weight ²	<i>3-cell:</i> 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 (<i>47Whr</i>), 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	None													
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	<i>Some:</i> Wireless WAN upgradable													
Carrier	None													
Bluetooth™	Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter													
Ethernet	Intel 82579LM Gigabit Network Connection (Hanksville), 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 / 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	<i>Some:</i> 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 holidays, next business day response time / service upgrades ²² available													

See footnotes for more detailed information

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Lenovo® ThinkPad T530



Lenovo ThinkPad T530



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ThinkPad T530 2359 (TopSeller)

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	Carrier	Finger print reader	Bat-Blue- tooth	tery Intel AMT	Intel vPro	Pre-load	Ann Date (mm/yy)
2359-2HU	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	None	Intel 6205 ²⁸	WWAN upg	None	None	None	6 iAMT	vPro	Pro 64	06/12
2359-2GU	i5-3320M	4GBx2	15.6" HD	720p	320G 7200	None	Intel 6205	WWAN upg	None	None	None	6 iAMT	vPro	Pro 64	06/12
2359-2FU	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	None	Intel 6205	WWAN upg	None	None	None	6 iAMT	vPro	Pro 64	06/12
2359-2EU	i5-3210M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 2200	WWAN upg	None	None	None	6 None	None	Pro 64	06/12
2359-2DU	i5-3210M	4GBx1	15.6" HD	720p	500G 7200	None	Intel 2200	WWAN upg	None	None	None	6 None	None	Pro 64	06/12
2359-2CU	i5-3210M	4GBx1	15.6" HD+	720p	320G 7200	None	Intel 2200	WWAN upg	None	None	None	6 None	None	Pro 64	06/12
2359-2BU	i5-3210M	4GBx1	15.6" HD	720p	320G 7200	None	Intel 2200	WWAN upg	None	None	None	6 None	None	Pro 64	06/12

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

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	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 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>6-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> 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)	
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier Modem IEEE 1394 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 None None 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	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
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None	For compatible accessories, please go to O-T530 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet
Limited warranty ¹² 1-year - depot repair service / service upgrades ²² available		

See footnotes for more detailed information

ThinkPad T530 2359 (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	Finger print reader	Blue-tooth	Bat-tery cells	Intel AMT	Intel vPro	Preload	Ann Date (mm/yy)
2359-4DU	i5-3210M	4GBx1	15.6" HD	720p	500G 7200	None	Intel 2200	WWAN upg	None	None	6	None	None	Win7 Pro64	10/12
2359-2YU	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	None	Intel 6205 ²⁸	WWAN upg	None	None	6	iAMT	vPro	Win8 Pro64	10/12
2359-5CU	i5-3230M	4GBx1	15.6" HD	720p	500G 7200	None	Intel 2200	WWAN upg	None	None	6	None	None	Win8 Pro64	02/13
2359-4LU	i5-3230M	4GBx1	15.6" HD	720p	500G 7200	None	Intel 2200	WWAN upg	None	None	6	None	None	Win7 Pro64	02/13
2359-5JU	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	None	Intel 6205	WWAN upg	None	None	6	iAMT	vPro	Win7 Pro64	04/13

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

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 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 • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • 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 • 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™
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, 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	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	Supports ThinkVantage® technologies
PCIe WWAN Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Wireless WAN upgradable None None None None 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	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
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None	For compatible accessories, please go to O-T530 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet
Limited warranty ¹² 1-year - depot repair service / service upgrades ²² available		

See footnotes for more detailed information

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ThinkPad T530 2392 (TopSeller)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	Backlit keyboard	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	Carrier	Finger print reader	Blue-tooth	Battery Intel vPro	Pre-load	Ann Date (mm/yy)
2392-4AU	i7-3520M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205 ²⁸	WWAN upg	None	Finger	BT	6 iAMT vPro	Pro 64	06/12
2392-49U	i7-3520M	4GBx2	15.6" HD	720p	500G 7200	None	Intel 6205	WWAN upg	None	Finger	BT	6 iAMT vPro	Pro 64	06/12
2392-48U	i7-3520M	4GBx1	15.6" HD	720p	500G 7200	None	Intel 6205	WWAN upg	None	Finger	BT	6 iAMT vPro	Pro 64	06/12
2392-46U	i5-3320M	4GBx1	15.6" HD+	720p	180G SSD	None	Intel 6205	WWAN upg	None	Finger	BT	6 iAMT vPro	Pro 64	06/12
2392-44U	i5-3320M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	None	Finger	BT	6 iAMT vPro	Pro 64	06/12
2392-43U	i5-3320M	4GBx2	15.6" HD	720p	500G 7200	None	Intel 6205	WWAN upg	None	Finger	BT	6 iAMT vPro	Pro 64	06/12
2392-42U	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	None	Intel 6205	WWAN upg	None	Finger	BT	6 iAMT vPro	Pro 64	06/12
2392-3ZU	i5-3210M	4GBx1	15.6" HD+	720p	128G SSD	None	Intel 6205	WWAN upg	None	Finger	BT	6 None	None	Pro 64 06/12
2392-3YU	i7-3520M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205	Gobi 3000	select	Finger	BT	6 iAMT vPro	Pro 64	06/12
2392-3XU	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	None	Intel 6205	Gobi 3000	select	Finger	BT	6 iAMT vPro	Pro 64	06/12

- Small and medium business (SMB) model(s), part of the US 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 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 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, 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 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)	
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, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS	Supports ThinkVantage® technologies
Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> User selectable, AT&T®, Verizon®, or Sprint®, 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	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
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	For compatible accessories, please go to O-T530 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet
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 2392 (TopSeller) - II

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 AMT	Intel vPro	Preload (mm/yy)	Ann Date
2392-6EU	i5-2520M	4GBx1	15.6" HD	720p	500G 7200	Backlit	Intel 2200	WWAN upg	None	No	6	None	None	Pro 64	07/12
2392-6DU	i7-3520M	4GBx1	15.6" HD	720p	500G 7200	Backlit	Intel 6205 ²⁸	WWAN upg	Finger	BT	6	iAMT	vPro	Pro 64	07/12
2392-6AU	i5-3320M	4GBx1	15.6" HD+	720p	180G SSD	Backlit	Intel 6205	WWAN upg	Finger	BT	9	iAMT	vPro	Pro 64	07/12
2392-64U	i5-3320M	4GBx1	15.6" HD+	720p	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	BT	6	iAMT	vPro	Pro 64	07/12

- **Small and medium business (SMB) model(s), part of the US TopSeller™ Program**
- **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> 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	<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 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)	
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier Modem IEEE 1394 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 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	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 <i>Some:</i> AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant 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 upgrades²² available	For compatible accessories, please go to O-T530 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet

See footnotes for more detailed information

ThinkPad T530 2392 (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	Finger print reader	Blue-tooth	Bat-tery Intel AMT	Intel vPro	Preload	Ann Date (mm/yy)
2392-ARU	i5-3320M	4GBx1	15.6" HD+	720p	180G SSD	Backlit	Intel 6205 ²⁸	WWAN upg	Finger	BT	6	iAMT vPro	Win7 Pro64	10/12
2392-APU	i5-3320M	4GBx1	15.6" HD+	720p	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	BT	6	iAMT vPro	Win7 Pro64	10/12
2392-ANU	i5-3320M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	None	No	6	iAMT vPro	Win7 Pro64	10/12
2392-6HU	i5-2520M	4GBx1	15.6" HD	720p	500G 7200	Backlit	Intel 2200	WWAN upg	None	No	6	None	Win8 Pro64	10/12
2392-6CU	i7-3520M	4GBx1	15.6" HD	720p	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	BT	6	iAMT vPro	Win8 Pro64	10/12
2392-6BU	i5-3320M	4GBx1	15.6" HD+	720p	180G SSD	Backlit	Intel 6205	WWAN upg	Finger	BT	6	iAMT vPro	Win8 Pro64	10/12
2392-65U	i5-3320M	4GBx1	15.6" HD+	720p	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	BT	6	iAMT vPro	Win8 Pro64	10/12
2392-B3U	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	None	Intel 6205	WWAN upg	None	No	6	iAMT vPro	Win7 Pro64	10/12
2392-DYU	i5-3230M	4GBx1	15.6" HD+	720p	128G SSD	None	Intel 6205	WWAN upg	Finger	BT	6	None	Win7 Pro64	02/13
2392-ECU	i5-3320M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	None	BT	6	iAMT vPro	Win8 Pro64	06/13
2392-FPU	i5-3320M	4GBx1	15.6" HD+	720p	180G SSD	None	Intel 6205	WWAN upg	None	BT	6	iAMT vPro	Win7 Pro64	07/13
2392-FMU	i5-3320M	4GBx1	15.6" HD+	720p	256G SSD OPAL	None	Intel 6205	WWAN upg	None	BT	6	iAMT vPro	Win7 Pro64	07/13
2392-FJU	i5-3320M	4GBx1	15.6" HD+	720p	256G SSD OPAL	Backlit	Intel 6205	WWAN upg	None	BT	6	iAMT vPro	Win7 Pro64	07/13
2392-FHU	i5-3320M	4GBx1	15.6" HD+	720p	256G SSD OPAL	Backlit	Intel 6205	WWAN upg	Finger	BT	6	iAMT vPro	Win7 Pro64	07/13
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 i5-3230M 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 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)			
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										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® Corel® WinDVD® (DVD±RW) Corel Burn.Now™ Lenovo Edition (DVD±RW) Corel DVD MovieFactory® Lenovo Edition (DVD±RW) 			
Optical	DVD burner, 12.7mm Ultrabay Enhanced, removable										Windows 8 models <ul style="list-style-type: none"> Lenovo Support Lenovo Companion Lenovo QuickLaunch PC Device Stage Cyberlink Power2Go (DVD±RW) Cyberlink PowerProducer (DVD±RW) 			
Ultrabay	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access													
SATA disk	<i>Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high</i> <i>Some: HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™</i> <i>All: removable, upgradable, supports the second disk, Shock Mounted Hard Drive</i>													
mSATA™ SSD	None										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™ 			
Widescreen display	<i>Some: 15.6" (396mm) HD (1366x768) color</i> , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some: 15.6" (396mm) HD+ (1600x900) color</i> , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some: 15.6" (396mm) Full HD (1920x1080) color</i> , 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: 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)</i>													
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	15.6W" (WxDxH): 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm													
Weight ²	6-cell: starting at 5.39 lb (2.45kg); 9-cell: starting at 5.76 lb (2.62kg)													
Case material	<i>Display cover: Carbon-fiber / Glass-fiber hybrid;</i> <i>Bottom: Glass-fiber reinforced plastic without paint</i>													
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 9.1 hr; 9-cell (94Whr): up to 15.3 hr; 9-cell plus 9-cell Slice battery (94Whr, 0A36304): up to 30.6 hr													
Chipset	Mobile Intel QM77 Express Chipset													
ExpressCard	One slot (ExpressCard/34)													
Smart Card Reader	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										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 For compatible accessories, please go to O-T530 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet			
PCIe WLAN ⁴	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	Wireless WAN upgradable													
Carrier	None													
Modem	None													
IEEE 1394	None													
Bluetooth™	Some: Bluetooth 4.0 wireless													
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1													
Intel AMT	Some: Intel Active Management Technology (iAMT)													
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	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 upgrades ²² available													

See footnotes for more detailed information

ThinkPad T530 2392 (Optimus) - 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 AMT	Intel vPro	Preload (mm/yy)	Ann Date
2392-4EU	i7-3520M	4GBx2	15.6" FHD	720p	180G SSD	None	Intel 6205 ²⁸	WWAN upg	Finger	BT	9	iAMT	vPro	Pro 64	06/12
2392-4DU	i7-3520M	4GBx1	15.6" HD+	720p	180G SSD	None	Intel 6205	WWAN upg	Finger	BT	9	iAMT	vPro	Pro 64	06/12
2392-4CU	i7-3520M	4GBx2	15.6" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	9	iAMT	vPro	Pro 64	06/12
2392-4BU	i7-3520M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	9	iAMT	vPro	Pro 64	06/12
2392-47U	i5-3320M	4GBx1	15.6" HD+	720p	180G SSD	None	Intel 6205	WWAN upg	Finger	BT	9	iAMT	vPro	Pro 64	06/12
2392-45U	i5-3320M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	9	iAMT	vPro	Pro 64	06/12
2392-6FU	i5-2520M	4GBx1	15.6" HD	720p	500G 7200	Backlit	Intel 2200	WWAN upg	None	No	6	None	None	Pro 64	07/12
2392-69U	i7-3520M	4GBx1	15.6" HD+	720p	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	BT	9	iAMT	vPro	Pro 64	07/12
2392-66U	i5-3320M	4GBx1	15.6" HD+	720p	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	BT	9	iAMT	vPro	Pro 64	07/12

- **Small and medium business (SMB) model(s), part of the US TopSeller™ Program**
- **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> 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	<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, 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	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	Supports ThinkVantage® technologies
PCIe WWAN Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Wireless WAN upgradable None None IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) <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	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
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	For compatible accessories, please go to O-T530 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet
Limited warranty ¹² 3-years/1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for more detailed information

ThinkPad T530 2392 (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	Finger print reader	Blue-tooth	Bat-tery cells	Intel AMT	Intel vPro	Preload	Ann Date (mm/yy)
2392-ASU	i7-3520M	4GBx1	15.6" HD+	500G 7200	Backlit	Intel 6205 ²⁸	WWAN upg	Finger BT	9	iAMT vPro	Win7 Pro64	10/12		
2392-AQU	i5-3320M	4GBx1	15.6" HD+	500G 7200	Backlit	Intel 6205	WWAN upg	Finger BT	9	iAMT vPro	Win7 Pro64	10/12		
2392-6GU	i5-2520M	4GBx1	15.6" HD	500G 7200	Backlit	Intel 2200	WWAN upg	None No	6	None None	Win8 Pro64	10/12		
2392-68U	i7-3520M	4GBx1	15.6" HD+	500G 7200	Backlit	Intel 6205	WWAN upg	Finger BT	9	iAMT vPro	Win8 Pro64	10/12		
2392-67U	i5-3320M	4GBx1	15.6" HD+	500G 7200	Backlit	Intel 6205	WWAN upg	Finger BT	9	iAMT vPro	Win8 Pro64	10/12		
2392-EDU	i5-3320M	4GBx1	15.6" HD+	500G 7200	None	Intel 6205	WWAN upg	None BT	9	iAMT vPro	Win7 Pro64	06/13		
2392-FSU	i7-3520M	4GBx1	15.6" HD+	256G SSD OPAL	None	Intel 6205	WWAN upg	None BT	9	iAMT vPro	Win7 Pro64	07/13		
2392-FQU	i7-3520M	4GBx1	15.6" HD+	500G 7200	None	Intel 6205	WWAN upg	None BT	9	iAMT vPro	Win7 Pro64	07/13		
2392-FNU	i5-3320M	4GBx1	15.6" HD+	256G SSD OPAL	None	Intel 6205	WWAN upg	None BT	9	iAMT vPro	Win7 Pro64	07/13		

- Small and medium business (SMB) model(s), part of the US TopSeller™ Program
- 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 - 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® • 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 • 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™
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	<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 5.73 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 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)	
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier Modem IEEE 1394 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 IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) <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	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
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	For compatible accessories, please go to O-T530 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades²² available	

See footnotes for more detailed information

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	Card Carrier	Smart Card Reader	Finger print reader	Bat-Blue- tery toothcells	Global (G) Intel vPro (P)	GMP Pre-load	Ann Date (mm/yy)		
2394-5UU	i5-3320M	4GBx1	15.6" HD+	720p	180G SSD	None	Intel 6205 ²⁸	upg	None	None	Finger	BT 6	vPro	G	Pro 64	06/12	
2394-5VU	i5-3320M	4GBx1	15.6" HD+	720p	128G SSD	None	Intel 6205	upg	None	None	Finger	BT 6	vPro	G	Pro 64	06/12	
2394-5YU	i7-3520M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205	upg	None	None	Finger	BT 6	vPro	G	Pro 64	06/12	
2394-62U	i5-3320M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205	upg	None	None	Finger	BT 6	vPro	G	Pro 64	06/12	
2394-63U	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	None	Intel 6205	upg	None	None	Finger	BT 6	vPro	G	Pro 64	06/12	
2394-64U	i5-3320M	4GBx1	15.6" HD	None	320G 7200	None	Intel 6205	upg	None	Smart	None	No	9	vPro	G	Pro 64	06/12
2394-36U	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	None	Intel 6205	Gobi select	None	None	Finger	BT 6	vPro		Pro 64	06/12	
2394-35U	i7-3520M	4GBx1	15.6" HD	None	500G 7200	None	Intel 6205	upg	None	None	None	No	6	vPro		Pro 64	06/12
2394-34U	i5-3320M	4GBx1	15.6" HD	None	320G 7200	None	Intel 6205	upg	None	None	None	No	6	vPro		Pro 64	06/12
2394-2SU	i5-3320M	4GBx1	15.6" HD+	720p	320G 7200	None	Intel 6205	upg	None	None	Finger	BT 6	vPro		Pro 64	06/12	
2394-2GU	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	None	Intel 6205	upg	None	None	Finger	BT 6	vPro		Pro 64	06/12	
2394-23U	i7-3520M	4GBx1	15.6" HD	720p	500G 7200	None	Intel 6205	upg	None	None	Finger	BT 6	vPro	G	Pro 64	06/12	
2394-22U	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	None	Intel 6205	upg	None	None	Finger	BT 6	vPro	G	Pro 64	06/12	
2394-70U	i5-3320M	4GBx1	15.6" HD+	720p	320G 7200	None	Intel 6205	upg	None	Smart	Finger	BT 6	vPro	G	Pro 64	07/12	

• 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 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	<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	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) <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, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS	
Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> User selectable, AT&T®, Verizon®, or Sprint®, contract required with service provider None None <i>Some:</i> 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 <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

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	Battery Blue-tooth cells	Global (G) Intel vPro (P)	Preload	Ann Date (mm/yy)
2394-6EU	i7-3520M	4GBx1	15.6" HD	None	500G 7200	None	Intel 6205 ²⁸	WWAN upg	None	No	6 vPro	Win8 Pro64	10/12
2394-6DU	i5-3320M	4GBx1	15.6" HD	None	320G 7200	None	Intel 6205	WWAN upg	None	No	6 vPro	Win8 Pro64	10/12
2394-42U	i7-3520M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	6 vPro	Win8 Pro64	10/12
2394-43U	i5-3320M	4GBx1	15.6" HD+	720p	180G SSD	None	Intel 6205	WWAN upg	Finger	BT	6 vPro	Win8 Pro64	10/12
2394-44U	i5-3320M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	6 vPro	Win8 Pro64	10/12
2394-45U	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	None	Intel 6205	WWAN upg	Finger	BT	6 vPro	Win8 Pro64	10/12
2394-7NU	i5-3320M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	6 vPro	Win7 Pro64	12/12
2394-7MU	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	6 vPro	Win7 Pro64	12/12

• 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 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> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System TM <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 TM • ThinkVantage Power Manager • Lenovo SimpleTap • 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 • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW)
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut	- 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 TM
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)	Supports ThinkVantage® technologies
Keyboard TrackPoint®	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight	
Touchpad ThinkLight™	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ²	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)	
Case material	<i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery 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 Carrier 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 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	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
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	For compatible accessories, please go to O-T530 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet
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	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	Global (G) Intel vPro (P) GMP (P)	Ann Date (mm/yy)
2394-5RU	i7-3520M	4GBx1	15.6" FHD	720p	180G SSD	None	Intel 6205 ²⁸	WWAN upg	Finger	BT	9	vPro G	Pro 64 06/12
2394-5TU	i7-3520M	4GBx1	15.6" HD+	720p	180G SSD	None	Intel 6205	WWAN upg	Finger	BT	9	vPro G	Pro 64 06/12
2394-5WU	i7-3520M	4GBx1	15.6" FHD	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	9	vPro G	Pro 64 06/12
2394-5XU	i7-3520M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	9	vPro G	Pro 64 06/12
2394-5ZU	i5-3320M	4GBx1	15.6" FHD	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	9	vPro G	Pro 64 06/12
2394-61U	i5-3320M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	9	vPro G	Pro 64 06/12
2394-65U	i5-3320M	4GBx1	15.6" HD+	720p	320G 7200	None	Intel 6205	WWAN upg	Finger	BT	9	vPro G	Pro 64 06/12

• 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 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 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, 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 Carrier 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	
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 2394 (Optimus) - 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	Battery cells	Global (G) Intel vPro	GMP (P)	Preload	Ann Date (mm/yy)
2394-41U	i7-3520M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205 ²⁸	WWAN upg	Finger	9	vPro	G	Win8 Pro64	10/12
2394-7PU	i7-3520M	4GBx1	15.6" HD+	720p	180G SSD	Backlit	Intel 6205	WWAN upg	Finger	9	vPro		Win7 Pro64	12/12

• A depot repair service 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> 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® • 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 • 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 • Skype™
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	<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 5.73 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 Carrier 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	
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
For compatible accessories, please go to O-T530 sheet;		For Lenovo service ²² upgrade options, please go to QP-TA sheet

See footnotes for more detailed information

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ThinkPad T530 2429 (Onsite)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	Backlit keyboard	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Mini Card Carrier	Smart Card Reader	Finger print reader	Bat-Blue- tooth	Bat-tery cells	Global (G) Intel vPro (P)	GMP (P)	Pre-load	Ann Date (mm/yy)
2429-5UU	i5-3320M	4GBx1	15.6" HD+	720p	180G SSD	None	Intel 6205 ²⁸	upg	None	None	Finger	BT	6	vPro	G P	Pro 64	06/12
2429-5VU	i5-3320M	4GBx1	15.6" HD+	720p	128G SSD	None	Intel 6205	upg	None	None	Finger	BT	6	vPro	G P	Pro 64	06/12
2429-5YU	i7-3520M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205	upg	None	None	Finger	BT	6	vPro	G P	Pro 64	06/12
2429-62U	i5-3320M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205	upg	None	None	Finger	BT	6	vPro	G P	Pro 64	06/12
2429-64U	i5-3320M	4GBx1	15.6" HD+	720p	320G 7200	None	Intel 6205	upg	None	None	Finger	BT	6	vPro	G P	Pro 64	06/12
2429-2EU	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	None	Intel 6205	Gobi select	None	None	Finger	BT	6	vPro		Pro 64	06/12
2429-2CU	i7-3520M	4GBx1	15.6" HD	None	500G 7200	None	Intel 6205	upg	None	None	None	No	6	vPro		Pro 64	06/12
2429-2BU	i5-3320M	4GBx1	15.6" HD	None	320G 7200	None	Intel 6205	upg	None	None	None	No	6	vPro		Pro 64	06/12
2429-26U	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	None	Intel 6205	upg	None	None	Finger	BT	6	vPro		Pro 64	06/12
2429-23U	i7-3520M	4GBx1	15.6" HD	720p	500G 7200	None	Intel 6205	upg	None	None	Finger	BT	6	vPro	G P	Pro 64	06/12
2429-22U	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	None	Intel 6205	upg	None	None	Finger	BT	6	vPro	G P	Pro 64	06/12
2429-70U	i5-3320M	4GBx1	15.6" HD+	720p	320G 7200	None	Intel 6205	upg	None	Smart	Finger	BT	6	vPro	G P	Pro 64	07/12

• 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™ i5-3320M 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	<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	<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) <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, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS	
Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> User selectable, AT&T®, Verizon®, or Sprint®, contract required with service provider None None <i>Some:</i> 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 <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 holidays, next business day response time / service upgrades ²² available	Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² For compatible accessories, please go to O-T530 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet

See footnotes for more detailed information

ThinkPad T530 2429 (Onsite) - 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	Bat-tery tooth-cells	Global (G) Intel vPro (P)	Ann Date (mm/yy)
2429-42U	i7-3520M	4GBx1	15.6" HD	720p	500G 7200	None	Intel 6205 ²⁸	WWAN upg	Finger	BT 6	vPro G P	Win8 Pro64 10/12
2429-43U	i5-3320M	4GBx1	15.6" HD+	720p	180G SSD	None	Intel 6205	WWAN upg	Finger	BT 6	vPro G P	Win8 Pro64 10/12
2429-44U	i5-3320M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT 6	vPro G P	Win8 Pro64 10/12
2429-45U	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	None	Intel 6205	WWAN upg	Finger	BT 6	vPro G P	Win8 Pro64 10/12
2429-7DU	i5-3320M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT 6	vPro	Win7 Pro64 12/12
2429-7CU	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT 6	vPro	Win7 Pro64 12/12

• 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™ i5-3320M 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)
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	- Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • 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 • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW)
mSATA™ SSD	None	- 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™
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, 0A36304):</i> 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)	
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier 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	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	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-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available	For compatible accessories, please go to O-T530 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet

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	Camera	Disk SATA GB ⁸ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	Finger print reader	Blue-tooth	Battery cells	Global (G) Intel vPro (P)	Ann Date (mm/yy)
2429-5RU	i7-3520M	4GBx1	15.6" FHD	720p	180G SSD	None	Intel 6205 ²⁸	WWAN upg	Finger	BT	9	vPro G P	Pro 64 06/12
2429-5TU	i7-3520M	4GBx1	15.6" HD+	720p	180G SSD	None	Intel 6205	WWAN upg	Finger	BT	9	vPro G P	Pro 64 06/12
2429-5WU	i7-3520M	4GBx1	15.6" FHD	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	9	vPro G P	Pro 64 06/12
2429-5XU	i7-3520M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	9	vPro G P	Pro 64 06/12
2429-5ZU	i5-3320M	4GBx1	15.6" FHD	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	9	vPro G P	Pro 64 06/12
2429-61U	i5-3320M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	9	vPro G P	Pro 64 06/12
2429-63U	i5-3320M	4GBx1	15.6" HD+	720p	320G 7200	None	Intel 6205	WWAN upg	Finger	BT	9	vPro G P	Pro 64 06/12
2429-65U	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	None	Intel 6205	WWAN upg	Finger	BT	9	vPro G P	Pro 64 06/12

• 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™ i5-3320M 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	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, 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 Carrier 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	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	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
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available	For compatible accessories, please go to O-T530 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet

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	Camera	Disk SATA GB ³ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	Finger print reader	Battery cells	Intel vPro	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
2429-41U	i7-3520M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205 ²⁸	WWAN upg	Finger	9	vPro	G P	Win8 Pro64	10/12
2429-7FU	i7-3520M	4GBx1	15.6" HD+	720p	180G SSD	Backlit	Intel 6205	WWAN upg	Finger	9	vPro		Win7 Pro64	12/12

• 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™ 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										- Some: Windows 8 Pro 64-bit			
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 applications⁵ (only some listed)			
mSATA™ SSD	None										- Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)			
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut										- Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW)			
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus										- 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™			
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)										Supports ThinkVantage® technologies			
Keyboard TrackPoint®	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight										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			
Touchpad	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										For compatible accessories, please go to O-T530 sheet;			
ThinkLight™	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions										For Lenovo service ²² upgrade options, please go to QP-TA sheet			
Dimensions ³	<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													
Weight ²	<i>6-cell:</i> starting at 5.73 lb (2.60kg); <i>9-cell:</i> starting at 6.10 lb (2.77kg)													
Case material	<i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint													
Battery - type	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication													
Battery - life ¹⁰	<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	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													
Carrier	None													
Modem	None													
IEEE 1394	IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
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® 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-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available													

See footnotes for more detailed information

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ThinkPad T530i 2359 (TopSeller)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	Backlit keyboard	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	Carrier	Finger print reader	Blue-tooth	Battery cells	Intel vPro	Preload (mm/yy)	Ann Date
2359-2AU	i3-2370M	4GBx1	15.6" HD	720p	500G 7200	None	Intel 2200	WWAN upg	None	None	None	6	None	Pro 64	06/12
2359-29U	i3-2370M	4GBx1	15.6" HD	720p	320G 7200	None	Intel 2200	WWAN upg	None	None	None	6	None	Pro 64	06/12

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	DVD burner, 12.7mm Ultrabay Enhanced, removable										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)				
SATA disk	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 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	<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														
Weight ²	<i>6-cell:</i> starting at 5.39 lb (2.45kg); <i>9-cell:</i> starting at 5.76 lb (2.62kg)														
Case material	<i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint														
Battery - type	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication														
Battery - life ¹⁰	<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	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)										Supports ThinkVantage® technologies				
PCIe Mini Card	Two PCI Express Mini Card slots										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 WLAN ⁴	11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2														
PCIe WWAN	Wireless WAN upgradable														
Carrier	None														
Modem	None														
IEEE 1394	None														
Bluetooth™	None														
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										For compatible accessories, please go to O-T530 sheet;				
Security chip	Trusted Platform Module, TCG 1.2-compliant										For Lenovo service ²² upgrade options, please go to QP-TA sheet				
Fingerprint reader	None														
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available														

See footnotes for more detailed information

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ThinkPad T530 Accessories

Memory

2GB PC3-12800 DDR3 SODIMM	0A65722	ann 06/05/12
4GB PC3-12800 DDR3 SODIMM	0A65723	ann 06/05/12
8GB PC3-12800 DDR3 SODIMM	0A65724	ann 06/05/12

Ultrabay Enhanced 12.7mm

Serial ATA Hard Drive 12.7mm Bay Adapter III	0A65623	ann 02/28/12
DVD Burner Ultrabay Enhanced Drive III	0A65625	ann 06/05/12

Storage and removable storage

ThinkPad 16GB mSATA Solid State Cache Drive	0B47309	ann 12/11/12
500GB 5400rpm SATA 3.0Gb/s 7mm 4K HDD ⁴¹	0A65631	ann 06/05/12
500GB 7200rpm SATA 3.0Gb/s 7mm 4K HDD ⁴¹	0A65632	ann 06/05/12
1TB 5400rpm SATA 3.0Gb/s 9.5mm 4K HDD ⁴¹	0A65633	ann 06/05/12
320GB 7200rpm SATA 3.0Gb/s 7mm 4K HDD ⁴¹	0A65635	ann 06/05/12
320GB 7200rpm SATA 3.0Gb/s 7mm Self Encrypting (SED) OPAL Capable HDD ⁴¹	0A65636	ann 08/21/12
128GB SATA 6.0Gb/s 7mm Solid State Drive ⁴¹	0A65629	ann 06/05/12
180GB SATA 6.0Gb/s 7mm Solid State Drive ⁴¹	0A65630	ann 06/05/12
256GB 2.5" SATA 6.0Gb/s OPAL-capable SSD ⁴¹	0A65620	ann 05/15/12

⁴¹ Can be used as the main HDD or with
Serial ATA Hard Drive 12.7mm Bay Adapter III 0A65623 in the Ultrabay.

USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 3.0 Secure 500GB Hard Drive	0A65619	ann 11/29/11
USB 3.0 Secure 750GB Hard Drive	0A65616	ann 11/29/11
USB 3.0 Secure 1TB Hard Drive	0A65621	ann 08/28/12
Lenovo Slim USB Portable DVD Burner	0A33988	ann 06/14/11

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models: ThinkPad Gobi™ 3000 Mobile Broadband	0A36185	ann 04/12/11
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ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann 05/12/09
ThinkPad Port Replicator Series 3 with USB 3.0 ⁶²	433615W	ann 06/05/12
ThinkPad Mini Dock Series 3 - 90W	433710U	ann 06/23/09
ThinkPad Mini Dock Series 3 w/ USB 3.0 - 90W ⁶²	433715U	ann 06/05/12
TP Mini Dock Plus Series 3 w/ USB 3.0 - 90W ⁶²	433815U	ann 06/05/12
TP Mini Dock Plus Series 3 w/ USB 3.0 - 170W	433835U	ann 06/05/12

⁶² Compatible only with dual core models.

Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
Ultralim Plus Wireless Keyboard and Mouse ⁵²	0A34032	ann 04/05/11
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann 08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

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

Mouse

Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann 12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann 06/04/02
ThinkPad Bluetooth Laser Mouse	0A36407	ann 06/26/12
Lenovo Wireless Laser Mouse ⁵²	0A36188	ann 12/20/11

Multimedia

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

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

3M 15.6W Privacy Filter from Lenovo	0A61771	ann 04/05/11
Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06

Batteries

ThinkPad Battery 70+ (6-cell)	0A36302	ann 06/05/12
ThinkPad Battery 70++ (9-cell)	0A36303	ann 06/05/12
ThinkPad Battery 28+++ (9 cell, slice) ⁴³	0A36304	ann 06/05/12

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

ThinkPad External Battery Charger ⁴⁴	40Y7625	ann 09/20/05
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⁴⁴ Requires the *ThinkPad 90W AC Adapter 40Y7659* or the adapter provided with the system.

More information at www.lenovo.com/alldaycomputing

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

⁴⁵ Only compatible with the integrated graphics models.
⁶² Compatible only with dual core models.

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

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

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

More information at www.lenovopowertips.com

Carrying Cases

<i>Up to 15.6" widescreen models:</i>		
Lenovo Messenger Max	41U5253	ann 05/01/07
Lenovo Performance BackPack	41U5254	ann 05/01/07
ThinkPad Business Topload Case	43R2476	ann 05/13/08
ThinkPad Business Backpack	43R2482	ann 05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann 05/13/08
ThinkPad Executive Leather Case	43R2480	ann 05/13/08
Lenovo Sport Backpack - Red	0A33896	ann 02/28/12
Lenovo Sport Slimcase - Red	0A33897	ann 02/28/12
Lenovo Sport Messenger - Red	0A33898	ann 02/28/12
Lenovo Sport Backpack - Blue	0B47298	ann 08/28/12
Lenovo Sport Slimcase - Blue	0B47300	ann 08/28/12
Lenovo Sport Messenger - Blue	0B47299	ann 08/28/12
Lenovo Sport Backpack - Grey	0B47301	ann 08/28/12
Lenovo Sport Slimcase - Grey	0B47303	ann 08/28/12
Lenovo Sport Messenger - Grey	0B47302	ann 08/28/12

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

Monitors

ThinkVision LT1952p Wide 19" (VGA, DP, DVI-D) ⁶⁹	2448MB6	ann 09/13/11
ThinkVision L2251x Wide 22" (VGA, DP) ⁶⁹	2578HB6	ann 10/20/09

⁶⁹ DisplayPort cable is not included.

ThinkVision LT1421 Wide 14" Mobile Monitor with Protective Screen Cover (USB 2.0)	1452DS6	ann 08/16/11
ThinkVision LT1421 Wide 14" Mobile Monitor with Protective Case (USB 2.0)	1452DB6	ann 08/16/11

More information at www.lenovo.com/support/monitors
www.lenovo.com/support/thinkpad/optimus-monitors

Monitor Accessories⁴⁶

Lenovo USB 3.0 to DVI/VGA Monitor Adapter	0B47072	ann 08/14/12
Lenovo Mini-DisplayPort to VGA Monitor Cable	0A36536	ann 05/17/11
Mini-DisplayPort to Single-link DVI Monitor Cable	0B47090	ann 06/26/12
Mini-DisplayPort to DisplayPort Monitor Cable	0B47091	ann 07/24/12
Lenovo USB Soundbar	0A36190	ann 05/01/12
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

For more information on accessories:

www.lenovo.com/accessories

Purchase Lenovo accessories

www.lenovo.com/support/accessories

Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide

Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com

An Options Compatibility Configurator for Lenovo systems



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

Product Specifications Reference (PSREF)

Type-model	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	Smart Card Reader	Color calib	Battery Intel vPro	Ann Date (mm/yy)
2438-2MU	i7-3920XM	4GBx4	15.6" FHD	K2000M	1x500G 7200	No	None	Intel 6205 ²⁸	WWAN upg	Smart	X-Rite	9 vPro	Pro 64 06/12
2438-2LU	i7-3720QM	4GBx1	15.6" FHD	K2000M	1x500G 7200	No	None	Intel 6205	WWAN upg	None	None	9 vPro	Pro 64 06/12
2438-2KU	i7-3820QM	4GBx2	15.6" FHD	K1000M	1x500G 7200	No	None	Intel 6205	WWAN upg	None	None	9 vPro	Pro 64 06/12
2438-2JU	i7-3720QM	4GBx1	15.6" HD+	K1000M	1x500G 7200	No	None	Intel 6205	WWAN upg	None	None	9 vPro	Pro 64 06/12
2438-2HU	i7-3720QM	4GBx2	15.6" FHD	K1000M	1x500G 7200	No	None	Intel 6205	WWAN upg	None	None	9 vPro	Pro 64 06/12
2438-3AU	i7-3720QM	8GBx1	15.6" FHD	K1000M	1x500G 7200	No	Backlit	Intel 6205	WWAN upg	None	None	9 vPro	Pro 64 07/12
2438-39U	i7-3720QM	8GBx1	15.6" HD+	K1000M	1x500G 7200	No	Backlit	Intel 6205	WWAN upg	None	None	9 vPro	Pro 64 07/12
2438-59U	i7-3840QM	4GBx2	15.6" FHD	K1000M	1x500G 7200	No	None	Intel 6205	WWAN upg	None	None	9 vPro	Pro 64 02/13
2438-58U	i7-3940XM	4GBx4	15.6" FHD	K2000M	1x500G 7200	No	None	Intel 6205	WWAN upg	Smart	X-Rite	9 vPro	Pro 64 02/13
2438-57U	i7-3740QM	4GBx1	15.6" FHD	K2000M	1x500G 7200	No	None	Intel 6205	WWAN upg	None	None	9 vPro	Pro 64 02/13
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 Intel Core i7-3920XM processor (4 cores, 2.90GHz, 8MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.80GHz), HT technology Intel Core i7-3940XM processor (4 cores, 3.0GHz, 8MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.90GHz), 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, 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 Battery - type Battery - life ¹⁰	<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 w/o paint 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)										Supports ThinkVantage® technologies		
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier 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										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		
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										For compatible accessories, please go to O-W530 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet; For ISV certifications, please visit www.lenovo.com/support/ISV		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades²² available												

See footnotes for more detailed information

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

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Discrete graphics	Disk SATA GB ⁷ rpm	RAID	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Bat-tery Color calib	Intel AMT	Intel vPro	Preload	Ann Date (mm/yy)
2438-4CU	i7-3720QM	8GBx1	15.6" FHD	K1000M	1x500G 7200	No	Backlit	Intel 6205 ²⁸	WWAN upg	None	9	iAMT vPro	Win7 Pro64	10/12
2438-4BU	i7-3720QM	8GBx1	15.6" HD+	K1000M	1x500G 7200	No	Backlit	Intel 6205	WWAN upg	None	9	iAMT vPro	Win7 Pro64	10/12
2438-3BU	i7-3720QM	8GBx1	15.6" FHD	K1000M	1x500G 7200	No	Backlit	Intel 6205	WWAN upg	None	9	iAMT vPro	Win8 Pro64	10/12
2438-38U	i7-3720QM	8GBx1	15.6" HD+	K1000M	1x500G 7200	No	Backlit	Intel 6205	WWAN upg	None	9	iAMT vPro	Win8 Pro64	10/12
2438-4LU	i7-3720QM	8GBx1	15.6" FHD	K1000M	1x180G SSD	No	Backlit	Intel 6205	WWAN upg	None	9	iAMT vPro	Win7 Pro64	10/12
2438-4KU	i7-3630QM	8GBx1	15.6" HD+	K1000M	1x500G 7200	No	Backlit	Intel 6205	WWAN upg	None	9	None	Win7 Pro64	10/12
2438-5AU	i7-3740QM	8GBx1	15.6" HD+	K1000M	1x500G 7200	No	Backlit	Intel 6205	WWAN upg	None	9	iAMT vPro	Win7 Pro64	02/13
2438-56U	i7-3740QM	8GBx1	15.6" FHD	K1000M	1x180G SSD	No	Backlit	Intel 6205	WWAN upg	None	9	iAMT vPro	Win7 Pro64	02/13
2438-52U	i7-3740QM	4GBx2	15.6" FHD	K1000M	1x500G 7200	No	Backlit	Intel 6205	WWAN upg	None	9	iAMT vPro	Win7 Pro64	02/13
2438-4ZU	i7-3740QM	4GBx2	15.6" FHD	K1000M	1x180G SSD	No	Backlit	Intel 6205	WWAN upg	None	9	iAMT vPro	Win7 Pro64	02/13

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

Positioning	<i>Mobile workstation; two spindles</i>	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 [™] • 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 • 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 • Skype™
Processor	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 i7-3720QM 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	
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	DVD burner, 12.7mm Ultrabay Enhanced, removable	
Ultrabay	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access	
SATA disk	<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	None	
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 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	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	<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	
Weight ²	<i>6-cell:</i> starting at 5.76 lb (2.62kg); <i>9-cell:</i> starting at 6.19 lb (2.81kg)	
Case material	<i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint	
Battery - type	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication	
Battery - life ¹⁰	<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	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), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
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	
Carrier	None	
Modem	None	
Bluetooth™	Bluetooth 4.0 wireless	
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), 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 / 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	
	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	
	For compatible accessories, please go to O-W530 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet; For ISV certifications, please visit www.lenovo.com/support/ISV	

See footnotes for more detailed information

ThinkPad W530 2438 (Optimus) - TopSeller (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	Smart Card Reader	Finger print reader	Bat-tery Color calib cells	Power Adapter (watt)	Intel AMT	Intel vPro	Preload	Ann Date (mm/yy)
2438-5JU	i7-3740QM	8GBx1	15.6" FHD	K2000M	1x500G 7200	No	Backlit	Smart	Finger	X-Rite 9	135W	iAMT	vPro	Win8 Pro64	03/13
2438-5HU	i7-3740QM	8GBx1	15.6" FHD	K2000M	1x500G 7200	No	Backlit	Smart	Finger	X-Rite 9	135W	iAMT	vPro	Win7 Pro64	03/13
2438-5GU	i7-3740QM	8GBx1	15.6" HD+	K2000M	1x500G 7200	No	Backlit	Smart	Finger	X-Rite 9	135W	iAMT	vPro	Win7 Pro64	03/13
2438-5FU	i7-3630QM	8GBx1	15.6" HD+	K2000M	1x500G 7200	No	Backlit	Smart	Finger	X-Rite 9	135W	None	No	Win8 Pro64	03/13
2438-5EU	i7-3630QM	8GBx1	15.6" FHD	K2000M	1x500G 7200	No	Backlit	Smart	Finger	X-Rite 9	135W	None	No	Win8 Pro64	03/13
2438-5DU	i7-3630QM	8GBx1	15.6" FHD	K2000M	1x500G 7200	No	Backlit	Smart	Finger	X-Rite 9	135W	None	No	Win7 Pro64	03/13
2438-5CU	i7-3630QM	8GBx1	15.6" HD+	K2000M	1x500G 7200	No	Backlit	Smart	Finger	X-Rite 9	135W	None	No	Win7 Pro64	03/13
2438-62U	i7-3740QM	4GBx2	15.6" FHD	K1000M	1x500G 7200	No	Backlit	None	None	None 9	170W	iAMT	vPro	Win7 Pro64	07/13
2438-5ZU	i7-3740QM	4GBx2	15.6" FHD	K1000M	1x256G SSD OPAL	No	Backlit	None	None	None 9	170W	iAMT	vPro	Win7 Pro64	07/13
2438-5YU	i7-3630QM	4GBx2	15.6" HD+	K1000M	1x256G SSD OPAL	No	Backlit	None	None	None 9	170W	None	No	Win7 Pro64	07/13
2438-5XU	i7-3630QM	4GBx2	15.6" HD+	K1000M	1x500G 7200	No	Backlit	None	None	None 9	170W	None	No	Win7 Pro64	07/13

- **Small and medium business (SMB) model(s), part of the US 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™ i7-3630QM 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	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	<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 applications⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • 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 • 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 • Skype™
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	<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, 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)	Supports ThinkVantage® technologies
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier 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 <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	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
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	For compatible accessories, please go to O-W530 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet; For ISV certifications, please visit www.lenovo.com/support/ISV
Limited warranty ¹² 3-years/1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for more detailed information

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 (P)	Ann Date (mm/yy)
2441-3TU	i7-3720QM	4GBx1	15.6" FHD	K1000M	2x500G 7200	1	None	None	Intel 6205 ²⁸	upg	Finger 9	vPro	G	Pro 64 06/12
2441-3SU	i7-3720QM	4GBx1	15.6" FHD	K1000M	2x500G 7200	0	None	None	Intel 6205	upg	Finger 9	vPro	G	Pro 64 06/12
2441-37U	i7-3720QM	4GBx1	15.6" FHD	K2000M	1x500G 7200	No	DVD±RW	None	Intel 6300 ²⁸	upg	None	9	vPro	Pro 64 06/12
2441-36U	i7-3820QM	4GBx2	15.6" FHD	K2000M	1x500G 7200	No	DVD±RW	None	Intel 6300	upg	Finger 9	vPro	Pro 64 06/12	
2441-2GU	i7-3720QM	4GBx1	15.6" FHD	K1000M	1x500G 7200	No	DVD±RW	None	Intel 6205	upg	Finger 9	vPro	G	Pro 64 06/12
2441-23U	i7-3820QM	4GBx2	15.6" FHD	K2000M	1x500G 7200	No	DVD±RW	None	Intel 6205	upg	Finger 9	vPro	G	Pro 64 06/12
2441-22U	i7-3720QM	4GBx1	15.6" HD+	K1000M	1x320G 7200	No	DVD±RW	None	Intel 6205	upg	Finger 9	vPro	G	Pro 64 06/12
2441-5RU	i7-3740QM	4GBx1	15.6" HD+	K1000M	1x320G 7200	No	DVD±RW	None	Intel 6205	upg	Finger 9	vPro	G	Pro 64 02/13
2441-5QU	i7-3840QM	4GBx2	15.6" FHD	K2000M	1x500G 7200	No	DVD±RW	None	Intel 6205	upg	Finger 9	vPro	G	Pro 64 02/13
2441-5PU	i7-3740QM	4GBx2	15.6" FHD	K2000M	1x500G 7200	No	DVD±RW	None	Intel 6300	upg	None	9	vPro	Pro 64 02/13
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) • 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	<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	None													
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 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) 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)											Supports ThinkVantage® technologies		
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											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		
PCIe WWAN Carrier 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 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 Some: AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip											For compatible accessories, please go to O-W530 sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet; For ISV certifications, please visit www.lenovo.com/support/ISV		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available													

See footnotes for more detailed information

ThinkPad W530 2441 (Optimus) - Windows 8

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Discrete graphics	Disk SATA GB ^o rpm	RAID	SATA optical	Backlit key-board	PCIe Mini Card WLAN	Color calib	Bat-tery cells	Global (G) Intel vPro (P)	Ann Date (mm/yy)
2441-45U	i7-3820QM	4GBx2	15.6" FHD	K2000M	1x500G 7200	No	DVD±RW	None	Intel 6205 ²⁸	X-Rite	9	vPro G	Win8 Pro64 10/12
2441-46U	i7-3720QM	4GBx1	15.6" HD+	K1000M	1x500G 7200	No	DVD±RW	None	Intel 6205	X-Rite	9	vPro G	Win8 Pro64 10/12
2441-5SU	i7-3740QM	4GBx2	15.6" FHD	K1000M	1x180G SSD	No	DVD±RW	Backlit	Intel 6205	None	9	vPro	Win7 Pro64 02/13
2441-5EU	i7-3740QM	4GBx2	15.6" FHD	K1000M	1x500G 7200	No	DVD±RW	Backlit	Intel 6205	None	9	vPro	Win7 Pro64 02/13
2441-5DU	i7-3840QM	4GBx2	15.6" FHD	K1000M	1x240G FDE SSD	No	DVD±RW	Backlit	Intel 6205	None	9	vPro	Win7 Pro64 02/13
2441-5CU	i7-3740QM	4GBx2	15.6" HD+	K1000M	2x500G 7200	1	None	Backlit	Intel 6205	None	9	vPro	Win7 Pro64 02/13
2441-5BU	i7-3740QM	4GBx2	15.6" HD+	K1000M	2x500G 7200	0	None	Backlit	Intel 6205	None	9	vPro	Win7 Pro64 02/13

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

Positioning Processor	<p><i>Mobile workstation; two spindles</i></p> <p>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</p> <p>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</p> <p>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</p> <p>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</p>	<p>Preloaded operating system²⁰</p> <ul style="list-style-type: none"> - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit <p>Preloaded applications⁵ (only some listed)</p> <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® • 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 • 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) • Skype™
Memory	<p><i>dual-core model:</i> 16GB max⁷, two 204-pin SO-DIMM sockets</p> <p><i>quad-core model:</i> 32GB max, four 204-pin SO-DIMM sockets</p> <p><i>All:</i> PC3-12800 1600MHz DDR3, non-parity, dual-channel capable</p>	
Optical Ultrabay SATA disk	<p><i>Some:</i> DVD burner, 12.7mm Ultrabay Enhanced, removable</p> <p>One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access</p> <p><i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high</p> <p><i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™</p> <p><i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive</p>	
mSATA™ SSD	None	
Widescreen display	<p><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</p> <p><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</p>	
Color calibration Camera	<p><i>Some:</i> Pantone® color calibrator by X-Rite® color calibration sensor in palm rest, LED indicator</p> <p>HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus</p>	
Graphics	<p>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;</p> <p><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)</p>	
Keyboard TrackPoint® Touchpad ThinkLight™	<p>6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight</p> <p>TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar¹³, magnifying glass</p> <p>UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch</p> <p>Illuminates the keyboard to improve visibility in low-light conditions</p>	
Dimensions ³ Weight ² Case material	<p><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</p> <p><i>6-cell:</i> starting at 5.76 lb (2.62kg); <i>9-cell:</i> starting at 6.19 lb (2.81kg)</p> <p><i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid;</p> <p><i>Bottom:</i> Glass-fiber reinforced plastic without paint</p>	
Battery - type Battery - life ¹⁰	<p>Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication</p> <p><i>6-cell (57Whr):</i> up to 7.7 hr; <i>9-cell (94Whr):</i> up to 12.8 hr;</p> <p><i>9-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> up to 25.6 hr</p>	
Chipset ExpressCard Smart Card Reader Multicard Reader Ports	<p>Mobile Intel QM77 Express Chipset</p> <p>One slot (ExpressCard/34)</p> <p>None</p> <p>4-in-1 reader (MMC, SD, SDHC, SDXC)</p> <p>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)</p>	<p>Supports ThinkVantage® technologies</p>
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<p>Two PCI Express Mini Card slots</p> <p>11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2</p> <p>Wireless WAN upgradable</p> <p>None</p> <p>None</p> <p>Bluetooth 4.0 wireless</p> <p>Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1</p> <p>Intel Active Management Technology (iAMT)</p> <p>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</p>	<p>170-watt AC adapter</p> <p>ThinkPad Roll Cage (one-piece magnesium frame)</p> <p>EPEAT™ Gold rating</p> <p>ENERGY STAR® 5.0-compliant</p> <p>GREENGUARD® certified</p> <p>RoHS-compliant</p> <p>International Warranty Service¹⁷</p> <p>24 hour x 7 day¹⁸ toll-free support during the warranty period¹²</p>
Security Security chip Fingerprint reader	<p>Power-on password, hard disk password, supervisor password, security keyhole</p> <p>Trusted Platform Module, TCG 1.2-compliant</p> <p>AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip</p>	<p>For compatible accessories, please go to O-W530 sheet;</p> <p>For Lenovo service²² upgrade options, please go to QP-TA sheet;</p> <p>For ISV certifications, please visit www.lenovo.com/support/ISV</p>
Limited warranty ¹²	<p>3-years/1-yr battery - depot repair service / service upgrades²² available</p>	

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	Finger print reader	Color calib	Bat-tery cells	Global (G) Intel vPro (P)	GMP Pre-load (mm/yy)	Ann Date (mm/yy)
2447-3TU	i7-3720QM	4GBx1	15.6" FHD	K1000M	2x500G 7200	1	None	None	Intel 6205 ²⁸	Finger	None	9	vPro G P	Pro 64	06/12
2447-3SU	i7-3720QM	4GBx1	15.6" FHD	K1000M	2x500G 7200	0	None	None	Intel 6205	Finger	None	9	vPro G P	Pro 64	06/12
2447-2TU	i7-3720QM	4GBx1	15.6" FHD	K2000M	1x500G 7200	No	DVD±RW	None	Intel 6300 ²⁸	None	X-Rite	9	vPro	Pro 64	06/12
2447-2SU	i7-3820QM	4GBx2	15.6" FHD	K2000M	1x500G 7200	No	DVD±RW	None	Intel 6300	Finger	None	9	vPro	Pro 64	06/12
2447-23U	i7-3820QM	4GBx2	15.6" FHD	K2000M	1x500G 7200	No	DVD±RW	None	Intel 6205	Finger	None	9	vPro G P	Pro 64	06/12
2447-22U	i7-3720QM	4GBx1	15.6" HD+	K1000M	1x320G 7200	No	DVD±RW	None	Intel 6205	Finger	None	9	vPro G P	Pro 64	06/12
2447-52U	i7-3840QM	4GBx2	15.6" FHD	K2000M	1x500G 7200	No	DVD±RW	None	Intel 6205	Finger	None	9	vPro	Pro 64	02/13

- 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	<p><i>Mobile workstation; two spindles</i></p> <p>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</p> <p>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</p> <p>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</p>	<p>Preloaded operating system²⁰ Genuine Windows® 7 Professional 64</p> <p>Ready to install applications¹⁴ (only some listed)</p> <ul style="list-style-type: none"> • Rescue and Recovery™ • Password Manager
Memory	<p><i>dual-core model:</i> 16GB max⁷, two 204-pin SO-DIMM sockets</p> <p><i>quad-core model:</i> 32GB max, four 204-pin SO-DIMM sockets</p> <p><i>All:</i> PC3-12800 1600MHz DDR3, non-parity, dual-channel capable</p>	<p>Preloaded applications¹⁴ (only some listed)</p> <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)
Optical Ultrabay SATA disk	<p><i>Some:</i> DVD burner, 12.7mm Ultrabay Enhanced, removable</p> <p><i>One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access</i></p> <p><i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high</p> <p><i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™</p> <p><i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive</p>	
mSATA™ SSD	None	
Widescreen display	<p><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</p> <p><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</p>	
Color calibration Camera	<p><i>Some:</i> Pantone® color calibrator by X-Rite® color calibration sensor in palm rest, LED indicator</p> <p>HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus</p>	
Graphics	<p>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;</p> <p><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)</p>	
Keyboard TrackPoint® Touchpad ThinkLight™	<p>6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight</p> <p>TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar¹³, magnifying glass</p> <p>UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch</p> <p>Illuminates the keyboard to improve visibility in low-light conditions</p>	
Dimensions ³ Weight ² Case material	<p><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</p> <p><i>6-cell:</i> starting at 5.76 lb (2.62kg); <i>9-cell:</i> starting at 6.19 lb (2.81kg)</p> <p><i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid;</p> <p><i>Bottom:</i> Glass-fiber reinforced plastic without paint</p>	
Battery - type Battery - life ¹⁰	<p>Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication</p> <p><i>6-cell (57Whr):</i> up to 7.7 hr; <i>9-cell (94Whr):</i> up to 12.8 hr;</p> <p><i>9-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> up to 25.6 hr</p>	
Chipset ExpressCard Smart Card Reader Multicard Reader Ports	<p>Mobile Intel QM77 Express Chipset</p> <p>One slot (ExpressCard/34)</p> <p>None</p> <p>4-in-1 reader (MMC, SD, SDHC, SDXC)</p> <p>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)</p>	Supports ThinkVantage® technologies
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<p>Two PCI Express Mini Card slots</p> <p><i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2</p> <p><i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3</p> <p>Wireless WAN upgradable</p> <p>None</p> <p>None</p> <p>Bluetooth 4.0 wireless</p> <p>Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1</p> <p>Intel Active Management Technology (iAMT)</p> <p>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</p>	<p>170-watt AC adapter</p> <p>ThinkPad Roll Cage (one-piece magnesium frame)</p> <p>EPEAT™ Gold rating</p> <p>ENERGY STAR® 5.0-compliant</p> <p>GREENGUARD® certified</p> <p>RoHS-compliant</p> <p>International Warranty Service¹⁷</p> <p>24 hour x 7 day¹⁸ toll-free support during the warranty period¹²</p>
Security Security chip Fingerprint reader	<p>Power-on password, hard disk password, supervisor password, security keyhole</p> <p>Trusted Platform Module, TCG 1.2-compliant</p> <p><i>Some:</i> AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip</p>	<p>For compatible accessories, please go to O-W530 sheet;</p> <p>For Lenovo service²² upgrade options, please go to QP-TA sheet;</p> <p>For ISV certifications, please visit www.lenovo.com/support/ISV</p>
Limited warranty ¹²	<p>3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades²² available</p>	

See footnotes for more detailed information

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

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Discrete graphics	Disk SATA GB ² rpm	RAID	SATA optical	Backlit key-board	PCIe Mini Card WLAN	Color calib	Bat-tery cells	Global (G) Intel vPro	GMP (P)	Preload	Ann Date (mm/yy)
2447-45U	i7-3720QM	4GBx1	15.6" HD+	K1000M	1x500G 7200	No	DVD±RW	None	Intel 6205 ²⁸	X-Rite	9	vPro	G P	Win8 Pro64	10/12
2447-46U	i7-3820QM	4GBx2	15.6" FHD	K2000M	1x500G 7200	No	DVD±RW	None	Intel 6205	X-Rite	9	vPro	G P	Win8 Pro64	10/12
2447-4ZU	i7-3740QM	4GBx2	15.6" FHD	K1000M	1x500G 7200	No	DVD±RW	Backlit	Intel 6205	None	9	vPro		Win7 Pro64	02/13
2447-4YU	i7-3840QM	4GBx2	15.6" FHD	K1000M	1x240G FDE SSD	No	DVD±RW	Backlit	Intel 6205	None	9	vPro		Win7 Pro64	02/13
2447-4XU	i7-3740QM	4GBx2	15.6" HD+	K1000M	2x500G 7200	1	None	Backlit	Intel 6205	None	9	vPro		Win7 Pro64	02/13
2447-4WU	i7-3740QM	4GBx2	15.6" HD+	K1000M	2x500G 7200	0	None	Backlit	Intel 6205	None	9	vPro		Win7 Pro64	02/13
2447-5KU	i7-3840QM	4GBx1	15.6" FHD	K2000M	1x500G 7200	No	DVD±RW	None	Intel 6205	X-Rite	9	vPro	G P	Win8 Pro64	05/13
2447-5JU	i7-3840QM	4GBx1	15.6" FHD	K1000M	1x500G 7200	No	DVD±RW	None	Intel 6205	X-Rite	9	vPro	G P	Win8 Pro64	05/13
2447-5HU	i7-3840QM	4GBx2	15.6" FHD	K2000M	1x500G 7200	No	DVD±RW	None	Intel 6205	X-Rite	9	vPro	G P	Win8 Pro64	05/13
2447-5GU	i7-3840QM	4GBx2	15.6" HD+	K2000M	1x500G 7200	No	DVD±RW	None	Intel 6205	X-Rite	9	vPro	G P	Win8 Pro64	05/13
2447-5FU	i7-3740QM	4GBx1	15.6" HD+	K1000M	1x500G 7200	No	DVD±RW	None	Intel 6205	X-Rite	9	vPro	G P	Win8 Pro64	05/13
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 - 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® • 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 • 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	<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	<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														
Ultrabay SATA disk															
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	<i>Some:</i> Pantone® color calibrator by X-Rite® color calibration sensor in palm rest, LED indicator														
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 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	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	<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														
Weight ²	<i>6-cell:</i> starting at 5.76 lb (2.62kg); <i>9-cell:</i> starting at 6.19 lb (2.81kg)														
Case material	<i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint														
Battery - type	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication														
Battery - life ¹⁰	<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	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), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											Supports ThinkVantage® technologies			
PCIe Mini Card	Two PCI Express Mini Card slots											170-watt AC adapter			
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2											ThinkPad Roll Cage (one-piece magnesium frame)			
PCIe WWAN	Wireless WAN upgradable											EPEAT™ Gold rating			
Carrier	None											ENERGY STAR® 5.0-compliant			
Modem	None											GREENGUARD® certified			
Bluetooth™	Bluetooth 4.0 wireless											RoHS-compliant			
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1											International Warranty Service ¹⁷			
Intel AMT	Intel Active Management Technology (iAMT)											24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²			
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											For compatible accessories, please go to O-W530 sheet;			
Security chip	Trusted Platform Module, TCG 1.2-compliant											For Lenovo service ²² upgrade options, please go to QP-TA sheet;			
Fingerprint reader	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip											For ISV certifications, please visit www.lenovo.com/support/ISV			
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available														

See footnotes for more detailed information

Memory
 2GB PC3-12800 DDR3 SODIMM 0A65722 ann 06/05/12
 4GB PC3-12800 DDR3 SODIMM 0A65723 ann 06/05/12
 8GB PC3-12800 DDR3 SODIMM 0A65724 ann 06/05/12

Ultrabay Enhanced 12.7mm
 Serial ATA Hard Drive 12.7mm Bay Adapter III 0A65623 ann 02/28/12
 DVD Burner Ultrabay Enhanced Drive III 0A65625 ann 06/05/12

Storage and removable storage
 ThinkPad 16GB mSATA Solid State Cache Drive 0B47309 ann 12/11/12
 500GB 5400rpm SATA 3.0Gb/s 7mm 4K HDD⁴¹ 0A65631 ann 06/05/12
 500GB 7200rpm SATA 3.0Gb/s 7mm 4K HDD⁴¹ 0A65632 ann 06/05/12
 1TB 5400rpm SATA 3.0Gb/s 9.5mm 4K HDD⁴¹ 0A65633 ann 06/05/12
 320GB 7200rpm SATA 3.0Gb/s 7mm 4K HDD⁴¹ 0A65635 ann 06/05/12
 320GB 7200rpm SATA 3.0Gb/s 7mm
 Self Encrypting (SED) OPAL Capable HDD⁴¹ 0A65636 ann 08/21/12
 128GB SATA 6.0Gb/s 7mm Solid State Drive⁴¹ 0A65629 ann 06/05/12
 180GB SATA 6.0Gb/s 7mm Solid State Drive⁴¹ 0A65630 ann 06/05/12
 256GB 2.5" SATA 6.0Gb/s OPAL-capable SSD⁴¹ 0A65620 ann 05/15/12

⁴¹ Can be used as the main HDD or with Serial ATA Hard Drive 12.7mm Bay Adapter III 0A65623 in the Ultrabay.

USB 2.0 Portable 500GB Hard Disk 45K1690 ann 05/26/09
 USB 3.0 Secure 500GB Hard Drive 0A65619 ann 11/29/11
 USB 3.0 Secure 750GB Hard Drive 0A65616 ann 11/29/11
 USB 3.0 Secure 1TB Hard Drive 0A65621 ann 08/28/12
 Lenovo Slim USB Portable DVD Burner 0A33988 ann 06/14/11

Wireless WAN (Mini PCI Express)
 Only WWAN upgradable models:
 ThinkPad Gobi™ 3000 Mobile Broadband 0A36185 ann 04/12/11

ThinkPad Expansion
 Lenovo® Essential Notebook Stand 45J9292 ann 05/12/09
 TP Mini Dock Plus Series 3 w/ USB 3.0 - 170W 433835U ann 06/05/12

Keyboard
 TrackPoint Cap Collection 73P2698 ann 12/16/03
 Ultraslim Plus Wireless Keyboard and Mouse⁵² 0A34032 ann 04/05/11
 USB Numeric Keypad 33L3225 ann 05/01/00
 Preferred Pro USB Keyboard 73P5220 ann 06/21/05
 Enhanced Performance USB Keyboard 73P2620 ann 03/23/04
 ThinkPad USB Keyboard with TrackPoint 55Y9003 ann 08/18/09
 Lenovo® USB Fingerprint Keyboard 73P4730 ann 02/22/05
 Lenovo USB Smartcard Keyboard 51J0155 ann 03/24/09
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.

Mouse
 Lenovo Optical Mouse (USB) 06P4069 ann 05/21/03
 Lenovo Laser Mouse (USB) 41U3074 ann 01/23/07
 ThinkPad USB Laser Mouse 57Y4635 ann 12/15/09
 Lenovo ScrollPoint® Mouse (USB, Optical) 31P7405 ann 08/27/02
 ThinkPad Travel Mouse (USB, Optical) 31P7410 ann 06/04/02
 ThinkPad Bluetooth Laser Mouse 0A36407 ann 06/26/12
 Lenovo Wireless Laser Mouse⁵² 0A36188 ann 12/20/11

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

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

Security
 3M 15.6W Privacy Filter from Lenovo 0A61771 ann 04/05/11
 Kensington® MicroSaver® Cable Lock 73P2582 ann 12/29/03
 Kensington Twin Head Cable Lock 45K1620 ann 09/30/08
 Lenovo Security Cable Lock 57Y4303 ann 08/24/10
 USB Gemplus GemPC Smart Card Reader 41N3040 ann 02/21/06

Batteries
 ThinkPad Battery 70+ (6-cell) 0A36302 ann 06/05/12
 ThinkPad Battery 70++ (9-cell) 0A36303 ann 06/05/12
 ThinkPad Battery 28++ (9 cell, slice)⁴³ 0A36304 ann 06/05/12

⁴³ To be used along with system battery for all-day computing; attaches under ThinkPad using docking connector (not supported when using ThinkPad Mini Dock Plus Series 3 w/ USB 3.0 - 170W 433835U)

ThinkPad External Battery Charger⁴⁴ 40Y7625 ann 09/20/05
⁴⁴ Requires the ThinkPad 90W AC Adapter 40Y7659 or the adapter provided with the system.

More information at www.lenovo.com/alldaycomputing

ThinkPad 170W AC Adapter for W520, W530 0A36227 ann 03/01/11
 More info at www.lenovo.com/support/poweradapters

Carrying Cases
 Up to 15.6" widescreen models:
 Lenovo Messenger Max 41U5253 ann 05/01/07
 Lenovo Performance BackPack 41U5254 ann 05/01/07
 ThinkPad Business Topload Case 43R2476 ann 05/13/08
 ThinkPad Business Backpack 43R2482 ann 05/13/08
 ThinkPad Deluxe Expander Case 43R2478 ann 05/13/08
 ThinkPad Executive Leather Case 43R2480 ann 05/13/08
 Lenovo Sport Backpack - Red 0A33896 ann 02/28/12
 Lenovo Sport Slimcase - Red 0A33897 ann 02/28/12
 Lenovo Sport Messenger - Red 0A33898 ann 02/28/12
 Lenovo Sport Backpack - Blue 0B47298 ann 08/28/12
 Lenovo Sport Slimcase - Blue 0B47300 ann 08/28/12
 Lenovo Sport Messenger - Blue 0B47299 ann 08/28/12
 Lenovo Sport Backpack - Grey 0B47301 ann 08/28/12
 Lenovo Sport Slimcase - Grey 0B47303 ann 08/28/12
 Lenovo Sport Messenger - Grey 0B47302 ann 08/28/12

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

Monitors
 ThinkVision LT1952p Wide 19" (VGA, DP, DVI-D)⁶⁹ 2448MB6 ann 09/13/11
 ThinkVision L2251x Wide 22" (VGA, DP) 2578HB6 ann 10/20/09
⁶⁹ DisplayPort cable is not included.
 ThinkVision LT1421 Wide 14" Mobile Monitor with Protective Screen Cover (USB 2.0) 1452DS6 ann 08/16/11
 ThinkVision LT1421 Wide 14" Mobile Monitor with Protective Case (USB 2.0) 1452DB6 ann 08/16/11

More information at www.lenovo.com/support/monitors
www.lenovo.com/support/thinkpad/optimus-monitors

Monitor Accessories⁴⁶
 Lenovo USB 3.0 to DVI/VGA Monitor Adapter 0B47072 ann 08/14/12
 Lenovo Mini-DisplayPort to VGA Monitor Cable 0A36536 ann 05/17/11
 Mini-DisplayPort to Single-link DVI Monitor Cable 0B47090 ann 06/26/12
 Mini-DisplayPort to DisplayPort Monitor Cable 0B47091 ann 07/24/12
 Lenovo USB Soundbar 0A36190 ann 05/01/12
 Kensington MicroSaver Cable Lock 73P2582 ann 12/29/03
 Kensington Twin Head Cable Lock 45K1620 ann 09/30/08
 Lenovo Security Cable Lock 57Y4303 ann 08/24/10
 Lenovo Easy Reach Monitor Stand 55Y9258 ann 09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

For more information on accessories:

www.lenovo.com/accessories

Purchase Lenovo accessories

www.lenovo.com/support/accessories

Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide

Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com

An Options Compatibility Configurator for Lenovo systems



Lenovo® ThinkPad W540



Lenovo ThinkPad W540



Lenovo ThinkPad W540



Lenovo ThinkPad W540



Lenovo ThinkPad W540

ThinkPad W540 Platform Specifications

Product Specifications Reference (PSREF)

Positioning	<i>Mobile workstation; two spindles</i>								Audio support	HD Audio, Realtek® ALC3232 codec, Dolby® Home Theater® v4 / stereo speakers, 1W x 2 / dual array microphone, combo audio/microphone jack	
Processor	4th Generation Intel® Core™ i5 / i7 / i7 Extreme Processor								WLAN ⁴	One of the following, configurable by model:	
	Processor Number	# of Cores	# of Threads	Base Frequency	Max Turbo Frequency	Cache	Memory Speed	Processor Graphics		<ul style="list-style-type: none"> ThinkPad 11b/g/n, 2x2, Wi-Fi + Bluetooth combo adapter, M.2 card Intel Wireless-N 7260, 2x2, Wi-Fi + BT combo adapter, M.2 card Intel Dual Band Wireless-N 7260, 2x2, Wi-Fi + BT combo adapter, M.2 card Intel Dual Band Wireless-AC 7260, 2x2, Wi-Fi + BT combo adapter, M.2 card 	
	i5-4200M	2	4	2.5 GHz	3.1 GHz	3MB	DDR3L-1600	Intel HD Graphics 4600		<i>WWAN (optional)</i> One of the following, configurable by model (mutually exclusive with M.2 SSD): <ul style="list-style-type: none"> Wireless WAN upgradable Wireless WAN, Sierra Wireless EM7355, Qualcomm® Gobi™ 4G LTE/ HSPA+/EVDO/GSM/GPRS/EDGE, GPS, M.2 card (US models) Wireless WAN, Ericsson® N5321, HSPA+ 21Mbps/GSM/GPRS/EDGE, GPS, M.2 card (WE models) Wireless WAN, Sierra Wireless EM7345, Intel 4G LTE/HSPA/GSM/GPRS/EDGE, GPS, M.2 card (WE models) 	
	i5-4210M			2.6 GHz	3.2 GHz	3MB					
	i5-4330M			2.8 GHz	3.5 GHz	3MB					
	i7-4600M			2.9 GHz	3.6 GHz	4MB					
	i7-4700MQ	4	8	2.4 GHz	3.4 GHz	6MB					
	i7-4710MQ			2.5 GHz	3.5 GHz	6MB					
	i7-4800MQ			2.7 GHz	3.7 GHz	6MB					
	i7-4810MQ			2.8 GHz	3.8 GHz	6MB					
i7-4900MQ	2.8 GHz			3.8 GHz	8MB						
i7-4910MQ	2.9 GHz			3.9 GHz	8MB						
i7-4930MX	3 GHz	3.9 GHz	8MB								
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, only 4+4, 8+8, 4+4+4+4, and 8+8+8+8 combinations supported <i>All:</i> PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable								SIM card (optional)	<i>One of the following, configurable by model:</i> <ul style="list-style-type: none"> AT&T® or Verizon® LTE (4G), contract required with service provider (US models) Lenovo SIM, out-of-box service, pay-as-you-go via credit card, no contract required (WE models) User selectable, contract required with service provider 	
Optical (optional)	DVD burner, 9.5mm Ultrabay slim, removable								Bluetooth™	Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter	
Ultrabay	One modular bay for removable devices (right side, cold swap), 9.5mm high, bottom access								Ethernet	Intel Ethernet Connection I217-LM (Clarkville)	
Storage	<i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high								NFC	<i>Optional:</i> Near Field Communication	
	<i>Some:</i> Hard Disk Drive (HDD) / SATA 6.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™								Security chip	Power-on password, hard disk password, supervisor password, security keyhole	
M.2 SSD	<i>All:</i> removable, upgradable, supports the second disk, Shock Mounted								vPro (optional)	Trusted Platform Module, TCG 1.2-compliant	
	<i>Some:</i> M.2 Solid State Drive (SSD), via M.2 card slot, exclusive with WWAN card								Fingerprint reader	<i>Optional:</i> Fingerprint reader on the palm rest, swipe sensor	
Widescreen display	<i>Some:</i> 15.6" (396mm) FHD (1920x1080) , anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio								Limited warranty ¹² One of the following, configurable by model:		
Multi-touch	<i>Some:</i> 15.5" (394mm) 3K (2880x1620) , anti-glare, LED backlight, 350 nits, 16:9 aspect ratio, 1000:1 contrast ratio, IPS								<ul style="list-style-type: none"> 1-year depot repair service 3-year/1-yr battery depot repair service 3-year/1-yr battery limited onsite service²⁴ 3-year/1-yr battery limited onsite service, IWS (International Warranty Service¹⁷) 		
	Color calibration	<i>None</i>								Preload	Windows® 7 Professional 64
Camera (optional)	<i>Optional:</i> Pantone® color calibrator by X-Rite® color calibration sensor in palm rest, LED indicator								preinstalled through downgrade rights in Windows 8 / 8.1 Pro 64-bit		
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4600 in processor, and NVIDIA Quadro® K1100M or K2100M , PCI Express® x16, 2GB memory, supports external analog monitor via VGA and digital monitor via Mini DisplayPort / Thunderbolt™; supports three independent displays;								<ul style="list-style-type: none"> Lenovo Solution Center ThinkVantage Product Recovery Rescue and Recovery™ ThinkVantage System Update Lenovo Cloud Storage by SugarSync PC Device Stage Adobe® Reader® Nitro Pro Evernote® Skype™ Microsoft® Office preloaded; purchase a product key to activate Norton™ Internet Security (30 days of virus definitions) Cyberlink PowerDVD (DVD±RW) Cyberlink Power2Go (DVD±RW) Cyberlink PowerProducer (DVD±RW) 		
	Keyboard UltraNav™	6-row, spill-resistant, multimedia Fn keys, numeric keypad, optional LED backlight								<ul style="list-style-type: none"> Lenovo Solution Center ThinkVantage Product Recovery Rescue and Recovery™ ThinkVantage System Update Lenovo Cloud Storage by SugarSync PC Device Stage Adobe® Reader® Nitro Pro Evernote® Skype™ Microsoft® Office preloaded; purchase a product key to activate Norton™ Internet Security (30 days of virus definitions) Cyberlink PowerDVD (DVD±RW) Cyberlink Power2Go (DVD±RW) Cyberlink PowerProducer (DVD±RW) 	
ThinkLight™		<i>None</i>								<ul style="list-style-type: none"> Lenovo Solution Center ThinkVantage Product Recovery Rescue and Recovery™ ThinkVantage System Update Lenovo Cloud Storage by SugarSync PC Device Stage Adobe® Reader® Nitro Pro Evernote® Skype™ Microsoft® Office preloaded; purchase a product key to activate Norton™ Internet Security (30 days of virus definitions) Cyberlink PowerDVD (DVD±RW) Cyberlink Power2Go (DVD±RW) Cyberlink PowerProducer (DVD±RW) 	
Dimensions ³	15.6W" (WxDxH): 14.83" x 9.77" x 1.10-1.16"; 376.6mm x 248.1mm x 27.9-29.5mm								<ul style="list-style-type: none"> Lenovo Solution Center ThinkVantage Product Recovery Rescue and Recovery™ ThinkVantage System Update Lenovo Cloud Storage by SugarSync PC Device Stage Adobe® Reader® Nitro Pro Evernote® Skype™ Microsoft® Office preloaded; purchase a product key to activate Norton™ Internet Security (30 days of virus definitions) Cyberlink PowerDVD (DVD±RW) Cyberlink Power2Go (DVD±RW) Cyberlink PowerProducer (DVD±RW) 		
Weight ²	6-cell: starting at 5.57 lb (2.53kg); 9-cell: starting at 5.95 lb (2.70kg)								<ul style="list-style-type: none"> Lenovo Solution Center ThinkVantage Product Recovery Rescue and Recovery™ ThinkVantage System Update Lenovo Cloud Storage by SugarSync PC Device Stage Adobe® Reader® Nitro Pro Evernote® Skype™ Microsoft® Office preloaded; purchase a product key to activate Norton™ Internet Security (30 days of virus definitions) Cyberlink PowerDVD (DVD±RW) Cyberlink Power2Go (DVD±RW) Cyberlink PowerProducer (DVD±RW) 		
Case material	Glass-Fiber Reinforced Plastic								<ul style="list-style-type: none"> Lenovo Solution Center ThinkVantage Product Recovery Rescue and Recovery™ ThinkVantage System Update Lenovo Cloud Storage by SugarSync PC Device Stage Adobe® Reader® Nitro Pro Evernote® Skype™ Microsoft® Office preloaded; purchase a product key to activate Norton™ Internet Security (30 days of virus definitions) Cyberlink PowerDVD (DVD±RW) Cyberlink Power2Go (DVD±RW) Cyberlink PowerProducer (DVD±RW) 		
Battery type	Li-Ion 6-cell (56Wh) or 9-cell (99.9Wh), HW Authentication								<ul style="list-style-type: none"> Lenovo Solution Center ThinkVantage Product Recovery Rescue and Recovery™ ThinkVantage System Update Lenovo Cloud Storage by SugarSync PC Device Stage Adobe® Reader® Nitro Pro Evernote® Skype™ Microsoft® Office preloaded; purchase a product key to activate Norton™ Internet Security (30 days of virus definitions) Cyberlink PowerDVD (DVD±RW) Cyberlink Power2Go (DVD±RW) Cyberlink PowerProducer (DVD±RW) 		
Max battery life ¹⁰	6-cell: up to 6.2 hr; 9-cell: up to 11.1 hr								<ul style="list-style-type: none"> Lenovo Solution Center ThinkVantage Product Recovery Rescue and Recovery™ ThinkVantage System Update Lenovo Cloud Storage by SugarSync PC Device Stage Adobe® Reader® Nitro Pro Evernote® Skype™ Microsoft® Office preloaded; purchase a product key to activate Norton™ Internet Security (30 days of virus definitions) Cyberlink PowerDVD (DVD±RW) Cyberlink Power2Go (DVD±RW) Cyberlink PowerProducer (DVD±RW) 		
AC adapter	<i>dual-core:</i> 135-watt AC adapter; <i>quad-core:</i> 170-watt AC adapter								<ul style="list-style-type: none"> Lenovo Solution Center ThinkVantage Product Recovery Rescue and Recovery™ ThinkVantage System Update Lenovo Cloud Storage by SugarSync PC Device Stage Adobe® Reader® Nitro Pro Evernote® Skype™ Microsoft® Office preloaded; purchase a product key to activate Norton™ Internet Security (30 days of virus definitions) Cyberlink PowerDVD (DVD±RW) Cyberlink Power2Go (DVD±RW) Cyberlink PowerProducer (DVD±RW) 		
Chipset	Mobile Intel QM87 Express Chipset								<ul style="list-style-type: none"> Lenovo Solution Center ThinkVantage Product Recovery Rescue and Recovery™ ThinkVantage System Update Lenovo Cloud Storage by SugarSync PC Device Stage Adobe® Reader® Nitro Pro Evernote® Skype™ Microsoft® Office preloaded; purchase a product key to activate Norton™ Internet Security (30 days of virus definitions) Cyberlink PowerDVD (DVD±RW) Cyberlink Power2Go (DVD±RW) Cyberlink PowerProducer (DVD±RW) 		
ExpressCard	One slot (ExpressCard/34)								<ul style="list-style-type: none"> Lenovo Solution Center ThinkVantage Product Recovery Rescue and Recovery™ ThinkVantage System Update Lenovo Cloud Storage by SugarSync PC Device Stage Adobe® Reader® Nitro Pro Evernote® Skype™ Microsoft® Office preloaded; purchase a product key to activate Norton™ Internet Security (30 days of virus definitions) Cyberlink PowerDVD (DVD±RW) Cyberlink Power2Go (DVD±RW) Cyberlink PowerProducer (DVD±RW) 		
Smart card reader	<i>Optional:</i> Smart card reader								<ul style="list-style-type: none"> Lenovo Solution Center ThinkVantage Product Recovery Rescue and Recovery™ ThinkVantage System Update Lenovo Cloud Storage by SugarSync PC Device Stage Adobe® Reader® Nitro Pro Evernote® Skype™ Microsoft® Office preloaded; purchase a product key to activate Norton™ Internet Security (30 days of virus definitions) Cyberlink PowerDVD (DVD±RW) Cyberlink Power2Go (DVD±RW) Cyberlink PowerProducer (DVD±RW) 		
Media reader	4-in-1 reader (MMC, SD, SDHC, SDXC), supports UHS-II SD card								<ul style="list-style-type: none"> Lenovo Solution Center ThinkVantage Product Recovery Rescue and Recovery™ ThinkVantage System Update Lenovo Cloud Storage by SugarSync PC Device Stage Adobe® Reader® Nitro Pro Evernote® Skype™ Microsoft® Office preloaded; purchase a product key to activate Norton™ Internet Security (30 days of virus definitions) Cyberlink PowerDVD (DVD±RW) Cyberlink Power2Go (DVD±RW) Cyberlink PowerProducer (DVD±RW) 		
Ports	Two USB 3.0, two USB 2.0 (one Always On), VGA, Mini DisplayPort / Thunderbolt, Ethernet (RJ-45), Dock connector								<ul style="list-style-type: none"> Lenovo Solution Center ThinkVantage Product Recovery Rescue and Recovery™ ThinkVantage System Update Lenovo Cloud Storage by SugarSync PC Device Stage Adobe® Reader® Nitro Pro Evernote® Skype™ Microsoft® Office preloaded; purchase a product key to activate Norton™ Internet Security (30 days of virus definitions) Cyberlink PowerDVD (DVD±RW) Cyberlink Power2Go (DVD±RW) Cyberlink PowerProducer (DVD±RW) 		
Environment	EPEAT™ Gold; ENERGY STAR® 6.0; RoHS-compliant								<ul style="list-style-type: none"> Lenovo Solution Center ThinkVantage Product Recovery Rescue and Recovery™ ThinkVantage System Update Lenovo Cloud Storage by SugarSync PC Device Stage Adobe® Reader® Nitro Pro Evernote® Skype™ Microsoft® Office preloaded; purchase a product key to activate Norton™ Internet Security (30 days of virus definitions) Cyberlink PowerDVD (DVD±RW) Cyberlink Power2Go (DVD±RW) Cyberlink PowerProducer (DVD±RW) 		

For ISV certifications, please visit www.lenovo.com/support/ISV

ThinkPad W540 20BG (Optimus) - TopSeller

Product Specifications Reference (PSREF)

Model	Processor	vPro	Graphics	Memory	Display	Storage	RAID	Optical	WLAN & Bluetooth	WWAN / M.2 SSD	SIM card	Smart card reader	Camera	Backlit key-board	Finger-print reader	NFC	Color cali-brator	Bat-tery adapter (watt)	Power	Preload	Base warranty (year)	Glob-al	Ann date (m/y)
20BG0010US	i7-4700MQ	No	K1100M	4GBx2	15.6" FHD	256G SSD eDrive	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	None	9	170W	Win8 DG Win7	3-depot	No	11/13
20BG0011US	i7-4700MQ	No	K1100M	4GBx2	15.6" FHD	500G 7200	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	None	9	170W	Win8 DG Win7	3-depot	No	11/13
20BG0012US	i7-4800MQ	vPro	K1100M	4GBx2	15.6" FHD	500G 7200	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	None	9	170W	Win8 DG Win7	3-depot	No	11/13
20BG0013US	i7-4800MQ	vPro	K1100M	4GBx2	15.6" FHD	180G SSD Opal	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	None	9	170W	Win8 DG Win7	3-depot	No	11/13
20BG0014US	i7-4800MQ	vPro	K1100M	4GBx2	15.6" FHD	256G SSD eDrive	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	None	9	170W	Win8 DG Win7	3-depot	No	11/13
20BG001YUS	i7-4700MQ	No	K1100M	8GBx1	15.6" FHD	240G SSD Opal	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	None	9	170W	Win8 DG Win7	3-depot	No	11/13
20BG0020US	i7-4800MQ	vPro	K1100M	8GBx1	15.6" FHD	240G SSD Opal	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	None	9	170W	Win8 DG Win7	3-depot	No	11/13
20BG0022US	i7-4800MQ	vPro	K1100M	8GBx1	15.5" 3K IPS	240G SSD Opal	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	None	9	170W	Win8 DG Win7	3-depot	No	11/13
20BG004HUS	i7-4800MQ	vPro	K1100M	4GBx2	15.6" FHD	512G SSD	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	None	9	170W	Win8 DG Win7	3-depot	No	07/14
20BG0015US	i7-4800MQ	vPro	K2100M	4GBx2	15.6" FHD	256G SSD eDrive	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	None	9	170W	Win8 DG Win7	3-depot	No	11/13
20BG0016US	i7-4800MQ	vPro	K2100M	8GBx1	15.5" 3K IPS	256G SSD eDrive	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	X-Rite	9	170W	Win8 DG Win7	3-depot	No	11/13
20BG0017US	i7-4800MQ	vPro	K2100M	8GBx1	15.5" 3K IPS	180G SSD Opal	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	X-Rite	9	170W	Win8 DG Win7	3-depot	No	11/13
20BG0021US	i7-4800MQ	vPro	K2100M	8GBx1	15.6" FHD	240G SSD Opal	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	None	9	170W	Win8 DG Win7	3-depot	No	11/13
20BG004GUS	i7-4800MQ	vPro	K2100M	8GBx1	15.5" 3K IPS	512G SSD	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	X-Rite	9	170W	Win8 DG Win7	3-depot	No	07/14

• For detailed platform specifications, please see [ThinkPad W540 Platform Specifications sheet](#)

Processor	4th Generation Intel® Core™ i5 / i7 / i7 Extreme Processor	Audio support	HD Audio, Realtek® ALC3232 codec, Dolby® Home Theater® v4 / stereo speakers, 1W x 2 / dual array microphone, combo audio/microphone jack																																				
	<table border="1"> <thead> <tr> <th>Processor</th> <th># of Cores</th> <th>Base Frequency</th> <th>Max Turbo Frequency</th> <th>Cache</th> <th>Memory Speed</th> </tr> </thead> <tbody> <tr> <td>i5-4200M</td> <td rowspan="3">2</td> <td>2.5 GHz</td> <td>3.1 GHz</td> <td>3MB</td> <td rowspan="6">DDR3L-1600</td> </tr> <tr> <td>i5-4330M</td> <td>2.8 GHz</td> <td>3.5 GHz</td> <td>3MB</td> </tr> <tr> <td>i7-4600M</td> <td>2.9 GHz</td> <td>3.6 GHz</td> <td>4MB</td> </tr> <tr> <td>i7-4700MQ</td> <td rowspan="4">4</td> <td>2.4 GHz</td> <td>3.4 GHz</td> <td>6MB</td> </tr> <tr> <td>i7-4800MQ</td> <td>2.7 GHz</td> <td>3.7 GHz</td> <td>6MB</td> </tr> <tr> <td>i7-4900MQ</td> <td>2.8 GHz</td> <td>3.8 GHz</td> <td>8MB</td> </tr> <tr> <td>i7-4930MX</td> <td>3 GHz</td> <td>3.9 GHz</td> <td>8MB</td> </tr> </tbody> </table>	Processor	# of Cores	Base Frequency	Max Turbo Frequency	Cache	Memory Speed	i5-4200M	2	2.5 GHz	3.1 GHz	3MB	DDR3L-1600	i5-4330M	2.8 GHz	3.5 GHz	3MB	i7-4600M	2.9 GHz	3.6 GHz	4MB	i7-4700MQ	4	2.4 GHz	3.4 GHz	6MB	i7-4800MQ	2.7 GHz	3.7 GHz	6MB	i7-4900MQ	2.8 GHz	3.8 GHz	8MB	i7-4930MX	3 GHz	3.9 GHz	8MB	Keyboard UltraNav™ TrackPoint® pointing device and Mylar surface touchpad, integrated five buttons, multi-touch ThinkLight™ None
Processor	# of Cores	Base Frequency	Max Turbo Frequency	Cache	Memory Speed																																		
i5-4200M	2	2.5 GHz	3.1 GHz	3MB	DDR3L-1600																																		
i5-4330M		2.8 GHz	3.5 GHz	3MB																																			
i7-4600M		2.9 GHz	3.6 GHz	4MB																																			
i7-4700MQ	4	2.4 GHz	3.4 GHz	6MB																																			
i7-4800MQ		2.7 GHz	3.7 GHz	6MB																																			
i7-4900MQ		2.8 GHz	3.8 GHz	8MB																																			
i7-4930MX		3 GHz	3.9 GHz	8MB																																			
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, only 4+4, 8+8, 4+4+4+4, and 8+8+8+8 combinations supported <i>All:</i> PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable	Chipset Mobile Intel QM87 Express Chipset ExpressCard One slot (ExpressCard/34) Smart card reader <i>Optional:</i> Smart card reader Media reader 4-in-1 reader (MMC, SD, SDHC, SDXC), supports UHS-II SD card Ports Two USB 3.0, two USB 2.0 (one Always On), VGA, Mini DisplayPort / Thunderbolt, Ethernet (RJ-45), Dock connector																																					
Optical	<i>Some:</i> DVD burner, 9.5mm Ultrabay slim, removable One modular bay for removable devices (right side, cold swap), 9.5mm high <i>Some:</i> SSD / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 6.0Gb/s, 2.5" wide, 7mm or 9.5mm high, APS <i>Some:</i> M.2 Solid State Drive (SSD), via M.2 card slot, exclusive with WWAN card	WLAN ⁴ <i>11b/g/n+BT:</i> ThinkPad 11b/g/n, 2x2, Wi-Fi + BT, M.2 card <i>7260 b/g/n+BT:</i> Intel Wireless-N 7260, 2x2, Wi-Fi + BT, M.2 card <i>7260 a/b/g/n+BT:</i> Intel Dual Band Wireless-N 7260, 2x2, Wi-Fi + BT, M.2 card <i>7260 ac+BT:</i> Intel Dual Band Wireless-AC 7260, 2x2, Wi-Fi + BT, M.2 card																																					
Ultrabay Storage		WWAN (optional) <i>Upg:</i> Wireless WAN upgradable EM7355: Sierra Wireless EM7355, Qualcomm® Gobi™ 4G LTE/ HSPA+/EVDO/GSM/GPRS/EDGE, GPS																																					
M.2 SSD		SIM card (optional) <i>AT&T / Verizon:</i> AT&T® / Verizon® LTE (4G), contract required with service provider <i>Select:</i> User selectable, contract required with service provider																																					
Widescreen display	<i>Some:</i> 15.6" (396mm) FHD (1920x1080), 300 nits, 500:1 contrast ratio <i>Some:</i> 15.5" (394mm) 3K (2880x1620), 350 nits, 1000:1 contrast ratio, IPS	Bluetooth™ Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter Ethernet Intel Ethernet Connection I217-LM (Clarkville) NFC Optional: Near Field Communication																																					
Multi-touch	None	Security Security chip Trusted Platform Module, TCG 1.2-compliant vPro (optional) Intel vPro Technology Fingerprint reader Optional: Fingerprint reader on the palm rest, swipe sensor																																					
Color calibration	Optional: Pantone® color calibrator by X-Rite® color calibration sensor in palm rest Camera (optional) HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus	Preload <i>Win8 / 8.1 DG Win7:</i> Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 / 8.1 Pro 64-bit <i>Win8 / 8.1 64:</i> Windows 8 / 8.1 64-bit <i>Win8 / 8.1 P64:</i> Windows 8 / 8.1 Pro 64-bit																																					
Camera (optional)		Limited warranty ¹² 1-year - depot / 3-years (1-yr battery) - depot / 3-years (1-year battery) onsite																																					
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4600 in processor, and NVIDIA Quadro® K1100M or K2100M , PCI Express® x16, 2GB memory																																						
Dimensions ³	15.6W" (WxDxH): 14.83" x 9.77" x 1.10-1.16"; 376.6mm x 248.1mm x 27.9-29.5mm																																						
Weight ²	6-cell: starting at 5.57 lb (2.53kg); 9-cell: starting at 5.95 lb (2.70kg)																																						
Case material	Glass-Fiber Reinforced Plastic																																						
Battery type	Li-Ion 6-cell (56Wh) or 9-cell (99.9Wh), HW Authentication																																						
Max battery life ¹⁰	6-cell: up to 6.2 hr; 9-cell: up to 11.1 hr																																						
AC adapter	dual-core: 135-watt AC adapter; quad-core: 170-watt AC adapter																																						

See footnotes for more detailed information

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ThinkPad W540 20BH (Optimus) - Windows 8

Model	Processor	vPro	Graphics	Memory	Display	Storage	RAID	Optical	WLAN & Bluetooth	WWAN / M.2 SSD	SIM card	Smart card reader	Cam- era	Backlit key- board	Finger- print reader	NFC	Color cali- brator	Bat- tery cells	Power adapter (watt)	Preload	Base warranty (year)	Glob- al	Ann date (m/y)
20BH001BUS	i7-4800MQ	vPro	K1100M	4GBx2	15.6" FHD	500G 7200	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	None	Finger	None	None	9	170W	Win8 P64	3-depot	No	11/13
20BH001DUS	i7-4800MQ	vPro	K1100M	4GBx2	15.6" FHD	128G SSD	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	None	9	170W	Win8 P64	3-depot	No	11/13
20BH001FUS	i7-4800MQ	vPro	K1100M	4GBx2	15.6" FHD	2x500G 7200	0	None	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	None	9	170W	Win8 P64	3-depot	No	11/13
20BH001GUS	i7-4800MQ	vPro	K1100M	4GBx2	15.6" FHD	2x500G 7200	1	None	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	None	9	170W	Win8 P64	3-depot	No	11/13
20BH001VUS	i7-4800MQ	vPro	K1100M	4GBx2	15.6" FHD	256G SSD eDrive	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	None	Finger	None	None	9	170W	Win8 P64	3-depot	No	11/13
20BH002CUS	i7-4800MQ	vPro	K1100M	4GBx2	15.6" FHD	180G SSD Opal	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	None	9	170W	Win8 P64	3-depot	Yes	11/13
20BH002DUS	i7-4800MQ	vPro	K1100M	4GBx2	15.5" 3K IPS	256G SSD eDrive	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	None	9	170W	Win8 P64	3-depot	Yes	11/13
20BH002FUS	i7-4800MQ	vPro	K1100M	4GBx2	15.6" FHD	500G 7200	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	None	9	170W	Win8 P64	3-depot	Yes	11/13
20BH002HUS	i7-4800MQ	vPro	K1100M	4GBx2	15.6" FHD	256G SSD eDrive	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	None	9	170W	Win8 P64	3-depot	Yes	11/13
20BH002RUS	i7-4800MQ	vPro	K1100M	8GBx1	15.6" FHD	240G SSD Opal	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	None	9	170W	Win8 P64	3-depot	Yes	11/13
20BH002TUS	i7-4800MQ	vPro	K1100M	8GBx1	15.5" 3K IPS	240G SSD Opal	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	None	9	170W	Win8 P64	3-depot	Yes	11/13
20BH004MUS	i7-4800MQ	vPro	K1100M	4GBx2	15.6" FHD	180G SSD Opal	No	DVD±RW	7260 a/b/g/n+BT	Upg	None	None	720p	Backlit	Finger	None	None	9	170W	Win8 P64	3-depot	Yes	04/14
20BH004NUS	i7-4800MQ	vPro	K1100M	4GBx2	15.6" FHD	500G 7200	No	DVD±RW	7260 a/b/g/n+BT	Upg	None	None	720p	None	Finger	None	None	9	170W	Win8 P64	3-depot	Yes	04/14
20BH004QUS	i7-4800MQ	vPro	K1100M	4GBx2	15.6" FHD	128G SSD	No	DVD±RW	7260 a/b/g/n+BT	Upg	None	None	720p	Backlit	Finger	None	None	9	170W	Win8 P64	3-depot	Yes	04/14
20BH001PUS	i7-4900MQ	vPro	K2100M	8GBx1	15.5" 3K IPS	500G 5400	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	NFC	X-Rite	9	170W	Win8 P64	3-depot	No	01/14
20BH001TUS	i7-4900MQ	vPro	K2100M	8GBx1	15.5" 3K IPS	512G SSD	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	NFC	X-Rite	9	170W	Win8 P64	3-depot	No	01/14
20BH001UUS	i7-4900MQ	vPro	K2100M	8GBx1	15.5" 3K IPS	180G SSD Opal	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	NFC	X-Rite	9	170W	Win8 P64	3-depot	No	01/14
20BH001XUS	i7-4900MQ	vPro	K2100M	4GBx2	15.6" FHD	256G SSD eDrive	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	None	Finger	None	None	9	170W	Win8 P64	3-depot	No	11/13
20BH002KUS	i7-4800MQ	vPro	K2100M	4GBx2	15.6" FHD	256G SSD eDrive	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	None	9	170W	Win8 P64	3-depot	Yes	11/13
20BH002PUS	i7-4800MQ	vPro	K2100M	4GBx2	15.5" 3K IPS	512G SSD	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	X-Rite	9	170W	Win8 P64	3-depot	Yes	11/13

• For detailed platform specifications, please see [ThinkPad W540 Platform Specifications sheet](#)

Processor	4th Generation Intel® Core™ i5 / i7 / i7 Extreme Processor						Audio support	HD Audio, Realtek® ALC3232 codec, Dolby® Home Theater® v4 / stereo speakers, 1W x 2 / dual array microphone, combo audio/microphone jack					
	Processor	# of Cores	Base Frequency	Max Turbo Frequency	Cache	Memory Speed		Keyboard UltraNav™ TrackPoint® pointing device and Mylar surface touchpad, integrated five buttons, multi-touch ThinkLight™ None	Chipset Mobile Intel QM87 Express Chipset ExpressCard One slot (ExpressCard/34) Smart card reader Optional: Smart card reader Media reader 4-in-1 reader (MMC, SD, SDHC, SDXC), supports UHS-II SD card Ports Two USB 3.0, two USB 2.0 (one Always On), VGA, Mini DisplayPort / Thunderbolt, Ethernet (RJ-45), Dock connector				
	i5-4200M	2	2.5 GHz	3.1 GHz	3MB	DDR3L-1600							
	i5-4330M		2.8 GHz	3.5 GHz	3MB								
	i7-4600M		2.9 GHz	3.6 GHz	4MB								
	i7-4700MQ	4	2.4 GHz	3.4 GHz	6MB								
	i7-4800MQ		2.7 GHz	3.7 GHz	6MB								
i7-4900MQ	2.8 GHz		3.8 GHz	8MB									
i7-4930MX	3 GHz		3.9 GHz	8MB									
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, only 4+4, 8+8, 4+4+4+4, and 8+8+8+8 combinations supported <i>All:</i> PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable						WLAN ⁴	11b/g/n+BT: ThinkPad 11b/g/n, 2x2, Wi-Fi + BT, M.2 card 7260 b/g/n+BT: Intel Wireless-N 7260, 2x2, Wi-Fi + BT, M.2 card 7260 a/b/g/n+BT: Intel Dual Band Wireless-N 7260, 2x2, Wi-Fi + BT, M.2 card 7260 ac+BT: Intel Dual Band Wireless-AC 7260, 2x2, Wi-Fi + BT, M.2 card					
	Optical Ultrabay Storage	<i>Some:</i> DVD burner, 9.5mm Ultrabay slim, removable One modular bay for removable devices (right side, cold swap), 9.5mm high <i>Some:</i> SSD / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 6.0Gb/s, 2.5" wide, 7mm or 9.5mm high, APS <i>Some:</i> M.2 Solid State Drive (SSD), via M.2 card slot, exclusive with WWAN card						WWAN (optional)	<i>Upg:</i> Wireless WAN upgradable EM7355: Sierra Wireless EM7355, Qualcomm® Gobi™ 4G LTE/ HSPA+/EVDO/GSM/GPRS/EDGE, GPS				
M.2 SSD	<i>Some:</i> 15.6" (396mm) FHD (1920x1080), 300 nits, 500:1 contrast ratio <i>Some:</i> 15.5" (394mm) 3K (2880x1620), 350 nits, 1000:1 contrast ratio, IPS						SIM card (optional)		<i>AT&T / Verizon:</i> AT&T® / Verizon® LTE (4G), contract required with service provider <i>Select:</i> User selectable, contract required with service provider				
Widescreen display Multi-touch Color calibration Camera (optional)	None <i>Optional:</i> Pantone® color calibrator by X-Rite® color calibration sensor in palm rest HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus							Bluetooth™ Ethernet NFC	Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter Intel Ethernet Connection I217-LM (Clarkville) <i>Optional:</i> Near Field Communication				
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4600 in processor, and NVIDIA Quadro® K1100M or K2100M , PCI Express® x16, 2GB memory						Security Security chip vPro (optional) Fingerprint reader		Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant Intel vPro Technology <i>Optional:</i> Fingerprint reader on the palm rest, swipe sensor				
Dimensions ³ Weight ² Case material Battery type Max battery life ¹⁰ AC adapter	15.6W" (WxDxH): 14.83" x 9.77" x 1.10-1.16"; 376.6mm x 248.1mm x 27.9-29.5mm 6-cell: starting at 5.57 lb (2.53kg); 9-cell: starting at 5.95 lb (2.70kg) Glass-Fiber Reinforced Plastic Li-Ion 6-cell (56Wh) or 9-cell (99.9Wh), HW Authentication 6-cell: up to 6.2 hr; 9-cell: up to 11.1 hr <i>dual-core:</i> 135-watt AC adapter; <i>quad-core:</i> 170-watt AC adapter							Preload	<i>Win8 / 8.1 DG Win7:</i> Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 / 8.1 Pro 64-bit <i>Win8 / 8.1 64:</i> Windows 8 / 8.1 64-bit <i>Win8 / 8.1 P64:</i> Windows 8 / 8.1 Pro 64-bit				
Limited warranty ¹² 1-year - depot / 3-years (1-yr battery) - depot / 3-years (1-year battery) onsite													

ThinkPad W540 20BH (Optimus) - Windows 8 - II

Product Specifications Reference (PSREF)

Model	Processor	vPro	Graphics	Memory	Display	Storage	RAID	Optical	WLAN & Bluetooth	WWAN / M.2 SSD	SIM card	Smart card reader	Camera	Backlit key-board	Finger-print reader	NFC	Color calibration	Battery adapter	Power (watt)	Preload	Base warranty (year)	Global	Ann date (m/y)
20BH004PUS	i7-4800MQ	vPro	K2100M	4GBx2	15.5" 3K IPS	512G SSD	No	DVD±RW	7260 a/b/g/n+BT	Upg	None	None	720p	Backlit	Finger	None	X-Rite	9	170W	Win8 P64	3-depot	Yes	04/14
20BH004RUS	i7-4900MQ	vPro	K2100M	8GBx1	15.5" 3K IPS	512G SSD	No	DVD±RW	7260 a/b/g/n+BT	Upg	None	None	720p	Backlit	Finger	NFC	X-Rite	9	170W	Win8 P64	3-depot	Yes	04/14

• For detailed platform specifications, please see [ThinkPad W540 Platform Specifications sheet](#)

Processor	4th Generation Intel® Core™ i5 / i7 / i7 Extreme Processor						Audio support		HD Audio, Realtek® ALC3232 codec, Dolby® Home Theater® v4 / stereo speakers, 1W x 2 / dual array microphone, combo audio/microphone jack													
	Processor	# of Cores	Base Frequency	Max Turbo Frequency	Cache	Memory Speed	DDR3L-1600	Keyboard UltraNav™	6-row, spill-resistant, multimedia Fn keys, numeric keypad, optional LED backlight TrackPoint® pointing device and Mylar surface touchpad, integrated five buttons, multi-touch													
i5-4200M	2	2.5 GHz	3.1 GHz	3MB	None	ThinkLight™		None														
i5-4330M		2.8 GHz	3.5 GHz	3MB		Chipset		Mobile Intel QM87 Express Chipset														
i7-4600M		2.9 GHz	3.6 GHz	4MB		ExpressCard		One slot (ExpressCard/34)														
i7-4700MQ	4	2.4 GHz	3.4 GHz	6MB		Smart card reader		<i>Optional:</i> Smart card reader														
i7-4800MQ		2.7 GHz	3.7 GHz	8MB		Media reader		4-in-1 reader (MMC, SD, SDHC, SDXC), supports UHS-II SD card														
i7-4900MQ		2.8 GHz	3.8 GHz	8MB		Ports		Two USB 3.0, two USB 2.0 (one Always On), VGA, Mini DisplayPort / Thunderbolt, Ethernet (RJ-45), Dock connector														
i7-4930MX		3 GHz	3.9 GHz	8MB		WLAN ⁴		11b/g/n+BT: ThinkPad 11b/g/n, 2x2, Wi-Fi + BT, M.2 card 7260 b/g/n+BT: Intel Wireless-N 7260, 2x2, Wi-Fi + BT, M.2 card 7260 a/b/g/n+BT: Intel Dual Band Wireless-N 7260, 2x2, Wi-Fi + BT, M.2 card 7260 ac+BT: Intel Dual Band Wireless-AC 7260, 2x2, Wi-Fi + BT, M.2 card														
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, only 4+4, 8+8, 4+4+4+4, and 8+8+8+8 combinations supported <i>All:</i> PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable						WWAN (optional)	<i>Upg:</i> Wireless WAN upgradable EM7355: Sierra Wireless EM7355, Qualcomm® Gobi™ 4G LTE/HSPA+/EVDO/GSM/GPRS/EDGE, GPS														
Optical Ultrabay Storage	<i>Some:</i> DVD burner, 9.5mm Ultrabay slim, removable One modular bay for removable devices (right side, cold swap), 9.5mm high <i>Some:</i> SSD / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 6.0Gb/s, 2.5" wide, 7mm or 9.5mm high, APS <i>Some:</i> M.2 Solid State Drive (SSD), via M.2 card slot, exclusive with WWAN card						SIM card (optional)	AT&T / Verizon: AT&T® / Verizon® LTE (4G), contract required with service provider Select: User selectable, contract required with service provider														
M.2 SSD	<i>Some:</i> 15.6" (396mm) FHD (1920x1080) , 300 nits, 500:1 contrast ratio <i>Some:</i> 15.5" (394mm) 3K (2880x1620) , 350 nits, 1000:1 contrast ratio, IPS None <i>Optional:</i> Pantone® color calibrator by X-Rite® color calibration sensor in palm rest <i>Camera (optional):</i> HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus						Bluetooth™	Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter														
Widescreen display	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4600 in processor, and NVIDIA Quadro® K1100M or K2100M , PCI Express® x16, 2GB memory						Ethernet	Intel Ethernet Connection I217-LM (Clarkville)														
Multi-touch							Dimensions ³ 15.6W" (WxDxH): 14.83" x 9.77" x 1.10-1.16"; 376.6mm x 248.1mm x 27.9-29.5mm 6-cell: starting at 5.57 lb (2.53kg); 9-cell: starting at 5.95 lb (2.70kg)						NFC	<i>Optional:</i> Near Field Communication								
Color calibration	Case material Glass-Fiber Reinforced Plastic Battery type Li-Ion 6-cell (56Wh) or 9-cell (99.9Wh), HW Authentication Max battery life ¹⁰ 6-cell: up to 6.2 hr; 9-cell: up to 11.1 hr AC adapter <i>dual-core:</i> 135-watt AC adapter; <i>quad-core:</i> 170-watt AC adapter												Security	Power-on password, hard disk password, supervisor password, security keyhole								
Camera (optional)							Security chip Trusted Platform Module, TCG 1.2-compliant vPro (optional) Intel vPro Technology Fingerprint reader <i>Optional:</i> Fingerprint reader on the palm rest, swipe sensor						Security chip vPro (optional)	Intel vPro Technology								
Graphics	Preload Win8 / 8.1 DG Win7: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 / 8.1 Pro 64-bit Win8 / 8.1 64: Windows 8 / 8.1 64-bit Win8 / 8.1 P64: Windows 8 / 8.1 Pro 64-bit												Fingerprint reader	<i>Optional:</i> Fingerprint reader on the palm rest, swipe sensor								
Dimensions ³							Limited warranty ¹² 1-year - depot / 3-years (1-yr battery) - depot / 3-years (1-year battery) onsite						Preload	Win8 / 8.1 DG Win7: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 / 8.1 Pro 64-bit Win8 / 8.1 64: Windows 8 / 8.1 64-bit Win8 / 8.1 P64: Windows 8 / 8.1 Pro 64-bit								
Weight ²	Battery type Li-Ion 6-cell (56Wh) or 9-cell (99.9Wh), HW Authentication Max battery life ¹⁰ 6-cell: up to 6.2 hr; 9-cell: up to 11.1 hr AC adapter <i>dual-core:</i> 135-watt AC adapter; <i>quad-core:</i> 170-watt AC adapter												Preload	Win8 / 8.1 DG Win7: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 / 8.1 Pro 64-bit Win8 / 8.1 64: Windows 8 / 8.1 64-bit Win8 / 8.1 P64: Windows 8 / 8.1 Pro 64-bit								
Case material							Limited warranty ¹² 1-year - depot / 3-years (1-yr battery) - depot / 3-years (1-year battery) onsite						Preload	Win8 / 8.1 DG Win7: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 / 8.1 Pro 64-bit Win8 / 8.1 64: Windows 8 / 8.1 64-bit Win8 / 8.1 P64: Windows 8 / 8.1 Pro 64-bit								
Battery type	Limited warranty ¹² 1-year - depot / 3-years (1-yr battery) - depot / 3-years (1-year battery) onsite												Preload	Win8 / 8.1 DG Win7: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 / 8.1 Pro 64-bit Win8 / 8.1 64: Windows 8 / 8.1 64-bit Win8 / 8.1 P64: Windows 8 / 8.1 Pro 64-bit								
Max battery life ¹⁰							Limited warranty ¹² 1-year - depot / 3-years (1-yr battery) - depot / 3-years (1-year battery) onsite						Preload	Win8 / 8.1 DG Win7: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 / 8.1 Pro 64-bit Win8 / 8.1 64: Windows 8 / 8.1 64-bit Win8 / 8.1 P64: Windows 8 / 8.1 Pro 64-bit								
AC adapter	Limited warranty ¹² 1-year - depot / 3-years (1-yr battery) - depot / 3-years (1-year battery) onsite												Preload	Win8 / 8.1 DG Win7: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 / 8.1 Pro 64-bit Win8 / 8.1 64: Windows 8 / 8.1 64-bit Win8 / 8.1 P64: Windows 8 / 8.1 Pro 64-bit								

See footnotes for more detailed information

(KM1W-3) © Lenovo

ThinkPad W540 20BH (Optimus) - Onsite (Windows 8)

Product Specifications Reference (PSREF)

Model	Processor	vPro	Graphics	Memory	Display	Storage	RAID	Optical	WLAN & Bluetooth	WWAN / M.2 SSD	SIM card	Smart card reader	Cam-era	Backlit key-board	Finger-print reader	NFC	Color cali-brator	Bat-tery adapter	Power (watt)	Preload	Base warranty (year)	Glob-al	Ann date (m/y)
20BH001AUS	i7-4800MQ	vPro	K1100M	4GBx1	15.6" FHD	500G 7200	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	None	Finger	None	None	9	170W	Win8 P64	3-onsite	No	11/13
20BH001CUS	i7-4800MQ	vPro	K1100M	4GBx2	15.6" FHD	500G 7200	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	None	Finger	None	None	9	170W	Win8 P64	3-onsite	No	11/13
20BH001EUS	i7-4800MQ	vPro	K1100M	4GBx2	15.6" FHD	128G SSD	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	None	9	170W	Win8 P64	3-onsite	No	11/13
20BH001HUS	i7-4800MQ	vPro	K1100M	4GBx2	15.6" FHD	2x500G 7200	1	None	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	None	9	170W	Win8 P64	3-onsite	No	11/13
20BH001WUS	i7-4800MQ	vPro	K1100M	4GBx2	15.6" FHD	256G SSD eDrive	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	None	Finger	None	None	9	170W	Win8 P64	3-onsite	No	11/13
20BH002EUS	i7-4800MQ	vPro	K1100M	4GBx2	15.6" FHD	2x500G 7200	0	None	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	None	9	170W	Win8 P64	3-onsite	Yes	11/13
20BH002JUS	i7-4800MQ	vPro	K1100M	4GBx2	15.5" 3K IPS	256G SSD eDrive	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	None	9	170W	Win8 P64	3-onsite	Yes	11/13
20BH002MUS	i7-4800MQ	vPro	K1100M	4GBx2	15.6" FHD	256G SSD eDrive	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	None	9	170W	Win8 P64	3-onsite	Yes	11/13
20BH002NUS	i7-4800MQ	vPro	K1100M	4GBx2	15.6" FHD	500G 7200	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	None	9	170W	Win8 P64	3-onsite	Yes	11/13
20BH002QUS	i7-4800MQ	vPro	K1100M	4GBx2	15.6" FHD	180G SSD Opal	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	None	9	170W	Win8 P64	3-onsite	Yes	11/13
20BH002SUS	i7-4800MQ	vPro	K1100M	8GBx1	15.6" FHD	240G SSD Opal	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	None	9	170W	Win8 P64	3-onsite	Yes	11/13
20BH002UUS	i7-4800MQ	vPro	K1100M	8GBx1	15.5" 3K IPS	240G SSD Opal	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	None	9	170W	Win8 P64	3-onsite	Yes	11/13
20BH001KUS	i7-4900MQ	vPro	K2100M	4GBx2	15.6" FHD	500G 7200	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	None	9	170W	Win8 P64	3-onsite	No	11/13
20BH001MUS	i7-4900MQ	vPro	K2100M	4GBx2	15.6" FHD	128G SSD	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	None	9	170W	Win8 P64	3-onsite	No	11/13
20BH001NUS	i7-4900MQ	vPro	K2100M	4GBx2	15.6" FHD	180G SSD Opal	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	None	9	170W	Win8 P64	3-onsite	No	11/13
20BH001QUS	i7-4900MQ	vPro	K2100M	8GBx1	15.5" 3K IPS	500G 5400	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	NFC	X-Rite	9	170W	Win8 P64	3-onsite	No	01/14
20BH001RUS	i7-4900MQ	vPro	K2100M	8GBx1	15.5" 3K IPS	180G SSD Opal	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	NFC	X-Rite	9	170W	Win8 P64	3-onsite	No	01/14
20BH001SUS	i7-4900MQ	vPro	K2100M	8GBx1	15.5" 3K IPS	512G SSD	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	NFC	X-Rite	9	170W	Win8 P64	3-onsite	No	01/14
20BH001YUS	i7-4900MQ	vPro	K2100M	4GBx2	15.6" FHD	256G SSD eDrive	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	None	Finger	None	None	9	170W	Win8 P64	3-onsite	No	11/13
20BH002GUS	i7-4800MQ	vPro	K2100M	4GBx2	15.6" FHD	256G SSD eDrive	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	None	9	170W	Win8 P64	3-onsite	Yes	11/13
20BH002LUS	i7-4800MQ	vPro	K2100M	4GBx2	15.5" 3K IPS	512G SSD	No	DVD±RW	7260 ac+BT	Upg	None	None	720p	Backlit	Finger	None	X-Rite	9	170W	Win8 P64	3-onsite	Yes	11/13

• For detailed platform specifications, please see [ThinkPad W540 Platform Specifications sheet](#)

Processor	4th Generation Intel® Core™ i5 / i7 / i7 Extreme Processor	Audio support	HD Audio, Realtek® ALC3232 codec, Dolby® Home Theater® v4 / stereo speakers, 1W x 2 / dual array microphone, combo audio/microphone jack																																				
	<table border="1"> <thead> <tr> <th>Processor</th> <th># of Cores</th> <th>Base Frequency</th> <th>Max Turbo Frequency</th> <th>Cache</th> <th>Memory Speed</th> </tr> </thead> <tbody> <tr><td>i5-4200M</td><td rowspan="3">2</td><td>2.5 GHz</td><td>3.1 GHz</td><td>3MB</td><td rowspan="6">DDR3L-1600</td></tr> <tr><td>i5-4330M</td><td>2.8 GHz</td><td>3.5 GHz</td><td>3MB</td></tr> <tr><td>i7-4600M</td><td>2.9 GHz</td><td>3.6 GHz</td><td>4MB</td></tr> <tr><td>i7-4700MQ</td><td rowspan="4">4</td><td>2.4 GHz</td><td>3.4 GHz</td><td>6MB</td></tr> <tr><td>i7-4800MQ</td><td>2.7 GHz</td><td>3.7 GHz</td><td>6MB</td></tr> <tr><td>i7-4900MQ</td><td>2.8 GHz</td><td>3.8 GHz</td><td>8MB</td></tr> <tr><td>i7-4930MX</td><td>3 GHz</td><td>3.9 GHz</td><td>8MB</td></tr> </tbody> </table>	Processor	# of Cores	Base Frequency	Max Turbo Frequency	Cache	Memory Speed	i5-4200M	2	2.5 GHz	3.1 GHz	3MB	DDR3L-1600	i5-4330M	2.8 GHz	3.5 GHz	3MB	i7-4600M	2.9 GHz	3.6 GHz	4MB	i7-4700MQ	4	2.4 GHz	3.4 GHz	6MB	i7-4800MQ	2.7 GHz	3.7 GHz	6MB	i7-4900MQ	2.8 GHz	3.8 GHz	8MB	i7-4930MX	3 GHz	3.9 GHz	8MB	<p>Keyboard UltraNav™ 6-row, spill-resistant, multimedia Fn keys, numeric keypad, optional LED backlight TrackPoint® pointing device and Mylar surface touchpad, integrated five buttons, multi-touch</p> <p>ThinkLight™ None</p> <p>Chipset Mobile Intel QM87 Express Chipset</p> <p>ExpressCard One slot (ExpressCard/34)</p> <p>Smart card reader <i>Optional:</i> Smart card reader</p> <p>Media reader 4-in-1 reader (MMC, SD, SDHC, SDXC), supports UHS-II SD card</p> <p>Ports Two USB 3.0, two USB 2.0 (one Always On), VGA, Mini DisplayPort / Thunderbolt, Ethernet (RJ-45), Dock connector</p>
Processor	# of Cores	Base Frequency	Max Turbo Frequency	Cache	Memory Speed																																		
i5-4200M	2	2.5 GHz	3.1 GHz	3MB	DDR3L-1600																																		
i5-4330M		2.8 GHz	3.5 GHz	3MB																																			
i7-4600M		2.9 GHz	3.6 GHz	4MB																																			
i7-4700MQ	4	2.4 GHz	3.4 GHz	6MB																																			
i7-4800MQ		2.7 GHz	3.7 GHz	6MB																																			
i7-4900MQ		2.8 GHz	3.8 GHz	8MB																																			
i7-4930MX		3 GHz	3.9 GHz	8MB																																			
Memory	<p><i>dual-core model:</i> 16GB max⁷, two 204-pin SO-DIMM sockets</p> <p><i>quad-core model:</i> 32GB max, four 204-pin SO-DIMM sockets, only 4+4, 8+8, 4+4+4+4, and 8+8+8+8 combinations supported</p> <p><i>All:</i> PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable</p>	<p>WLAN⁴</p> <p><i>11b/g/n+BT:</i> ThinkPad 11b/g/n, 2x2, Wi-Fi + BT, M.2 card</p> <p><i>7260 b/g/n+BT:</i> Intel Wireless-N 7260, 2x2, Wi-Fi + BT, M.2 card</p> <p><i>7260 a/b/g/n+BT:</i> Intel Dual Band Wireless-N 7260, 2x2, Wi-Fi + BT, M.2 card</p> <p><i>7260 ac+BT:</i> Intel Dual Band Wireless-AC 7260, 2x2, Wi-Fi + BT, M.2 card</p>																																					
Optical	<p><i>Some:</i> DVD burner, 9.5mm Ultrabay slim, removable</p> <p>One modular bay for removable devices (right side, cold swap), 9.5mm high</p> <p><i>Some:</i> SSD / SATA 6.0Gb/s, 2.5" wide, 7mm high</p> <p><i>Some:</i> HDD / SATA 6.0Gb/s, 2.5" wide, 7mm or 9.5mm high, APS</p> <p><i>Some:</i> M.2 Solid State Drive (SSD), via M.2 card slot, exclusive with WWAN card</p>	<p>WWAN (<i>optional</i>)</p> <p><i>Upg:</i> Wireless WAN upgradable</p> <p><i>EM7355:</i> Sierra Wireless EM7355, Qualcomm® Gobi™ 4G LTE/ HSPA+ / EVDO/GSM/GPRS/EDGE, GPS</p>																																					
Ultrabay Storage		<p>SIM card (<i>optional</i>)</p> <p><i>AT&T / Verizon:</i> AT&T® / Verizon® LTE (4G), contract required with service provider</p> <p><i>Select:</i> User selectable, contract required with service provider</p>																																					
M.2 SSD		<p>Bluetooth™ Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter</p> <p>Ethernet Intel Ethernet Connection I217-LM (Clarkville)</p> <p>NFC <i>Optional:</i> Near Field Communication</p>																																					
Widescreen display	<p><i>Some:</i> 15.6" (396mm) FHD (1920x1080), 300 nits, 500:1 contrast ratio</p> <p><i>Some:</i> 15.5" (394mm) 3K (2880x1620), 350 nits, 1000:1 contrast ratio, IPS</p>	<p>Security Power-on password, hard disk password, supervisor password, security keyhole</p> <p>Security chip Trusted Platform Module, TCG 1.2-compliant</p> <p>vPro (<i>optional</i>) Intel vPro Technology</p> <p>Fingerprint reader <i>Optional:</i> Fingerprint reader on the palm rest, swipe sensor</p>																																					
Multi-touch	None	Preload	<p><i>Win8 / 8.1 DG Win7:</i> Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 / 8.1 Pro 64-bit</p> <p><i>Win8 / 8.1 64:</i> Windows 8 / 8.1 64-bit</p> <p><i>Win8 / 8.1 P64:</i> Windows 8 / 8.1 Pro 64-bit</p>																																				
Color calibration	<p><i>Optional:</i> Pantone® color calibrator by X-Rite® color calibration sensor in palm rest</p> <p>Camera (<i>optional</i>) HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus</p>	<p>Limited warranty¹² 1-year - depot / 3-years (1-yr battery) - depot / 3-years (1-year battery) onsite</p>																																					
Graphics	<p>NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4600 in processor, and NVIDIA Quadro® K1100M or K2100M, PCI Express® x16, 2GB memory</p>																																						
Dimensions ³	<p>15.6W" (WxDxH): 14.83" x 9.77" x 1.10-1.16"; 376.6mm x 248.1mm x 27.9-29.5mm</p>																																						
Weight ²	<p><i>6-cell:</i> starting at 5.57 lb (2.53kg); <i>9-cell:</i> starting at 5.95 lb (2.70kg)</p>																																						
Case material	Glass-Fiber Reinforced Plastic																																						
Battery type	Li-Ion 6-cell (56Wh) or 9-cell (99.9Wh), HW Authentication																																						
Max battery life ¹⁰	<p><i>6-cell:</i> up to 6.2 hr; <i>9-cell:</i> up to 11.1 hr</p>																																						
AC adapter	<p><i>dual-core:</i> 135-watt AC adapter; <i>quad-core:</i> 170-watt AC adapter</p>																																						

See footnotes for more detailed information

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Lenovo® ThinkPad X131e



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ThinkPad X131e 3368 (Intel) - TopSeller

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	Carrier	Top color	Finger print reader	Blue-tooth	Battery cells	Preload (mm/yy)	Ann Date
3368-2DU	Cel 877	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	07/12
3368-2EU	Cel 877	2GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	07/12
3368-2GU	Cel 877	4GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	07/12
3368-2HU	Cel 877	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	07/12
3368-2JU	i3-2367M	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Prem 64	07/12
3368-2KU	i3-2367M	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	07/12
3368-2LU	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
3368-2MU	i3-2367M	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Pro 64	07/12
3368-33U	i3-2367M	4GBx1	11.6" HD	720p	320G 7200	Intel 2230	WWAN upg	None	Black	None	BT	6	Pro 64	09/12
3368-2XU	Cel 877	4GBx1	11.6" HD	720p	320G 7200	Intel 2230	WWAN upg	None	Black	None	BT	6	Pro 64	09/12
3368-2VU	Cel 877	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	09/12
3368-2TU	i3-2367M	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	09/12

- **Small and medium business (SMB) model(s), part of the US TopSeller™ Program**
- **Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning	<i>Entry ultraportable for excellent usability and reliability; one spindle</i>										Preloaded operating system²⁰			
Processor	Intel® Celeron® 877 processor (2 cores, 1.40GHz, 2MB cache), Intel HD Graphics, DDR3 memory controller (up to 1333MHz) Intel Core™ i3-2367M processor (2 cores, 1.40GHz, 3MB cache), Intel HD Graphics 3000, DDR3 memory controller (up to 1333MHz), Hyper-Threading technology										Some: Genuine Windows® 7 Home Premium 64 Some: 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 applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager			
Optical	None (use optional USB-based optical drive)										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 • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • Symantec™ VIP • Windows Live™ Essentials • Microsoft® Office 2010 preloaded; purchase product key to activate			
SATA disk	Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm, upgradable Some: 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										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			
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus													
Graphics	Intel HD Graphics or Intel HD Graphics 3000 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: 2048x1536 (VGA) @75Hz; 1920x1200 (HDMI) @60Hz</i>													
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	Some: 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1, Wi-Fi + Bluetooth combo adapter Some: 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + BT combo adapter Some: 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, 2x2, Wi-Fi + BT combo adapter													
PCIe WWAN	Some: Wireless WAN upgradable Some: Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS													
Carrier	Some: User selectable, AT&T®, Verizon®, or Sprint®, 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										For compatible accessories, please go to O-X131-E sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet			

See footnotes for more detailed information

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ThinkPad X131e 3368 (Intel) - TopSeller - II

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	Carrier	Top color	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Ann Date (mm/yy)
3368-5AU	Cel 1007U	2GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Prem 64	08/13

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

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 system²⁰ - Genuine Windows® 7 Home Premium 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 applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager			
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™										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			
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: 2048x1536 (VGA)@75Hz; 1920x1200 (HDMI)@60Hz</i>													
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)										Supports ThinkVantage® technologies			
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	Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS													
Carrier	User selectable, AT&T®, Verizon®, or Sprint®, 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										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			
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module, TCG 1.2-compliant													
Fingerprint reader	None										For compatible accessories, please go to O-X131-E sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet			
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available													

See footnotes for more detailed information

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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	Carrier	Top color	Finger print reader	Bat- tery Blue- tooth cells	Preload	Ann Date (mm/yy)
3368-3HU	i3-3227U	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT 6	Win7 Pro64	10/12
3368-3GU	Cel 1007U	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT 6	Win7 Pro64	10/12
3368-3DU	i3-3227U	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT 6	Win7 Pro64	10/12
3368-3CU	Cel 1007U	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT 6	Win7 Pro64	10/12
3368-3BU	Cel 887	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT 6	Win7 Pro64	10/12
3368-3AU	i3-2365M	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT 6	Win7 Pro64	10/12
3368-39U	i3-2365M	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT 6	Win7 Pro64	10/12
3368-38U	Cel 887	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT 6	Win7 Pro64	10/12
3368-32U	i3-2367M	4GBx1	11.6" HD	720p	320G 7200	Intel 2230	WWAN upg	None	Black	None	BT 6	Win8 Pro64	10/12
3368-3AU	Cel 877	4GBx1	11.6" HD	720p	320G 7200	Intel 2230	WWAN upg	None	Black	None	BT 6	Win8 Pro64	10/12
3368-2YU	i3-2367M	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT 6	Win8 Pro64	10/12
3368-2WU	Cel 877	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT 6	Win8 Pro64	10/12
3368-2UU	Cel 877	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT 6	Win8 Pro64	10/12
3368-2SU	i3-2367M	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT 6	Win8 Pro64	10/12
Positioning Processor	<p><i>Entry ultraportable for excellent usability and reliability; one spindle</i> Intel® Celeron® 877 processor (2 cores, 1.40GHz, 2MB cache), Intel HD Graphics, DDR3 memory controller (up to 1333MHz) Intel Celeron 887 processor (2 cores, 1.50GHz, 2MB cache), Intel HD Graphics, DDR3 memory controller (up to 1333MHz) Intel Celeron 1007U processor (2 cores, 1.50GHz, 2MB cache), Intel HD Graphics, DDR3 memory controller (up to 1600MHz) Intel Core™ i3-2365M processor (2 cores, 1.40GHz, 3MB cache), Intel HD Graphics 3000, DDR3 memory controller (up to 1333MHz), Hyper-Threading technology 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</p>										<p>Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit</p> <p>Preloaded applications⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Microsoft® Office 2010 preloaded; purchase product key to activate</p> - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded; purchase product key to activate • PC Device Stage - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • 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) Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm, upgradable Some: 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	<p>Intel HD Graphics, Intel HD Graphics 3000, or 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: 2048x1536 (VGA)@75Hz; 1920x1200 (HDMI)@60Hz</i></p>												
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): 11.6" x 8.5" x 1.27"; 293.4mm x 216mm x 32.3mm</i>												
Weight ²	<i>6-cell: from 3.92 lb (1.78kg)</i>												
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): up to 8.5 hr</i>												
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										<p>Supports ThinkVantage® technologies</p> <p>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 Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹²</p> <p>For compatible accessories, please go to O-X131-E sheet; For Lenovo service²² upgrade options, please go to S-TA sheet</p>		
PCIe WLAN ⁴	Some: 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + BT combo adapter Some: 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, 2x2, Wi-Fi + Bluetooth combo adapter												
PCIe WWAN	Some: Wireless WAN upgradable Some: Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS												
Carrier	Some: User selectable, AT&T®, Verizon®, or Sprint®, 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												

See footnotes for more detailed information

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

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	Carrier	Top color	Finger print reader	Blue-tooth	Battery cells	Preload	Ann Date (mm/yy)
3368-55U	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
3368-53U	i3-3227U	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win8 Pro64	02/13
3368-4UU	i3-3227U	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	02/13
3368-4SU	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
3368-4RU	i3-3227U	2GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	02/13
3368-4QU	i3-3227U	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win8 64	02/13
3368-4MU	Cel 1007U	2GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win8 64	02/13
3368-4HU	Cel 1007U	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win8 Pro64	02/13
3368-4FU	Cel 1007U	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win8 Pro64	02/13
3368-48U	Cel 1007U	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win8 Pro64	02/13
3368-46U	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
3368-44U	Cel 1007U	2GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	02/13
3368-3PU	Cel 1007U	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Win8 Pro64	05/13
3368-3QU	Cel 1007U	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Win8 Pro64	05/13
3368-3MU	i3-3227U	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Win8 Pro64	05/13
3368-3LU	i3-3227U	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Win8 Pro64	05/13
3368-5EU	Cel 1007U	4GBx1	11.6" HD	720p	500G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win8 64	02/14
3368-5DU	Cel 1007U	2GBx1	11.6" HD	720p	500G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win8 64	02/14
3368-5CU	Cel 1007U	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win8 64	02/14
3368-5BU	Cel 1007U	2GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win8 64	02/14

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

Positioning Processor	Entry ultraportable for excellent usability and reliability; one spindle Intel® Celeron® 1007U processor (2 cores, 1.50GHz, 2MB cache), Intel HD Graphics, DDR3 memory controller (up to 1600MHz) 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 - 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 Preloaded applications⁵ (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 • 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 • 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) Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm, upgradable Some: 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 or 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: 2048x1536 (VGA)@75Hz; 1920x1200 (HDMI)@60Hz</i>	
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): 11.6" x 8.5" x 1.27"; 293.4mm x 216mm x 32.3mm</i>	
Weight ²	<i>6-cell: from 3.92 lb (1.78kg)</i>	
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): up to 8.5 hr</i>	
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	Some: Wireless WAN upgradable Some: Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS	
Carrier	Some: User selectable, AT&T®, Verizon®, or Sprint®, 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	

See footnotes for more detailed information

ThinkPad X131e 3367 (Intel)

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	Carrier	Top color	Finger print reader	Blue-tooth	Bat-tery cells	Preload (mm/yy)	Ann Date
3367-2ZU	Cel 877	2GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	07/12
3367-32U	Cel 877	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	07/12
3367-33U	Cel 877	4GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	07/12
3367-34U	Cel 877	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	07/12
3367-35U	i3-2367M	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Prem 64	07/12
3367-36U	i3-2367M	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	07/12
3367-37U	i3-2367M	2GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	07/12
3367-38U	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
3367-3AU	i3-2367M	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Pro 64	07/12

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

Positioning	<i>Entry ultraportable for excellent usability and reliability; one spindle</i>										Preloaded operating system²⁰			
Processor	Intel® Celeron® 877 processor (2 cores, 1.40GHz, 2MB cache), Intel HD Graphics, DDR3 memory controller (up to 1333MHz) Intel Core™ i3-2367M processor (2 cores, 1.40GHz, 3MB cache), Intel HD Graphics 3000, DDR3 memory controller (up to 1333MHz), Hyper-Threading technology										Some: Genuine Windows® 7 Home Premium 64 Some: 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 applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager			
Optical	None (use optional USB-based optical drive)										Preloaded applications¹⁴ (only some listed)			
SATA disk	Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm, upgradable Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm, upgradable, Active Protection System™										• 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 • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • Symantec™ VIP • Windows Live™ Essentials • Microsoft® Office 2010 preloaded; purchase product key to activate			
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 or Intel HD Graphics 3000 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: 2048x1536 (VGA) @75Hz; 1920x1200 (HDMI) @60Hz</i>													
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): 11.6" x 8.5" x 1.27"; 293.4mm x 216mm x 32.3mm</i>													
Weight ²	<i>6-cell: from 3.92 lb (1.78kg)</i>													
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): up to 8.5 hr</i>													
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										Supports ThinkVantage® technologies			
PCIe WLAN ⁴	Some: 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1, Wi-Fi + Bluetooth combo adapter Some: 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + BT combo adapter										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			
PCIe WWAN	Some: Wireless WAN upgradable Some: Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS													
Carrier	Some: User selectable, AT&T®, Verizon®, or Sprint®, 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										For compatible accessories, please go to O-X131-E sheet;			
Security chip	Trusted Platform Module, TCG 1.2-compliant										For Lenovo service ²² upgrade options, please go to S-TA sheet			
Fingerprint reader	None													
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available													

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 ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	Carrier	Top color	Finger print reader	Blue-tooth	Battery cells	Preload	Ann Date (mm/yy)
3367-8CU	i3-3227U	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Win7 Pro64	10/12
3367-8BU	Cel 1007U	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Win7 Pro64	10/12
3367-86U	i3-3227U	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Win7 Pro64	10/12
3367-85U	Cel 1007U	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Win7 Pro64	10/12
3367-84U	i3-2365M	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	10/12
3367-83U	i3-2365M	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	10/12
3367-82U	Cel 887	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	10/12
3367-7ZU	Cel 887	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	10/12
3367-8TU	i3-2365M	2GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	12/12
3367-8SU	i3-2365M	4GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	12/12
3367-8RU	Cel 887	4GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	12/12
3367-8QU	Cel 887	2GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	12/12
3367-8PU	Cel 887	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	No	6	Win7 Pro64	12/12
3367-8NU	i3-2365M	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	No	6	Win8 64	12/12

Positioning Processor	<p><i>Entry ultraportable for excellent usability and reliability; one spindle</i></p> <p>Intel® Celeron® 887 processor (2 cores, 1.50GHz, 2MB cache), Intel HD Graphics, DDR3 memory controller (up to 1333MHz)</p> <p>Intel Celeron 1007U processor (2 cores, 1.50GHz, 2MB cache), Intel HD Graphics, DDR3 memory controller (up to 1600MHz)</p> <p>Intel Core™ i3-2365M processor (2 cores, 1.40GHz, 3MB cache), Intel HD Graphics 3000, DDR3 memory controller (up to 1333MHz), Hyper-Threading technology</p> <p>Intel Core i3-3227U processor (2 cores, 1.90GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), HT technology</p>	<p>Preloaded operating system²⁰</p> <ul style="list-style-type: none"> - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 64-bit <p>Preloaded applications⁵ (only some listed)</p> <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 • Microsoft® Office 2010 preloaded; purchase product key to activate - Windows 8 models <ul style="list-style-type: none"> • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded; purchase product key to activate - 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 • 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) Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm, upgradable Some: 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, Intel HD Graphics 3000, or 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: 2048x1536 (VGA)@75Hz; 1920x1200 (HDMI)@60Hz</i>	
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): 11.6" x 8.5" x 1.27"; 293.4mm x 216mm x 32.3mm</i>	
Weight ²	<i>6-cell: from 3.92 lb (1.78kg)</i>	
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): up to 8.5 hr</i>	
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	Some: 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1 Some: 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1, Wi-Fi + Bluetooth combo adapter Some: 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + BT combo adapter	Supports ThinkVantage® technologies
PCIe WWAN	Some: Wireless WAN upgradable Some: Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS	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
Carrier Modem	Some: User selectable, AT&T®, Verizon®, or Sprint®, contract required with service provider	
Bluetooth™	Some: 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	For compatible accessories, please go to O-X131-E sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet
Limited warranty ¹² 1-year - depot repair service / service upgrades ²² available		

See footnotes for more detailed information

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(JT1-4) June 2014

ThinkPad X131e 3367 (Intel) - Windows 8 - II

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	Carrier	Top color	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Ann Date (mm/yy)
3367-9GU	Cel 1007U	2GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win8 Pro64	02/13
3367-9FU	Cel 1007U	2GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	02/13
3367-9EU	Cel 1007U	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	02/13
3367-9DU	Cel 1007U	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win8 Pro64	02/13
3367-9CU	Cel 1007U	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win8 Pro64	02/13
3367-9BU	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
3367-9AU	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
3367-99U	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
3367-98U	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
3367-8HU	i3-3227U	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Win7 Pro64	05/13
3367-8GU	Cel 1007U	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Win8 Pro64	05/13
3367-8FU	Cel 1007U	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Win8 Pro64	05/13
3367-8EU	i3-3227U	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Win8 Pro64	05/13
3367-A2U	Cel 1007U	4GBx1	11.6" HD	720p	500G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win8 64	02/14
3367-9ZU	Cel 1007U	2GBx1	11.6" HD	720p	500G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win8 64	02/14
3367-9YU	Cel 1007U	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win8 64	02/14
3367-9XU	Cel 1007U	2GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win8 64	02/14

Positioning Processor	Entry ultraportable for excellent usability and reliability; one spindle Intel® Celeron® 1007U processor (2 cores, 1.50GHz, 2MB cache), Intel HD Graphics, DDR3 memory controller (up to 1600MHz) 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 - 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 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 • 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) Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm, upgradable Some: 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 or 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: 2048x1536 (VGA) @75Hz; 1920x1200 (HDMI) @60Hz</i>	
Keyboard TrackPoint®	6-row, spill-resistant, multimedia Fn keys TrackPoint pointing device, Internet Scroll Bar ¹³	
Touch pad ThinkLight™	UltraNav™, buttonless touchpad below keyboard, multi-touch None	
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>11.6W" (WxDxH): 11.6" x 8.5" x 1.27"; 293.4mm x 216mm x 32.3mm</i> <i>6-cell: from 3.92 lb (1.78kg)</i> Midnight black or Heatwave red (top); black bottom Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell, HW Authentication <i>6-cell (62.4Whr): up to 8.5 hr</i>	
Chipset Multicard reader ExpressCard Ports	Mobile Intel HM77 Express Chipset 4-in-1 reader (MMC, SD, SDHC, SDXC) None Two USB 3.0, one powered USB 2.0, external monitor (VGA DB-15, HDMI), 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, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + Bluetooth combo adapter Some: Wireless WAN upgradable Some: Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS	
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	Some: User selectable, AT&T®, Verizon®, or Sprint®, contract required with service provider None Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter Realtek® RTL8111F Gigabit Network Connection None HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 2 watt x 2 / monaural digital 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 None	
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	For compatible accessories, please go to O-X131-E sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet

See footnotes for more detailed information

ThinkPad X131e 3372 (AMD) - TopSeller

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	Carrier	Top color	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Ann Date (mm/yy)
3372-29U	E-300	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Prem 64	07/12
3372-2AU	E-300	2GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	07/12
3372-2BU	E-300	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	07/12
3372-2CU	E2-1800	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Prem 64	07/12
3372-2DU	E2-1800	2GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	07/12
3372-2EU	E2-1800	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	07/12
3372-2FU	E2-1800	4GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	07/12
3372-2GU	E2-1800	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	07/12
3372-2UU	E-300	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	09/12
3372-2QU	E-300	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	09/12
3372-2PU	E2-1800	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	09/12
3372-2JU	E2-1800	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Pro 64	10/12
3372-3PU	E1-1200	2GBx1	11.6" HD	720p	320G 5400	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Prem 64	04/13
3372-3NU	E1-1200	4GBx1	11.6" HD	720p	500G 5400	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Prem 64	04/13

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

Positioning Processor	Entry ultraportable for excellent usability and reliability; one spindle AMD Accelerated Processor E-300 (2 cores, 1.30GHz, 1MB L2 cache) , integrated AMD Radeon™ HD 6310 Graphics, integrated DDR3 memory controller (up to 1066MHz) 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) 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 system²⁰ Some: Genuine Windows® 7 Home Premium 64 Some: 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, two 204-pin SO-DIMM sockets * System clocks down for processors with 1066MHz or 1333MHz DDR3 memory controller	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™ • Symantec™ VIP • Windows Live™ Essentials
Optical SATA disk	None (use optional USB-based optical drive) Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm, upgradable Some: 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 6310, 7310, or 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: 1920x1080 (VGA or HDMI)</i>	
Keyboard TrackPoint®	6-row, spill-resistant, multimedia Fn keys	
Touch pad	TrackPoint pointing device, Internet Scroll Bar ¹³	
ThinkLight™	UltraNav™, buttonless touchpad below keyboard, multi-touch None	
Dimensions ³ Weight ²	11.6W" (WxDxH): 11.6" x 8.5" x 1.27"; 293.4mm x 216mm x 32.3mm 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	Some: 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1, Wi-Fi + Bluetooth combo adapter Some: 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + BT combo adapter	Supports ThinkVantage® technologies
PCIe WWAN	Some: Wireless WAN upgradable Some: Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS	65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 6.0-compliant GREENGUARD® certified ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Carrier Modem	Some: User selectable, AT&T®, Verizon®, or Sprint®, contract required with service provider 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	For compatible accessories, please go to O-X131-E sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

See footnotes for more detailed information

ThinkPad X131e 3372 (AMD) - 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	Carrier	Top color	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Ann Date (mm/yy)
3372-32U	E2-1800	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Win7 Pro64	10/12
3372-2ZU	E-300	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Win7 Pro64	10/12
3372-2YU	E2-1800	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	10/12
3372-2XU	E-300	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	10/12
3372-2WU	E-300	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	10/12
3372-2VU	E2-1800	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	10/12
3372-2TU	E-300	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win8 Pro64	10/12
3372-2SU	E2-1800	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win8 Pro64	10/12
3372-2RU	E-300	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Win8 Pro64	10/12
3372-2VU	E2-1800	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	10/12
3372-2MU	E-300	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win8 Pro64	10/12
3372-3MU	E1-1200	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win8 Pro64	02/13
3372-3LU	E1-1200	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Win8 Pro64	02/13
3372-3VU	E1-1200	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	02/13
3372-3JU	E1-1200	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	02/13
3372-3HU	E1-1200	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Win8 64	02/13
3372-3GU	E1-1200	2GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	02/13
3372-3FU	E1-1200	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	02/13
3372-3QU	E1-1200	2GBx1	11.6" HD	720p	320G 5400	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	04/13

Positioning Processor	<p><i>Entry ultraportable for excellent usability and reliability; one spindle</i></p> <p>AMD Accelerated Processor E-300 (2 cores, 1.30GHz, 1MB L2 cache), integrated AMD Radeon™ HD 6310 Graphics, integrated DDR3 memory controller (up to 1066MHz)</p> <p>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)</p> <p>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)</p>	<p>Preloaded operating system²⁰</p> <ul style="list-style-type: none"> - <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 - <i>Some:</i> Windows 8 Pro 64-bit <p>Preloaded applications⁵ (only some listed)</p>
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	<ul style="list-style-type: none"> - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager
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™	<ul style="list-style-type: none"> - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch
mSATA™ SSD	None	<ul style="list-style-type: none"> - 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™
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 6310, 7310, or 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	<i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1, Wi-Fi + Bluetooth combo adapter <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + BT combo adapter	Supports ThinkVantage® technologies
PCIe WWAN	<i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS	65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 6.0-compliant GREENGUARD® certified ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Carrier	<i>Some:</i> User selectable, AT&T®, Verizon®, or Sprint®, 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	
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	For compatible accessories, please go to O-X131-E sheet;
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	For Lenovo service ²² upgrade options, please go to S-TA sheet

See footnotes for more detailed information

ThinkPad X131e 3371 (AMD)

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	Carrier	Top color	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Ann Date (mm/yy)
3371-2HU	E-300	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Prem 64	07/12
3371-2JU	E-300	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	07/12
3371-2KU	E-300	2GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	07/12
3371-2LU	E2-1800	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Prem 64	07/12
3371-2MU	E2-1800	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	07/12
3371-2NU	E2-1800	2GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	07/12
3371-2PU	E2-1800	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	07/12
3371-2RU	E2-1800	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Pro 64	10/12

Positioning Processor	<i>Entry ultraportable for excellent usability and reliability; one spindle</i> AMD Accelerated Processor E-300 (2 cores, 1.30GHz, 1MB L2 cache) , integrated AMD Radeon™ HD 6310 Graphics, integrated DDR3 memory controller (up to 1066MHz) 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 system²⁰ Some: Genuine Windows® 7 Home Premium 64 Some: 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, two 204-pin SO-DIMM sockets * System clocks down for processors with 1066MHz or 1333MHz DDR3 memory controller	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™ • Symantec™ VIP • Windows Live™ Essentials
Optical SATA disk	None (use optional USB-based optical drive) Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm, upgradable Some: 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 6310 or 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: 1920x1080 (VGA or HDMI)</i>	
Keyboard TrackPoint®	6-row, spill-resistant, multimedia Fn keys	
Touch pad	TrackPoint pointing device, Internet Scroll Bar ¹³	
ThinkLight™	UltraNav™, buttonless touchpad below keyboard, multi-touch	
Dimensions ³	<i>11.6W" (WxDxH): 11.6" x 8.5" x 1.27"; 293.4mm x 216mm x 32.3mm</i>	
Weight ²	<i>6-cell: from 3.92 lb (1.78kg)</i>	
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): up to 8.5 hr</i>	
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	Some: 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1, Wi-Fi + Bluetooth combo adapter Some: 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + BT combo adapter	Supports ThinkVantage® technologies
PCIe WWAN	Some: Wireless WAN upgradable Some: Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS	65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 6.0-compliant GREENGUARD® certified ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Carrier	Some: User selectable, AT&T®, Verizon®, or Sprint®, 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	
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	For compatible accessories, please go to O-X131-E sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet

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 ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	Carrier	Top color	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Ann Date (mm/yy)
3371-7RU	E-300	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Win7 Pro64	10/12
3371-7QU	E-300	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Win7 Pro64	10/12
3371-7PU	E2-1800	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Win7 Pro64	10/12
3371-7NU	E2-1800	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Win7 Pro64	10/12
3371-7MU	E2-1800	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	10/12
3371-7LU	E2-1800	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	10/12
3371-7KU	E-300	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	10/12
3371-7JU	E-300	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	10/12
3371-8AU	E-300	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Win8 64	12/12
3371-89U	E-300	2GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	12/12
3371-88U	E2-1800	2GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	12/12
3371-87U	E2-1800	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	12/12
3371-86U	E2-1800	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Win8 64	12/12
3371-8EU	E1-1200	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	02/13
3371-8DU	E1-1200	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Win8 64	02/13
3371-8CU	E1-1200	2GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	02/13
3371-8BU	E1-1200	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	02/13

Positioning Processor	<p><i>Entry ultraportable for excellent usability and reliability; one spindle</i></p> <p>AMD Accelerated Processor E-300 (2 cores, 1.30GHz, 1MB L2 cache), integrated AMD Radeon™ HD 6310 Graphics, integrated DDR3 memory controller (up to 1066MHz)</p> <p>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)</p> <p>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)</p>	<p>Preloaded operating system²⁰</p> <ul style="list-style-type: none"> - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 64-bit <p>Preloaded applications⁵ (only some listed)</p> <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 - 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, 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 6310, 7310, or 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	<i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1, Wi-Fi + Bluetooth combo adapter <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + BT combo adapter	Supports ThinkVantage® technologies
PCIe WWAN	<i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS	65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 6.0-compliant GREENGUARD® certified ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Carrier Modem	<i>Some:</i> User selectable, AT&T®, Verizon®, or Sprint®, contract required with service provider	
Bluetooth™	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	For compatible accessories, please go to O-X131-E sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet

See footnotes for more detailed information

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ThinkPad X131e Accessories

Product Specifications Reference (PSREF)

Memory

2GB PC3-12800 DDR3 SODIMM	0A65722	ann 06/05/12
4GB PC3-12800 DDR3 SODIMM	0A65723	ann 06/05/12

Storage and removable storage

ThinkPad 16GB mSATA Solid State Cache Drive	0B47309	ann 12/11/12
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 3.0 Secure 500GB Hard Drive	0A65619	ann 11/29/11
USB 3.0 Secure 750GB Hard Drive	0A65616	ann 11/29/11
USB 3.0 Secure 1TB Hard Drive	0A65621	ann 08/28/12
Lenovo Slim USB Portable DVD Burner	0A33988	ann 06/14/11

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

ThinkPad Gobi™ Mobile Broadband Option	0A36185	ann 04/12/11
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ThinkPad Expansion

USB 2.0 Port Replicator with Digital Video	0A33942	ann 03/22/11
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Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
Ultraslim Plus Wireless Keyboard and Mouse ⁵²	0A34032	ann 04/05/11
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann 08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

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

Mouse

Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann 12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann 06/04/02
ThinkPad Bluetooth Laser Mouse	0A36407	ann 06/26/12
Lenovo Wireless Laser Mouse ⁵²	0A36188	ann 12/20/11

Multimedia

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

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

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

Batteries

ThinkPad Battery 35+ (6-cell)	0A36292	ann 07/05/11
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann 09/20/05

⁴⁴ Requires the ThinkPad 90W AC Adapter

40Y7659 or the adapter provided with the system.

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter	40Y7696	ann 01/05/06
ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
90W Ultraslim AC/DC Combo Adapter	41R4493	ann 09/22/09

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

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

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

More information at www.lenovopowertips.com

Carrying Cases

Up to 12.5" widescreen models:

ThinkPad 12.5" Ultrabook Topload	0B47416	ann 12/04/12
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Up to 15.6" widescreen models:

Lenovo Messenger Max	41U5253	ann 05/01/07
Lenovo Performance BackPack	41U5254	ann 05/01/07
ThinkPad Business Topload Case	43R2476	ann 05/13/08
ThinkPad Business Backpack	43R2482	ann 05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann 05/13/08
ThinkPad Executive Leather Case	43R2480	ann 05/13/08
Lenovo Sport Backpack - Red	0A33896	ann 02/28/12
Lenovo Sport Slimcase - Red	0A33897	ann 02/28/12
Lenovo Sport Messenger - Red	0A33898	ann 02/28/12
Lenovo Sport Backpack - Blue	0B47298	ann 08/28/12
Lenovo Sport Slimcase - Blue	0B47300	ann 08/28/12
Lenovo Sport Messenger - Blue	0B47299	ann 08/28/12
Lenovo Sport Backpack - Grey	0B47301	ann 08/28/12
Lenovo Sport Slimcase - Grey	0B47303	ann 08/28/12
Lenovo Sport Messenger - Grey	0B47302	ann 08/28/12

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

Lenovo luxury cases at www.lenovoluxurycases.com

Monitors

ThinkVision L2251x Wide 22" (VGA, DP)	2578HB6	ann 10/20/09
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⁶⁹ DisplayPort cable is not included.

ThinkVision LT1421 Wide 14" Mobile Monitor with Protective Screen Cover (USB 2.0)	1452DS6	ann 08/16/11
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ThinkVision LT1421 Wide 14" Mobile Monitor with Protective Case (USB 2.0)	1452DB6	ann 08/16/11
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More information at www.lenovo.com/support/monitors

Monitor Accessories⁴⁶

Lenovo HDMI to HDMI Monitor Cable	0B47070	ann 05/22/12
Lenovo HDMI to VGA Monitor Cable	0B47069	ann 06/26/12
Lenovo USB 3.0 to DVI/VGA Monitor Adapter	0B47072	ann 08/14/12
Lenovo USB Soundbar	0A36190	ann 05/01/12
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

For more information on accessories:

www.lenovo.com/accessories

Purchase Lenovo accessories

www.lenovo.com/support/accessories

Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide

Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com

An Options Compatibility Configurator for Lenovo systems



Lenovo® ThinkPad X140e



Lenovo ThinkPad X140e



Lenovo ThinkPad X140e



Lenovo ThinkPad X140e



Lenovo ThinkPad X140e



Lenovo ThinkPad X140e

ThinkPad X140e 20BL (AMD) - TopSeller

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	Carrier	Top color	Finger print reader	Battery cells	Preload	Ann Date (mm/yy)
20BL000BUS	A4-5000	4GBx1	11.6" HD	720p	500G 7200	TP 11a/b/g/n	None	None	Black	None	6	Win7 Pro64 DG Win8	11/13
20BL000CUS	E1-2500	2GBx1	11.6" HD	720p	500G 7200	TP 11b/g/n	None	None	Black	None	6	Win7 Pro64 DG Win8	11/13
20BL000DUS	A4-5000	2GBx1	11.6" HD	720p	500G 7200	TP 11a/b/g/n	None	None	Black	None	6	Win7 Pro64 DG Win8	11/13
20BL000EUS	E1-2500	2GBx1	11.6" HD	720p	500G 7200	TP 11a/b/g/n	None	None	Black	None	6	Win7 Pro64 DG Win8	11/13
20BL000FUS	A4-5000	4GBx1	11.6" HD	720p	500G 7200	TP 11b/g/n	None	None	Black	None	6	Win7 Pro64 DG Win8	11/13
20BL000GUS	A4-5000	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	None	None	Black	None	6	Win7 Pro64 DG Win8	11/13
20BL0014US	E1-2500	4GBx1	11.6" HD	720p	500G 7200	TP 11a/b/g/n	None	None	Black	None	6	Win7 Pro64 DG Win8.1	04/14

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

Positioning Processor	<i>Entry ultraportable for excellent usability and reliability; one spindle</i> AMD APU E1-2500 (2 cores, 1.40GHz, 1MB L2 cache), integrated AMD Radeon™ HD 8240 Graphics, DDR3L memory controller (up to 1333MHz) AMD APU A4-5000 (4 cores, 1.50GHz, 2MB L2 cache), integrated AMD Radeon HD 8330 Graphics, DDR3L memory controller (up to 1600MHz)	Preloaded operating system²⁰ - Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 / 8.1 Pro 64-bit
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3L, non-parity, two 204-pin SO-DIMM sockets * System clocks down for processors with 1333MHz DDR3 memory controller	Preloaded applications⁵ (only some listed) • Lenovo Solution Center • ThinkVantage Product Recovery • Rescue and Recovery™ • ThinkVantage System Update • Lenovo Cloud Storage by SugarSync • Intel AppUp® • PC Device Stage • Adobe® Reader® • Nitro Pro • Evernote® • Skype™ • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions)
Optical SATA disk	None <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm, upgradable <i>Some:</i> Hard Disk Drive / SATA 6.0Gb/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, 500:1 contrast ratio	
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus	
Graphics	AMD Radeon HD 8240 or 8330 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: 1920x1080 (VGA or HDMI)</i>	
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 1.38"; 293.4mm x 216mm x 35mm	
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 (62.4Whr), HW Authentication	
Battery - life ¹⁰	6-cell: up to 8.5 hr	
Chipset	AMD SoC (System on Chip) platform	
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)	
Ports	Two USB 3.0, one powered USB 2.0, VGA, HDMI, ethernet (RJ-45)	
WLAN ⁴	<i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1, Wi-Fi + Bluetooth combo adapter <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + BT combo adapter	Supports ThinkVantage® technologies
WWAN	None	
Carrier	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	65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 6.0-compliant GREENGUARD® certified ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
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	For Lenovo service ²² upgrade options, please go to QP-TA sheet

See footnotes for more detailed information

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(JT1K-1) April 2014

ThinkPad X140e 20BL (AMD) - 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	Carrier	Top color	Finger print reader	Blue-tooth	Battery cells	Preload	Ann Date (mm/yy)
20BL0004US	A4-5000	4GBx1	11.6" HD	720p	500G 5400	TP 11a/b/g/n	None	None	Black	None	BT	6	Win8 64	11/13
20BL0005US	A4-5000	2GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	None	None	Black	None	BT	6	Win8 64	11/13
20BL0006US	E1-2500	2GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	None	None	Black	None	BT	6	Win8 64	11/13
20BL0007US	E1-2500	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	None	None	Black	None	BT	6	Win8 64	11/13
20BL0008US	E1-2500	2GBx1	11.6" HD	720p	500G 7200	TP 11b/g/n	None	None	Black	None	BT	6	Win8 64	11/13

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

Positioning Processor	<p><i>Entry ultraportable for excellent usability and reliability; one spindle</i></p> <p>AMD APU E1-2500 (2 cores, 1.40GHz, 1MB L2 cache), integrated AMD Radeon™ HD 8240 Graphics, DDR3L memory controller (up to 1333MHz)</p> <p>AMD APU A4-5000 (4 cores, 1.50GHz, 2MB L2 cache), integrated AMD Radeon HD 8330 Graphics, DDR3L memory controller (up to 1600MHz)</p>	<p>Preloaded operating system²⁰ - Windows® 8 64-bit</p> <p>Preloaded applications⁵ (only some listed)</p> <ul style="list-style-type: none"> • Lenovo Solution Center • Lenovo Support • Lenovo Companion • ThinkVantage System Update • Lenovo Cloud Storage by SugarSync - Metro • Lenovo Cloud Storage by SugarSync • Intel AppUp® • PC Device Stage • AccuWeather • Amazon Kindle • Nitro Pro • Evernote® • Skype™ • Rara Streaming • Norton Studio • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions)
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3L, non-parity, two 204-pin SO-DIMM sockets * System clocks down for processors with 1333MHz DDR3 memory controller	
Optical SATA disk	None <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm, upgradable <i>Some:</i> Hard Disk Drive / SATA 6.0Gb/s, 2.5" wide, 7mm, upgradable, Active Protection System™	
mSATA™ SSD	None	
Widescreen display Camera	11.6" (295mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 500:1 contrast ratio HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus	
Graphics	AMD Radeon HD 8240 or 8330 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: 1920x1080 (VGA or HDMI)</i>	
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, spill-resistant, multimedia Fn keys TrackPoint pointing device, Internet Scroll Bar ¹³ UltraNav™, buttonless touchpad below keyboard, multi-touch None	
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	11.6W" (WxDxH): 11.6" x 8.5" x 1.38"; 293.4mm x 216mm x 35mm <i>6-cell:</i> from 3.92 lb (1.78kg) Midnight black or Heatwave red (top); black bottom Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell (<i>62.4Whr</i>), HW Authentication <i>6-cell:</i> up to 8.5 hr	
Chipset Multicard reader Ports	AMD SoC (System on Chip) platform 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, one powered USB 2.0, VGA, HDMI, ethernet (RJ-45)	
PCIe WLAN ⁴ PCIe WWAN Carrier Modem Bluetooth™ Ethernet Audio support Security Security chip Fingerprint reader	<i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1, Wi-Fi + Bluetooth combo adapter <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + BT combo adapter None None None Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter Realtek® RTL8111F Gigabit Network Connection HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 2 watt x 2 / monaural digital microphone, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole None None	Supports ThinkVantage® technologies
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 6.0-compliant GREENGUARD® certified ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
		For Lenovo service ²² upgrade options, please go to QP-TA sheet

See footnotes for more detailed information

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ThinkPad X140e 20BM (AMD)

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	Carrier	Top color	Finger print reader	Blue-tooth	Battery cells	Preload	Ann Date (mm/yy)
20BM0009US	E1-2500	4GBx1	11.6" HD	720p	500G 7200	TP 11a/b/g/n	None	None	Black	None	BT	6	Win7 Pro64 DG	11/13
20BM000AUS	A4-5000	4GBx1	11.6" HD	720p	500G 7200	TP 11a/b/g/n	None	None	Black	None	BT	6	Win7 Pro64 DG	11/13
20BM000BUS	E1-2500	4GBx1	11.6" HD	720p	500G 7200	TP 11b/g/n	None	None	Black	None	BT	6	Win7 Pro64 DG	11/13
20BM000CUS	E1-2500	2GBx1	11.6" HD	720p	500G 7200	TP 11a/b/g/n	None	None	Black	None	BT	6	Win7 Pro64 DG	11/13
20BM000DUS	A4-5000	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	None	None	Black	None	BT	6	Win7 Pro64 DG	11/13

Positioning Processor	<p><i>Entry ultraportable for excellent usability and reliability; one spindle</i></p> <p>AMD APU E1-2500 (2 cores, 1.40GHz, 1MB L2 cache), integrated AMD Radeon™ HD 8240 Graphics, DDR3L memory controller (up to 1333MHz)</p> <p>AMD APU A4-5000 (4 cores, 1.50GHz, 2MB L2 cache), integrated AMD Radeon HD 8330 Graphics, DDR3L memory controller (up to 1600MHz)</p>											<p>Preloaded operating system²⁰</p> <ul style="list-style-type: none"> Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit 	
Memory	<p>8GB max⁷ / PC3-12800 1600MHz DDR3L, non-parity, two 204-pin SO-DIMM sockets</p> <p>* System clocks down for processors with 1333MHz DDR3 memory controller</p>											<p>Preloaded applications⁵ (only some listed)</p> <ul style="list-style-type: none"> Lenovo Solution Center ThinkVantage Product Recovery Rescue and Recovery™ ThinkVantage System Update Lenovo Cloud Storage by SugarSync Intel AppUp® PC Device Stage Adobe® Reader® Nitro Pro Evernote® Skype™ Microsoft® Office preloaded; purchase a product key to activate Norton™ Internet Security (30 days of virus definitions) 	
Optical SATA disk	<p>None</p> <p><i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm, upgradable</p> <p><i>Some:</i> Hard Disk Drive / SATA 6.0Gb/s, 2.5" wide, 7mm, upgradable, Active Protection System™</p>												
mSATA™ SSD	None												
Widescreen display	<p>11.6" (295mm) HD (1366x768) TFT color, anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 500:1 contrast ratio</p>												
Camera	<p>HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus</p>												
Graphics	<p>AMD Radeon HD 8240 or 8330 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;</p> <p><i>Maximum external resolution:</i> 1920x1080 (VGA or HDMI)</p>												
Keyboard	<p>6-row, spill-resistant, multimedia Fn keys</p>												
TrackPoint®	<p>TrackPoint pointing device, Internet Scroll Bar¹³</p>												
Touch pad	<p>UltraNav™, buttonless touchpad below keyboard, multi-touch</p>												
ThinkLight™	None												
Dimensions ³	<p><i>11.6W" (WxDxH):</i> 11.6" x 8.5" x 1.38"; 293.4mm x 216mm x 35mm</p>												
Weight ²	<p><i>6-cell:</i> from 3.92 lb (1.78kg)</p>												
Case color	<p>Midnight black or Heatwave red (top); black bottom</p>												
Case material	<p>Acrylonitrile-Butadiene-Styrene (ABS) plastic</p>												
Battery - type	<p>Lithium Ion 6-cell (62.4Whr), HW Authentication</p>												
Battery - life ¹⁰	<p><i>6-cell:</i> up to 8.5 hr</p>												
Chipset	<p>AMD SoC (System on Chip) platform</p>												
Multicard reader	<p>4-in-1 reader (MMC, SD, SDHC, SDXC)</p>												
Ports	<p>Two USB 3.0, one powered USB 2.0, VGA, HDMI, ethernet (RJ-45)</p>												
PCIe WLAN ⁴	<p><i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1, Wi-Fi + Bluetooth combo adapter</p> <p><i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + BT combo adapter</p>											<p>Supports ThinkVantage® technologies</p>	
PCIe WWAN	None												
Carrier	None												
Modem	None												
Bluetooth™	<p>Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter</p>												
Ethernet	<p>Realtek® RTL8111F Gigabit Network Connection</p>												
Audio support	<p>HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 2 watt x 2 / monaural digital microphone, combo audio/mic jack</p>											<p>65-watt AC Adapter</p> <p>EPEAT™ Gold rating</p> <p>ENERGY STAR® 6.0-compliant</p> <p>GREENGUARD® certified</p> <p>ROHS-compliant</p> <p>International Warranty Service¹⁷</p> <p>24 hour x 7 day¹⁸ toll-free support during the warranty period¹²</p>	
Security	<p>Power-on password, hard disk password, supervisor password, security keyhole</p>												
Security chip	None												
Fingerprint reader	None												
Limited warranty ¹²	<p>1-year - depot repair service / service upgrades²² available</p>											<p>For Lenovo service²² upgrade options, please go to QP-TA sheet</p>	

See footnotes for more detailed information

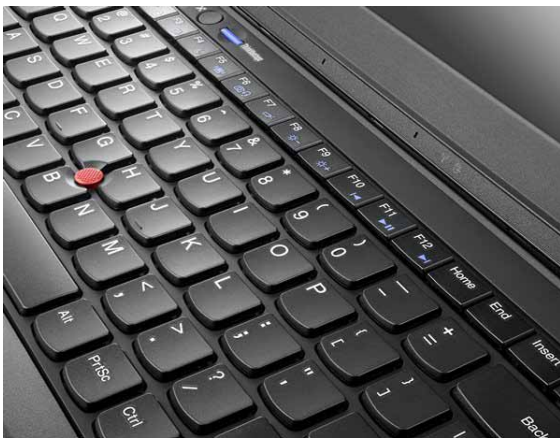
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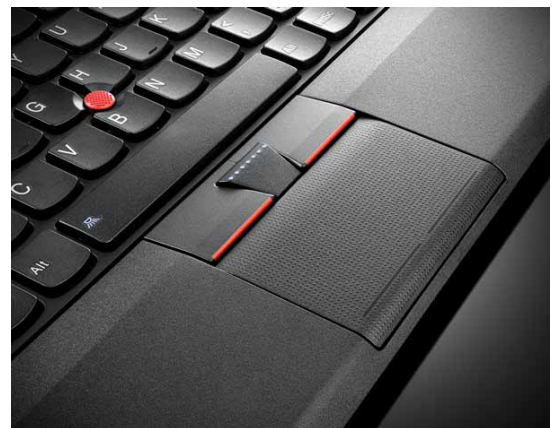
Lenovo® ThinkPad X230



Lenovo ThinkPad X230



Lenovo ThinkPad X230



Lenovo ThinkPad X230



Lenovo ThinkPad X230



Lenovo ThinkPad X230

ThinkPad X230 (2320) - TopSeller

Type-model	Processor	Memory	Wide-screen display	Disk SATA GB ^B 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 AMT	Intel vPro	Preload (mm/yy)	Ann date
2320-8VU	i5-3210M	4GBx1	12.5" HD	128G SSD	Optional	Opt	None	Intel 2200 ²⁸	WWAN upg	Fing	6	No	No	Pro 64	06/12
2320-33U	i5-3210M	4GBx1	12.5" HD	180G SSD	Optional	Opt	None	Intel 2200	WWAN upg	Fing	6	No	No	Pro 64	06/12
2320-32U	i5-3210M	4GBx1	12.5" HD	500G 7200	Optional	Opt	None	Intel 2200	WWAN upg	Fing	6	No	No	Pro 64	06/12
2320-2ZU	i5-3210M	4GBx1	12.5" HD	320G 7200	Optional	Opt	None	Intel 2200	WWAN upg	Fing	6	No	No	Pro 64	06/12
2320-A9U	i7-3520M	4GBx1	12.5" HD	180G SSD	DVD±RW	UltraB	Backlit	Intel 6205 ²⁸	WWAN upg	Fing	6	iAMT	vPro	Pro 64	07/12
2320-A7U	i5-3320M	4GBx1	12.5" HD	500G 7200	DVD±RW	UltraB	Backlit	Intel 6205	WWAN upg	Fing	6	iAMT	vPro	Pro 64	07/12
2320-A5U	i5-3320M	4GBx1	12.5" HD	500G 7200	Optional	Opt	Backlit	Intel 6205	WWAN upg	Fing	6	iAMT	vPro	Pro 64	07/12
2320-A3U	i5-3210M	4GBx1	12.5" HD	500G 7200	Optional	Opt	Backlit	Intel 2200	WWAN upg	Fing	6	No	No	Pro 64	07/12

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

Positioning Processor	<i>An ultraportable for the executive on the move; one spindle</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 - 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) • Access Connections™ • ThinkVantage Power Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • Microsoft® Office preloaded; purchase a product key to activate
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	Supports ThinkVantage® technologies
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	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
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	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
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>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 Carrier 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 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	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

ThinkPad X230 (2320) - TopSeller - II

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Battery Carrier	Intel vPro	Pre-load	Ann date (mm/yy)
2320-8UU	i5-3320M	4GBx1	12.5" HD	720p	128G SSD	DVD±RW	UltraB	None	Intel 6205 ²⁸	WWAN upg	None	6	vPro	Pro 64 06/12
2320-8TU	i7-3520M	4GBx1	12.5" HD	720p	128G SSD	DVD±RW	UltraB	None	Intel 6205	WWAN upg	None	6	vPro	Pro 64 06/12
2320-3BU	i5-3320M	4GBx1	12.5" HD	None	320G 7200	Optional	Opt	None	Intel 6205	Gobi 3000	select	6	vPro	Pro 64 06/12
2320-3AU	i7-3520M	4GBx1	12.5" HD	720p	500G 7200	Optional	Opt	None	Intel 6205	Gobi 3000	select	6	vPro	Pro 64 06/12
2320-39U	i7-3520M	4GBx1	12.5" HD	720p	500G 7200	DVD±RW	UltraB	None	Intel 6205	WWAN upg	None	6	vPro	Pro 64 06/12
2320-38U	i7-3520M	4GBx1	12.5" HD	720p	180G SSD	DVD±RW	UltraB	None	Intel 6205	WWAN upg	None	6	vPro	Pro 64 06/12
2320-37U	i5-3320M	4GBx1	12.5" HD	720p	180G SSD	DVD±RW	UltraB	None	Intel 6205	WWAN upg	None	6	vPro	Pro 64 06/12
2320-36U	i5-3320M	4GBx1	12.5" HD	720p	500G 7200	DVD±RW	UltraB	None	Intel 6205	WWAN upg	None	6	vPro	Pro 64 06/12
2320-35U	i5-3320M	4GBx1	12.5" HD	720p	320G 7200	DVD±RW	UltraB	None	Intel 6205	WWAN upg	None	6	vPro	Pro 64 06/12
2320-34U	i5-3320M	4GBx1	12.5" HD	720p	320G 7200	Optional	Opt	None	Intel 6205	WWAN upg	None	6	vPro	Pro 64 06/12

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

Positioning Processor	<i>An ultraportable for the executive on the move; 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
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager
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	Preloaded applications¹⁴ (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
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 <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	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-slim 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
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>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, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS <i>Some:</i> User selectable, AT&T®, Verizon®, or Sprint®, contract required with service provider	
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	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	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
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	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-yr battery - depot repair service / service upgrades ²² available	

See footnotes for more detailed information

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ThinkPad X230 (2320) - TopSeller (Windows 8)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Disk SATA GB ² rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	Card	Battery cells	Intel AMT	Intel vPro	Preload	Ann date (mm/yy)
2320-HQU	i7-3520M	4GBx1	12.5" HD	180G SSD	DVD±RW	UltraB	Backlit	Intel 6205 ²⁸	WWAN upg	6	iAMT	vPro	Win7 Pro64	10/12	
2320-HPU	i5-3320M	4GBx1	12.5" HD	500G 7200	DVD±RW	UltraB	Backlit	Intel 6205	WWAN upg	6	iAMT	vPro	Win7 Pro64	10/12	
2320-HNU	i5-3320M	4GBx1	12.5" HD	500G 7200	Optional	Opt	Backlit	Intel 6205	WWAN upg	6	iAMT	vPro	Win7 Pro64	10/12	
2320-HMU	i5-3210M	4GBx1	12.5" HD	500G 7200	Optional	Opt	Backlit	Intel 2200	WWAN upg	6	No	No	Win7 Pro64	10/12	
2320-AAU	i7-3520M	4GBx1	12.5" HD	180G SSD	DVD±RW	UltraB	Backlit	Intel 6205	WWAN upg	6	iAMT	vPro	Win8 Pro64	10/12	
2320-A8U	i5-3320M	4GBx1	12.5" HD	500G 7200	DVD±RW	UltraB	Backlit	Intel 6205	WWAN upg	6	iAMT	vPro	Win8 Pro64	10/12	
2320-A6U	i5-3320M	4GBx1	12.5" HD	500G 7200	Optional	Opt	Backlit	Intel 6205	WWAN upg	6	iAMT	vPro	Win8 Pro64	10/12	
2320-A4U	i5-3210M	4GBx1	12.5" HD	500G 7200	Optional	Opt	Backlit	Intel 2200	WWAN upg	6	No	No	Win8 Pro64	10/12	
2320-JCU	i7-3520M	4GBx1	12.5" HD Prem	180G SSD	DVD±RW	UltraB	Backlit	Intel 6205	WWAN upg	6	iAMT	vPro	Win7 Pro64	10/12	
2320-JBU	i5-3320M	4GBx1	12.5" HD Prem	500G 7200	DVD±RW	UltraB	Backlit	Intel 6205	WWAN upg	6	iAMT	vPro	Win7 Pro64	10/12	
2320-JAU	i5-3320M	4GBx1	12.5" HD Prem	500G 7200	Optional	Opt	Backlit	Intel 6205	WWAN upg	6	iAMT	vPro	Win7 Pro64	10/12	
2320-J9U	i5-3210M	4GBx1	12.5" HD Prem	500G 7200	Optional	Opt	Backlit	Intel 2200	WWAN upg	6	No	No	Win7 Pro64	10/12	

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

Positioning Processor	<i>An ultraportable for the executive on the move; one spindle</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 - <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	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	Preloaded applications⁵ (only some listed)
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	<ul style="list-style-type: none"> - 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
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)	Supports ThinkVantage® technologies
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	ThinkPad Ultrabase Series 3
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) Display cover: Magnesium + PCABS; Bottom: 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	<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: <ul style="list-style-type: none"> - Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 Disks supported (some): <ul style="list-style-type: none"> • 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 <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)	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
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 Carrier 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 <i>Some:</i> Intel Active Management Technology (iAMT)	
Security Security chip Fingerprint reader	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	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-yr battery - depot repair service / service upgrades ²² available	

See footnotes for more detailed information

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ThinkPad X230 (2320) - TopSeller (Windows 8) - II

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Disk SATA GB ^a rpm	Optical in UltraBase Series 3	ThinkPad Ultrabase Series 3	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card /mSATA	Bat-tery cells	Intel AMT	Intel vPro	Preload	Ann date (mm/yy)
2320-JPU	i5-3230M	4GBx1	12.5" HD	500G 7200	Optional	Opt	Backlit	Intel 2200	Finger	6	None	No	Win7 Pro64	02/13
2320-KMU	i5-3360M	4GBx1	12.5" HD	240G FDE SSD	Optional	Opt	Backlit	Intel 6205 ²⁸	Finger	6	iAMT	vPro	Win8 Pro64	02/13
2320-KLU	i5-3320M	4GBx1	12.5" HD	180G SSD	Optional	Opt	Backlit	Intel 6205	Finger	6	iAMT	vPro	Win8 Pro64	02/13
2320-KKU	i5-3230M	4GBx1	12.5" HD	180G SSD	Optional	Opt	Backlit	Intel 2200	Finger	6	None	No	Win7 Pro64	02/13
2320-KJU	i5-3230M	4GBx1	12.5" HD	180G SSD	Optional	Opt	Backlit	Intel 2200	Finger	6	None	No	Win8 Pro64	02/13
2320-KHU	i5-3320M	4GBx1	12.5" HD	500G 7200	Optional	Opt	Backlit	Intel 2200	Finger	6	None	No	Win8 Pro64	02/13
2320-L9U	i7-3520M	4GBx1	12.5" HD	320G 7200 OPAL	Optional	Opt	Backlit	Intel 6205	Finger	6	iAMT	vPro	Win7 Pro64	04/13
2320-L8U	i7-3520M	4GBx1	12.5" HD	256G SSD	Optional	Opt	Backlit	Intel 6205	Finger	6	iAMT	vPro	Win7 Pro64	04/13
2320-L7U	i5-3320M	4GBx1	12.5" HD	256G SSD	Optional	Opt	Backlit	Intel 6205	Finger	6	iAMT	vPro	Win7 Pro64	04/13
2320-L6U	i5-3320M	4GBx1	12.5" HD	320G 7200 OPAL	Optional	Opt	Backlit	Intel 6205	Finger	6	iAMT	vPro	Win7 Pro64	04/13
2320-LVU	i7-3520M	4GBx1	12.5" HD	500G 7200	Optional	Opt	Backlit	Intel 6205	None	6	iAMT	vPro	Win7 Pro64	07/13
2320-LUU	i7-3520M	4GBx1	12.5" HD	256G SSD	Optional	Opt	Backlit	Intel 6205	None	6	iAMT	vPro	Win7 Pro64	07/13
2320-LTU	i5-3320M	4GBx1	12.5" HD	500G 7200	Optional	Opt	Backlit	Intel 6205	None	6	iAMT	vPro	Win7 Pro64	07/13
2320-LSU	i5-3320M	4GBx1	12.5" HD	128G SSD	Optional	Opt	Backlit	Intel 6205	None	6	iAMT	vPro	Win7 Pro64	07/13
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 i5-3360M 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 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 - 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 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			
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			
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										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			
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 <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	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 Carrier 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 <i>Some:</i> Intel Active Management Technology (iAMT)													
Security Security chip Fingerprint reader	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										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-yr battery - depot repair service / service upgrades ²² available													

See footnotes for more detailed information

ThinkPad X230 (2324)

Type-model	Processor	Memory	Widescreen display	Disk SATA GB ³ rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Finger print reader	Bat- tery Blue- tooth cells	Global (G) Intel vPro	GMP (P)	Pre- load	Ann date (mm/yy)
2324-4TU	i5-3320M	4GBx1	12.5" HD	180G SSD	Optional	Opt	None	Intel 6205 ²⁸	upg	Fing	BT	6	vPro	Pro 64	06/12
2324-3YU	i7-3520M	4GBx1	12.5" HD Prem	180G SSD	Optional	Opt	None	Intel 6205	upg	Fing	BT	9	vPro	Pro 64	06/12
2324-3XU	i7-3520M	4GBx1	12.5" HD	500G 7200	Optional	Opt	None	Intel 6205	upg	Fing	BT	9	vPro	Pro 64	06/12
2324-3WU	i5-3320M	4GBx1	12.5" HD Prem	500G 7200	Optional	Opt	None	Intel 6205	upg	Fing	BT	6	vPro	G Pro 64	06/12
2324-3VU	i5-3320M	4GBx1	12.5" HD Prem	500G 7200	DVD±RW	UltraB	None	Intel 6205	upg	Fing	BT	6	vPro	G Pro 64	06/12
2324-3UU	i7-3520M	4GBx1	12.5" HD Prem	320G 7200	Optional	Opt	None	Intel 6205	upg	Fing	BT	9	vPro	Pro 64	06/12
2324-3TU	i5-3360M	4GBx1	12.5" HD	320G 7200	Optional	Opt	None	Intel 6205	upg	Fing	BT	9	vPro	Pro 64	06/12
2324-3SU	i5-3360M	4GBx1	12.5" HD	320G 7200	Optional	Opt	None	Intel 6205	upg	No	No	6	vPro	Pro 64	06/12
2324-3RU	i5-3360M	4GBx1	12.5" HD Prem	320G 7200	Optional	Opt	None	Intel 6205	upg	Fing	BT	9	vPro	Pro 64	06/12
2324-3QU	i5-3320M	4GBx1	12.5" HD Prem	320G 7200	Optional	Opt	None	Intel 6205	upg	Fing	BT	6	vPro	G Pro 64	06/12
2324-3PU	i5-3320M	4GBx1	12.5" HD	320G 7200	DVD±RW	UltraB	None	Intel 6205	upg	Fing	BT	6	vPro	G Pro 64	06/12
2324-5XU	i7-3520M	4GBx1	12.5" HD	500G 7200	DVD±RW	UltraB	Backlit	Intel 6205	upg	Fing	BT	6	vPro	Pro 64	07/12
2324-5VU	i5-3320M	4GBx1	12.5" HD	180G SSD	DVD±RW	UltraB	Backlit	Intel 6205	upg	Fing	BT	6	vPro	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	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
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	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
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>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)	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
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier 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 <i>Some:</i> 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	
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	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-yr battery - depot repair service / service upgrades²² available	

See footnotes for more detailed information

ThinkPad X230 (2324) - II

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ³ rpm	Optical in UltraBase Series 3	ThinkPad Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Finger print reader	Bat- tery cells	Global (G) Intel vPro (P)	Ann date (mm/yy)
2324-3NU	i5-3320M	4GBx1	12.5" HD	720p	320G 7200	Optional	Opt	None	Intel 6205 ²⁸	Gobi select	Fing BT	6 vPro	Pro 64 06/12
2324-3MU	i5-3320M	4GBx1	12.5" HD	No	320G 7200	Optional	Opt	None	Intel 6205	upg None	No	6 vPro	Pro 64 06/12
2324-2LU	i5-3320M	4GBx1	12.5" HD	720p	320G 7200	Optional	Opt	None	Intel 6205	upg None	Fing BT	6 vPro	Pro 64 06/12
2324-25U	i5-3360M	4GBx1	12.5" HD Prem	720p	320G 7200	Optional	Opt	None	Intel 6205	upg None	Fing BT	6 vPro	Pro 64 06/12
2324-23U	i7-3520M	4GBx1	12.5" HD Prem	No	180G SSD	Optional	Opt	None	Intel 6300 ²⁸	upg None	Fing BT	9 vPro	Pro 64 06/12
2324-22U	i5-3360M	4GBx1	12.5" HD	720p	320G 7200	Optional	Opt	None	Intel 6205	upg None	No	6 vPro	Pro 64 06/12
2324-5SU	i5-3320M	4GBx1	12.5" HD Prem	720p	320G 7200	Optional	Opt	None	Intel 6205	upg None	Fing BT	6 vPro	Pro 64 07/12
2324-5RU	i5-3320M	4GBx1	12.5" HD	720p	500G 7200	DVD±RW	UltraB	None	Intel 6205	upg None	Fing BT	6 vPro	Pro 64 07/12
2324-5QU	i5-3320M	4GBx1	12.5" HD	720p	180G SSD	Optional	Opt	None	Intel 6205	upg None	Fing BT	6 vPro	Pro 64 07/12
2324-5NU	i5-3320M	4GBx1	12.5" HD	720p	320G 7200	Optional	Opt	None	Intel 6205	upg None	No	6 vPro	Pro 64 07/12
2324-5PU	i5-3320M	4GBx1	12.5" HD	720p	320G 7200	DVD±RW	UltraB	None	Intel 6205	upg None	Fing BT	6 vPro	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 system ²⁰ - Genuine Windows® 7 Professional 64
Memory	16GB max ⁷ / 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 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										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
mSATA™ SSD	None										
Widescreen display	Some: 12.5" (317.5mm) HD (1366x768) TFT color, anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio Some: (Premium) 12.5" (317.5mm) HD (1366x768) TFT color, anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, WideView (170° viewing)										
Camera	Some: HD720p resolution, 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 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; 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) 2324-5PU model: 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)										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
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN	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 Some: Wireless WAN upgradable Some: Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS										
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	Some: User selectable, AT&T®, Verizon®, or Sprint®, contract required with service provider None Some: 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										
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										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-yr battery - depot repair service / service upgrades ²² available										

See footnotes for more detailed information

ThinkPad X230 (2324) - Windows 8

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	Bat-tery Blue-tooth	Global (G) Intel AMT vPro (P)	Intel GMP (P)	Preload	Ann date (mm/yy)	
2324-67U	i5-3320M	4GBx1	12.5" HD	No	320G 7200	Optional	Opt	None	Intel 2200	No	No	6	No	No	G Win8 Pro64	10/12
2324-66U	i7-3520M	4GBx1	12.5" HD	720p	180G SSD	Optional	Opt	None	Intel 6205 ²⁸	Fing BT	6	iAMT vPro	G	Win8 Pro64	10/12	
2324-65U	i7-3520M	4GBx1	12.5" HD	720p	500G 7200	Optional	Opt	None	Intel 6205	Fing BT	6	iAMT vPro	G	Win8 Pro64	10/12	
2324-64U	i5-3320M	4GBx1	12.5" HD	720p	180G SSD	Optional	Opt	None	Intel 6205	Fing BT	6	iAMT vPro	G	Win8 Pro64	10/12	
2324-63U	i5-3320M	4GBx1	12.5" HD	720p	500G 7200	Optional	Opt	None	Intel 6205	Fing BT	6	iAMT vPro	G	Win8 Pro64	10/12	
2324-62U	i5-3320M	4GBx1	12.5" HD	720p	320G 7200	Optional	Opt	None	Intel 6205	Fing BT	6	iAMT vPro	G	Win8 Pro64	10/12	
2324-5YU	i7-3520M	4GBx1	12.5" HD	720p	500G 7200	DVD±RW	UltraB	Backlit	Intel 6205	Fing BT	6	iAMT vPro		Win8 Pro64	10/12	
2324-5WU	i5-3320M	4GBx1	12.5" HD	720p	180G SSD	DVD±RW	UltraB	Backlit	Intel 6205	Fing BT	6	iAMT vPro		Win8 Pro64	10/12	
2324-8AU	i7-3520M	4GBx1	12.5" HD Prem	720p	256G SSD	Optional	Opt	Backlit	Intel 6205	Fing BT	6	iAMT vPro		Win7 Pro64	12/12	
2324-89U	i7-3520M	4GBx1	12.5" HD Prem	720p	240G FDE SSD	Optional	Opt	Backlit	Intel 6205	Fing BT	6	iAMT vPro		Win8 Pro64	12/12	
2324-88U	i5-3320M	4GBx1	12.5" HD	720p	180G SSD	Optional	Opt	Backlit	Intel 6205	Fing BT	6	iAMT vPro		Win7 Pro64	12/12	
2324-87U	i5-3320M	4GBx1	12.5" HD	720p	256G SSD	Optional	Opt	Backlit	Intel 6205	Fing BT	6	iAMT vPro		Win7 Pro64	12/12	
2324-86U	i5-3320M	4GBx1	12.5" HD	720p	128G SSD	Optional	Opt	Backlit	Intel 6205	Fing BT	6	iAMT vPro		Win7 Pro64	12/12	
2324-85U	i5-3320M	4GBx1	12.5" HD	720p	500G 7200	Optional	Opt	Backlit	Intel 6205	Fing BT	6	iAMT vPro		Win7 Pro64	12/12	
2324-84U	i5-3320M	4GBx1	12.5" HD	720p	320G 7200	Optional	Opt	Backlit	Intel 6205	Fing BT	6	iAMT vPro		Win7 Pro64	12/12	
2324-93U	i5-3320M	4GBx1	12.5" HD	720p	240G FDE SSD	Optional	Opt	Backlit	Intel 6205	Fing BT	6	iAMT vPro		Win8 Pro64	02/13	
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 system ²⁰ - 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 applications ⁵ (only some listed)				
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											- Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • ThinkVantage Power Manager - Windows 8 models • Lenovo Support • Lenovo Companion - All models • Lenovo Solution Center • Password Manager • Microsoft® Office preloaded; purchase a product key to activate				
mSATA™ SSD	None											Supports ThinkVantage® technologies				
Widescreen display	Some: 12.5" (317.5mm) HD (1366x768) TFT color, anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio Some: (Premium) 12.5" (317.5mm) HD (1366x768) TFT color, anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, WideView (170° viewing)															
Camera	Some: HD720p resolution, 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											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				
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 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; external battery (64Whr, 0A36280): up to 10.6 hr; 9-cell plus external battery: up to 26.1 hr											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 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)															
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 Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	Wireless WAN upgradable None None Some: Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe 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															
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											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-yr battery - depot repair service / service upgrades ²² available															

See footnotes for more detailed information

ThinkPad X230 (2324) - Windows 8 - II

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Disk SATA GB ³ rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	Finger print reader	Bat-tery Intel vPro	Preload	Ann date (mm/yy)
2324-9CU	i7-3520M	4GBx1	12.5" HD	320G 7200 OPAL	Optional	Optional	Backlit	Intel 6205 ²⁸	WWAN upg	Finger	6 vPro	Win7 Pro64	04/13
2324-9BU	i7-3520M	4GBx1	12.5" HD	256G SSD	Optional	Optional	Backlit	Intel 6205	WWAN upg	Finger	6 vPro	Win7 Pro64	04/13
2324-9AU	i5-3320M	4GBx1	12.5" HD	320G 7200 OPAL	Optional	Optional	Backlit	Intel 6205	WWAN upg	Finger	6 vPro	Win7 Pro64	04/13
2324-9YU	i7-3520M	4GBx1	12.5" HD	256G SSD	Optional	Optional	Backlit	Intel 6205	WWAN upg	None	6 vPro	Win7 Pro64	07/13
2324-9XU	i7-3520M	4GBx1	12.5" HD	500G 7200	Optional	Optional	Backlit	Intel 6205	WWAN upg	None	6 vPro	Win7 Pro64	07/13
2324-9WU	i7-3520M	4GBx1	12.5" HD	128G SSD	Optional	Optional	Backlit	Intel 6205	WWAN upg	None	6 vPro	Win7 Pro64	07/13
2324-9VU	i5-3320M	4GBx1	12.5" HD	500G 7200	Optional	Optional	Backlit	Intel 6205	WWAN upg	None	6 vPro	Win7 Pro64	07/13
2324-9UU	i5-3320M	4GBx1	12.5" HD	128G SSD	Optional	Optional	Backlit	Intel 6205	WWAN upg	None	6 vPro	Win7 Pro64	07/13

• 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 system ²⁰ - Windows® 7 Professional 64 preinstalled through downgrade rights in 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 applications ⁵ (only some listed)
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										- Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Power Manager - Windows 8 models • Lenovo Support - All models • Lenovo Solution Center • Password Manager • Microsoft® Office preloaded; purchase a product key to activate
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
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										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
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 <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										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)										
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier 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										
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										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-yr battery - depot repair service / service upgrades ²² available										

See footnotes for more detailed information

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ThinkPad X230 (2325) - Onsite

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ³ rpm	Optical in Ultrabay	ThinkPad Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Smart Card Reader	Finger print reader	Bat- tery cells	Global (G) Intel vPro (P)	Ann Date (mm/yy)	
2325-5JU	i7-3520M	4GBx1	12.5" HD	720p	128G SSD	Optional	Opt	None	6205 ²⁸	upg	None	None	Fing BT	6 vPro	06/12
2325-2VU	i7-3520M	4GBx1	12.5" HD Prem	720p	180G SSD	Optional	Opt	None	6205	upg	None	None	Fing BT	9 vPro	06/12
2325-2UU	i5-3320M	4GBx1	12.5" HD	720p	180G SSD	Optional	Opt	None	6205	upg	None	None	Fing BT	6 vPro	G P 06/12
2325-2TU	i7-3520M	4GBx1	12.5" HD Prem	720p	500G 7200	Optional	Opt	None	6205	upg	None	None	Fing BT	9 vPro	06/12
2325-2SU	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
2325-2RU	i5-3360M	4GBx1	12.5" HD Prem	720p	320G 7200	Optional	Opt	None	6205	upg	None	None	Fing BT	9 vPro	06/12
2325-2QU	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
2325-2PU	i5-3320M	4GBx1	12.5" HD	720p	320G 7200	Optional	Opt	None	6205	Gobi select	None	None	Fing BT	6 vPro	06/12
2325-2NU	i5-3320M	4GBx1	12.5" HD	No	320G 7200	Optional	Opt	None	6205	upg	None	None	No No	6 vPro	06/12
2325-23U	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
2325-22U	i5-3360M	4GBx1	12.5" HD	720p	320G 7200	Optional	Opt	None	6205	upg	None	None	No No	6 vPro	G P 06/12
2325-5PU	i5-3320M	4GBx1	12.5" HD	720p	320G 7200	DVD±RW	UltraB	None	6205	upg	None	Gemplus	Fing BT	6 vPro	G P 07/12
2325-5NU	i5-3320M	4GBx1	12.5" HD	720p	320G 7200	Optional	Opt	None	6205	upg	None	None	No BT	6 vPro	G P 07/12
Positioning Processor	<i>An ultraportable for the executive on the move; 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 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 Ultrabay Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabay 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 Ultrabay 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®	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™, 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, 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														
Ultrabay	<i>Some:</i> ThinkPad Ultrabay 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	<i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS														
Carrier Modem	<i>Some:</i> User selectable, AT&T®, Verizon®, or Sprint®, contract required with service provider														
Bluetooth™	None														
Ethernet	<i>Some:</i> Bluetooth 4.0 wireless														
Intel AMT	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1														
Audio support	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	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 ¹² /1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available														

See footnotes for more detailed information

ThinkPad X230 (2325) - Onsite - II

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ^a 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	Global (G) Intel vPro	GMP (P)	Pre-load	Ann Date (mm/yy)
2325-5TU	i5-3320M	4GBx1	12.5" HD Prem	720p	320G 7200	DVD±RW	UltraB	None	Intel 6205 ²⁸	upg	Finger	6	vPro	G P	Pro 64	07/12
2325-3QU	i5-3320M	4GBx1	12.5" HD Prem	720p	320G 7200	Optional	Opt	None	Intel 6205	upg	Finger	6	vPro	G P	Pro 64	07/12
2325-5SU	i5-3320M	4GBx1	12.5" HD Prem	720p	500G 7200	DVD±RW	UltraB	None	Intel 6205	upg	Finger	6	vPro	G P	Pro 64	07/12
2325-5RU	i5-3320M	4GBx1	12.5" HD Prem	720p	500G 7200	Optional	Opt	None	Intel 6205	upg	Finger	6	vPro	G P	Pro 64	07/12

- 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										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										Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager					
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										Preloaded applications¹⁴ (only some listed) • 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					
mSATA™ SSD	None										Supports ThinkVantage® technologies					
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										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: <ul style="list-style-type: none"> - Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 Disks supported (some): <ul style="list-style-type: none"> • 128GB SSD 6.0Gb/s 0A65629 • 180GB SSD 6.0Gb/s 0A65630 • 500GB Disk 7200 rpm 0A65632 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					
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, 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 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)															
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier 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															
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 holidays, next business day response time / service upgrades ²² available															

See footnotes for more detailed information

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ThinkPad X230 (2325) - Onsite (Windows 8)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ³ rpm	Optical in UltraBase Series	ThinkPad Backlit in Series 3	Optical key-board	PCIe Mini Card WLAN	Finger print reader	Blue-tooth	Bat-tery Intel AMT vPro	Global (G) Intel vPro GMP (P)	Ann Date (mm/yy)
2325-67U	i5-3320M	4GBx1	12.5" HD	No	320G 7200	Optional	Opt	None	Intel 2200	None	No	6 No	No	G P Win8 Pro64 10/12
2325-66U	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	
2325-65U	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	
2325-64U	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	
2325-63U	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	
2325-62U	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	
2325-8AU	i5-3320M	4GBx1	12.5" HD	720p	500G 7200	Optional	Opt	Backlit	Intel 6205	Finger BT	6	iAMT vPro	Win7 Pro64 12/12	
2325-89U	i7-3520M	4GBx1	12.5" HD	720p	256G SSD	Optional	Opt	Backlit	Intel 6205	Finger BT	6	iAMT vPro	Win7 Pro64 12/12	
2325-88U	i7-3520M	4GBx1	12.5" HD Prem	720p	240G FDE SSD	Optional	Opt	Backlit	Intel 6205	Finger BT	6	iAMT vPro	Win7 Pro64 12/12	
2325-87U	i5-3320M	4GBx1	12.5" HD	720p	180G SSD	Optional	Opt	Backlit	Intel 6205	Finger BT	6	iAMT vPro	Win7 Pro64 12/12	
2325-86U	i5-3320M	4GBx1	12.5" HD	720p	128G SSD	Optional	Opt	Backlit	Intel 6205	Finger BT	6	iAMT vPro	Win7 Pro64 12/12	
2325-85U	i5-3320M	4GBx1	12.5" HD	720p	320G 7200	Optional	Opt	Backlit	Intel 6205	Finger BT	6	iAMT vPro	Win7 Pro64 12/12	
2325-AAU	i5-3320M	4GBx1	12.5" HD	720p	180G SSD	Optional	Opt	Backlit	Intel 6205	Finger BT	6	iAMT vPro	Win8 Pro64 02/13	
2325-A7U	i5-3320M	4GBx1	12.5" HD	720p	240G FDE SSD	Optional	Opt	Backlit	Intel 6205	Finger BT	6	iAMT vPro	Win8 Pro64 02/13	

• 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 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)
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	- Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • ThinkVantage Power Manager - 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
mSATA™ SSD	None	Supports ThinkVantage® technologies
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)	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
Camera	<i>Some:</i> HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus	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
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 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 Carrier 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	
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 holidays, next business day response time/ service upgrades ²² available	

See footnotes for more detailed information

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 Ultrabase Series 3	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Bat-tery Intel vPro	Preload	Ann Date (mm/yy)
2325-BNU	i7-3520M	4GBx1	12.5" HD	720p	256G SSD	Optional	Opt	Backlit	Intel 6205 ²⁸	WWAN upg	BT 6 vPro	Win7 Pro64	07/13
2325-BMU	i7-3520M	4GBx1	12.5" HD	720p	500G 7200	Optional	Opt	Backlit	Intel 6205	WWAN upg	BT 6 vPro	Win7 Pro64	07/13
2325-BKU	i5-3320M	4GBx1	12.5" HD	720p	128G SSD	Optional	Opt	Backlit	Intel 6205	WWAN upg	BT 6 vPro	Win7 Pro64	07/13
2325-BJU	i5-3320M	4GBx1	12.5" HD	720p	500G 7200	Optional	Opt	Backlit	Intel 6205	WWAN upg	BT 6 vPro	Win7 Pro64	07/13

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 system ²⁰ - Windows® 7 Professional 64 preinstalled through downgrade rights in 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 applications ⁵ (only some listed)
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											<ul style="list-style-type: none"> - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Power Manager - Windows 8 models • Lenovo Support • Lenovo Companion - All models • Lenovo Solution Center • Password Manager • Microsoft® Office preloaded; purchase a product key to activate
mSATA™ SSD	None											Supports ThinkVantage® technologies ThinkPad Ultrabase Series 3
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)											<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: <ul style="list-style-type: none"> - Serial ATA Hard Drive - 9.5mm Bay Adapter III 43N3412 • Disks supported (some): <ul style="list-style-type: none"> • 128GB SSD 6.0Gb/s 0A65629 • 180GB SSD 6.0Gb/s 0A65630 • 500GB Disk 7200 rpm 0A65632
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											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
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 Carrier 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											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
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None											
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available											

See footnotes for more detailed information

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Memory

2GB PC3-12800 DDR3 SODIMM	0A65722	ann	06/05/12
4GB PC3-12800 DDR3 SODIMM	0A65723	ann	06/05/12
8GB PC3-12800 DDR3 SODIMM	0A65724	ann	06/05/12

Ultrabay Slim 9.5mm

Most Ultrabay Slim accessories supported in ThinkPad Ultrabase Series 3

Serial ATA Hard Drive 9.5mm Bay Adapter III	43N3412	ann	06/23/09
DVD ROM Ultrabay Slim Drive III	0A65628	ann	06/05/12
DVD Burner Ultrabay Slim Drive III	0A65626	ann	06/05/12

Storage and removable storage

ThinkPad 16GB mSATA Solid State Cache Drive	0B47309	ann	12/11/12
500GB 5400rpm SATA 3.0Gb/s 7mm 4K HDD ⁴¹	0A65631	ann	06/05/12
500GB 7200rpm SATA 3.0Gb/s 7mm 4K HDD ⁴¹	0A65632	ann	06/05/12
320GB 7200rpm SATA 3.0Gb/s 7mm 4K HDD ⁴¹	0A65635	ann	06/05/12
320GB 7200rpm SATA 3.0Gb/s 7mm Self Encrypting (SED) OPAL Capable HDD ⁴¹	0A65636	ann	08/21/12
128GB SATA 6.0Gb/s 7mm Solid State Drive ⁴¹	0A65629	ann	06/05/12
180GB SATA 6.0Gb/s 7mm Solid State Drive ⁴¹	0A65630	ann	06/05/12
256GB 2.5" SATA 6.0Gb/s OPAL-capable SSD ⁴¹	0A65620	ann	05/15/12

⁴¹ Can be used as the main HDD or with Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 in ThinkPad Ultrabase Series 3

USB 2.0 Portable 500GB Hard Disk	45K1690	ann	05/26/09
USB 3.0 Secure 500GB Hard Drive	0A65619	ann	11/29/11
USB 3.0 Secure 750GB Hard Drive	0A65616	ann	11/29/11
USB 3.0 Secure 1TB Hard Drive	0A65621	ann	08/28/12
Lenovo Slim USB Portable DVD Burner	0A33988	ann	06/14/11

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

ThinkPad Gobi™ Mobile Broadband Option	0A36185	ann	04/12/11
ThinkPad Gobi 4000 Mobile Broadband - AT&T®	0A36320	ann	06/05/12
ThinkPad Gobi 4000 Mobile Broadband - Verizon®	0A36318	ann	06/26/12

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann	05/12/09
ThinkPad Ultrabase Series 3	0A33932	ann	03/01/11
ThinkPad Port Replicator Series 3 with USB 3.0	433615W	ann	06/05/12
ThinkPad Mini Dock Series 3 w/ USB 3.0 - 90W	433715U	ann	06/05/12
TP Mini Dock Plus Series 3 w/ USB 3.0 - 90W	433815U	ann	06/05/12
TP Mini Dock Plus Series 3 w/ USB 3.0 - 170W	433835U	ann	06/05/12

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
UltralSlim Plus Wireless Keyboard and Mouse ⁵²	0A34032	ann	04/05/11
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann	08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

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

Mouse

Lenovo Optical Mouse (USB)	06P4069	ann	05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann	01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann	12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann	08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann	06/04/02
ThinkPad Bluetooth Laser Mouse	0A36407	ann	06/26/12
Lenovo Wireless Laser Mouse ⁵²	0A36188	ann	12/20/11

Multimedia

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

3M 12.5W Privacy Filter from Lenovo	0A61770	ann	04/05/11
Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06

Batteries

ThinkPad Battery 44 (4-cell)	0A36305	ann	06/05/12
ThinkPad Battery 44+ (6-cell)	0A36306	ann	06/05/12
ThinkPad Battery 44++ (9-cell)	0A36307	ann	06/05/12
ThinkPad Battery 19+ (6-cell, Slim External) ⁴³	0A36280	ann	03/01/11

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

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter	40Y7696	ann	01/05/06
ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
90W UltralSlim AC/DC Combo Adapter	41R4493	ann	09/22/09

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

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

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

More information at www.lenovopowertips.com

Carrying Cases

Up to 12.5" widescreen models:

ThinkPad 12.5" Ultrabook Topload ⁷²	0B47416	ann	12/04/12
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⁷² Not compatible when using ThinkPad Battery 44++ (9-cell) 0A36307

Up to 15.6" widescreen models:

Lenovo Messenger Max	41U5253	ann	05/01/07
Lenovo Performance Backpack	41U5254	ann	05/01/07
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08
Lenovo Sport Backpack - Red	0A33896	ann	02/28/12
Lenovo Sport Slimcase - Red	0A33897	ann	02/28/12
Lenovo Sport Messenger - Red	0A33898	ann	02/28/12

More information at www.lenovo.com/support/cases
Lenovo luxury cases at www.lenovoluxurycases.com

Monitors

ThinkVision LT1952p Wide 19" (VGA, DP, DVI-D) ⁶⁹	2448MB6	ann	09/13/11
ThinkVision L2251x Wide 22" (VGA, DP)	2578HB6	ann	10/20/09

⁶⁹ DisplayPort cable is not included.

ThinkVision LT1421 Wide 14" Mobile Monitor with Protective Screen Cover (USB 2.0)	1452DS6	ann	08/16/11
ThinkVision LT1421 Wide 14" Mobile Monitor with Protective Case (USB 2.0)	1452DB6	ann	08/16/11

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

Monitor Accessories⁴⁶

Lenovo USB 3.0 to DVI/VGA Monitor Adapter	0B47072	ann	08/14/12
Lenovo USB Soundbar	0A36190	ann	05/01/12
Mini-DisplayPort to DisplayPort Monitor Cable	0B47091	ann	07/24/12
Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

For more information on accessories:

www.lenovo.com/accessories

Purchase Lenovo accessories

www.lenovo.com/support/accessories

Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide

Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com

An Options Compatibility Configurator for Lenovo systems



Lenovo® ThinkPad X230 Tablet



Lenovo ThinkPad X230 Tablet



Lenovo ThinkPad X230 Tablet



Lenovo ThinkPad X230 Tablet



Lenovo ThinkPad X230 Tablet

ThinkPad X230 Tablet (3435) - TopSeller

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ⁹ rpm	Optical in UltraBase	ThinkPad Backlit Ultrabase Series 3 key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Bat-Blue-tery Intel vPro	Pre-load	Ann date (mm/yy)
3435-2YU	i5-3320M	4GBx1	12.5" HD Multi	720p	320G 7200	Optional	Opt	None	Intel 6205 ²⁸	Gobi select	BT 6 vPro	Pro 64 06/12
3435-2XU	i7-3520M	4GBx1	12.5" HD Multi	720p	320G 7200	Optional	Opt	None	Intel 6205	Gobi select	BT 6 vPro	Pro 64 06/12
3435-2WU	i7-3520M	4GBx2	12.5" HD Multi	720p	180G SSD	Optional	Opt	None	Intel 6205	upg	BT 6 vPro	Pro 64 06/12
3435-2VU	i7-3520M	4GBx1	12.5" HD Multi	720p	128G SSD	DVD±RW	UltraB	None	Intel 6205	upg	BT 6 vPro	Pro 64 06/12
3435-2UU	i7-3520M	4GBx1	12.5" HD Multi	720p	320G 7200	DVD±RW	UltraB	None	Intel 6205	upg	BT 6 vPro	Pro 64 06/12
3435-2TU	i7-3520M	4GBx1	12.5" HD Multi	720p	500G 7200	DVD±RW	UltraB	None	Intel 6205	upg	BT 6 vPro	Pro 64 06/12
3435-2SU	i7-3520M	4GBx1	12.5" HD Multi	720p	320G 7200	Optional	Opt	None	Intel 6205	upg	BT 6 vPro	Pro 64 06/12
3435-2RU	i5-3320M	4GBx1	12.5" HD Multi	720p	128G SSD	DVD±RW	UltraB	None	Intel 6205	upg	BT 6 vPro	Pro 64 06/12
3435-2KU	i5-3320M	4GBx1	12.5" HD Multi	720p	320G 7200	DVD±RW	UltraB	None	Intel 6205	upg	BT 6 vPro	Pro 64 06/12

- Small and medium business (SMB) model(s), part of the US TopSeller™ Program
- 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
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager
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										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
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										Supports ThinkVantage® technologies
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>6-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, 0A36280):</i> up to 10.2 hr; <i>6-cell plus external battery:</i> up to 20.1 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 <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)										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
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, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS										
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> User selectable, AT&T®, Verizon®, or Sprint®, 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										
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 (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-yr battery - depot repair service / service upgrades²² available										

See footnotes for more detailed information

ThinkPad X230 Tablet (3435) - TopSeller - II

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ¹ 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	Preload (mm/yy)	Ann date
3435-2JU	i5-3320M	4GBx1	12.5" HD Multi	720p	320G 7200	Optional	Opt	None	Intel 6205 ²⁸	WWAN upg	Fing	6	vPro	Pro 64	06/12
3435-2HU	i5-3320M	4GBx1	12.5" HD Multi	720p	500G 7200	DVD±RW	UltraB	None	Intel 6205	WWAN upg	Fing	6	vPro	Pro 64	06/12
3435-24U	i7-3520M	4GBx1	12.5" HD Multi	720p	500G 7200	Optional	Opt	None	Intel 6205	WWAN upg	Fing	6	vPro	Pro 64	06/12
3435-22U	i5-3320M	4GBx1	12.5" HD Multi	720p	500G 7200	Optional	Opt	None	Intel 6205	WWAN upg	Fing	6	vPro	Pro 64	06/12
3435-5HU	i5-3320M	4GBx1	12.5" HD Multi	720p	500G 7200	DVD±RW	UltraB	Backlit	Intel 6205	WWAN upg	Fing	6	vPro	Pro 64	07/12
3435-5GU	i5-3320M	4GBx1	12.5" HD Multi	720p	500G 7200	Optional	Opt	Backlit	Intel 6205	WWAN upg	Fing	6	vPro	Pro 64	07/12
3435-5AU	i5-3320M	4GBx1	12.5" HD Multi	720p	180G SSD	Optional	Opt	Backlit	Intel 6205	WWAN upg	Fing	6	vPro	Pro 64	07/12
3435-59U	i7-3520M	4GBx1	12.5" HD Multi	720p	500G 7200	DVD±RW	UltraB	Backlit	Intel 6205	WWAN upg	Fing	6	vPro	Pro 64	07/12

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

Positioning	<i>Convertible tablet ultraportable; one spindle</i>										Preloaded operating system²⁰				
Processor	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										- Genuine Windows® 7 Professional 64				
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Ready to install applications¹⁴ (only some listed)				
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										• Rescue and Recovery™ • Password Manager				
mSATA™ SSD	None										Preloaded applications¹⁴ (only some listed)				
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										• 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				
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)										Supports ThinkVantage® technologies				
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										ThinkPad Ultrabase Series 3				
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, 0A36280):</i> up to 10.2 hr; <i>6-cell plus external battery:</i> up to 20.1 hr										• 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 <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)										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				
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier 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										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				
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 (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 upgrades²² available														

See footnotes for more detailed information

ThinkPad X230 Tablet (3437)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ² rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Carrier	Bluetooth	Intel vPro	Global (G) Pre-load	Ann date (mm/yy)	
3437-3LU	i5-3320M	4GBx1	12.5" HD <i>Multi</i>	720p	320G 7200	Optional	Opt	None	6205 ²⁸	upg	None	BT	6	vPro	G	Pro 64 06/12
3437-32U	i7-3520M	4GBx2	12.5" HD <i>Out</i>	720p	180G SSD	Optional	Opt	None	6205	upg	None	BT	6	vPro	G	Pro 64 06/12
3437-2YU	i7-3520M	4GBx1	12.5" HD <i>Multi</i>	720p	500G 7200	Optional	Opt	None	6205	upg	None	BT	6	vPro	G	Pro 64 06/12
3437-2XU	i5-3320M	4GBx1	12.5" HD <i>Out</i>	720p	500G 7200	Optional	Opt	None	6205	upg	None	BT	6	vPro		Pro 64 06/12
3437-2WU	i5-3320M	4GBx1	12.5" HD <i>Multi</i>	720p	500G 7200	Optional	Opt	None	6205	upg	None	BT	6	vPro	G	Pro 64 06/12
3437-2VU	i5-3320M	4GBx1	12.5" HD <i>Mul</i>	720p	500G 7200	DVD±RW	UltraB	None	6205	upg	None	BT	6	vPro		Pro 64 06/12
3437-2UU	i7-3520M	4GBx1	12.5" HD <i>Multi</i>	720p	320G 7200	Optional	Opt	None	6205	upg	None	BT	6	vPro		Pro 64 06/12
3437-2TU	i5-3320M	4GBx1	12.5" HD <i>Out</i>	720p	320G 7200	Optional	Opt	None	6205	upg	None	BT	6	vPro	G	Pro 64 06/12
3437-2SU	i5-3320M	4GBx1	12.5" HD <i>Multi</i>	720p	320G 7200	DVD±RW	UltraB	None	6205	upg	None	BT	6	vPro	G	Pro 64 06/12
3437-2RU	i5-3320M	4GBx1	12.5" HD <i>Multi</i>	720p	320G 7200	Optional	Opt	None	6205	Gobi	select	BT	6	vPro		Pro 64 06/12
3437-3KU	i7-3520M	4GBx1	12.5" HD <i>Multi</i>	720p	128G SSD	Optional	Opt	None	6205	upg	None	BT	6	vPro	G	Pro 64 07/12
3437-2ZU	i5-3320M	4GBx1	12.5" HD <i>Out</i>	720p	128G SSD	Optional	Opt	None	6205	upg	None	BT	6	vPro	G	Pro 64 07/12
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 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											Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager				
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											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				
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)											Supports ThinkVantage® technologies				
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											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				
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, 0A36280):</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)															
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, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS															
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> User selectable, AT&T®, Verizon®, or Sprint®, 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											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				
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 (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-yr battery - depot repair service / service upgrades ²² available															

See footnotes for more detailed information

ThinkPad X230 Tablet (3437) - II

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ² rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Finger print reader	Bat-tery Blue-tooth cells	Global Intel (G) vPro GMP (P)load	Ann date (mm/yy)	
3437-2QU	i5-3320M	4GBx1	12.5" HD <i>Multi</i>	None	320G 7200	Optional	Opt	None	6205 ²⁸	upg	None	6	vPro	Pro 64	06/12
3437-2AU	i5-3320M	4GBx1	12.5" HD <i>Multi</i>	720p	320G 7200	Optional	Opt	None	6205	upg	Fing BT	6	vPro	Pro 64	06/12
3437-27U	i5-3320M	4GBx1	12.5" HD <i>Multi</i>	720p	128G SSD	Optional	Opt	None	6205	upg	Fing BT	6	vPro	Pro 64	06/12
3437-24U	i7-3520M	4GBx1	12.5" HD <i>Multi</i>	720p	320G 7200	DVD±RW	UltraB	None	6205	upg	Fing BT	6	vPro	Pro 64	06/12
3437-23U	i7-3520M	4GBx1	12.5" HD <i>Multi</i>	720p	180G SSD	DVD±RW	UltraB	None	6205	upg	Fing BT	6	vPro	Pro 64	06/12
3437-22U	i5-3320M	4GBx1	12.5" HD <i>Out</i>	720p	320G 7200	DVD±RW	UltraB	None	6205	upg	Fing BT	6	vPro	Pro 64	06/12

• A depot repair service 3-year limited warranty

Positioning	<i>Convertible tablet ultraportable; one spindle</i>											Preloaded operating system²⁰ - Genuine Windows [®] 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager
Processor	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											
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>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	<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 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)											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
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, 0A36280):</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)											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
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier 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 <i>Some:</i> 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											
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 (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											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 Tablet (3438) - Onsite

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ² rpm	Optical in UltraBase Series 3	ThinkPad Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Finger-print reader	Bat-tery toothcells	Global (G) Intel vPro (P)	Ann date (mm/yy)
3438-3UU	i5-3320M	4GBx1	12.5" HD Multi	720p	320G 7200	DVD±RW	UltraB	None	Intel 6205 ²⁸	upg	None	Fing BT	6 vPro G P 06/12
3438-3TU	i5-3320M	4GBx1	12.5" HD Multi	720p	320G 7200	Optional	Opt	None	Intel 6205	upg	None	Fing BT	6 vPro G P 06/12
3438-2UU	i7-3520M	4GBx2	12.5" HD Out	720p	180G SSD	Optional	Opt	None	Intel 6205	upg	None	Fing BT	6 vPro 06/12
3438-2TU	i5-3320M	4GBx1	12.5" HD Out	720p	128G SSD	Optional	Opt	None	Intel 6205	upg	None	Fing BT	6 vPro 06/12
3438-2SU	i5-3320M	4GBx1	12.5" HD Multi	720p	128G SSD	Optional	Opt	None	Intel 6205	upg	None	Fing BT	6 vPro 06/12
3438-2QU	i5-3320M	4GBx1	12.5" HD Multi	720p	320G 7200	Optional	Opt	None	Intel 6205	Gobi select	Fing BT	6 vPro 06/12	
3438-2PU	i5-3320M	4GBx1	12.5" HD Multi	No	320G 7200	Optional	Opt	None	Intel 6205	upg	None	No No	6 vPro 06/12
3438-2JU	i5-3320M	4GBx1	12.5" HD Out	720p	500G 7200	Optional	Opt	None	Intel 6205	upg	None	Fing BT	6 vPro 06/12
3438-27U	i5-3320M	4GBx1	12.5" HD Out	720p	320G 7200	Optional	Opt	None	Intel 6205	upg	None	Fing BT	6 vPro G P 06/12
3438-26U	i5-3320M	4GBx1	12.5" HD Multi	720p	320G 7200	Optional	Opt	None	Intel 6205	upg	None	Fing BT	6 vPro G P 06/12
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 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										Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager		
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										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		
mSATA™ SSD	None												
Widescreen display	Outdoor: 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 MultiTouch: 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 All: 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	Some: 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										Supports ThinkVantage® technologies		
Dimensions ³ Weight ²	without UltraBase; 3-cell: 12.0" x 9.0" x 1.1-1.23"; 305mm x 228.7mm x 27-31.3mm 3-cell: from 3.67 lb (1.66kg); 6-cell: from 3.97 lb (1.80kg)										ThinkPad Ultrabase Series 3		
Case material	Display cover: Magnesium + PCABS; Bottom: Magnesium alloy										• Provides desktop expansion and cable management for X230 and X230 Tablet		
Battery - type	Li-Polymer 3-cell or Li-Ion 6-cell, HW Authentication; optional external battery as 2nd battery										• Easily connects to the bottom of the X230 or X230 Tablet for traveling		
Extended Battery	None										• Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side:		
Battery - life ¹⁰	3-cell (30Whr): up to 4.7 hr; 6-cell (66Whr): up to 9.9 hr; external battery (64Whr, 0A36280): up to 10.2 hr; 6-cell plus external battery: up to 20.1 hr										- 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	Mobile Intel QM77 Express Chipset										Other features:		
Multicard Reader	Some: ThinkPad Ultrabase Series 3 (see right side)										• Power button (front)		
ExpressCard	4-in-1 reader (SD, SDHC, SDXC, MMC)										• Security key lock, security keyhole		
Smart Card Read	One slot (ExpressCard/34, ExpressCard/54)										• Analog VGA DB-15 monitor port		
Ports	None										• DisplayPort (supports single-link DVI-D via cable 45J7915)		
	Two USB 3.0, one powered USB 2.0, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)										• Four USB 2.0 ports		
PCIe Mini Card	Two PCI Express Mini Card slots										• Gigabit ethernet (RJ-45) port		
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2										• Microphone in and headphone out		
PCIe WWAN	Some: Wireless WAN upgradable										• Requires 65W or 90W AC adapter		
	Some: Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS										• 1.39 lb; 630g		
Carrier	Some: User selectable, AT&T®, Verizon®, or Sprint®, contract required with service provider												
Modem	None												
Bluetooth™	Some: 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										65-watt AC Adapter		
Security	Power-on password, hard disk password, supervisor password, security keyhole										EPEAT™ Gold rating		
Security chip	Trusted Platform Module, TCG 1.2-compliant										ENERGY STAR® 5.0-compliant		
Fingerprint reader	Some: AuthenTec fingerprint reader (right base of display), used in tablet/notebook mode, LED indicator, Power On Authentication, supports the security chip										GREENGUARD® certified		
Limited warranty ¹²	3-years /1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time/ service upgrades ²² available										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 Tablet (3438) - Onsite - II

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Disk SATA GB ^o rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Bat-tery cells	Intel vPro	Global (G) GMP (P)	Pre-load	Ann Date (mm/yy)
3438-25U	i7-3520M	4GBx1	12.5" HD <i>Multi</i>	500G 7200	Optional	Optional	None	Intel 6205 ²⁸	WWAN upg	6	vPro	G P	Pro 64	06/12
3438-24U	i5-3320M	4GBx1	12.5" HD <i>Multi</i>	500G 7200	Optional	Optional	None	Intel 6205	WWAN upg	6	vPro	G P	Pro 64	06/12
3438-23U	i7-3520M	4GBx1	12.5" HD <i>Multi</i>	180G SSD	DVD±RW	UltraBase	None	Intel 6205	WWAN upg	6	vPro	G P	Pro 64	06/12
3438-22U	i5-3320M	4GBx1	12.5" HD <i>Out</i>	320G 7200	DVD±RW	UltraBase	None	Intel 6205	WWAN upg	6	vPro	G P	Pro 64	06/12
3438-3SU	i5-3320M	4GBx1	12.5" HD <i>Out</i>	128G SSD	Optional	Optional	None	Intel 6205	WWAN upg	6	vPro	G P	Pro 64	07/12
3438-2RU	i7-3520M	4GBx1	12.5" HD <i>Multi</i>	128G SSD	Optional	Optional	None	Intel 6205	WWAN upg	6	vPro	G P	Pro 64	07/12

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

Positioning	<i>Convertible tablet ultraportable; one spindle</i>										Preloaded operating system²⁰			
Processor	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										- Genuine Windows [®] 7 Professional 64			
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Ready to install applications¹⁴ (only some listed)			
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										• Rescue and Recovery™ • Password Manager			
mSATA™ SSD	None										Preloaded applications¹⁴ (only some listed)			
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										• 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			
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)										Supports ThinkVantage® technologies			
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										ThinkPad Ultrabase Series 3			
Dimensions ³ Weight ²	<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)										• Provides desktop expansion and cable management for X230 and X230 Tablet			
Case material	<i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy										• Easily connects to the bottom of the X230 or X230 Tablet for traveling			
Battery - type	Li-Polymer 3-cell or Li-Ion 6-cell, HW Authentication; optional external battery as 2nd battery										• Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side:			
Extended Battery	None										- Serial ATA Hard Drive			
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, 0A36280):</i> up to 10.2 hr; <i>6-cell plus external battery:</i> up to 20.1 hr										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	Mobile Intel QM77 Express Chipset <i>Some:</i> ThinkPad Ultrabase Series 3 (see right side)										Other features:			
Multicard Reader	4-in-1 reader (SD, SDHC, SDXC, MMC)										• Power button (front)			
ExpressCard	One slot (ExpressCard/34, ExpressCard/54)										• Security key lock, security keyhole			
Smart Card Read	None										• Analog VGA DB-15 monitor port			
Ports	Two USB 3.0, one powered USB 2.0, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)										• DisplayPort (supports single-link DVI-D via cable 45J7915)			
PCIe Mini Card	Two PCI Express Mini Card slots										• Four USB 2.0 ports			
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2										• Gigabit ethernet (RJ-45) port			
PCIe WWAN	Wireless WAN upgradable										• Microphone in and headphone out			
Carrier	None										• Requires 65W or 90W AC adapter			
Modem	None										• 1.39 lb; 630g			
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										65-watt AC Adapter EPEAT™ Gold rating			
Security	Power-on password, hard disk password, supervisor password, security keyhole										ENERGY STAR® 5.0-compliant			
Security chip	Trusted Platform Module, TCG 1.2-compliant										GREENGUARD® certified			
Fingerprint reader	AuthenTec fingerprint reader (right base of display), used in tablet/notebook mode, LED indicator, Power On Authentication, supports the security chip										ROHS-compliant			
Limited warranty ¹²	3-years /1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available										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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Memory

2GB PC3-12800 DDR3 SODIMM	0A65722	ann 06/05/12
4GB PC3-12800 DDR3 SODIMM	0A65723	ann 06/05/12
8GB PC3-12800 DDR3 SODIMM	0A65724	ann 06/05/12

Ultrabay Slim 9.5mm

Most Ultrabay Slim accessories supported in ThinkPad Ultrabase Series 3

Serial ATA Hard Drive 9.5mm Bay Adapter III	43N3412	ann 06/23/09
DVD ROM Ultrabay Slim Drive III	0A65628	ann 06/05/12
DVD Burner Ultrabay Slim Drive III	0A65626	ann 06/05/12

Storage and removable storage

ThinkPad 16GB mSATA Solid State Cache Drive	0B47309	ann 12/11/12
500GB 5400rpm SATA 3.0Gb/s 7mm 4K HDD ⁴¹	0A65631	ann 06/05/12
500GB 7200rpm SATA 3.0Gb/s 7mm 4K HDD ⁴¹	0A65632	ann 06/05/12
320GB 7200rpm SATA 3.0Gb/s 7mm 4K HDD ⁴¹	0A65635	ann 06/05/12
320GB 7200rpm SATA 3.0Gb/s 7mm Self Encrypting (SED) OPAL Capable HDD ⁴¹	0A65636	ann 08/21/12
128GB SATA 6.0Gb/s 7mm Solid State Drive ⁴¹	0A65629	ann 06/05/12
180GB SATA 6.0Gb/s 7mm Solid State Drive ⁴¹	0A65630	ann 06/05/12
256GB 2.5" SATA 6.0Gb/s OPAL-capable SSD ⁴¹	0A65620	ann 05/15/12

⁴¹ Can be used as the main HDD or with *Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412* in ThinkPad Ultrabase Series 3

USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 3.0 Secure 500GB Hard Drive	0A65619	ann 11/29/11
USB 3.0 Secure 750GB Hard Drive	0A65616	ann 11/29/11
USB 3.0 Secure 1TB Hard Drive	0A65621	ann 08/28/12
Lenovo Slim USB Portable DVD Burner	0A33988	ann 06/14/11

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

ThinkPad Gobi™ Mobile Broadband Option	0A36185	ann 04/12/11
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ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann 05/12/09
ThinkPad Ultrabase Series 3	0A33932	ann 03/01/11

Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
UltralSlim Plus Wireless Keyboard and Mouse ⁵²	0A34032	ann 04/05/11
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann 08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

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

Mouse

Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann 12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann 06/04/02
ThinkPad Bluetooth Laser Mouse	0A36407	ann 06/26/12
Lenovo Wireless Laser Mouse ⁵²	0A36188	ann 12/20/11

Multimedia

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

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

Tablet

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

Batteries

ThinkPad Battery 67 (3-cell)	0A36316	ann 06/05/12
ThinkPad Battery 67+ (6-cell)	0A36317	ann 06/05/12
ThinkPad Battery 19+ (6-cell, Slim External) ⁴³	0A36280	ann 03/01/11

⁴³ To be used along with system battery for all-day computing; attaches under ThinkPad using docking connector (not supported when using *ThinkPad Ultrabase Series 3 0A33932*)

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter	40Y7696	ann 01/05/06
ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
90W UltralSlim AC/DC Combo Adapter	41R4493	ann 09/22/09

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

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

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

More information at www.lenovopowertips.com

Carrying Cases

Up to 12" widescreen models:

ThinkPad X220 Tablet Sleeve	0A33883	ann 03/22/11
ThinkPad 12.5" Ultrabook Topload	0B47416	ann 12/04/12

Up to 15.6" widescreen models:

Lenovo Messenger Max	41U5253	ann 05/01/07
Lenovo Performance BackPack	41U5254	ann 05/01/07
ThinkPad Business Topload Case	43R2476	ann 05/13/08
ThinkPad Business Backpack	43R2482	ann 05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann 05/13/08
ThinkPad Executive Leather Case	43R2480	ann 05/13/08
Lenovo Sport Backpack - Red	0A33896	ann 02/28/12
Lenovo Sport Slimcase - Red	0A33897	ann 02/28/12
Lenovo Sport Messenger - Red	0A33898	ann 02/28/12

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

Lenovo luxury cases at www.lenovoluxurycases.com

Monitors

ThinkVision LT1952p Wide 19" (VGA, DP, DVI-D) ⁶⁹	2448MB6	ann 09/13/11
ThinkVision L2251x Wide 22" (VGA, DP)	2578HB6	ann 10/20/09

⁶⁹ DisplayPort cable is not included.

ThinkVision LT1421 Wide 14" Mobile Monitor with Protective Screen Cover (USB 2.0)	1452DS6	ann 08/16/11
ThinkVision LT1421 Wide 14" Mobile Monitor with Protective Case (USB 2.0)	1452DB6	ann 08/16/11

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

Monitor Accessories⁴⁶

Lenovo USB 3.0 to DVI/VGA Monitor Adapter	0B47072	ann 08/14/12
Lenovo USB Soundbar	0A36190	ann 05/01/12
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

For more information on accessories:

www.lenovo.com/accessories

Purchase Lenovo accessories

www.lenovo.com/support/accessories

Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide

Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com

An Options Compatibility Configurator for Lenovo systems



Lenovo® ThinkPad X1 Carbon (1st Gen)



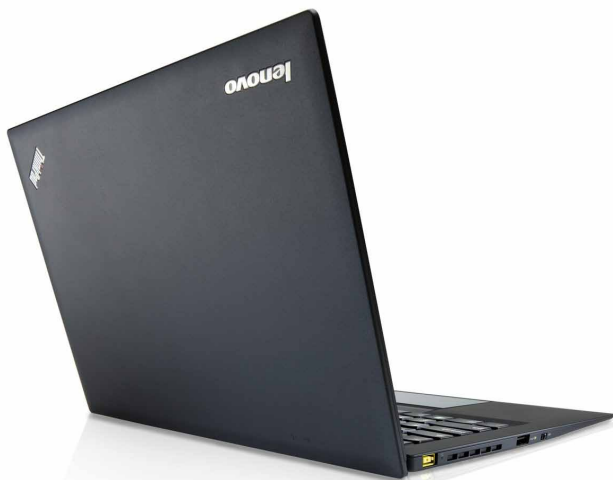
Lenovo ThinkPad X1 Carbon (1st Gen)



Lenovo USB 2.0 Ethernet Adapter
0A36322



ThinkPad 90W AC Adapter for X1 Carbon (1st Gen)
0B46994



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 ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Carrier	Finger print reader	Blue-tooth	Intel AMT	Intel vPro	Preload (mm/yy)	Ann Date
3444-54U	i5-3427U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S ²⁸	Ericsson	AT&T	Finger	BT	iAMT	vPro	Pro 64	08/12
3444-53U	i5-3427U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	iAMT	vPro	Pro 64	08/12
3444-52U	i5-3317U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	None	None	Pro 64	08/12
3444-4ZU	i5-3317U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	None	None	Pro 64	08/12
3444-2KU	i7-3667U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	iAMT	vPro	Pro 64	08/12
3444-2HU	i5-3317U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	None	None	Pro 64	08/12
3444-2GU	i5-3427U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Pro 64	08/12
3444-2DU	i5-3427U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Pro 64	08/12
3444-28U	i7-3667U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Pro 64	08/12
3444-25U	i7-3667U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Pro 64	08/12
3444-BFU	i5-3427U	8GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Pro 64	10/12
3444-BEU	i5-3427U	8GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Pro 64	10/12

- Small and medium business (SMB) model(s), part of the US 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 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
Memory	4GB or 8GB / PC3-10600 1333MHz DDR3L / soldered to systemboard, no sockets	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
Optical SATA disk mSATA™ SSD	None Solid State Drive (SSD) / SATA 6.0Gb/s, Small Form Factor 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 TrackPoint® Touchpad ThinkLight™	6-row, ThinkVantage button, LED backlit, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ UltraNav™, buttonless glass surface touchpad below keyboard, multi-touch None	
Dimensions ³ Weight ² Case material	<i>14.0W" (WxDxH):</i> 13.0" x 8.9" x 0.31-0.74"; 331mm x 226mm x 8.0-18.8mm <i>Integrated battery:</i> from 3.0 lb (1.36kg) <i>Display cover:</i> Carbon Fiber; <i>Bottom:</i> Magnesium/Aluminum	
Battery - type Battery - life ¹⁰	Integrated Lithium Polymer 4-cell RapidCharge battery <i>Integrated battery (45.8Whr):</i> up to 8.2 hr	
Chipset Multicard reader ExpressCard Ports Monitor Cable	Mobile Intel QS77 Express Chipset 4-in-1 reader (SD, SDHC, SDXC, MMC) None One USB 3.0, one powered USB 2.0, external monitor (Mini DisplayPort) None	
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Small Form Factor Mini Card, Intel Centrino® Advanced-N 6205S, 2x2 <i>Some:</i> Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS	Supports ThinkVantage® technologies
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> AT&T®, contract required with service provider None Bluetooth 4.0 wireless None <i>Some:</i> Intel Active Management Technology (iAMT) 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	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
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole, reset switch Trusted Platform Module, TCG 1.2-compliant AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	For compatible accessories, please go to O-X1-C sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet
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 X1 Carbon (1st Gen) 3444 (TopSeller) - Windows 8

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	Carrier	Finger print reader	Blue-tooth	Intel AMT	Intel vPro	Preload	Ann Date (mm/yy)
3444-BDU	i5-3427U	8GBx1	14.0" HD+	720p	256G SSD	Intel 6205S ²⁸	None	None	Finger	BT	iAMT	vPro	Win7 Pro64	10/12
3444-BCU	i5-3427U	8GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Win7 Pro64	10/12
3444-B9U	i5-3427U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Win7 Pro64	10/12
3444-B8U	i5-3427U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Win7 Pro64	10/12
3444-B7U	i7-3667U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Win7 Pro64	10/12
3444-AZU	i5-3317U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	None	None	Win7 Pro64	10/12
3444-59U	i5-3427U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Win8 Pro64	10/12
3444-55U	i5-3317U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	None	None	Win8 Pro64	10/12
3444-FGU	i7-3667U	8GBx1	14.0" HD+	720p	240G FDE SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Win8 Pro64	10/12
3444-AZU	i7-3667U	8GBx1	14.0" HD+	720p	180G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Win8 Pro64	10/12
3444-FEU	i7-3667U	8GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Win8 Pro64	10/12
3444-FDU	i7-3667U	8GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Win8 Pro64	10/12
3444-FCU	i7-3667U	8GBx1	14.0" HD+	720p	240G FDE SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	iAMT	vPro	Win8 Pro64	10/12
3444-FBU	i7-3667U	8GBx1	14.0" HD+	720p	180G SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	iAMT	vPro	Win8 Pro64	10/12
3444-FAU	i7-3667U	8GBx1	14.0" HD+	720p	240G FDE SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Win7 Pro64	10/12
3444-F9U	i7-3667U	8GBx1	14.0" HD+	720p	180G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Win7 Pro64	10/12
3444-F8U	i7-3667U	8GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Win7 Pro64	10/12
3444-F7U	i7-3667U	8GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Win7 Pro64	10/12
3444-BBU	i5-3427U	8GBx1	14.0" HD+	720p	240G FDE SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Win7 Pro64	10/12
3444-BAU	i5-3427U	8GBx1	14.0" HD+	720p	180G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Win7 Pro64	10/12
3444-AWU	i5-3317U	4GBx1	14.0" HD	720p	120G SSD	Intel 6205S	None	None	Finger	BT	None	None	Win7 Pro64	10/12
3444-5AU	i7-3667U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Win8 Pro64	10/12
3444-56U	i5-3427U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Win8 Pro64	10/12
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 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)		
Optical	None											<ul style="list-style-type: none"> - 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 • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate 		
SATA disk mSATA™ SSD	Solid State Drive (SSD) / SATA 6.0Gb/s, Small Form Factor													
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: 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):</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											Supports ThinkVantage® technologies		
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													
Carrier	<i>Some:</i> AT&T®, 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-yr battery - depot repair service / service upgrades²² available											For compatible accessories, please go to O-X1-C sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet		

See footnotes for more detailed information

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

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ² rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Carrier	Finger print reader	Blue-tooth	Intel AMT	Intel vPro	Preload	Ann Date (mm/yy)
3444-GBU	i5-3427U	4GBx1	14.0" HD	720p	128G SSD	Intel 6205S ²⁸	None	None	Finger	BT	iAMT	vPro	Win7 Pro64	02/13
3444-G9U	i5-3427U	4GBx1	14.0" HD	720p	128G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Win8 Pro64	02/13
3444-G8U	i5-3337U	4GBx1	14.0" HD	720p	128G SSD	Intel 6205S	None	None	Finger	BT	None	None	Win8 Pro64	02/13
3444-G7U	i5-3337U	4GBx1	14.0" HD	720p	128G SSD	Intel 6205S	None	None	Finger	BT	None	None	Win7 Pro64	02/13
3444-H3U	i5-3337U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	None	None	Win8 Pro64	04/13
3444-GYU	i7-3667U	8GBx1	14.0" HD+	720p	240G FDE SSD	Intel 6205S	Ericsson	selectable	Finger	BT	iAMT	vPro	Win7 Pro64	04/13
3444-GXU	i5-3427U	4GBx1	14.0" HD+	720p	180G SSD	Intel 6205S	Ericsson	selectable	Finger	BT	iAMT	vPro	Win7 Pro64	04/13
3444-GVU	i5-3337U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	None	None	Win7 Pro64	04/13

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

Positioning	<i>Ultralight, durable, secure, and stylish Ultrabook™; one spindle</i>											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 - 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
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 i5-3427U 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											
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: 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	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	<i>Some: Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS</i>											
Carrier	<i>Some: User selectable, contract required with service provider</i>											
Modem	None											
Bluetooth™	Bluetooth 4.0 wireless											
Ethernet	None											
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-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 Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²											
	For compatible accessories, please go to O-X1-C sheet;											
	For Lenovo service ²² upgrade options, please go to QP-TA sheet											

See footnotes for more detailed information

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(GS1-10) April 2013

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

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	Carrier	Finger print reader	Blue-tooth	Intel AMT	Intel vPro	Preload	Ann Date (mm/yy)
3444-CYU	i7-3667U	8GBx1	14.0" HD+ Multi	720p	240G FDE SSD	Intel 6205S ²⁸	Ericsson	AT&T	Finger	BT	iAMT	vPro	Win8 Pro64	12/12
3444-CXU	i5-3427U	4GBx1	14.0" HD+ Multi	720p	180G SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	iAMT	vPro	Win8 Pro64	12/12
3444-CWU	i5-3427U	4GBx1	14.0" HD+ Multi	720p	180G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Win8 Pro64	12/12
3444-CUU	i7-3667U	8GBx1	14.0" HD+ Multi	720p	240G FDE SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Win8 Pro64	12/12
3444-H2U	i5-3427U	4GBx1	14.0" HD+ Multi	720p	180G SSD	Intel 6205S	Ericsson	selectable	Finger	BT	iAMT	vPro	Win7 Pro64	04/13
3444-GZU	i7-3667U	8GBx1	14.0" HD+ Multi	720p	240G FDE SSD	Intel 6205S	Ericsson	selectable	Finger	BT	iAMT	vPro	Win7 Pro64	04/13
3444-HBU	i5-3337U	4GBx1	14.0" HD+ Multi	720p	128G SSD	Intel 6205S	None	None	Finger	BT	None	No	Win8 Pro64	07/13

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

Positioning Processor	<i>Ultralight, durable, secure, and stylish Ultrabook™; one spindle</i> Intel® Core™ i5-3337U 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 Pro 64-bit
Memory	4GB or 8GB / PC3-10600 1333MHz DDR3L / soldered to systemboard, no sockets										Preloaded applications ⁵ (only some listed)
Optical	None										<ul style="list-style-type: none"> - 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)
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	<i>14.0W" (WxDxH):</i> 13.0" x 8.9" x 0.39-0.82"; 331mm x 226mm x 10.0-20.8mm										
Weight ²	<i>Integrated battery:</i> from 3.4 lb (1.54kg)										
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										
Carrier	<i>Some:</i> AT&T®, contract required with service provider <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-yr battery - depot repair service / service upgrades²² 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
											For compatible accessories, please go to O-X1-C sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet

See footnotes for more detailed information

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(GS1-7) July 2013

ThinkPad X1 Carbon (1st Gen) 3448

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ² rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Carrier	Mini DP to VGA Cable	USB 2.0 Ethernet Adapter	Global (G) Intel vPro GMP (P)	Ann Date
3448-3AU	i5-3427U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S ²⁸	Ericsson	AT&T	None	None	vPro	Pro 64 08/12
3448-39U	i7-3667U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	Ericsson	AT&T	mDP-VGA	Ethernet	vPro	Pro 64 08/12
3448-34U	i5-3427U	8GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	None	None	vPro	Pro 64 08/12
3448-2MU	i7-3667U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	Ericsson	AT&T	None	None	vPro	Pro 64 08/12
3448-35U	i5-3427U	8GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	None	None	vPro	Pro 64 08/12
3448-25U	i7-3667U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	None	None	vPro	Pro 64 08/12
3448-24U	i7-3667U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	None	None	vPro	Pro 64 08/12
3448-23U	i5-3427U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	None	None	vPro	Pro 64 08/12
3448-22U	i5-3427U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	None	None	vPro	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
Memory	4GB or 8GB / PC3-10600 1333MHz DDR3L / soldered to systemboard, no sockets	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
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	<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; 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	<i>Some: Mini DisplayPort to VGA Monitor Cable (0A36536)</i>	
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>	Supports ThinkVantage® technologies
Carrier	<i>Some: AT&T®, contract required with service provider</i>	
Modem	None	
Bluetooth™	Bluetooth 4.0 wireless	
Ethernet	<i>Some: Lenovo USB 2.0 Ethernet Adapter</i>	
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	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
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	For compatible accessories, please go to O-X1-C sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet
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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(GS1-2) October 2012

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

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ⁹ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Carrier	Finger print reader	Blue-tooth	Intel vPro	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
3448-5DU	i7-3667U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S ²⁸	None	None	Finger	BT	vPro	G	Win8 Pro64	10/12
3448-5CU	i7-3667U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win8 Pro64	10/12
3448-5BU	i5-3427U	8GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win8 Pro64	10/12
3448-5AU	i5-3427U	8GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win8 Pro64	10/12
3448-59U	i5-3427U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win8 Pro64	10/12
3448-58U	i5-3427U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win8 Pro64	10/12
3448-95U	i7-3667U	8GBx1	14.0" HD+	720p	240G FDE SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	vPro	G	Win8 Pro64	10/12
3448-94U	i7-3667U	8GBx1	14.0" HD+	720p	180G SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	vPro	G	Win8 Pro64	10/12
3448-AYU	i7-3667U	8GBx1	14.0" HD+	720p	240G FDE SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win8 Pro64	10/12
3448-AXU	i7-3667U	8GBx1	14.0" HD+	720p	180G SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win8 Pro64	10/12
3448-AWU	i7-3667U	8GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win8 Pro64	10/12
3448-AVU	i7-3667U	8GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win8 Pro64	10/12
3448-BBU	i7-3667U	8GBx1	14.0" HD+	720p	240G FDE SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	vPro	G	Win7 Pro64	12/12
3448-B8U	i7-3667U	8GBx1	14.0" HD+	720p	180G SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	vPro	G	Win7 Pro64	12/12
3448-B6U	i5-3427U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	vPro	G	Win7 Pro64	12/12
3448-B4U	i5-3427U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	vPro	G	Win7 Pro64	12/12
3448-B3U	i7-3667U	8GBx1	14.0" HD+	720p	240G FDE SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win7 Pro64	12/12
3448-B2U	i7-3667U	8GBx1	14.0" HD+	720p	180G SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win7 Pro64	12/12
3448-AZU	i5-3427U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win7 Pro64	12/12
3448-CDU	i5-3427U	4GBx1	14.0" HD+	720p	180G SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win8 Pro64	02/13
3448-C4U	i5-3427U	4GBx1	14.0" HD+	720p	240G FDE SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win8 Pro64	02/13
3448-C3U	i5-3427U	4GBx1	14.0" HD+	720p	240G FDE SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win7 Pro64	02/13
3448-C2U	i5-3427U	4GBx1	14.0" HD+	720p	180G SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win7 Pro64	02/13
3448-CWU	i5-3427U	4GBx1	14.0" HD+	720p	120G SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win7 Pro64	03/14

• 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 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 - 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
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	<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; 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>	
Carrier	<i>Some: AT&T®, contract required with service provider</i>	
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 Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²	
	For compatible accessories, please go to O-X1-C sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet	

See footnotes for more detailed information

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

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ² rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Carrier	Finger print reader	Blue-tooth	Intel vPro	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
3448-8SU	i5-3427U	4GBx1	14.0" HD+ Multi	720p	240G FDE SSD	Intel 6205S ²⁸	None	None	Finger	BT	vPro	G	Win8 Pro64	12/12
3448-8RU	i5-3427U	4GBx1	14.0" HD+ Multi	720p	180G SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win8 Pro64	12/12
3448-7PU	i5-3427U	4GBx1	14.0" HD+ Multi	720p	240G FDE SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	vPro	G	Win8 Pro64	12/12
3448-7NU	i5-3427U	4GBx1	14.0" HD+ Multi	720p	240G FDE SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win8 Pro64	12/12
3448-7MU	i5-3427U	4GBx1	14.0" HD+ Multi	720p	180G SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win8 Pro64	12/12
3448-7FU	i5-3427U	4GBx1	14.0" HD+ Multi	720p	180G SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	vPro	G	Win8 Pro64	12/12
3448-C8U	i7-3667U	8GBx1	14.0" HD+ Multi	720p	180G SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win8 Pro64	02/13
3448-C7U	i7-3667U	8GBx1	14.0" HD+ Multi	720p	240G FDE SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win8 Pro64	02/13
3448-C6U	i7-3667U	8GBx1	14.0" HD+ Multi	720p	256G SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win8 Pro64	02/13
3448-C5U	i7-3667U	8GBx1	14.0" HD+ Multi	720p	128G SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win8 Pro64	02/13
3448-CXU	i5-3427U	4GBx1	14.0" HD+ Multi	720p	120G SSD	Intel 6205S	None	None	Finger	BT	vPro	G	Win7 Pro64	03/14

• 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 - Windows® 8 Pro 64-bit Preloaded applications⁵ (only some listed)
Memory	4GB or 8GB / PC3-10600 1333MHz DDR3L / soldered to systemboard, no sockets	<ul style="list-style-type: none"> - 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)
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	<i>14.0W" (WxDxH):</i> 13.0" x 8.9" x 0.39-0.82"; 331mm x 226mm x 10.0-20.8mm	
Weight ²	<i>Integrated battery:</i> from 3.4 lb (1.54kg)	
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	
Carrier	<i>Some:</i> AT&T®, contract required with service provider	
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 Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² For compatible accessories, please go to O-X1-C sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet

See footnotes for more detailed information

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(GS1-8) March 2014

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

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	Carrier	Finger print reader	Blue-tooth	Intel vPro	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
3460-37U	i7-3667U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S ²⁸	Ericsson	AT&T	Finger	BT	vPro		Pro 64	08/12
3460-36U	i5-3427U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	vPro		Pro 64	08/12
3460-35U	i5-3427U	8GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	vPro	G P	Pro 64	08/12
3460-34U	i5-3427U	8GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	vPro	G P	Pro 64	08/12
3460-25U	i7-3667U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	vPro	G P	Pro 64	08/12
3460-24U	i7-3667U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	vPro	G P	Pro 64	08/12
3460-23U	i5-3427U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	vPro	G P	Pro 64	08/12
3460-22U	i5-3427U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	vPro	G P	Pro 64	08/12

• Some models are part of the Global Models Plus program with limited onsite service²⁴ 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
Memory	4GB or 8GB / PC3-10600 1333MHz DDR3L / soldered to systemboard, no sockets	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
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	<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; 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>	Supports ThinkVantage® technologies
Carrier	<i>Some: AT&T®, contract required with service provider</i>	
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	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
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	For compatible accessories, please go to O-X1-C sheet;
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available	For Lenovo service ²² upgrade options, please go to QP-TA sheet

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 ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Carrier	Finger print reader	Blue-tooth	Intel vPro	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
3460-5CU	i7-3667U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S ²⁸	None	None	Finger	BT	vPro	G P	Win8 Pro64	10/12
3460-5DU	i7-3667U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	vPro	G P	Win8 Pro64	10/12
3460-5BU	i5-3427U	8GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	vPro	G P	Win8 Pro64	10/12
3460-5AU	i5-3427U	8GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	vPro	G P	Win8 Pro64	10/12
3460-59U	i5-3427U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	vPro	G P	Win8 Pro64	10/12
3460-58U	i5-3427U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	vPro	G P	Win8 Pro64	10/12
3460-B2U	i7-3667U	8GBx1	14.0" HD+	720p	240G FDE SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	vPro		Win8 Pro64	10/12
3460-AZU	i7-3667U	8GBx1	14.0" HD+	720p	180G SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	vPro		Win8 Pro64	10/12
3460-AYU	i7-3667U	8GBx1	14.0" HD+	720p	240G FDE SSD	Intel 6205S	None	None	Finger	BT	vPro	G P	Win8 Pro64	10/12
3460-AXU	i7-3667U	8GBx1	14.0" HD+	720p	180G SSD	Intel 6205S	None	None	Finger	BT	vPro	G P	Win8 Pro64	10/12
3460-AWU	i7-3667U	8GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	vPro	G P	Win8 Pro64	10/12
3460-AVU	i7-3667U	8GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	vPro	G P	Win8 Pro64	10/12
3460-BQU	i7-3667U	8GBx1	14.0" HD+	720p	240G FDE SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	vPro		Win7 Pro64	12/12
3460-BPU	i7-3667U	8GBx1	14.0" HD+	720p	180G SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	vPro		Win7 Pro64	12/12
3460-BNU	i5-3427U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	vPro		Win7 Pro64	12/12
3460-BGU	i5-3427U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	vPro		Win7 Pro64	12/12
3460-BFU	i7-3667U	8GBx1	14.0" HD+	720p	240G FDE SSD	Intel 6205S	None	None	Finger	BT	vPro		Win7 Pro64	12/12
3460-BEU	i7-3667U	8GBx1	14.0" HD+	720p	180G SSD	Intel 6205S	None	None	Finger	BT	vPro		Win7 Pro64	12/12
3460-BDU	i5-3427U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	vPro		Win7 Pro64	12/12
3460-BRU	i5-3427U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	vPro		Win7 Pro64	01/13
3460-CHU	i5-3427U	4GBx1	14.0" HD+	720p	180G SSD	Intel 6205S	None	None	Finger	BT	vPro		Win7 Pro64	02/13
3460-CFU	i5-3427U	4GBx1	14.0" HD+	720p	180G SSD	Intel 6205S	None	None	Finger	BT	vPro		Win8 Pro64	02/13
3460-CBU	i5-3427U	4GBx1	14.0" HD+	720p	240G FDE SSD	Intel 6205S	None	None	Finger	BT	vPro	G P	Win8 Pro64	02/13
3460-CAU	i5-3427U	4GBx1	14.0" HD+	720p	240G FDE SSD	Intel 6205S	None	None	Finger	BT	vPro		Win7 Pro64	02/13
3460-DSU	i5-3427U	4GBx1	14.0" HD+	720p	120G SSD	Intel 6205S	None	None	Finger	BT	vPro		Win7 Pro64	03/14
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 - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit		
Memory	4GB or 8GB / PC3-10600 1333MHz DDR3L / soldered to systemboard, no sockets											- Some: Windows 8 Pro 64-bit		
Optical	None											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 • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate		
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	<i>Some:</i> Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS													
Carrier	<i>Some:</i> AT&T®, contract required with service provider													
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-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available											Supports ThinkVantage® technologies 90-watt AC Adapter (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 For compatible accessories, please go to O-X1-C sheet; For Lenovo service ²² upgrade options, please go to QP-TA sheet		

See footnotes for more detailed information

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

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	Carrier	Finger print reader	Blue-tooth	Global (G) Intel vPro GMP (P)	Preload	Ann Date (mm/yy)
3460-AMU	i5-3427U	4GBx1	14.0" HD+ Multi	720p	180G SSD	Intel 6205S ²⁸	None	None	Finger	BT	vPro G P	Win8 Pro64	12/12
3460-ALU	i5-3427U	4GBx1	14.0" HD+ Multi	720p	240G FDE SSD	Intel 6205S	None	None	Finger	BT	vPro G P	Win8 Pro64	12/12
3460-9WU	i7-3667U	8GBx1	14.0" HD+ Multi	720p	240G FDE SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	vPro	Win8 Pro64	12/12
3460-9VU	i7-3667U	8GBx1	14.0" HD+ Multi	720p	180G SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	vPro	Win8 Pro64	12/12
3460-9UU	i5-3427U	4GBx1	14.0" HD+ Multi	720p	180G SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	vPro	Win8 Pro64	12/12
3460-9TU	i5-3427U	4GBx1	14.0" HD+ Multi	720p	240G FDE SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	vPro	Win8 Pro64	12/12
3460-9SU	i5-3427U	4GBx1	14.0" HD+ Multi	720p	240G FDE SSD	Intel 6205S	None	None	Finger	BT	vPro G P	Win8 Pro64	12/12
3460-9RU	i5-3427U	4GBx1	14.0" HD+ Multi	720p	180G SSD	Intel 6205S	None	None	Finger	BT	vPro G P	Win8 Pro64	12/12
3460-CGU	i7-3667U	8GBx1	14.0" HD+ Multi	720p	256G SSD	Intel 6205S	None	None	Finger	BT	vPro G P	Win8 Pro64	02/13
3460-CEU	i7-3667U	8GBx1	14.0" HD+ Multi	720p	240G FDE SSD	Intel 6205S	None	None	Finger	BT	vPro G P	Win8 Pro64	02/13
3460-CDU	i7-3667U	8GBx1	14.0" HD+ Multi	720p	180G SSD	Intel 6205S	None	None	Finger	BT	vPro G P	Win8 Pro64	02/13
3460-CCU	i7-3667U	8GBx1	14.0" HD+ Multi	720p	128G SSD	Intel 6205S	None	None	Finger	BT	vPro G P	Win8 Pro64	02/13
3460-DTU	i5-3427U	4GBx1	14.0" HD+ Multi	720p	120G SSD	Intel 6205S	None	None	Finger	BT	vPro	Win7 Pro64	03/14

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

Positioning Processor	<p><i>Ultralight, durable, secure, and stylish Ultrabook™; one spindle</i></p> <p>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</p>	<p>Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit</p>
Memory	4GB or 8GB / PC3-10600 1333MHz DDR3L / soldered to systemboard, no sockets	<p>Preloaded applications⁵ (only some listed)</p> <ul style="list-style-type: none"> - Windows 7 models <ul style="list-style-type: none"> • Lenovo® Message Center Plus • ThinkVantage Product Recovery • 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 • 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 mSATA™ SSD	None Solid State Drive (SSD) / SATA 6.0Gb/s, Small Form Factor None	
Widescreen display Camera	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 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 TrackPoint® Touchpad ThinkLight™	6-row, ThinkVantage button, LED backlit, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ UltraNav™, buttonless glass surface touchpad below keyboard, multi-touch None	
Dimensions ³ Weight ² Case material	<i>14.0W" (WxDxH): 13.0" x 8.9" x 0.39-0.82"; 331mm x 226mm x 10.0-20.8mm</i> <i>Integrated battery: from 3.4 lb (1.54kg)</i> <i>Display cover: Carbon Fiber;</i> <i>Bottom: Magnesium/Aluminum</i>	
Battery - type Battery - life ¹⁰	Integrated Lithium Polymer 4-cell RapidCharge battery <i>Integrated battery (45.8Whr): up to 8.2 hr</i>	
Chipset Multicard reader ExpressCard Ports Monitor Cable	Mobile Intel QS77 Express Chipset 4-in-1 reader (SD, SDHC, SDXC, MMC) None One USB 3.0, one powered USB 2.0, external monitor (Mini DisplayPort) None	
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Small Form Factor Mini Card, Intel Centrino® Advanced-N 6205S, 2x2 <i>Some: Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS</i>	
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some: AT&T®, contract required with service provider</i> None Bluetooth 4.0 wireless None Intel Active Management Technology (iAMT) 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 Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole, reset switch 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 holidays, next business day response time / service upgrades ²² available	<p>Supports ThinkVantage® technologies</p> <p>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</p> <p>For compatible accessories, please go to O-X1-C sheet;</p> <p>For Lenovo service²² upgrade options, please go to QP-TA sheet</p>

See footnotes for more detailed information

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ThinkPad X1 Carbon (1st Gen) Accessories

Product Specifications Reference (PSREF)

Storage and removable storage

USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 3.0 Secure 500GB Hard Drive	0A65619	ann 11/29/11
USB 3.0 Secure 750GB Hard Drive	0A65616	ann 11/29/11
USB 3.0 Secure 1TB Hard Drive	0A65621	ann 08/28/12
Lenovo Slim USB Portable DVD Burner	0A33988	ann 06/14/11

ThinkPad Expansion

USB 2.0 Port Replicator with Digital Video	0A33942	ann 03/22/11
ThinkPad USB 3.0 Dock	0A33970	ann 05/15/12
Lenovo Essential Notebook Stand	45J9292	ann 05/12/09

Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
Ultraslim Plus Wireless Keyboard and Mouse ⁵²	0A34032	ann 04/05/11
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann 08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

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

Mouse

Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann 12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann 06/04/02
ThinkPad Bluetooth Laser Mouse	0A36407	ann 06/26/12
Lenovo Wireless Laser Mouse ⁵²	0A36188	ann 12/20/11

Multimedia

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

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

Lenovo USB 2.0 Ethernet Adapter	0A36322	ann 08/14/12
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Security

3M 14.0W Privacy Filter from Lenovo	0A61769	ann 04/05/11
3M 14.0W Privacy Filter from Lenovo for X1 and X1 Carbon Touch ⁷⁴	4Z10A22782	ann 03/26/13
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06

⁷⁴ Only compatible with ThinkPad X1 Carbon MultiTouch models.

Power Adapters

ThinkPad 90W AC Adapter for X1 Carbon	0B46994	ann 08/14/12
90W Ultraslim AC/DC Combo Adapter ⁷⁰	41R4493	ann 09/22/09

⁷⁰ Requires the *Lenovo Slim Power Tip* 0B47048

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

Charging tips for 90W Ultraslim AC/DC Combo Adapter 41R4493
 •Lenovo Slim Power Tip 0B47048 ann 08/14/12

More information at www.lenovopowertips.com

Carrying Cases

Up to 14" widescreen models:

14W Ultrabook Topload & Small Sleeve Set - Black	0B95758	ann 08/07/12
14W Ultrabook Topload & Small Sleeve Set - Brown	0B95757	ann 08/07/12
14W Ultrabook Topload & Standard Sleeve Set - Black	0B95750	ann 08/07/12
14W Ultrabook Topload & Standard Sleeve Set - Brown	0B95751	ann 08/07/12

Up to 15.6" widescreen models:

ThinkPad Business Topload Case	43R2476	ann 05/13/08
ThinkPad Business Backpack	43R2482	ann 05/13/08
Lenovo Sport Backpack - Red	0A33896	ann 02/28/12
Lenovo Sport Slimcase - Red	0A33897	ann 02/28/12
Lenovo Sport Messenger - Red	0A33898	ann 02/28/12

More information at www.lenovo.com/support/cases
 Lenovo luxury cases at www.lenovoluxurycases.com

Monitors⁶⁴

ThinkVision LT1421 Wide 14" Mobile Monitor with Protective Screen Cover (USB 2.0)	1452DS6	ann 08/16/11
ThinkVision LT1421 Wide 14" Mobile Monitor with Protective Case (USB 2.0)	1452DB6	ann 08/16/11

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

Monitor Accessories⁴⁶

Lenovo USB-to-DVI/VGA Monitor Adapter	0B47072	ann 08/14/12
Lenovo Mini-DisplayPort to VGA Monitor Cable	0A36536	ann 05/17/11
Mini-DisplayPort to Single-link DVI Monitor Cable	0B47090	ann 06/26/12
Mini-DisplayPort to DisplayPort Monitor Cable	0B47091	ann 07/24/12
Lenovo USB Soundbar	0A36190	ann 05/01/12
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

For more information on accessories:

www.lenovo.com/accessories

Purchase Lenovo accessories

www.lenovo.com/support/accessories

Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide

Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com

An Options Compatibility Configurator for Lenovo systems

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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