



Product Specifications Reference

Lenovo® ThinkPad® S/E Series Notebooks

February 2014 - Version 450



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ThinkPad®



Lenovo® ThinkPad Twist S230u
(Tent Mode)



Lenovo® ThinkPad Twist S230u
(Tablet Mode)



Lenovo® ThinkPad Twist S230u
(Notebook Mode)



Lenovo® ThinkPad Twist S230u
(Stand Mode)



Lenovo® ThinkPad Twist S230u



Lenovo® ThinkPad Twist S230u

ThinkPad® Twist S230u (20C4) - Ultrabook

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	SIM card	Top color	Blue-tooth	Battery cells	Preload	Ann date (mm/yy)
20C4-29U	i7-3667U	8GB	12.5" HD <i>Multi</i>	720p	128G SSD	Intel 2230 ²⁸	None	None	Black	BT	8	Win8 Pro64	06/13
20C4-28U	i7-3667U	8GB	12.5" HD <i>Multi</i>	720p	128G SSD	TP 11a/b/g/n	None	None	Black	BT	8	Win8 Pro64	06/13
20C4-27U	i7-3667U	8GB	12.5" HD <i>Multi</i>	720p	500G 7200	Intel 2230	24GB	None	Black	BT	8	Win8 Pro64	06/13
20C4-26U	i7-3667U	8GB	12.5" HD <i>Multi</i>	720p	500G 7200	TP 11a/b/g/n	24GB	None	Black	BT	8	Win8 Pro64	06/13
20C4-25U	i5-3427U	4GB	12.5" HD <i>Multi</i>	720p	128G SSD	Intel 2230	None	None	Black	BT	8	Win8 Pro64	06/13
20C4-24U	i5-3427U	4GB	12.5" HD <i>Multi</i>	720p	128G SSD	TP 11a/b/g/n	None	None	Black	BT	8	Win8 Pro64	06/13
20C4-23U	i5-3427U	4GB	12.5" HD <i>Multi</i>	720p	500G 7200	Intel 2230	24GB	None	Black	BT	8	Win8 Pro64	06/13
20C4-22U	i5-3427U	4GB	12.5" HD <i>Multi</i>	720p	500G 7200	TP 11a/b/g/n	24GB	None	Black	BT	8	Win8 Pro64	06/13

Positioning	<i>Convertible tablet ultrabook™; one spindle</i>											Preloaded operating system²⁰ - Windows 8 Pro 64-bit Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none"> • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Microsoft Office preloaded; purchase a product key to activate • Skype™
Processor	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 DDR3 / soldered to systemboard, no SO-DIMM sockets											
Optical	None											
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											
mSATA™ SSD	<i>Some:</i> 24GB mSATA Solid State Drive (SSD), via PCIe Mini Card slot											
Widescreen display	12.5" (317.5mm) HD (1366x768) TFT color, smudgeless and anti-reflective display with Corning® Gorilla® Glass, LED backlight, 350 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, rotate and swivel hinge <i>Bottom buttons:</i> volume up / down and Windows buttons <i>Side buttons:</i> power and auto rotation buttons											
Multi-touch	Projected Capacitive Touch (PCT) technology, supports 5-point multi-touch											
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus											
Graphics	Intel HD Graphics 4000 in processor, supports external digital monitor via Mini HDMI and Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (Mini DisplayPort) @60Hz; 1920x1200 (Mini HDMI) @60Hz											
Keyboard	6-row, 83-key, spill-resistant, multimedia Fn keys											
TrackPoint®	TrackPoint pointing device											
Touchpad	UltraNav™, buttonless touchpad below keyboard, Tap Zones, multi-touch											
Light sensor	Ambient light sensor											
ThinkLight™	None											
Dimensions ³	<i>8-cell:</i> 12.32" x 9.29" x 0.79"; 313mm x 236mm x 20mm											
Weight ²	<i>8-cell:</i> from 3.50 lb (1.60kg)											
Case material	<i>Display cover:</i> Magnesium + Polyphenylene sulfide (PPS); <i>Bottom:</i> Magnesium + PPS											
Battery - type	Integrated Li-Polymer 8-cell, HW Authentication											
Extended Battery	None											
Battery - life ¹⁰	<i>8-cell (42.4Whr):</i> up to 6.0 hr											
Chipset	Mobile Intel HM77 Express Chipset											
Multicard Reader	4-in-1 reader (SD, SDHC, SDXC, MMC)											
ExpressCard	None											
Smart Card Read	None											
Ports	Two USB 3.0, external monitor (mini-HDMI, 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, ThinkPad 11a/b/g/n, Wi-Fi + Bluetooth combo adapter, 2x2 <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, Wi-Fi + Bluetooth combo adapter, 2x2											
PCIe WWAN	None											
SIM card	None											
Modem	None											
Bluetooth™	Bluetooth 4.0 wireless, integrated in WLAN PCIe Half Mini Card											
Ethernet	Gigabit Network Connection Realtek® RTL8111F, PHY, PCIe x1											
Intel AMT	None											
Audio support	High Definition (HD) Audio, Realtek ALC3202 codec / stereo speakers, 2 watt x 2, Dolby® Home Theater® v4 certified / volume up, down, mute buttons / dual array microphone, combo audio/mic jack											
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	Trusted Platform Module, TCG 1.2-compliant											
Fingerprint reader	None											
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available											

See footnotes for more detailed information
 US model(s) announced June 4, 2013

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 (TANR1-4) July 2013

ThinkPad® Twist S230u (3347) - TopSeller (Ultrabook)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	PCIe Mini Card SIM card	Top color	Blue-tooth	Bat-tery cells	Preload	Ann date (mm/yy)
3347-2YU	i3-3217U	4GB	12.5" HD <i>Multi</i>	720p	320G 7200	TP 11a/b/g/n ²⁸	24GB	None	Black	BT	8	Win8 Pro64	10/12
3347-2RU	i7-3517U	8GB	12.5" HD <i>Multi</i>	720p	128G SSD	TP 11a/b/g/n	None	None	Black	BT	8	Win8 Pro64	10/12
3347-2QU	i5-3317U	4GB	12.5" HD <i>Multi</i>	720p	128G SSD	TP 11a/b/g/n	None	None	Black	BT	8	Win8 Pro64	10/12
3347-2NU	i3-3217U	4GB	12.5" HD <i>Multi</i>	720p	500G 7200	TP 11a/b/g/n	24GB	None	Black	BT	8	Win8 Pro64	10/12
3347-2HU	i5-3317U	4GB	12.5" HD <i>Multi</i>	720p	500G 7200	TP 11a/b/g/n	24GB	None	Black	BT	8	Win8 Pro64	10/12
3347-2GU	i7-3517U	8GB	12.5" HD <i>Multi</i>	720p	500G 7200	TP 11a/b/g/n	24GB	None	Black	BT	8	Win8 Pro64	10/12

- **Small and medium business (SMB) model(s), part of the US TopSeller™ Program**
- **A depot repair service 1-year limited warranty**

Positioning	<i>Convertible tablet ultrabook™; one spindle</i>										Preloaded operating system ²⁰
Processor	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 (3.00GHz), HT technology										- Windows® 8 Pro 64-bit
Memory	2GB, 4GB or 8GB / PC3-10600 1333MHz DDR3 / soldered to systemboard, no SO-DIMM sockets										Preloaded applications ¹⁴ (only some listed)
Optical	None										<ul style="list-style-type: none"> • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Microsoft Office preloaded; purchase a product key to activate • Skype™
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										
mSATA™ SSD	<i>Some:</i> 24GB mSATA Solid State Drive (SSD), via PCIe Mini Card slot										
Widescreen display	12.5" (317.5mm) HD (1366x768) TFT color, smudgeless and anti-reflective display with Corning® Gorilla® Glass, LED backlight, 350 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, rotate and swivel hinge <i>Bottom buttons:</i> volume up / down and Windows buttons <i>Side buttons:</i> power and auto rotation buttons										
Multi-touch	Projected Capacitive Touch (PCT) technology, supports 5-point multi-touch										
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus										
Graphics	Intel HD Graphics 4000 in processor, supports external digital monitor via Mini HDMI and Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (Mini DisplayPort) @60Hz; 1920x1200 (Mini HDMI) @60Hz										
Keyboard	6-row, 83-key, spill-resistant, multimedia Fn keys										
TrackPoint®	TrackPoint pointing device										
Touchpad	UltraNav™, buttonless touchpad below keyboard, Tap Zones, multi-touch										
Light sensor	Ambient light sensor										
ThinkLight™	None										
Dimensions ³	<i>8-cell:</i> 12.32" x 9.29" x 0.79"; 313mm x 236mm x 20mm										
Weight ²	<i>8-cell:</i> from 3.50 lb (1.60kg)										
Case material	<i>Display cover:</i> Magnesium + Polyphenylene sulfide (PPS); <i>Bottom:</i> Magnesium + PPS										
Battery - type	Integrated Li-Polymer 8-cell, HW Authentication										
Extended Battery	None										
Battery - life ¹⁰	<i>8-cell (42.4Whr):</i> up to 6.0 hr										
Chipset	Mobile Intel HM77 Express Chipset										
Multicard Reader	4-in-1 reader (SD, SDHC, SDXC, MMC)										
ExpressCard	None										
Smart Card Read	None										
Ports	Two USB 3.0, external monitor (mini-HDMI, 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, ThinkPad 11a/b/g/n, Wi-Fi + Bluetooth combo adapter, 2x2										
PCIe WWAN	None										
SIM card	None										
Modem	None										Supports ThinkVantage® technologies
Bluetooth™	Bluetooth 4.0 wireless, integrated in WLAN PCIe Half Mini Card										65-watt AC Adapter
Ethernet	Gigabit Network Connection Realtek® RTL8111F, PHY, PCIe x1										EPEAT™ Gold rating
Intel AMT	None										ENERGY STAR® 5.0-compliant
Audio support	High Definition (HD) Audio, Realtek ALC3202 codec / stereo speakers, 2 watt x 2, Dolby® Home Theater® v4 certified / volume up, down, mute buttons / dual array microphone, combo audio/mic jack										GREENGUARD® certified
Security	Power-on password, hard disk password, supervisor password, security keyhole										ROHS-compliant
Security chip	Trusted Platform Module, TCG 1.2-compliant										International Warranty Service ¹⁷
Fingerprint reader	None										24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available										For Lenovo ²² service upgrade options, please go to S-EDGE sheet

See footnotes for more detailed information
US model(s) announced October 23, 2012

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(TANR1-1) October 2012

ThinkPad® Twist S230u (3347) - TopSeller (Ultrabook) - II

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	SIM card	Top color	Blue-tooth	Bat-tery cells	Preload	Ann date (mm/yy)
3347-7EU	i5-3427U	4GB	12.5" HD <i>Multi</i>	720p	500G 7200	TP 11a/b/g/n ²⁸	24GB	None	Black	BT	8	Win8 Pro64	02/13
3347-7DU	i5-3427U	4GB	12.5" HD <i>Multi</i>	720p	500G 7200	Intel 2230	24GB	None	Black	BT	8	Win8 Pro64	02/13
3347-7CU	i5-3427U	4GB	12.5" HD <i>Multi</i>	720p	128G SSD	Intel 2230	None	None	Black	BT	8	Win8 Pro64	02/13
3347-7BU	i5-3427U	4GB	12.5" HD <i>Multi</i>	720p	128G SSD	TP 11a/b/g/n	None	None	Black	BT	8	Win8 Pro64	02/13
3347-78U	i5-3337U	4GB	12.5" HD <i>Multi</i>	720p	500G 7200	Intel 2230	24GB	None	Black	BT	8	Win8 Pro64	02/13
3347-77U	i7-3537U	8GB	12.5" HD <i>Multi</i>	720p	128G SSD	TP 11a/b/g/n	None	None	Black	BT	8	Win8 Pro64	02/13
3347-76U	i5-3337U	4GB	12.5" HD <i>Multi</i>	720p	128G SSD	TP 11a/b/g/n	None	None	Black	BT	8	Win8 Pro64	02/13
3347-6WU	i3-3227U	4GB	12.5" HD <i>Multi</i>	720p	500G 7200	TP 11a/b/g/n	24GB	None	Black	BT	8	Win8 Pro64	02/13
3347-6VU	i5-3337U	4GB	12.5" HD <i>Multi</i>	720p	500G 7200	TP 11a/b/g/n	24GB	None	Black	BT	8	Win8 64	02/13
3347-6UU	i5-3337U	4GB	12.5" HD <i>Multi</i>	720p	500G 7200	TP 11a/b/g/n	24GB	None	Black	BT	8	Win8 Pro64	02/13
3347-6LU	i7-3537U	8GB	12.5" HD <i>Multi</i>	720p	500G 7200	TP 11a/b/g/n	24GB	None	Black	BT	8	Win8 Pro64	02/13
3347-8NU	i3-3227U	4GB	12.5" HD <i>Multi</i>	720p	500G 7200	TP 11a/b/g/n	24GB	None	Black	BT	8	Win8 64	07/13
3347-8MU	i3-3227U	4GB	12.5" HD <i>Multi</i>	720p	320G 7200	TP 11a/b/g/n	24GB	None	Black	BT	8	Win8 64	07/13
3347-8LU	i3-3227U	4GB	12.5" HD <i>Multi</i>	720p	320G 7200	TP 11a/b/g/n	24GB	None	Black	BT	8	Win8 Pro64	07/13
Positioning Processor	<p><i>Convertible tablet ultrabook™; one spindle</i> Intel® Core™ i3-3227U processor (2 cores, 1.90GHz, 3MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), HT technology Intel Core i5-3337U processor (2 cores, 1.80GHz, 3MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.70GHz), HT technology Intel Core i5-3427U processor (2 cores, 1.80GHz, 3MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.80GHz), HT technology Intel Core i7-3537U processor (2 cores, 2.00GHz, 4MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology</p>												
Memory	4GB or 8GB / PC3-10600 1333MHz DDR3 / soldered to systemboard, no SO-DIMM sockets												
Optical SATA disk	None <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												
mSATA™ SSD	<i>Some:</i> 24GB mSATA Solid State Drive (SSD), via PCIe Mini Card slot												
Widescreen display	12.5" (317.5mm) HD (1366x768) TFT color , smudgeless and anti-reflective display with Corning® Gorilla® Glass, LED backlight, 350 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, rotate and swivel hinge <i>Bottom buttons:</i> volume up / down and Windows buttons <i>Side buttons:</i> power and auto rotation buttons												
Multi-touch Camera	Projected Capacitive Touch (PCT) technology, supports 5-point multi-touch HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus												
Graphics	Intel HD Graphics 4000 in processor, supports external digital monitor via Mini HDMI and Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (Mini DisplayPort)@60Hz; 1920x1200 (Mini HDMI)@60Hz												
Keyboard TrackPoint®	6-row, 83-key, spill-resistant, multimedia Fn keys												
Touchpad	TrackPoint pointing device												
Light sensor	UltraNav™, buttonless touchpad below keyboard, Tap Zones, multi-touch												
ThinkLight™	Ambient light sensor												
Dimensions ³	<i>8-cell:</i> 12.32" x 9.29" x 0.79"; 313mm x 236mm x 20mm												
Weight ²	<i>8-cell:</i> from 3.50 lb (1.60kg)												
Case material	<i>Display cover:</i> Magnesium + Polyphenylene sulfide (PPS); <i>Bottom:</i> Magnesium + PPS												
Battery - type	Integrated Li-Polymer 8-cell, HW Authentication												
Extended Battery	None												
Battery - life ¹⁰	<i>8-cell (42.4Whr):</i> up to 6.0 hr												
Chipset	Mobile Intel HM77 Express Chipset												
Multicard Reader	4-in-1 reader (SD, SDHC, SDXC, MMC)												
ExpressCard	None												
Smart Card Read	None												
Ports	Two USB 3.0, external monitor (mini-HDMI, 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, ThinkPad 11a/b/g/n, Wi-Fi + Bluetooth combo adapter, 2x2 <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, Wi-Fi + Bluetooth combo adapter, 2x2												
PCIe WWAN	None												
SIM card	None												
Modem	None												
Bluetooth™	Bluetooth 4.0 wireless, integrated in WLAN PCIe Half Mini Card												
Ethernet	Gigabit Network Connection Realtek® RTL8111F, PHY, PCIe x1												
Intel AMT	None												
Audio support	High Definition (HD) Audio, Realtek ALC3202 codec / stereo speakers, 2 watt x 2, Dolby® Home Theater® v4 certified / volume up, down, mute buttons / dual array microphone, combo audio/mic jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, TCG 1.2-compliant												
Fingerprint reader	None												
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available												

Preloaded operating system²⁰
 - *Some:* Windows 8 64-bit
 - *Some:* Windows 8 Pro 64-bit

Preloaded applications¹⁴ (only some listed)
 • Lenovo Support
 • Lenovo Companion
 • Lenovo Cloud Storage
 • Password Manager
 • Fingerprint Software (fingerprint models)
 • ThinkVantage System Update
 • Norton™ Internet Security (30 days of virus definitions)
 • Microsoft Office preloaded; purchase a product key to activate
 • Skype™

Supports ThinkVantage® technologies

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

For Lenovo²² service upgrade options, please go to S-EDGE sheet

See footnotes for more detailed information
 US model(s) announced February 5, February 19, or July 16, 2013

ThinkPad® Twist S230u (3347) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	SIM card	Top color	Blue-tooth	Bat-tery cells	Preload	Ann date (mm/yy)
3347-2PU	i3-2365M	2GB	12.5" HD <i>Multi</i>	720p	500G 7200	TP 11a/b/g/n ²⁸	16GB	None	Black	BT	8	Win8 Pro64	10/12
3347-79U	i3-2375M	2GB	12.5" HD <i>Multi</i>	720p	320G 7200	TP 11a/b/g/n	16GB	None	Black	BT	8	Win8 Pro64	02/13
3347-84U	i3-2375M	2GB	12.5" HD <i>Multi</i>	720p	500G 7200	TP 11a/b/g/n	16GB	None	Black	BT	8	Win8 Pro64	05/13
3347-83U	i3-2375M	2GB	12.5" HD <i>Multi</i>	720p	320G 7200	TP 11a/b/g/n	16GB	None	Black	BT	8	Win8 64	05/13

- **Small and medium business (SMB) model(s), part of the US TopSeller™ Program**
- **A depot repair service 1-year limited warranty**

Positioning	<i>Convertible tablet; one spindle</i>										
Processor	Intel® Core™ i3-2365M processor (2 cores, 1.40GHz, 3MB Cache), Intel HD Graphics 3000, DDR3 memory controller (up to 1333MHz), HT technology Intel Core i3-2375M processor (2 cores, 1.50GHz, 3MB Cache), Intel HD Graphics 3000, DDR3 memory controller (up to 1333MHz), HT technology										
Memory	2GB / PC3-10600 1333MHz DDR3 / soldered to systemboard, no SO-DIMM sockets										
Optical	None										
SATA disk	Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™, removable, upgradable										
mSATA™ SSD	16GB mSATA Solid State Drive (SSD), via PCIe Mini Card slot										
Widescreen display	12.5" (317.5mm) HD (1366x768) TFT color , smudgeless and anti-reflective display with Corning® Gorilla® Glass, LED backlight, 350 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, rotate and swivel hinge <i>Bottom buttons:</i> volume up / down and Windows buttons <i>Side buttons:</i> power and auto rotation buttons										
Multi-touch	Projected Capacitive Touch (PCT) technology, supports 5-point multi-touch										
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus										
Graphics	Intel HD Graphics 3000 in processor, supports external digital monitor via Mini HDMI and Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (Mini DisplayPort) @60Hz; 1920x1200 (Mini HDMI) @60Hz										
Keyboard	6-row, 83-key, spill-resistant, multimedia Fn keys										
TrackPoint®	TrackPoint pointing device										
Touchpad	UltraNav™, buttonless touchpad below keyboard, Tap Zones, multi-touch										
Light sensor	Ambient light sensor										
ThinkLight™	None										
Dimensions ³	<i>8-cell:</i> 12.32" x 9.29" x 0.79"; 313mm x 236mm x 20mm										
Weight ²	<i>8-cell:</i> from 3.50 lb (1.60kg)										
Case material	<i>Display cover:</i> Magnesium + Polyphenylene sulfide (PPS); <i>Bottom:</i> Magnesium + PPS										
Battery - type	Integrated Li-Polymer 8-cell, HW Authentication										
Extended Battery	None										
Battery - life ¹⁰	<i>8-cell (42.4Whr):</i> up to 6.0 hr										
Chipset	Mobile Intel HM77 Express Chipset										
Multicard Reader	4-in-1 reader (SD, SDHC, SDXC, MMC)										
ExpressCard	None										
Smart Card Read	None										
Ports	Two USB 3.0, external monitor (mini-HDMI, 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, ThinkPad 11a/b/g/n, Wi-Fi + Bluetooth combo adapter, 2x2										
PCIe WWAN	None										
SIM card	None										
Modem	None										
Bluetooth™	Bluetooth 4.0 wireless, integrated in WLAN PCIe Half Mini Card										
Ethernet	Gigabit Network Connection Realtek® RTL8111F, PHY, PCIe x1										
Intel AMT	None										
Audio support	High Definition (HD) Audio, Realtek ALC3202 codec / stereo speakers, 2 watt x 2, Dolby® Home Theater® v4 certified / volume up, down, mute buttons / dual array microphone, combo audio/mic jack										
Security	Power-on password, hard disk password, supervisor password, security keyhole										
Security chip	Trusted Platform Module, TCG 1.2-compliant										
Fingerprint reader	None										
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available										
	Preloaded operating system²⁰ - <i>Some:</i> Windows® 8 64-bit - <i>Some:</i> Windows 8 Pro 64-bit Preloaded applications¹⁴ (only some listed) • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Microsoft Office preloaded; purchase a product key to activate • Skype™										
	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										
	For Lenovo ²² service upgrade options, please go to S-EDGE sheet										

See footnotes for more detailed information
 US model(s) announced October 23, 2012; February 19 or May 21, 2013

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 (TANR1-2) June 2013

ThinkPad® Twist S230u Accessories

Personal Systems Reference (PSREF)

Memory

None

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

ThinkPad Expansion

None

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

Mouse

ThinkPad Bluetooth Laser Mouse	0A36407	ann	06/26/12
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
Lenovo Wireless Laser Mouse ⁵²	0A36188	ann	12/20/11

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

Security

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

Multimedia

ThinkPad In-Ear Headphones with mic	57Y4488	ann	01/07/10
Lenovo Mini Speakers M220	55Y2033	ann	01/07/10

Modem

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

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

More information at www.lenovopowertips.com

Carrying Cases

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

Up to 15.6" widescreen models:

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 LT2323p Wide 23" (VGA, DP, DVI-D) ⁶⁹	3024HB1	ann	09/13/11
Lenovo LS2023 Wide 20" (VGA, DVI)	3778HB2	ann	08/02/11
Lenovo LS1922 Wide 18.5" (VGA)	2580AF1	ann	08/02/11
Lenovo LS2223 Wide 21.5" (VGA, DVI)	3783HB2	ann	08/02/11
Lenovo LS2323 Wide 23" (VGA, DVI)	3794HB1	ann	08/02/11

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

Monitor Accessories⁴⁶

Lenovo Mini DisplayPort to VGA Adapter	0A36536	ann	05/17/11
Lenovo Mini DisplayPort to SL-DVI-D Adapter	0B47090	ann	06/12/12
Lenovo Mini DisplayPort to DisplayPort 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 Edge E431



Lenovo ThinkPad Edge E431



Lenovo ThinkPad Edge E431



Lenovo ThinkPad Edge E531



Lenovo ThinkPad Edge E531



Lenovo ThinkPad Edge E531
with Numeric Keypad

ThinkPad® Edge E431 6277 (Intel) - TopSeller

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card WLAN / BT	M.2 Card WWAN /SSD	Top color	Finger print reader	Bat-tery cells	Bat-tery /Wh	Preload	Ann date (mm/yy)
6277-DGU	i5-3320M	4GBx1	14.0" HD	720p	320G 5400	Intel 2230 + BT	None	Black	None	6	48	Prem 64	01/14
6277-DFU	i3-3120M	4GBx1	14.0" HD	720p	320G 7200	TP 11a/b/g/n + BT	None	Black	None	6	48	Prem 64	01/14

Positioning Processor	<i>Sophisticated design with quality, durability and reliability for SMB customers; two spindles</i> Intel® Core™ i3-3120M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), 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 Home Premium 64 Preloaded applications (only some listed) • Adobe® Reader® • Norton™ Internet Security (30 days of virus definitions) • Microsoft Office preloaded; purchase a product key to activate
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	
Optical SATA disk	DVD burner, 9.5mm high, fixed, not removable, tray-in <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 or 9.5mm high, removable, upgradable, Active Protection System™	
M.2 SSD	None	
Widescreen display	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 500:1 contrast ratio	
Camera	HD720p resolution, face track, low light sensitive, fixed focus, LED indicator	
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>Max 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	
Touchpad	UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch	
ThinkLight™	None	
Dimensions ³	14.0W" (WxDxH): 13.54" x 9.41" x 1.04-1.15"; 344mm x 239mm x 26.3-29.3mm	
Weight ²	<i>6-cell:</i> from 4.70 lb (2.13kg)	
Case color	Matte black or Matte red (top), trimmed with a thin silver band (side); black bottom	
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic	
Battery - type ³⁷	Lithium Ion 6-cell	
Battery - life ¹⁰	<i>6-cell (48Whr):</i> up to 6.3 hr <i>6-cell (62Whr):</i> up to 8.2 hr	
Chipset	Mobile Intel HM77 Express Chipset	
ExpressCard	None	
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)	
Ports	Two USB 3.0, one USB 2.0 (powered), OneLink Docking port (supports optional 4X10A06077) external monitor (VGA DB-15, HDMI), ethernet (RJ-45)	
PCIe Mini Card	One PCI Express Half Mini Card slot	
PCIe WLAN ⁴	<i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 1x1, Wi-Fi + BT combo adapter <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, 2x2, Wi-Fi + BT combo adapter	
M.2 Card	One M.2 Card slot for support of WWAN card or SSD	
M.2 WWAN	None	
Bluetooth™	Bluetooth 4.0 wireless, integrated in selected WLAN PCIe Half Mini Card	
Ethernet	Realtek® RTL8111F Gigabit Network Connection	
Audio support	High Definition (HD) Audio, Conexant 20671 codec / stereo speakers, 2 watt x 2 / Dolby Advanced Audio v2 certified / Stereo digital microphone, combo audio/mic jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	None	
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor	
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	Supports ThinkVantage® technologies 65-watt AC adapter 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 Lenovo ²² service upgrade options, please go to S-EDGE sheet

See footnotes for more detailed information
US model(s) announced January 7, 2014

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(LIN1-5) January 2014

ThinkPad® Edge E431 6277 (Intel) - TopSeller (Windows 8)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card WLAN / BT	M.2 Card WWAN /SSD	Top color	Finger print reader	Battery cells	Battery /Wh	Preload	Ann date (mm/yy)
6277-58U	i3-3120M	4GBx1	14.0" HD	720p	320G 7200	Intel 2230 + BT	None	Black	None	6	48	Win7 Pro64	04/13
6277-59U	i3-3120M	4GBx1	14.0" HD	720p	320G 7200	Intel 2230 + BT	None	Black	None	6	48	Win8 Pro64	04/13
6277-5AU	i5-3230M	4GBx1	14.0" HD	720p	500G 7200	Intel 2230 + BT	None	Black	Finger	6	48	Win7 Pro64	04/13
6277-5BU	i5-3230M	4GBx1	14.0" HD	720p	500G 7200	Intel 2230 + BT	None	Black	Finger	6	48	Win8 Pro64	04/13
6277-5CU	i7-3632QM	4GBx1	14.0" HD	720p	500G 7200	Intel 2230 + BT	None	Black	Finger	6	48	Win7 Pro64	04/13
6277-5DU	i7-3632QM	4GBx1	14.0" HD	720p	500G 7200	Intel 2230 + BT	None	Black	Finger	6	48	Win8 Pro64	04/13
6277-5EU	i3-3120M	4GBx1	14.0" HD	720p	500G 7200	Intel 2230 + BT	None	Black	Finger	6	48	Win8 Pro64	04/13
6277-5FU	i3-2348M	4GBx1	14.0" HD	720p	320G 5400	TP 11b/g/n + BT	None	Black	None	6	48	Win7 Pro64	04/13
6277-5GU	i3-2348M	2GBx1	14.0" HD	720p	320G 7200	TP 11b/g/n + BT	None	Black	None	6	48	Win7 Pro64	04/13
6277-5HU	i5-3230M	4GBx1	14.0" HD	720p	128G SSD	Intel 2230 + BT	None	Black	Finger	6	48	Win8 Pro64	04/13
6277-5JU	i5-3230M	4GBx1	14.0" HD	720p	128G SSD	Intel 2230 + BT	None	Black	Finger	6	48	Win8 Pro64	04/13
6277-5KU	i5-3230M	4+2GB	14.0" HD	720p	1TB 5400	Intel 2230 + BT	None	Black	Finger	6	48	Win8 64	04/13
6277-74U	i3-3120M	4GBx1	14.0" HD	720p	500G 7200	Intel 2230 + BT	None	Black	Finger	6	48	Win7 Pro64	04/13
6277-75U	i5-3230M	4GBx1	14.0" HD	720p	500G 7200	Intel 2230 + BT	24GB	Black	Finger	6	48	Win8 Pro64	04/13
6277-76U	i5-3230M	4GBx1	14.0" HD	720p	500G 7200	Intel 2230 + BT	24GB	Black	Finger	6	48	Win8 Pro64	04/13
6277-77U	i5-3230M	4+2GB	14.0" HD	720p	1TB 5400	Intel 2230 + BT	None	Black	Finger	6	48	Win8 Pro64	04/13
6277-78U	i5-3230M	4+2GB	14.0" HD	720p	1TB 5400	Intel 2230 + BT	None	Black	Finger	6	48	Win7 Pro64	04/13
6277-CBU	i3-3130M	4GBx1	14.0" HD	720p	500G 7200	TP 11b/g/n + BT	None	Black	None	6	48	Win7 Pro64	08/13

Positioning Processor	<i>Sophisticated design with quality, durability and reliability for SMB customers; 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 i3-3120M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), HT technology Intel Core i3-3130M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), 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 i7-3632QM processor (4 cores, 2.20GHz, 6MB 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 64-bit - <i>Some:</i> Windows 8 Pro 64-bit Preloaded applications (only some listed) - Windows 7 models • Access Connections™ • ThinkVantage Power Manager • ThinkVantage Tools • Lenovo SimpleTap • Adobe® Reader® - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage - All models • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Skype™ • Microsoft Office preloaded; purchase a product key to activate
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	
Optical SATA disk	DVD burner, 9.5mm high, fixed, not removable, tray-in <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 or 9.5mm high, removable, upgradable, Active Protection System™	
M.2 SSD	<i>Some:</i> M.2 Solid State Drive (SSD), via M.2 Card slot	
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, face track, low light sensitive, fixed focus, LED indicator	
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>Max external resolution: 2048x1536 (VGA)@75Hz; 1920x1200 (HDMI)@60Hz</i>	
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, spill-resistant, multimedia Fn keys TrackPoint pointing device, Internet Scroll Bar ¹³ UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch None	
Dimensions ³ Weight ² Case color Case material Battery - type ³⁷ Battery - life ¹⁰	14.0W" (WxDxH): 13.54" x 9.41" x 1.04-1.15"; 344mm x 239mm x 26.3-29.3mm <i>6-cell:</i> from 4.70 lb (2.13kg) Matte black or Matte red (top), trimmed with a thin silver band (side); black bottom Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell <i>6-cell (48Whr):</i> up to 6.3 hr <i>6-cell (62Whr):</i> up to 8.2 hr	
Chipset ExpressCard Multicard Reader Ports	Mobile Intel HM77 Express Chipset None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, one USB 2.0 (powered), OneLink Docking port (supports optional 4X10A06077) external monitor (VGA DB-15, HDMI), ethernet (RJ-45)	
PCIe Mini Card PCIe WLAN ⁴	One PCI Express Half Mini Card slot <i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1, Wi-Fi + BT combo adapter <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, 2x2, Wi-Fi + BT combo adapter	
M.2 Card M.2 WWAN Bluetooth™ Ethernet Audio support	One M.2 Card slot for support of WWAN card or SSD None Bluetooth 4.0 wireless, integrated in selected WLAN PCIe Half Mini Card Realtek® RTL8111F Gigabit Network Connection High Definition (HD) Audio, Conexant 20671 codec / stereo speakers, 2 watt x 2 / Dolby Advanced Audio v2 certified / Stereo digital microphone, combo audio/mic jack	Supports ThinkVantage® technologies 65-watt AC adapter 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 None <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor	For Lenovo ²² service upgrade options, please go to S-EDGE sheet
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

See footnotes for more detailed information
US model(s) announced April 30, or August 20, 2013

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(LIN1-1) August 2013

ThinkPad® Edge E431 6277 (Intel) - TopSeller (Windows 8) - II

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card WLAN / BT	M.2 Card WWAN /SSD	Top color	Finger print reader	Battery cells	Battery /Wh	Preload	Ann date (mm/yy)
6277-9QU	i7-3632QM	8GBx1	14.0" HD	720p	500G 7200	Intel 2230 + BT	None	Black	Finger	6	48	Win7 Pro64	06/13
6277-9RU	i7-3632QM	8GBx1	14.0" HD	720p	500G 7200	Intel 2230 + BT	None	Black	Finger	6	48	Win8 Pro64	06/13
6277-AUU	i3-3120M	4GBx1	14.0" HD	720p	500G 7200	Intel 2230 + BT	None	Black	None	6	48	Win8 64	06/13
6277-AVU	i5-3230M	4GBx1	14.0" HD	720p	500G 7200	Intel 2230 + BT	None	Black	Finger	6	48	Win8 64	06/13
6277-AWU	i3-2348M	4GBx1	14.0" HD	720p	320G 5400	TP 11b/g/n + BT	None	Black	None	6	48	Win8 Pro64	06/13
6277-AXU	i3-2348M	2GBx1	14.0" HD	720p	320G 5400	TP 11b/g/n + BT	None	Black	None	6	48	Win8 Pro64	06/13
6277-AYU	i7-3632QM	8GBx1	14.0" HD	720p	128G SSD	Intel 2230 + BT	None	Black	Finger	6	48	Win8 Pro64	06/13
6277-AZU	i7-3632QM	8GBx1	14.0" HD	720p	128G SSD	Intel 2230 + BT	None	Black	Finger	6	48	Win7 Pro64	06/13
6277-B2U	i3-3110M	4GBx1	14.0" HD	720p	320G 5400	TP 11b/g/n + BT	None	Black	None	6	48	Win7 Pro64	06/13
6277-B3U	i3-3110M	4GBx1	14.0" HD	720p	320G 5400	TP 11b/g/n + BT	None	Black	None	6	48	Win8 Pro64	06/13
6277-BTU	i3-3110M	2GBx1	14.0" HD	720p	320G 7200	TP 11b/g/n + BT	None	Black	None	6	48	Win7 Pro64	07/13
6277-BUJ	i3-3110M	2GBx1	14.0" HD	720p	500G 7200	TP 11b/g/n + BT	None	Black	None	6	48	Win7 Pro64	07/13
6277-BVU	i3-3110M	4GBx1	14.0" HD	720p	500G 7200	TP 11b/g/n + BT	None	Black	None	6	48	Win7 Pro64	07/13
6277-BWU	i7-3632QM	4GBx1	14.0" HD	720p	500G 7200	Intel 2230 + BT	None	Black	None	6	48	Win8 Pro64	07/13
6277-BXU	i3-3120M	4GBx1	14.0" HD	720p	500G 7200	Intel 2230 + BT	None	Black	None	6	48	Win7 Pro64	07/13
6277-BYU	i5-3230M	4GBx1	14.0" HD	720p	500G 7200	Intel 2230 + BT	None	Black	None	6	48	Win7 Pro64	07/13
6277-DEU	i3-3120M	4GBx1	14.0" HD	720p	320G 7200	TP 11a/b/g/n + BT	None	Black	None	6	48	Win8 64	01/14

Positioning Processor	<i>Sophisticated design with quality, durability and reliability for SMB customers; 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 i3-3120M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), 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 i7-3632QM processor (4 cores, 2.20GHz, 6MB 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 64-bit - <i>Some:</i> Windows 8 Pro 64-bit Preloaded applications (only some listed) - Windows 7 models • Access Connections™ • ThinkVantage Power Manager • ThinkVantage Tools • Lenovo SimpleTap • Adobe® Reader® - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage - All models • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Skype™ • Microsoft Office preloaded; purchase a product key to activate
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	
Optical SATA disk	DVD burner, 9.5mm high, fixed, not removable, tray-in <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 or 9.5mm high, removable, upgradable, Active Protection System™	
M.2 SSD	None	
Widescreen display	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 500:1 contrast ratio	
Camera	HD720p resolution, face track, low light sensitive, fixed focus, LED indicator	
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>Max external resolution:</i> 2048x1536 (VGA)@75Hz; 1920x1200 (HDMI)@60Hz	
Keyboard TrackPoint®	6-row, spill-resistant, multimedia Fn keys TrackPoint pointing device, Internet Scroll Bar ¹³	
Touchpad ThinkLight™	UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch None	
Dimensions ³	14.0W" (WxDxH): 13.54" x 9.41" x 1.04-1.15"; 344mm x 239mm x 26.3-29.3mm	
Weight ²	6-cell: from 4.70 lb (2.13kg)	
Case color	Matte black or Matte red (top), trimmed with a thin silver band (side); black bottom	
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic	
Battery - type ³⁷	Lithium Ion 6-cell	
Battery - life ¹⁰	6-cell (48Whr): up to 6.3 hr 6-cell (62Whr): up to 8.2 hr	
Chipset	Mobile Intel HM77 Express Chipset	
ExpressCard	None	
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)	
Ports	Two USB 3.0, one USB 2.0 (powered), OneLink Docking port (supports optional 4X10A06077) external monitor (VGA DB-15, HDMI), ethernet (RJ-45)	
PCIe Mini Card	One PCI Express Half Mini Card slot	
PCIe WLAN ⁴	<i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1, Wi-Fi + BT combo adapter <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 1x1, Wi-Fi + BT combo adapter <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, 2x2, Wi-Fi + BT combo adapter	
M.2 Card	One M.2 Card slot for support of WWAN card or SSD	
M.2 WWAN	None	
Bluetooth™	Bluetooth 4.0 wireless, integrated in selected WLAN PCIe Half Mini Card	
Ethernet	Realtek® RTL8111F Gigabit Network Connection	
Audio support	High Definition (HD) Audio, Conexant 20671 codec / stereo speakers, 2 watt x 2 / Dolby Advanced Audio v2 certified / Stereo digital microphone, combo audio/mic jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	None	
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor	
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	Supports ThinkVantage® technologies 65-watt AC adapter 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 Lenovo ²² service upgrade options, please go to S-EDGE sheet

See footnotes for more detailed information

US model(s) announced June 11, June 25, or July 16, 2013 or January 7, 2014

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(LIN1-3) January 2014

ThinkPad® Edge E431 6277 (Intel) - Optimus (TopSeller) - Windows 8

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Discrete graphics	Camera	Disk SATA GB ⁶ rpm	PCIe Mini Card WLAN / BT	M.2 Card WWAN /SSD	Top color	Finger print reader	Bat-tery cells	Bat-tery /Wh	Preload	Ann date (mm/yy)
6277-CCU	i5-3230M	4GBx1	14.0" HD	710M	720p	500G 7200	Intel 2230 + BT	None	Black	None	6	48	Win7 Pro64	08/13

Positioning Processor	<i>Sophisticated design with quality, durability and reliability for SMB customers; two spindles</i> Intel® Core™ i5-3230M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology										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 applications (only some listed) - Windows 7 models • Access Connections™ • ThinkVantage Power Manager • ThinkVantage Tools • Lenovo SimpleTap • Adobe® Reader® - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage - All models • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Skype™ • Microsoft Office preloaded; purchase a product key to activate
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										
Optical SATA disk	DVD burner, 9.5mm high, fixed, not removable, tray-in <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 or 9.5mm high, removable, upgradable, Active Protection System™										
M.2 SSD	None										
Widescreen display	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 500:1 contrast ratio										
Camera	HD720p resolution, face track, low light sensitive, fixed focus, LED indicator										
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA GeForce® 710M , PCI Express® x 8, 1GB memory, DirectX® 11.1, NVIDIA PureVideo® HD technology, External monitor support via analog VGA DB-15 connector / digital HDMI connector <i>Max external resolution:</i> 2048x1536 (VGA)@75Hz; 1920x1200 (HDMI)@60Hz										
Keyboard	6-row, spill-resistant, multimedia Fn keys										
TrackPoint®	TrackPoint pointing device, Internet Scroll Bar ¹³										
Touchpad	UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch										
ThinkLight™	None										
Dimensions ³	14.0W" (WxDxH): 13.54" x 9.41" x 1.04-1.15"; 344mm x 239mm x 26.3-29.3mm										
Weight ²	6-cell: from 4.70 lb (2.13kg)										
Case color	Matte black or Matte red (top), trimmed with a thin silver band (side); black bottom										
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic										
Battery - type ³⁷	Lithium Ion 6-cell										
Battery - life ¹⁰	6-cell (48Whr): up to 6.2 hr 6-cell (62Whr): up to 8.0 hr										
Chipset	Mobile Intel HM77 Express Chipset										
ExpressCard	None										
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)										
Ports	Two USB 3.0, one USB 2.0 (powered), OneLink Docking port (supports optional 4X10A06077) external monitor (VGA DB-15, HDMI), ethernet (RJ-45)										
PCIe Mini Card	One PCIe Express Half Mini Card slot										
PCIe WLAN ⁴	<i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1, Wi-Fi + BT combo adapter <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, 2x2, Wi-Fi + BT combo adapter										
M.2 Card	One M.2 Card slot for support of WWAN card or SSD										
M.2 WWAN	None										
Bluetooth™	Bluetooth 4.0 wireless, integrated in selected WLAN PCIe Half Mini Card										
Ethernet	Realtek® RTL8111F Gigabit Network Connection										
Audio support	High Definition (HD) Audio, Conexant 20671 codec / stereo speakers, 2 watt x 2 / Dolby Advanced Audio v2 certified / Stereo digital microphone, combo audio/mic jack										
Security	Power-on password, hard disk password, supervisor password, security keyhole										
Security chip	None										
Fingerprint reader	None										
Limited warranty ¹² 1-year - depot repair service / service upgrades ²² available											Supports ThinkVantage® technologies
											90-watt AC adapter 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 Lenovo ²² service upgrade options, please go to S-EDGE sheet

See footnotes for more detailed information
US model(s) announced August 20, 2013

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(LIN1-4) August 2013

ThinkPad® Edge E431 6886 (Intel) - TopSeller (Win 8) - MultiTouch

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card WLAN / BT	M.2 Card WWAN /SSD	Top color	Finger print reader	Battery cells	Battery /Wh	Preload	Ann date (mm/yy)
6886-2WU	i3-3120M	4GBx1	14.0" HD Touch	720p	500G 7200	Intel 2230 + BT	None	black	Finger	6	48	Win8 Pro64	04/13
6886-2XU	i5-3230M	4GBx1	14.0" HD Touch	720p	500G 7200	Intel 2230 + BT	None	black	Finger	6	48	Win8 Pro64	04/13
6886-2YU	i7-3632QM	4GBx1	14.0" HD Touch	720p	500G 7200	Intel 2230 + BT	None	black	Finger	6	48	Win8 Pro64	04/13
6886-3XU	i3-3120M	4GBx1	14.0" HD Touch	720p	320G 7200	Intel 2230 + BT	None	black	None	6	48	Win8 Pro64	04/13
6886-44U	i3-2348M	4GBx1	14.0" HD Touch	720p	320G 5400	Intel 2230 + BT	None	black	Finger	6	48	Win8 Pro64	06/13
6886-45U	i3-2348M	4GBx1	14.0" HD Touch	720p	500G 7200	Intel 2230 + BT	None	black	Finger	6	48	Win8 Pro64	06/13
6886-46U	i5-3230M	4GBx1	14.0" HD Touch	720p	128G SSD	Intel 2230 + BT	None	black	Finger	6	48	Win8 Pro64	06/13
6886-47U	i7-3632QM	8GBx1	14.0" HD Touch	720p	128G SSD	Intel 2230 + BT	None	black	Finger	6	48	Win8 Pro64	06/13
6886-48U	i7-3632QM	8GBx1	14.0" HD Touch	720p	500G 7200	Intel 2230 + BT	None	black	Finger	6	48	Win8 Pro64	06/13
6886-4HU	i3-3110M	4GBx1	14.0" HD Touch	720p	320G 5400	Intel 2230 + BT	None	black	Finger	6	48	Win8 Pro64	08/13
6886-4JU	i3-3110M	4GBx1	14.0" HD Touch	720p	320G 5400	Intel 2230 + BT	None	black	None	6	48	Win8 Pro64	08/13
6886-4KU	i3-3110M	4GBx1	14.0" HD Touch	720p	500G 7200	Intel 2230 + BT	None	black	Finger	6	48	Win8 Pro64	08/13
6886-4LU	i3-3110M	4GBx1	14.0" HD Touch	720p	500G 7200	Intel 2230 + BT	None	black	None	6	48	Win8 Pro64	08/13
6886-4MU	i3-3120M	4GBx1	14.0" HD Touch	720p	500G 7200	Intel 2230 + BT	None	black	Finger	6	48	Win8 64	10/13
6886-4NU	i5-3230M	4GBx1	14.0" HD Touch	720p	128G SSD	Intel 2230 + BT	None	black	Finger	6	48	Win8 64	10/13
6886-4PU	i7-3632QM	8GBx1	14.0" HD Touch	720p	128G SSD	Intel 2230 + BT	None	black	Finger	6	48	Win8 64	10/13

Positioning Processor	<i>Sophisticated design with quality, durability and reliability for SMB customers; 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 i3-3120M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), 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 i7-3632QM processor (4 cores, 2.20GHz, 6MB 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 8 64-bit - Some: Windows 8 Pro 64-bit Preloaded applications ¹⁴ (only some listed) • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Microsoft Office preloaded; purchase a product key to activate • Skype™
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	
Optical SATA disk	DVD burner, 9.5mm high, fixed, not removable, tray-in <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 or 9.5mm high, removable, upgradable, Active Protection System™	
M.2 SSD	None	
Widescreen display	14.0" (355mm) HD (1366x768) color , anti-glare, 10-point touch screen LED backlight, 180 nits, 16:9 aspect ratio, 500:1 contrast ratio	
Camera	HD720p resolution, face track, low light sensitive, fixed focus, LED indicator	
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>Max 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	
Touchpad	UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch	
ThinkLight™	None	
Dimensions ³	14.0W" (WxDxH): 13.54" x 9.41" x 1.17-1.29"; 344mm x 239mm x 29.7-32.7mm	
Weight ²	<i>6-cell:</i> from 5.36 lb (2.43kg)	
Case color	Matte black or Matte red (top), trimmed with a thin silver band (side); black bottom	
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic	
Battery - type ³⁷	Lithium Ion 6-cell	
Battery - life ¹⁰	<i>6-cell (48Whr):</i> up to 6.0 hr <i>6-cell (62Whr):</i> up to 7.6 hr	
Chipset	Mobile Intel HM77 Express Chipset	
ExpressCard	None	
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)	
Ports	Two USB 3.0, one USB 2.0 (powered), OneLink Docking port (supports optional 4X10A06077) external monitor (VGA DB-15, HDMI), ethernet (RJ-45)	
PCIe Mini Card	One PCI Express Half Mini Card slot	
PCIe WLAN ⁴	11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, 2x2, Wi-Fi + BT combo adapter	Supports ThinkVantage® technologies
M.2 Card	One M.2 Card slot for support of WWAN card or SSD	
M.2 WWAN	None	
Bluetooth™	Bluetooth 4.0 wireless, integrated in selected WLAN PCIe Half Mini Card	
Ethernet	Realtek® RTL8111F Gigabit Network Connection	
Audio support	High Definition (HD) Audio, Conexant 20671 codec / stereo speakers, 2 watt x 2 / Dolby Advanced Audio v2 certified / Stereo digital microphone, combo audio/mic jack	65-watt AC adapter 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	
Security chip	None	
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor	For Lenovo ²² service upgrade options, please go to S-EDGE sheet
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

See footnotes for more detailed information
US model(s) announced April 30, June 11, August 20, or October 15, 2013

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(LIN1-2) October 2013



Lenovo® ThinkPad Edge E440
with MultiTouch Screen



Lenovo ThinkPad Edge E440
with MultiTouch Screen



Lenovo ThinkPad Edge E440



Lenovo ThinkPad Edge E440



Lenovo ThinkPad Edge E440



Lenovo ThinkPad Edge E440

ThinkPad® E440 20C5 (Intel) - TopSeller

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card WLAN / BT	M.2 Card WWAN /SSD	SIM card	Top color	Finger print reader	Battery cells	Battery /Wh	Preload	Ann date (mm/yy)
20C5005KUS	i5-4200M	4GBx1	14.0" HD	720p	500G 7200	Intel 7260 + BT	None	None	Black	Finger	6	48	Win8 64	01/14
20C5005AUS	i5-4200M	4GBx1	14.0" HD	720p	128G SSD	Intel 7260 + BT	None	None	Black	Finger	6	48	Win8 Pro64	01/14
20C5004XUS	i3-4000M	4GBx1	14.0" HD	720p	320G 7200	Intel 7260 + BT	None	None	Black	None	6	48	Win7 Pro64	01/14
20C50059US	i5-4200M	4GBx1	14.0" HD	720p	500G 7200	Intel 7260 + BT	None	None	Black	Finger	6	48	Win8 Pro64	01/14
20C50051US	i5-4200M	4GBx1	14.0" HD	720p	128G SSD	Intel 7260 + BT	None	None	Black	Finger	6	48	Win7 Pro64	01/14
20C50058US	i3-4000M	4GBx1	14.0" HD	720p	500G 7200	Intel 7260 + BT	None	None	Black	Finger	6	48	Win8 Pro64	01/14
20C5005BUS	i7-4702MQ	8GBx1	14.0" HD	720p	500G 7200	Intel 7260 + BT	None	None	Black	Finger	6	48	Win8 Pro64	01/14
20C5005JUS	i3-4000M	4GBx1	14.0" HD	720p	500G 7200	Intel 7260 + BT	None	None	Black	None	6	48	Win8 64	01/14
20C50056US	i3-4000M	4GBx1	14.0" HD	720p	320G 7200	Intel 7260 + BT	None	None	Black	None	6	48	Win8 Pro64	01/14
20C50050US	i7-4702MQ	4GBx1	14.0" HD	720p	500G 7200	Intel 7260 + BT	None	None	Black	Finger	6	48	Win8 Pro64	01/14
20C50055US	i7-4702MQ	8GBx1	14.0" HD	720p	128G SSD	Intel 7260 + BT	None	None	Black	Finger	6	48	Win7 Pro64	01/14
20C50057US	i7-4702MQ	4GBx1	14.0" HD	720p	500G 7200	Intel 7260 + BT	None	None	Black	Finger	6	48	Win8 Pro64	01/14
20C50052US	i3-4000M	4GBx1	14.0" HD	720p	500G 7200	Intel 7260 + BT	None	None	Black	Finger	6	48	Win7 Pro64	01/14
20C50053US	i5-4200M	4GBx1	14.0" HD	720p	500G 7200	Intel 7260 + BT	16GB	None	Black	Finger	6	48	Win7 Pro64	01/14
20C5005HUS	i5-4200M	4+2GB	14.0" HD	720p	1TB 5400	Intel 7260 + BT	None	None	Black	Finger	6	48	Win8 64	01/14
20C50054US	i5-4200M	4+2GB	14.0" HD	720p	1TB 5400	Intel 7260 + BT	None	None	Black	Finger	6	48	Win7 Pro64	01/14
20C5004YUS	i5-4200M	4GBx1	14.0" HD	720p	500G 7200	Intel 7260 + BT	None	None	Black	Finger	6	48	Win7 Pro64	01/14
20C5008CUS	i3-4000M	2GBx1	14.0" HD	720p	320G 7200	Intel 7260 + BT	None	None	Black	None	6	48	Win7 Pro64	01/14

Positioning Processor	<i>Sophisticated design with quality, durability and reliability for SMB customers; two spindles</i> Intel® Core™ i3-4000M processor (2 cores, 2.40GHz, 3MB cache), Intel HD Graphics 4600, DDR3 memory controller (up to 1600MHz), HT technology Intel Core i5-4200M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4600, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology Intel Core i7-4702MQ processor (4 cores, 2.20GHz, 6MB cache), Intel HD Graphics 4600, DDR3L 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 64-bit - <i>Some:</i> Windows 8 Pro 64-bit
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	Preloaded applications (only some listed, exclude No OS models) - Windows 7 models • Adobe® Reader® - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage - All models • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Microsoft Office preloaded; purchase a product key to activate
Optical SATA disk	DVD burner, 9.5mm high, fixed, not removable, tray-in <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, 9.5mm high, removable, upgradable, Active Protection System™	
M.2 SSD	<i>Some:</i> M.2 Solid State Drive (SSD), via M.2 Card slot	
Widescreen display Camera	14.0" (355mm) HD (1366x768) , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio HD720p resolution, face track, low light sensitive, fixed focus, LED indicator	
Graphics	Intel HD Graphics 4600 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	
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, spill-resistant, multimedia Fn keys TrackPoint pointing device, Internet Scroll Bar ¹³ UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch None	
Dimensions ³	14.0W" (WxDxH): 13.54" x 9.41" x 1.04-1.15"; 344 x 239mm x 26.3-29.3mm <i>6-cell:</i> from 4.69 lb (2.13kg)	
Weight ² Case color Case material Battery - type ³⁷ Battery - life ¹⁰	Matte black or Matte red (top), trimmed with a thin silver band (side); black bottom Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell <i>6-cell (48Whr):</i> up to 6.3 hr <i>6-cell (62Whr):</i> up to 8.2 hr	
Chipset ExpressCard Multicard Reader Ports	Mobile Intel HM87 Express Chipset None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, one USB 2.0 (powered), OneLink Docking port external monitor (VGA DB-15, HDMI), ethernet (RJ-45)	
PCIe Mini Card PCIe WLAN ⁴ M.2 Card M.2 WWAN SIM card Bluetooth™ Ethernet Audio support Security Security chip Fingerprint reader	One PCI Express Half Mini Card slot 11b/g/n, PCIe Half Mini Card, Intel Wireless-N 7260, Wi-Fi + Bluetooth combo adapter, 2x2 One M.2 Card slot for support of WWAN card or SSD None None Bluetooth 4.0 wireless, integrated in selected WLAN PCIe Half Mini Card Realtek® RTL8111GUS Gigabit Network Connection High Definition (HD) Audio, Conexant CX20751-21Z codec / stereo speakers, Dolby Advanced Audio v2 certified / Stereo digital microphone, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole None <i>Some:</i> Fingerprint reader on palm rest, swipe sensor	
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	Supports ThinkVantage® technologies 65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.2-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²

See footnotes for more detailed information
US model(s) announced January 21, 2014

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(LIN2-1) January 2014

ThinkPad® E440 20C5 (Intel) - TopSeller (MultiTouch)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN / BT	M.2 Card WWAN /SSD	SIM card	Top color	Finger-print reader	Bat-tery cells	Bat-tery /Wh	Preload	Ann date (mm/yy)
20C5005GUS	i7-4702MQ	8GBx1	14.0" HD Touch	720p	128G SSD	Intel 7260 + BT	None	None	Black	Finger	6	48	Win8 Pro64	01/14
20C5005CUS	i3-4000M	4GBx1	14.0" HD Touch	720p	500G 7200	Intel 7260 + BT	None	None	Black	Finger	6	48	Win8 Pro64	01/14
20C5005DUS	i5-4200M	4GBx1	14.0" HD Touch	720p	500G 7200	Intel 7260 + BT	None	None	Black	Finger	6	48	Win8 Pro64	01/14
20C5005FUS	i5-4200M	4GBx1	14.0" HD Touch	720p	128G SSD	Intel 7260 + BT	None	None	Black	Finger	6	48	Win8 Pro64	01/14
20C5005EUS	i7-4702MQ	4GBx1	14.0" HD Touch	720p	500G 7200	Intel 7260 + BT	None	None	Black	Finger	6	48	Win8 Pro64	01/14
20C5008AUS	i5-4200M	4GBx1	14.0" HD Touch	720p	500G 7200	Intel 7260 + BT	None	None	Black	Finger	6	48	Win8.1 Pro64	01/14
20C50088US	i7-4702MQ	4GBx1	14.0" HD Touch	720p	500G 7200	Intel 7260 + BT	None	None	Black	Finger	6	48	Win8.1 Pro64	01/14
20C50089US	i7-4702MQ	8GBx1	14.0" HD Touch	720p	128G SSD	Intel 7260 + BT	None	None	Black	Finger	6	48	Win8.1 Pro64	01/14
20C5008BUS	i5-4200M	4GBx1	14.0" HD Touch	720p	128G SSD	Intel 7260 + BT	None	None	Black	Finger	6	48	Win8.1 Pro64	01/14
20C50087US	i3-4000M	4GBx1	14.0" HD Touch	720p	500G 7200	Intel 7260 + BT	None	None	Black	Finger	6	48	Win8.1 Pro64	01/14

Positioning Processor	<p><i>Sophisticated design with quality, durability and reliability for SMB customers; two spindles</i> Intel® Core™ i3-4000M processor (2 cores, 2.40GHz, 3MB cache), Intel HD Graphics 4600, DDR3 memory controller (up to 1600MHz), HT technology Intel Core i5-4200M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4600, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology Intel Core i7-4702MQ processor (4 cores, 2.20GHz, 6MB cache), Intel HD Graphics 4600, DDR3L memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology</p>										<p>Preloaded operating system²⁰ - Some: Windows 8 Pro 64-bit - Some: Windows 8.1 Pro 64-bit</p>
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										<p>Preloaded applications (only some listed)</p> <ul style="list-style-type: none"> • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Microsoft Office preloaded; purchase a product key to activate
Optical SATA disk	DVD burner, 9.5mm high, fixed, not removable, tray-in 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, 9.5mm high, removable, upgradable, Active Protection System™										
M.2 SSD	None										
Widescreen display	14.0" (355mm) HD (1366x768) , anti-glare, 10-point touch screen LED backlight, 180 nits, 16:9 aspect ratio										
Camera	HD720p resolution, face track, low light sensitive, fixed focus, LED indicator										
Graphics	Intel HD Graphics 4600 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										
Keyboard	6-row, spill-resistant, multimedia Fn keys										
TrackPoint®	TrackPoint pointing device, Internet Scroll Bar ¹³										
Touchpad	UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch										
ThinkLight™	None										
Dimensions ³	14.0W" (WxDxH): 13.54" x 9.41" x 1.17-1.27"; 344 x 239mm x 29.7-32.3mm										
Weight ²	<i>6-cell</i> : from 5.36 lb (2.43kg)										
Case color	Matte black or Matte red (top), trimmed with a thin silver band (side); black bottom										
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic										
Battery - type ³⁷	Lithium Ion 6-cell										
Battery - life ¹⁰	<i>6-cell (48Whr)</i> : up to 6.3 hr <i>6-cell (62Whr)</i> : up to 8.2 hr										
Chipset	Mobile Intel HM87 Express Chipset										
ExpressCard	None										
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)										
Ports	Two USB 3.0, one USB 2.0 (powered), OneLink Docking port external monitor (VGA DB-15, HDMI), ethernet (RJ-45)										
PCIe Mini Card	One PCI Express Half Mini Card slot										
PCIe WLAN ⁴	11b/g/n, PCIe Half Mini Card, Intel Wireless-N 7260, Wi-Fi + Bluetooth combo adapter, 2x2										
M.2 Card	One M.2 Card slot for support of WWAN card or SSD										
M.2 WWAN	None										
SIM card	None										
Bluetooth™	Bluetooth 4.0 wireless, integrated in selected WLAN PCIe Half Mini Card										
Ethernet	Realtek® RTL8111GUS Gigabit Network Connection										
Audio support	High Definition (HD) Audio, Conexant CX20751-21Z codec / stereo speakers, Dolby Advanced Audio v2 certified / Stereo digital microphone, combo audio/mic jack										
Security	Power-on password, hard disk password, supervisor password, security keyhole										
Security chip	None										
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor										
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available										

See footnotes for more detailed information
 US model(s) announced January 21, 2014

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 (LIN2-2) January 2014

ThinkPad® Edge E531 6885 (Intel) - TopSeller (Windows 8)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card WLAN / BT	M.2 Card WWAN /SSD	Numeric Keypad	Top color	Finger-print reader	Bat-tery cells	Bat-tery /Wh	Preload	Ann date (mm/yy)
6885-28U	i7-3632QM	4GBx1	15.6" HD	720p	500G 7200	Intel 2230 + BT	None	Numpad	Black	Finger	6	48	Win7 Pro64	04/13
6885-2BU	i5-3230M	4GBx1	15.6" HD	720p	500G 7200	Intel 2230 + BT	None	Numpad	Black	Finger	6	48	Win7 Pro64	04/13
6885-5DU	i3-3120M	4GBx1	15.6" HD	720p	500G 7200	Intel 2230 + BT	None	Numpad	Black	Finger	6	48	Win7 Pro64	04/13
6885-5TU	i3-3120M	4GBx1	15.6" HD	720p	320G 7200	Intel 2230 + BT	None	Numpad	Black	None	6	48	Win7 Pro64	04/13
6885-5UU	i3-3120M	4GBx1	15.6" HD	720p	320G 7200	Intel 2230 + BT	None	Numpad	Black	None	6	48	Win8 Pro64	04/13
6885-5VU	i5-3230M	4GBx1	15.6" HD	720p	500G 7200	Intel 2230 + BT	None	Numpad	Black	Finger	6	48	Win8 Pro64	04/13
6885-5WU	i7-3632QM	4GBx1	15.6" HD	720p	500G 7200	Intel 2230 + BT	None	Numpad	Black	Finger	6	48	Win8 Pro64	04/13
6885-5ZU	i3-3120M	4GBx1	15.6" HD	720p	500G 7200	Intel 2230 + BT	None	Numpad	Black	Finger	6	48	Win8 Pro64	04/13
6885-62U	i5-3230M	4GBx1	15.6" HD	720p	128G SSD	Intel 2230 + BT	None	Numpad	Black	Finger	6	48	Win7 Pro64	04/13
6885-63U	i5-3230M	4GBx1	15.6" HD	720p	128G SSD	Intel 2230 + BT	None	Numpad	Black	Finger	6	48	Win8 Pro64	04/13
6885-64U	i5-3230M	4+2GB	15.6" HD	720p	1TB 5400	Intel 2230 + BT	None	Numpad	Black	Finger	6	48	Win8 64	04/13
6885-65U	i5-3230M	4+2GB	15.6" HD	720p	1TB 5400	Intel 2230 + BT	None	Numpad	Black	Finger	6	48	Win7 Pro64	04/13
6885-66U	i5-3230M	4+2GB	15.6" HD	720p	1TB 5400	Intel 2230 + BT	None	Numpad	Black	Finger	6	48	Win8 Pro64	04/13
6885-84U	i5-3230M	4GBx1	15.6" HD	720p	500G 7200	Intel 2230 + BT	24GB	Numpad	Black	Finger	6	48	Win8 Pro64	04/13
6885-88U	i5-3230M	4GBx1	15.6" HD	720p	500G 7200	Intel 2230 + BT	24GB	Numpad	Black	Finger	6	48	Win7 Pro64	04/13
6885-9ZU	i7-3632QM	8GBx1	15.6" FHD	720p	500G 7200	Intel 2230 + BT	None	Numpad	Black	Finger	6	48	Win8 Pro64	06/13
6885-A2U	i7-3632QM	8GBx1	15.6" FHD	720p	500G 7200	Intel 2230 + BT	None	Numpad	Black	Finger	6	48	Win7 Pro64	06/13
6885-A3U	i7-3632QM	8GBx1	15.6" FHD	720p	128G SSD	Intel 2230 + BT	None	Numpad	Black	Finger	6	48	Win7 Pro64	06/13
6885-A4U	i7-3632QM	8GBx1	15.6" FHD	720p	128G SSD	Intel 2230 + BT	None	Numpad	Black	Finger	6	48	Win8 Pro64	06/13
6885-BGU	i3-3120M	4GBx1	15.6" HD	720p	500G 7200	Intel 2230 + BT	None	Numpad	Black	None	6	48	Win8 64	06/13
6885-BHU	i5-3230M	4GBx1	15.6" HD	720p	500G 7200	Intel 2230 + BT	None	Numpad	Black	Finger	6	48	Win8 64	06/13

Positioning Processor	<i>Sophisticated design with quality, durability and reliability for SMB customers; two spindles</i> Intel® Core™ i3-3120M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), 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 i7-3632QM processor (4 cores, 2.20GHz, 6MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology	Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 64-bit - Some: Windows 8 Pro 64-bit
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	Preloaded applications (only some listed) - Windows 7 models • Access Connections™ • ThinkVantage Power Manager • ThinkVantage Tools • Lenovo Simple Tap • Adobe® Reader® - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage - All models • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Skype™ • Microsoft Office preloaded; purchase a product key to activate
Optical SATA disk	DVD burner, 9.5mm high, fixed, not removable, tray-in 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 or 9.5mm high, removable, upgradable, Active Protection System™	
M.2 SSD	Some: M.2 Solid State Drive (SSD), via M.2 Card slot	
Widescreen display	Some: 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 500:1 contrast ratio Some: 15.6" (396mm) FHD (1920x1080) color , anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio	
Camera	HD720p resolution, face track, low light sensitive, fixed focus, LED indicator	
Graphics	Intel HD Graphics 4000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI™ (supporting HDCP to output protected content); supports dual independent display; Max external resolution: 2048x1536 (VGA)@75Hz; 1920x1200 (HDMI)@60Hz	
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, spill-resistant, multimedia Fn keys, numeric keypad TrackPoint pointing device, Internet Scroll Bar ¹³ UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch None	
Dimensions ³	15.6W" (WxDxH): 14.84" x 9.84" x 1.05-1.17"; 377 x 250mm x 26.6-29.6mm 6-cell: from 5.4 lb (2.46kg)	
Weight ²	Matte black or Matte red (top), trimmed with a thin silver band (side); black bottom	
Case color	Acrylonitrile-Butadiene-Styrene (ABS) plastic	
Case material	Lithium Ion 6-cell	
Battery - type ³⁷	6-cell (48Whr): up to 6.2 hr	6-cell (62Whr): up to 8.1 hr
Battery - life ¹⁰		
Chipset	Mobile Intel HM77 Express Chipset	
ExpressCard	None	
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)	
Ports	Two USB 3.0, one USB 2.0 (powered), OneLink Docking port (supports optional 4X10A06077) external monitor (VGA DB-15, HDMI), ethernet (RJ-45)	
PCIe Mini Card	One PCI Express Half Mini Card slot	
PCIe WLAN ⁴	11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, Wi-Fi + Bluetooth combo adapter, 2x2	Supports ThinkVantage® technologies
M.2 Card	One M.2 Card slot for support of WWAN card or SSD	
M.2 WWAN	None	65-watt AC adapter 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
Bluetooth™	Bluetooth 4.0 wireless, integrated in selected WLAN PCIe Half Mini Card	
Ethernet	Realtek® RTL8111F Gigabit Network Connection	
Audio support	High Definition (HD) Audio, Conexant 20671 codec / stereo speakers, 2 watt x 2 / Dolby Advanced Audio v2 certified / Stereo digital microphone, combo audio/mic jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	None	
Fingerprint reader	Some: UPEK Fingerprint reader on palm rest, swipe sensor	For Lenovo ²² service upgrade options, please go to S-EDGE sheet
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

See footnotes for more detailed information
US model(s) announced April 30 or June 11, 2013

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ThinkPad® Edge E531 6885 (Intel) - TopSeller (Windows 8) - II

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card WLAN / BT	M.2 Card WWAN /SSD	Numeric Keypad	Top color	Finger-print reader	Bat-tery cells	Bat-tery /Wh	Preload	Ann date (mm/yy)
6885-5XU	i3-2348M	4GBx1	15.6" HD	720p	320G 5400	TP 11b/g/n + BT	None	Numpad	Black	None	6	48	Win7 Pro64	04/13
6885-5YU	i3-2348M	2GBx1	15.6" HD	720p	320G 7200	TP 11b/g/n + BT	None	Numpad	Black	None	6	48	Win7 Pro64	04/13
6885-BJU	i3-2348M	4GBx1	15.6" HD	720p	320G 5400	TP 11b/g/n + BT	None	Numpad	Black	None	6	48	Win8 Pro64	06/13
6885-BKU	i3-2348M	2GBx1	15.6" HD	720p	320G 5400	TP 11b/g/n + BT	None	Numpad	Black	None	6	48	Win8 Pro64	06/13
6885-BMU	i3-3110M	4GBx1	15.6" HD	720p	320G 5400	TP 11b/g/n + BT	None	Numpad	Black	None	6	48	Win7 Pro64	06/13
6885-BNU	i3-3110M	4GBx1	15.6" HD	720p	320G 5400	TP 11b/g/n + BT	None	Numpad	Black	None	6	48	Win8 Pro64	06/13
6885-CCU	i3-3110M	2GBx1	15.6" HD	720p	320G 7200	TP 11b/g/n + BT	None	Numpad	Black	None	6	48	Win7 Pro64	07/13
6885-CDU	i3-3110M	2GBx1	15.6" HD	720p	500G 7200	TP 11b/g/n + BT	None	Numpad	Black	None	6	48	Win7 Pro64	07/13
6885-CEU	i3-3110M	4GBx1	15.6" HD	720p	500G 7200	TP 11b/g/n + BT	None	Numpad	Black	None	6	48	Win7 Pro64	07/13
6885-CFU	i7-3632QM	4GBx1	15.6" HD	720p	500G 7200	Intel 2230 + BT	None	Numpad	Black	None	6	48	Win7 Pro64	07/13
6885-CGU	i3-3120M	4GBx1	15.6" HD	720p	500G 7200	Intel 2230 + BT	None	Numpad	Black	None	6	48	Win7 Pro64	07/13
6885-CHU	i5-3230M	4GBx1	15.6" HD	720p	500G 7200	Intel 2230 + BT	None	Numpad	Black	None	6	48	Win7 Pro64	07/13
6885-D8U	i3-3110M	2GBx1	15.6" HD	720p	320G 5400	TP 11b/g/n + BT	None	Numpad	Black	None	6	48	Win8 Pro64	08/13
6885-DAU	i3-3130M	4GBx1	15.6" HD	720p	500G 7200	Intel 2230 + BT	None	Numpad	Black	None	6	48	Win7 Pro64	08/13

Positioning Processor	<i>Sophisticated design with quality, durability and reliability for SMB customers; 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 i3-3120M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), HT technology Intel Core i3-3130M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), 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 i7-3632QM processor (4 cores, 2.20GHz, 6MB 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 Preloaded applications (only some listed) - Windows 7 models • Access Connections™ • ThinkVantage Power Manager • ThinkVantage Tools • Lenovo SimpleTap • Adobe® Reader® - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage - All models • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Skype™ • Microsoft Office preloaded; purchase a product key to activate
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	
Optical SATA disk	DVD burner, 9.5mm high, fixed, not removable, tray-in <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 or 9.5mm high, removable, upgradable, Active Protection System™	
M.2 SSD	None	
Widescreen display	15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 500:1 contrast ratio	
Camera	HD720p resolution, face track, low light sensitive, fixed focus, LED indicator	
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>Max external resolution: 2048x1536 (VGA)@75Hz; 1920x1200 (HDMI)@60Hz</i>	
Keyboard	6-row, spill-resistant, multimedia Fn keys, numeric keypad	
TrackPoint®	TrackPoint pointing device, Internet Scroll Bar ¹³	
Touchpad	UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch	
ThinkLight™	None	
Dimensions ³	15.6W" (WxDxH): 14.84" x 9.84" x 1.05-1.17"; 377 x 250mm x 26.6-29.6mm	
Weight ²	<i>6-cell:</i> from 5.4 lb (2.46kg)	
Case color	Matte black or Matte red (top), trimmed with a thin silver band (side); black bottom	
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic	
Battery - type ³⁷	Lithium Ion 6-cell	
Battery - life ¹⁰	<i>6-cell (48Whr):</i> up to 6.2 hr <i>6-cell (62Whr):</i> up to 8.1 hr	
Chipset	Mobile Intel HM77 Express Chipset	
ExpressCard	None	
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)	
Ports	Two USB 3.0, one USB 2.0 (powered), OneLink Docking port (supports optional 4X10A06077) external monitor (VGA DB-15, HDMI), ethernet (RJ-45)	
PCIe Mini Card	One PCI Express Half Mini Card slot	
PCIe WLAN ⁴	<i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1, Wi-Fi + BT combo adapter <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, 2x2, Wi-Fi + BT combo adapter	
M.2 Card	One M.2 Card slot for support of WWAN card or SSD	Supports ThinkVantage® technologies
M.2 WWAN	None	
Bluetooth™	Bluetooth 4.0 wireless, integrated in selected WLAN PCIe Half Mini Card	65-watt AC adapter 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
Ethernet	Realtek® RTL8111F Gigabit Network Connection	
Audio support	High Definition (HD) Audio, Conexant 20671 codec / stereo speakers, 2 watt x 2 / Dolby Advanced Audio v2 certified / Stereo 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 Lenovo ²² service upgrade options, please go to S-EDGE sheet

See footnotes for more detailed information

US model(s) announced April 30, June 11, June 25, July 16, or August 20, 2013

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ThinkPad® Edge E531 6885 (Intel) - Optimus (TopSeller) - Windows 8

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Discrete graphics	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN / BT	M.2 Card WWAN /SSD	Numeric Keypad	Top color	Finger-print reader	Bat-tery cells	Bat-tery Wh	Preload	Ann date (mm/yy)
6885-D9U	i5-3230M	4GBx1	15.6" HD	710M	720p	500G 7200	Intel 2230 + BT	None	Numpad	Black	None	6	48	Win7 Pro64	08/13

Positioning Processor	<i>Sophisticated design with quality, durability and reliability for SMB customers; two spindles</i> Intel® Core™ i5-3230M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology										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 64-bit Preloaded applications (only some listed) - Windows 7 models • Access Connections™ • ThinkVantage Power Manager • ThinkVantage Tools • Lenovo SimpleTap • Adobe® Reader® - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage - All models • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Skype™ • Microsoft Office preloaded; purchase a product key to activate
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										
Optical SATA disk	DVD burner, 9.5mm high, fixed, not removable, tray-in <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 or 9.5mm high, removable, upgradable, Active Protection System™										
M.2 SSD	None										
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> 15.6" (396mm) FHD (1920x1080) color , anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio										
Camera	HD720p resolution, face track, low light sensitive, fixed focus, LED indicator										
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA GeForce® 710M , PCI Express® x 8, 1GB memory, DirectX® 11.1, or NVIDIA GeForce® GT740M , PCI Express® x 8, 2GB memory, DirectX® 11.1, NVIDIA PureVideo® HD technology, External monitor support via analog VGA DB-15 connector / digital HDMI connector <i>Max external resolution: 2048x1536 (VGA)@75Hz; 1920x1200 (HDMI)@60Hz</i>										
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, spill-resistant, multimedia Fn keys, numeric keypad TrackPoint pointing device, Internet Scroll Bar ¹³ UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch None										
Dimensions ³	15.6W" (WxDxH): 14.84" x 9.84" x 1.05-1.17"; 377 x 250mm x 26.6-29.6mm <i>6-cell:</i> from 5.5 lb (2.49kg)										
Weight ²	Matte black or Matte red (top), trimmed with a thin silver band (side); black bottom										
Case color	Acrylonitrile-Butadiene-Styrene (ABS) plastic										
Case material	Lithium Ion 6-cell										
Battery - type ³⁷	<i>6-cell (48Whr):</i> up to 6.2 hr										
Battery - life ¹⁰	<i>6-cell (62Whr):</i> up to 8.0 hr										
Chipset	Mobile Intel HM77 Express Chipset										
ExpressCard	None										
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)										
Ports	Two USB 3.0, one USB 2.0 (powered), OneLink Docking port external monitor (VGA DB-15, HDMI), ethernet (RJ-45)										
PCIe Mini Card	One PCI Express Mini Card slot										Supports ThinkVantage® technologies 90-watt AC adapter 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 Lenovo ²² service upgrade options, please go to S-EDGE sheet
PCIe WLAN ⁴	11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, Wi-Fi + Bluetooth combo adapter, 2x2										
M.2 Card	One M.2 Card slot for support of WWAN card or SSD										
M.2 WWAN	None										
Bluetooth™	Bluetooth 4.0 wireless, integrated in selected WLAN PCIe Half Mini Card										
Ethernet	Realtek® RTL8111F Gigabit Network Connection										
Audio support	High Definition (HD) Audio, Conexant 20671 codec / stereo speakers, 2 watt x 2 / Dolby Advanced Audio v2 certified / Stereo 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										

See footnotes for more detailed information
US model(s) announced August 20, 2013

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Lenovo® ThinkPad Edge E540



Lenovo ThinkPad Edge E540



Lenovo ThinkPad Edge E540
with Numeric Keypad



Lenovo ThinkPad Edge E540
with Touch Screen



Lenovo ThinkPad Edge E540
with Touch Screen



Lenovo ThinkPad Edge E540
with Touch Screen

ThinkPad® E540 20C6 (Intel) - TopSeller

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card WLAN / BT	M.2 Card WWAN /SSD	SIM card	Numeric Keypad	Top color	Finger-print reader	Bat-tery cells	Bat-tery /Wh	Preload	Ann date (mm/yy)
20C60058US	i7-4702MQ	8GBx1	15.6" HD	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win7 Pro64	01/14
20C6005DUS	i3-4000M	4GBx1	15.6" HD	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win8 Pro64	01/14
20C60057US	i5-4200M	4GBx1	15.6" HD	720p	500G 7200	Intel 7260 + BT	16GB	None	Numpad	Black	Finger	6	48	Win7 Pro64	01/14
20C6005SUS	i5-4200M	4GBx1	15.6" HD	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win8 64	01/14
20C6005GUS	i7-4702MQ	8GBx1	15.6" HD	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win8 Pro64	01/14
20C60055US	i5-4200M	4GBx1	15.6" HD	720p	128G SSD	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win7 Pro64	01/14
20C6005BUS	i5-4200M	4GBx1	15.6" HD	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win8 Pro64	01/14
20C60053US	i5-4200M	4GBx1	15.6" HD	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win7 Pro64	01/14
20C60054US	i3-4000M	4GBx1	15.6" HD	720p	320G 7200	Intel 7260 + BT	None	None	Numpad	Black	None	6	48	Win7 Pro64	01/14
20C6005RUS	i5-4200M	4GBx1	15.6" HD	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	None	6	48	Win8 64	01/14
20C6005HUS	i7-4702MQ	8GBx1	15.6" HD	720p	128G SSD	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win8 Pro64	01/14
20C6005AUS	i3-4000M	4GBx1	15.6" HD	720p	320G 7200	Intel 7260 + BT	None	None	Numpad	Black	None	6	48	Win8 Pro64	01/14
20C6005CUS	i7-4702MQ	4GBx1	15.6" HD	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win8 Pro64	01/14
20C6005EUS	i5-4200M	4+2GB	15.6" HD	720p	1TB 5400	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win8 Pro64	01/14
20C6005QUS	i5-4200M	4+2GB	15.6" HD	720p	1TB 5400	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win8 64	01/14
20C60059US	i7-4702MQ	8GBx1	15.6" HD	720p	128G SSD	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win7 Pro64	01/14
20C60056US	i5-4200M	4+2GB	15.6" HD	720p	1TB 5400	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win7 Pro64	01/14
20C60052US	i7-4702MQ	4GBx1	15.6" HD	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	Finger	6	48	Win7 Pro64	01/14
20C6005FUS	i5-4200M	4GBx1	15.6" HD	720p	500G 7200	Intel 7260 + BT	16GB	None	Numpad	Black	Finger	6	48	Win8 Pro64	01/14

Positioning Processor	<p><i>Sophisticated design with quality, durability and reliability for SMB customers; two spindles</i> Intel® Core™ i3-4000M processor (2 cores, 2.40GHz, 3MB cache), Intel HD Graphics 4600, DDR3 memory controller (up to 1600MHz), HT technology Intel Core i5-4200M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4600, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology Intel Core i7-4702MQ processor (4 cores, 2.20GHz, 6MB cache), Intel HD Graphics 4600, DDR3L memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology</p>											<p>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 64-bit - <i>Some:</i> Windows 8 Pro 64-bit</p>
Memory	<p>16GB max⁷ / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets</p>											<p>Preloaded applications (only some listed) - Windows 7 models • Adobe® Reader® - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage - All models • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Microsoft Office preloaded; purchase a product key to activate</p>
Optical SATA disk	<p>DVD burner, 9.5mm high, fixed, not removable, tray-in <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, 9.5mm high, removable, upgradable, Active Protection System™</p>											
M.2 SSD	<p><i>Some:</i> M.2 Solid State Drive (SSD), via M.2 Card slot</p>											
Widescreen display	<p>15.6" (396mm) HD (1366x768), anti-glare, LED backlight, 200 nits, 16:9 aspect ratio</p>											
Camera	<p>HD720p resolution, face track, low light sensitive, fixed focus, LED indicator</p>											
Graphics	<p>Intel HD Graphics 4600 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>											
Keyboard TrackPoint®	<p>6-row, spill-resistant, multimedia Fn keys, numeric keypad</p>											
Touchpad ThinkLight™	<p>TrackPoint pointing device, Internet Scroll Bar¹³ UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch None</p>											
Dimensions ³	<p>15.6W" (WxDxH): 14.84" x 9.84" x 1.05-1.17"; 377 x 250mm x 26.6-29.6mm 6-cell: from 5.4 lb (2.46kg)</p>											
Weight ²	<p>Matte black or Matte red (top), trimmed with a thin silver band (side); black bottom</p>											
Case color	<p>Acrylonitrile-Butadiene-Styrene (ABS) plastic</p>											
Battery - type ³⁷	<p>Lithium Ion 6-cell</p>											
Battery - life ¹⁰	<p>6-cell (48Whr): up to 6.2 hr 6-cell (62Whr): up to 7.4 hr</p>											
Chipset	<p>Mobile Intel HM87 Express Chipset</p>											
ExpressCard	<p>None</p>											
Multicard Reader	<p>4-in-1 reader (MMC, SD, SDHC, SDXC)</p>											
Ports	<p>Two USB 3.0, one USB 2.0 (powered), OneLink Docking port external monitor (VGA DB-15, HDMI), ethernet (RJ-45)</p>											
PCIe Mini Card	<p>One PCI Express Half Mini Card slot</p>											
PCIe WLAN ⁴	<p>11b/g/n, PCIe Half Mini Card, Intel Wireless-N 7260, Wi-Fi + Bluetooth combo adapter, 2x2</p>											
M.2 Card	<p>One M.2 Card slot for support of WWAN card or SSD</p>											
M.2 WWAN	<p>None</p>											
SIM card	<p>None</p>											
Bluetooth™	<p>Bluetooth 4.0 wireless, integrated in selected WLAN PCIe Half Mini Card</p>											
Ethernet	<p>Realtek® RTL8111GUS Gigabit Network Connection</p>											
Audio support	<p>High Definition (HD) Audio, Conexant CX20751-21Z codec / stereo speakers, Dolby Advanced Audio v2 certified / Stereo digital microphone, combo audio/mic jack</p>											
Security	<p>Power-on password, hard disk password, supervisor password, security keyhole</p>											
Security chip	<p>None</p>											
Fingerprint reader	<p><i>Some:</i> Fingerprint reader on palm rest, swipe sensor</p>											
Limited warranty ¹²	<p>1-year - depot repair service / service upgrades²² available</p>											

See footnotes for more detailed information
 US model(s) announced January 21, 2014

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ThinkPad® E540 20C6 (Intel) - TopSeller (MultiTouch)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card WLAN / BT	M.2 Card WWAN /SSD	SIM card	Numeric Keypad	Top color	Finger print reader	Bat-tery cells /Wh	Bat-tery Preload	Ann date (mm/yy)
20C6005KUS	i5-4200M	4GBx1	15.6" HD Touch	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	Finger	6 48	Win8 Pro64	01/14
20C6005PUS	i7-4702MQ	8GBx1	15.6" HD Touch	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	Finger	6 48	Win8 Pro64	01/14
20C6005LUS	i7-4702MQ	4GBx1	15.6" HD Touch	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	Finger	6 48	Win8 Pro64	01/14
20C6005MUS	i5-4200M	4GBx1	15.6" HD Touch	720p	128G SSD	Intel 7260 + BT	None	None	Numpad	Black	Finger	6 48	Win8 Pro64	01/14
20C6005NUS	i7-4702MQ	8GBx1	15.6" HD Touch	720p	128G SSD	Intel 7260 + BT	None	None	Numpad	Black	Finger	6 48	Win8 Pro64	01/14
20C6005JUS	i3-4000M	4GBx1	15.6" HD Touch	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	Finger	6 48	Win8 Pro64	01/14
20C6008NUS	i5-4200M	4GBx1	15.6" HD Touch	720p	128G SSD	Intel 7260 + BT	None	None	Numpad	Black	Finger	6 48	Win8.1 Pro64	01/14
20C6008MUS	i5-4200M	4GBx1	15.6" HD Touch	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	Finger	6 48	Win8.1 Pro64	01/14
20C6008LUS	i7-4702MQ	8GBx1	15.6" HD Touch	720p	128G SSD	Intel 7260 + BT	None	None	Numpad	Black	Finger	6 48	Win8.1 Pro64	01/14
20C6008JUS	i3-4000M	4GBx1	15.6" HD Touch	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	Finger	6 48	Win8.1 Pro64	01/14
20C6008KUS	i7-4702MQ	4GBx1	15.6" HD Touch	720p	500G 7200	Intel 7260 + BT	None	None	Numpad	Black	Finger	6 48	Win8.1 Pro64	01/14

Positioning Processor	<p><i>Sophisticated design with quality, durability and reliability for SMB customers; two spindles</i> Intel® Core™ i3-4000M processor (2 cores, 2.40GHz, 3MB cache), Intel HD Graphics 4600, DDR3 memory controller (up to 1600MHz), HT technology Intel Core i5-4200M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4600, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology Intel Core i7-4702MQ processor (4 cores, 2.20GHz, 6MB cache), Intel HD Graphics 4600, DDR3L memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology</p>											<p>Preloaded operating system²⁰ - Some: Windows 8 Pro 64-bit - Some: Windows 8.1 Pro 64-bit</p> <p>Preloaded applications (only some listed)</p> <ul style="list-style-type: none"> • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Microsoft Office preloaded; purchase a product key to activate
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets											
Optical SATA disk	DVD burner, 9.5mm high, fixed, not removable, tray-in <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, 9.5mm high, removable, upgradable, Active Protection System™</i>											
M.2 SSD	None											
Widescreen display	15.6" (396mm) HD (1366x768) , anti-glare, 10-point touch screen											
Camera	LED backlight, 200 nits, 16:9 aspect ratio HD720p resolution, face track, low light sensitive, fixed focus, LED indicator											
Graphics	Intel HD Graphics 4600 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											
Keyboard TrackPoint®	6-row, spill-resistant, multimedia Fn keys, numeric keypad											
Touchpad ThinkLight™	TrackPoint pointing device, Internet Scroll Bar ¹³ UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch											
Dimensions ³	None											
Weight ²	None											
Case color	None											
Case material	None											
Battery - type ³⁷	None											
Battery - life ¹⁰	None											
Chipset	Mobile Intel HM87 Express Chipset											
ExpressCard	None											
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)											
Ports	Two USB 3.0, one USB 2.0 (powered), OneLink Docking port external monitor (VGA DB-15, HDMI), ethernet (RJ-45)											
PCIe Mini Card	One PCI Express Half Mini Card slot											
PCIe WLAN ⁴	11b/g/n, PCIe Half Mini Card, Intel Wireless-N 7260, Wi-Fi + Bluetooth combo adapter, 2x2											
M.2 Card	One M.2 Card slot for support of WWAN card or SSD											
M.2 WWAN	None											
SIM card	None											
Bluetooth™	Bluetooth 4.0 wireless, integrated in selected WLAN PCIe Half Mini Card											
Ethernet	Realtek® RTL8111GUS Gigabit Network Connection											
Audio support	High Definition (HD) Audio, Conexant CX20751-21Z codec / stereo speakers, Dolby Advanced Audio v2 certified / Stereo digital microphone, combo audio/mic jack											
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	None											
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor											
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available											

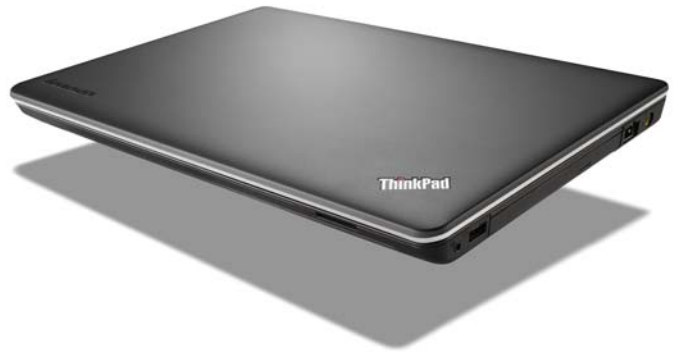
See footnotes for more detailed information
 US model(s) announced January 21, 2014

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ThinkPad®



Lenovo® ThinkPad Edge E545



Lenovo ThinkPad Edge E545



Lenovo ThinkPad Edge E545



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Lenovo ThinkPad Edge E545

ThinkPad® Edge E545 20B2 (AMD) - TopSeller

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card WLAN / BT	PCIe Mini Card WWAN /mSATA	Card Numeric Keypad	Top color	Micro-phone	Finger print reader	Bat-tery cells	Preload	Ann date (mm/yy)
20B2001CUS	A6-5350M	4GBx1	15.6" HD	720p	320G 5400	TP 11b/g/n	None	Numpad	Matte black	Stereo	None	6	Prem 64	01/14
20B2001DUS	A6-5350M	2GBx1	15.6" HD	720p	320G 5400	TP 11b/g/n	None	Numpad	Matte black	Stereo	None	6	Prem 64	01/14

Positioning Processor	<i>Sophisticated design with quality, durability and reliability for SMB customers; two spindles</i> AMD Accelerated Processor A6-5350M (dual-core, 2.90GHz, 1MB L2 cache), integrated AMD Radeon HD 8450G Graphics, AMD Turbo Core technology (up to 3.50GHz), integrated DDR3 memory controller (up to 1600MHz)										Preloaded operating system²⁰ - Genuine Windows [®] 7 Home Premium 64			
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Preloaded applications (only some listed) • Adobe [®] Reader [®] • Norton [™] Internet Security (30 days of virus definitions) • Microsoft Office preloaded; purchase a product key to activate			
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in 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	15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio													
Camera	HD720p resolution, low light sensitive, fixed focus, LED indicator													
Graphics	AMD Radeon HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI [™] (supporting HDCP to output protected content); supports dual independent display; <i>Max external resolution: 1920x1200 (HDMI) @60Hz</i>													
Keyboard	<i>Matte black (top):</i> 6-row, spill-resistant, multimedia Fn keys, numeric keypad													
TrackPoint [®]	TrackPoint pointing device, Internet Scroll Bar ¹³													
Touchpad	UltraNav [™] , wide touchpad below keyboard, Tap Zones, multi-touch													
ThinkLight [™]	None													
Dimensions ³	<i>Matte black or Matte red (top):</i> 15.6W" (WxDxH): 14.84" x 9.65" x 1.12-1.35"; 377 x 245mm x 28.5-34.3mm													
Weight ²	<i>6-cell:</i> from 5.2 lb (2.37kg)													
Case color	Matte black (top), trimmed with a thin silver band (side); black bottom													
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic													
Battery - type ³⁷	Lithium Ion 6-cell													
Battery - life ¹⁰	<i>6-cell (48Whr):</i> up to 6.2 hr													
Chipset	AMD A76M FCH													
ExpressCard	None													
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)													
Ports	Three USB 3.0, one USB 2.0 (powered), external monitor (VGA DB-15, HDMI), ethernet (RJ-45)													
PCIe Mini Card	One PCI Express Mini Card slot													
WLAN ⁴	<i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1													
WWAN	None													
Modem	None													
Bluetooth [™]	None										Supports ThinkVantage [®] technologies			
Ethernet	Realtek [®] RTL8111F Gigabit Network Connection										65-watt AC adapter EPEAT [™] Gold rating ENERGY STAR [®] 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²			
Audio support	High Definition (HD) Audio, Conexant 20671 codec / stereo speakers, 2 watt x 2/ Stereo digital microphone or Mono digital microphone, combo audio/mic jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	None													
Fingerprint reader	None													
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available													

See footnotes for more detailed information
US model(s) announced January 7, 2014

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ThinkPad® Edge E545 20B2 (AMD) - TopSeller (Windows 8)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN / BT	PCIe Mini Card WWAN /mSATA	Card Numeric Keypad	Top color	Micro-phone	Finger print reader	Battery cells	Preload	Ann date (mm/yy)
20B2000SUS	A10-5750M	4GBx1	15.6" HD	720p	500G 5400	TP 11b/g/n + BT	None	Numpad	Matte black	Stereo	None	6	Win8 64	08/13
20B20010US	A8-4500M	4GBx1	15.6" HD	720p	500G 5400	TP 11b/g/n + BT	None	Numpad	Matte black	Stereo	None	6	Win7 Pro64	08/13
20B2000VUS	A6-5350M	4GBx1	15.6" HD	720p	500G 5400	TP 11b/g/n + BT	None	Numpad	Matte black	Stereo	None	6	Win8 64	08/13
20B20011US	A6-5350M	4GBx1	15.6" HD	720p	320G 5400	TP 11b/g/n	None	Numpad	Matte black	Stereo	None	6	Win7 Pro64	08/13
20B2000KUS	A8-5550M	4GBx1	15.6" HD	720p	500G 5400	TP 11b/g/n + BT	None	Numpad	Matte black	Stereo	None	6	Win7 Pro64	08/13
20B2000XUS	A10-5750M	8GBx1	15.6" HD	720p	1TB 5400	TP 11b/g/n + BT	None	Numpad	Matte black	Stereo	None	6	Win7 Pro64	08/13
20B20012US	A6-5350M	4GBx1	15.6" HD	720p	320G 5400	TP 11b/g/n	None	Numpad	Matte black	Stereo	None	6	Win8 64	08/13
20B2000WUS	A8-5550M	8GBx1	15.6" HD	720p	1TB 5400	TP 11b/g/n + BT	None	Numpad	Matte black	Stereo	None	6	Win7 Pro64	08/13
20B2000YUS	A10-5750M	4GBx1	15.6" HD	720p	500G 5400	TP 11b/g/n + BT	None	Numpad	Matte black	Stereo	None	6	Win7 Pro64	08/13
20B2000RUS	A10-5750M	4GBx1	15.6" HD	720p	500G 5400	TP 11b/g/n + BT	None	Numpad	Matte black	Stereo	None	6	Win8 Pro64	08/13
20B2000UUS	A6-5350M	4GBx1	15.6" HD	720p	320G 5400	TP 11b/g/n	None	Numpad	Matte black	Stereo	None	6	Win8 64	08/13
20B2000TUS	A8-4500M	4GBx1	15.6" HD	720p	500G 5400	TP 11b/g/n + BT	None	Numpad	Matte black	Stereo	None	6	Win8 64	08/13
20B2000QUS	A8-5550M	4GBx1	15.6" HD	720p	500G 5400	TP 11b/g/n + BT	None	Numpad	Matte black	Stereo	None	6	Win8 Pro64	08/13
20B2001BUS	A6-5350M	4GBx1	15.6" HD	720p	500G 5400	TP 11b/g/n	None	Numpad	Matte black	Stereo	None	6	Win8 64	10/13
20B2001AUS	A6-5350M	4GBx1	15.6" HD	720p	500G 5400	TP 11b/g/n	None	Numpad	Matte black	Stereo	None	6	Win8 Pro64	10/13
20B20019US	A6-5350M	4GBx1	15.6" HD	720p	500G 5400	TP 11b/g/n	None	Numpad	Matte black	Stereo	None	6	Win7 Pro64	10/13

Positioning Processor	<p><i>Sophisticated design with quality, durability and reliability for SMB customers; two spindles</i> AMD Accelerated Processor A6-5350M (dual-core, 2.90GHz, 1MB L2 cache), integrated AMD Radeon HD 8450G Graphics, AMD Turbo Core technology (up to 3.50GHz), integrated DDR3 memory controller (up to 1600MHz) AMD Accelerated Processor A8-4500M (quad-core, 1.90GHz, 4MB L2 cache), integrated AMD Radeon HD 7640G Graphics, AMD Turbo Core technology (up to 2.80GHz), integrated DDR3 memory controller (up to 1600MHz) AMD Accelerated Processor A8-5550M (quad-core, 2.10GHz, 4MB L2 cache), integrated AMD Radeon HD 8550G Graphics, AMD Turbo Core technology (up to 3.10GHz), integrated DDR3 memory controller (up to 1600MHz) AMD Accelerated Processor A10-5750M (quad-core, 2.50GHz, 4MB L2 cache), integrated AMD Radeon HD 8650G Graphics, AMD Turbo Core technology (up to 3.50GHz), integrated DDR3 memory controller (up to 1600MHz)</p>										<p>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 64-bit - <i>Some:</i> Windows 8 Pro 64-bit</p> <p>Preloaded applications (only some listed) - Windows 7 models • Adobe[®] Reader[®]</p> <p>- Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage</p> <p>- All models (exclude DOS and No OS models) • ThinkVantage System Update • Norton[™] Internet Security (30 days of virus definitions) • Microsoft Office preloaded; purchase a product key to activate</p>
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										-
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in 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	15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio										-
Camera	HD720p resolution, low light sensitive, fixed focus, LED indicator										-
Graphics	<p>AMD Radeon HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI[™] (supporting HDCP to output protected content); supports dual independent display; <i>Max external resolution: 1920x1200 (HDMI) @60Hz</i></p>										-
Keyboard	<i>Matte black (top):</i> 6-row, spill-resistant, multimedia Fn keys, numeric keypad										-
TrackPoint [®]	TrackPoint pointing device, Internet Scroll Bar ¹³										-
Touchpad	UltraNav [™] , wide touchpad below keyboard, Tap Zones, multi-touch										-
ThinkLight [™]	None										-
Dimensions ³	<i>Matte black or Matte red (top):</i> 15.6W" (WxDxH): 14.84" x 9.65" x 1.12-1.35"; 377 x 245mm x 28.5-34.3mm										-
Weight ²	<i>6-cell:</i> from 5.2 lb (2.37kg)										-
Case color	Matte black (top), trimmed with a thin silver band (side); black bottom										-
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic										-
Battery - type ³⁷	Lithium Ion 6-cell										-
Battery - life ¹⁰	<i>6-cell (48Whr):</i> up to 6.2 hr										-
Chipset	AMD A76M FCH										-
ExpressCard	None										-
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)										-
Ports	Three USB 3.0, one USB 2.0 (powered), external monitor (VGA DB-15, HDMI), ethernet (RJ-45)										-
PCIe Mini Card WLAN ⁴	One PCI Express Mini Card slot <i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1 <i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, Wi-Fi + Bluetooth combo adapter, 1x1										-
WWAN	None										-
Modem	None										-
Bluetooth [™]	Bluetooth 4.0 wireless, integrated in selected WLAN PCIe Half Mini Card										Supports ThinkVantage [®] technologies
Ethernet	Realtek [®] RTL8111F Gigabit Network Connection										65-watt AC adapter
Audio support	High Definition (HD) Audio, Conexant 20671 codec / stereo speakers, 2 watt x 2/ Stereo digital microphone or Mono digital microphone, combo audio/mic jack										EPEAT [™] Gold rating
Security	Power-on password, hard disk password, supervisor password, security keyhole										ENERGY STAR [®] 5.0-compliant
Security chip	None										RoHS-compliant
Fingerprint reader	None										International Warranty Service ¹⁷
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available										24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²

See footnotes for more detailed information
 US model(s) announced August 20, or October 15, 2013

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ThinkPad®



Lenovo® ThinkPad S1 Yoga



Lenovo ThinkPad S1 Yoga



Lenovo ThinkPad S1 Yoga



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Lenovo ThinkPad S1 Yoga

ThinkPad® S1 Yoga (20CD) - TopSeller

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Screen type	Pen	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	M.2 Card WWAN /SSD	SIM card	Top color	Battery cells	Preload	Ann date (mm/yy)
20CD0002US	i7-4500U	8GB	12.5" HD	anti-smudge	None	720p	256G SSD	Intel 7260 + BT	None	None	Black	8	Win8.1 64	11/13
20CD000GUS	i3-4010U	4GB	12.5" HD	anti-smudge	None	720p	500G 5400	Intel 7260 ac + BT	16GB	None	Black	8	Win8.1 Pro64	11/13
20CD000HUS	i5-4200U	4GB	12.5" HD	anti-smudge	None	720p	500G 5400	Intel 7260 ac + BT	16GB	None	Black	8	Win8.1 Pro64	11/13
20CD000JUS	i5-4200U	4GB	12.5" FHD	anti-smudge	None	720p	500G 5400	Intel 7260 ac + BT	16GB	None	Black	8	Win8.1 Pro64	11/13
20CD000KUS	i7-4500U	8GB	12.5" HD	anti-smudge	None	720p	500G 5400	Intel 7260 ac + BT	16GB	None	Black	8	Win8.1 Pro64	11/13
20CD000LUS	i7-4500U	8GB	12.5" FHD	anti-smudge	None	720p	500G 5400	Intel 7260 ac + BT	16GB	None	Black	8	Win8.1 Pro64	11/13
20CD000MUS	i5-4200U	8GB	12.5" FHD	anti-glare	Pen	720p	500G 5400	Intel 7260 ac + BT	16GB	None	Black	8	Win8.1 Pro64	11/13
20CD000NUS	i5-4200U	4GB	12.5" FHD	anti-glare	Pen	720p	256G SSD	Intel 7260 ac + BT	None	None	Black	8	Win8.1 Pro64	11/13
20CD002FUS	i5-4200U	4GB	12.5" HD	anti-smudge	None	720p	256G SSD	Intel 7260 ac + BT	None	None	Black	8	Win8.1 Pro64	11/13
20CD002GUS	i5-4200U	4GB	12.5" FHD	anti-smudge	None	720p	256G SSD	Intel 7260 ac + BT	None	None	Black	8	Win8.1 Pro64	11/13
20CD00AYUS	i7-4500U	8GB	12.5" FHD	anti-glare	Pen	720p	500G 7200	Intel 7260 ac + BT	16GB	None	Black	8	Win8.1 Pro64	01/14
20CD00C5US	i7-4500U	8GB	12.5" FHD	anti-glare	Pen	720p	256G SSD	Intel 7260 ac + BT	None	None	Black	8	Win7 Pro64	01/14
20CD00CHUS	i5-4200U	4GB	12.5" HD	anti-smudge	None	720p	500G 7200	Intel 7260 ac + BT	16GB	None	Black	8	Win8.1 Pro64	02/14
20CD00CGUS	i3-4010U	4GB	12.5" HD	anti-smudge	None	720p	500G 7200	Intel 7260 ac + BT	16GB	None	Black	8	Win8.1 Pro64	02/14

Positioning	<i>Convertible tablet ultrabook™; one spindle</i>											Preloaded operating system²⁰ - <i>Some:</i> Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8.1 Pro 64-bit - <i>Some:</i> Windows 8.1 64-bit - <i>Some:</i> Windows 8.1 Pro 64-bit Preloaded applications¹⁴ (only some listed, for Windows 8.1 models) • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage • Password Manager • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Microsoft Office preloaded; purchase a product key to activate • Skype™
Processor	Intel® Core™ i3-4010U processor (2 cores, 1.70GHz, 3MB Cache), Intel HD Graphics 4400, DDR3 memory controller (up to 1600MHz), HT technology Intel Core i5-4200U processor (2 cores, 1.60GHz, 3MB Cache), Intel HD Graphics 4400, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.60GHz), HT technology Intel Core i7-4500U processor (2 cores, 1.80GHz, 4MB Cache), Intel HD Graphics 4400, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.00GHz), HT technology											
Memory	4GB or 8GB / PC3-12800 1600MHz DDR3L / soldered to systemboard, no SO-DIMM sockets											
Optical	None											
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>Some:</i> M.2 Solid State Drive (SSD), via M.2 Card slot											
M.2 SSD	<i>Some:</i> M.2 Solid State Drive (SSD), via M.2 Card slot											
Widescreen display	<i>Some:</i> 12.5" (317.5mm) HD (1366x768) TFT color , smudgeless, 10-point touch screen LED backlight, 300 nits, 16:9 aspect ratio, IPS; <i>Some:</i> 12.5" (317.5mm) FHD (1920x1080) TFT color , smudgeless, 10-point touch screen LED backlight, 400 nits, 16:9 aspect ratio, IPS; <i>Some:</i> 12.5" (317.5mm) FHD (1920x1080) TFT color , anti-glare, 10-point touch screen with Pen, LED backlight, 400 nits, 16:9 aspect ratio, IPS HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus											
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus											
Graphics	Intel HD Graphics 4400 in processor, supports external digital monitor via Mini HDMI; supports dual independent display; <i>Maximum external resolution:</i> 1920x1200 (Mini HDMI)@60Hz											
Keyboard	6-row, 83-key, spill-resistant, multimedia Fn keys, LED backlight											
TrackPoint®	TrackPoint pointing device											
Touchpad	UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch											
Light sensor	Ambient light sensor											
ThinkLight™	None											
Dimensions ³	<i>8-cell:</i> 12.44" x 8.70" x 0.74"; 316mm x 221mm x 18.8mm <i>8-cell with Pen:</i> 12.44" x 8.70" x 0.76"; 316mm x 221mm x 19.4mm											
Weight ²	<i>8-cell:</i> from 3.46 lb (1.57kg) <i>8-cell with Pen:</i> from 3.59 lb (1.63kg)											
Case material	<i>Display cover:</i> Magnesium and Aluminum + Polyphenylene sulfide (PPS); <i>Bottom:</i> Magnesium and Aluminum + Polyphenylene sulfide (PPS);											
Battery - type	Integrated Li-Polymer 8-cell, HW Authentication											
Battery - life ¹⁰	<i>8-cell (47Whr):</i> up to 7.0 hr											
Multicard Reader	4-in-1 reader (SD, SDHC, SDXC, MMC)											
ExpressCard	None											
Ports	Two USB 3.0(one powered), external monitor (mini-HDMI)											
PCIe Mini Card	One PCI Express Mini Card slot											
PCIe WLAN ⁴	<i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Wireless-N 7260, Wi-Fi + Bluetooth combo adapter, 2x2 <i>Some:</i> 11ac, PCIe Half Mini Card, Intel Dual Band Wireless-AC 7260, Wi-Fi + Bluetooth combo adapter, 2x2											
M.2 Card	One M.2 Card slot for support of WWAN card or SSD											
WWAN	None											
Bluetooth™	Bluetooth 4.0 wireless, integrated in WLAN PCIe Half Mini Card											
Ethernet	None											
Intel AMT	None											
Audio support	High Definition (HD) Audio, Conexant CX20751 codec / stereo speakers, 2 watt x 2, Dolby® Home Theater® v4 certified / volume up, down, mute buttons / dual array microphone, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole											
Security	Trusted Platform Module, TCG 1.2-compliant											
Security chip	Trusted Platform Module, TCG 1.2-compliant											
Fingerprint reader	None											
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available											

See footnotes for more detailed information
 US model(s) announced November 5, 2013; January 28, or February 4, 2014

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ThinkPad® S1 Yoga (20CD) - TopSeller - II

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Screen type	Pen	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	M.2 Card WWAN /SSD	Top color	Battery cells	Preload	Ann date (mm/yy)
20CD002HUS	i7-4500U	8GB	12.5" HD	anti-smudge	None	720p	256G SSD	Intel 7260 ac + BT	None	Black	8	Win8.1 Pro64	11/13
20CD002JUS	i7-4500U	8GB	12.5" FHD	anti-smudge	None	720p	256G SSD	Intel 7260 ac + BT	None	Black	8	Win8.1 Pro64	11/13
20CD002PUS	i5-4200U	4GB	12.5" HD	anti-smudge	None	720p	128G SSD	Intel 7260 + BT	None	Black	8	Win8.1 64	11/13
20CD002QUS	i5-4200U	4GB	12.5" FHD	anti-glare	Pen	720p	128G SSD	Intel 7260 + BT	None	Black	8	Win8.1 64	11/13
20CD002RUS	i7-4500U	8GB	12.5" FHD	anti-glare	Pen	720p	256G SSD	Intel 7260 + BT	None	Black	8	Win8.1 64	11/13
20CD002SUS	i5-4200U	4GB	12.5" HD	anti-smudge	None	720p	180G SSD OPAL	Intel 7260 ac + BT	None	Black	8	Win8.1 Pro64	11/13
20CD002TUS	i5-4200U	4GB	12.5" FHD	anti-glare	Pen	720p	180G SSD OPAL	Intel 7260 ac + BT	None	Black	8	Win8.1 Pro64	11/13
20CD002UUS	i7-4500U	8GB	12.5" HD	anti-smudge	None	720p	180G SSD OPAL	Intel 7260 ac + BT	None	Black	8	Win8.1 Pro64	11/13
20CD002VUS	i7-4500U	8GB	12.5" FHD	anti-glare	Pen	720p	180G SSD OPAL	Intel 7260 ac + BT	None	Black	8	Win8.1 Pro64	11/13
20CD002WUS	i7-4500U	8GB	12.5" FHD	anti-smudge	None	720p	180G SSD OPAL	Intel 7260 ac + BT	None	Black	8	Win8.1 Pro64	11/13
20CD002XUS	i5-4200U	4GB	12.5" FHD	anti-smudge	None	720p	180G SSD OPAL	Intel 7260 ac + BT	None	Black	8	Win8.1 Pro64	11/13
20CD00AYUS	i7-4500U	8GB	12.5" FHD	anti-glare	Pen	720p	500G 7200	Intel 7260 ac + BT	16GB	Black	8	Win8.1 Pro64	12/13
20CD00B0US	i7-4500U	8GB	12.5" FHD	anti-glare	Pen	720p	256G SSD	Intel 7260 ac + BT	None	Black	8	Win8.1 Pro64	12/13

Positioning	<i>Convertible tablet ultrabook™; one spindle</i>										
Processor	Intel® Core™ i5-4200U processor (2 cores, 1.60GHz, 3MB Cache), Intel HD Graphics 4400 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.60GHz), HT technology Intel Core i5-4300U processor (2 cores, 1.90GHz, 3MB Cache), Intel HD Graphics 4400 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology Intel Core i7-4500U processor (2 cores, 1.80GHz, 4MB Cache), Intel HD Graphics 4400 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.00GHz), HT technology Intel Core i7-4600U processor (2 cores, 2.10GHz, 4MB Cache), Intel HD Graphics 4400 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology										
Memory	4GB or 8GB / PC3-12800 1600MHz DDR3L / soldered to systemboard, no SO-DIMM sockets										
Optical	None										
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>Some:</i> M.2 Solid State Drive (SSD), via M.2 Card slot										
M.2 SSD	<i>Some:</i> M.2 Solid State Drive (SSD), via M.2 Card slot										
Widescreen display	<i>Some:</i> 12.5" (317.5mm) HD (1366x768) TFT color , smudgeless, 10-point touch screen LED backlight, 300 nits, 16:9 aspect ratio, IPS; <i>Some:</i> 12.5" (317.5mm) FHD (1920x1080) TFT color , smudgeless, 10-point touch screen LED backlight, 400 nits, 16:9 aspect ratio, IPS; <i>Some:</i> 12.5" (317.5mm) FHD (1920x1080) TFT color , anti-glare, 10-point touch screen with Pen, LED backlight, 400 nits, 16:9 aspect ratio, IPS										
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus										
Graphics	Intel HD Graphics 4400 in processor, supports external digital monitor via Mini HDMI; supports dual independent display; <i>Maximum external resolution:</i> 1920x1200 (Mini HDMI) @60Hz										
Keyboard	6-row, 83-key, spill-resistant, multimedia Fn keys, LED backlight										
TrackPoint®	TrackPoint pointing device										
Touchpad	UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch										
Light sensor	Ambient light sensor										
ThinkLight™	None										
Dimensions ³	<i>8-cell:</i> 12.44" x 8.70" x 0.74"; 316mm x 221mm x 18.8mm <i>8-cell with Pen:</i> 12.44" x 8.70" x 0.76"; 316mm x 221mm x 19.4mm										
Weight ²	<i>8-cell:</i> from 3.46 lb (1.57kg) <i>8-cell with Pen:</i> from 3.59 lb (1.63kg)										
Case material	<i>Display cover:</i> Magnesium and Aluminum + Polyphenylene sulfide (PPS); <i>Bottom:</i> Magnesium and Aluminum + Polyphenylene sulfide (PPS);										
Battery - type	Integrated Li-Polymer 8-cell, HW Authentication										
Battery - life ¹⁰	<i>8-cell (47Whr):</i> up to 7.0 hr										
Multicard Reader	4-in-1 reader (SD, SDHC, SDXC, MMC)										
ExpressCard	None										
Ports	Two USB 3.0(one powered), external monitor (mini-HDMI)										
PCIe Mini Card	One PCI Express Mini Card slot										
PCIe WLAN ⁴	<i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Wireless-N 7260, Wi-Fi + Bluetooth combo adapter, 2x2 <i>Some:</i> 11ac, PCIe Half Mini Card, Intel Dual Band Wireless-AC 7260, Wi-Fi + Bluetooth combo adapter, 2x2										
M.2 Card	One M.2 Card slot for support of WWAN card or SSD										
WWAN	None										
Bluetooth™	Bluetooth 4.0 wireless, integrated in WLAN PCIe Half Mini Card										
Ethernet	None										
Intel AMT	None										
Audio support	High Definition (HD) Audio, Conexant CX20751 codec / stereo speakers, 2 watt x 2, Dolby® Home Theater® v4 certified / volume up, down, mute buttons / dual array microphone, combo audio/mic jack										
Security	Power-on password, hard disk password, supervisor password, security keyhole										
Security chip	Trusted Platform Module, TCG 1.2-compliant										
Fingerprint reader	None										
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available										

Preloaded operating system²⁰
 - *Some:* Windows 8.1 64-bit
 - *Some:* Windows 8.1 Pro 64-bit

Preloaded applications¹⁴ (only some listed)
 • Lenovo Support
 • Lenovo Companion
 • Lenovo Cloud Storage
 • Password Manager
 • ThinkVantage System Update
 • Norton™ Internet Security (30 days of virus definitions)
 • Microsoft Office preloaded; purchase a product key to activate
 • Skype™

Supports ThinkVantage® technologies

45-watt AC Adapter
 ENERGY STAR® compliant
 ROHS-compliant
 International Warranty Service¹⁷
 24 hour x 7 day¹⁸ toll-free support during the warranty period¹²

For Lenovo²² service upgrade options, please go to S-EDGE sheet

See footnotes for more detailed information
 US model(s) announced November 5 or December 17, 2013

ThinkPad® S1 Yoga (20CD) - TopSeller - III

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Screen type	Pen	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	M.2 Card WWAN /SSD	SIM card	Top color	Battery cells	Intel vPro	Preload	Ann date (mm/yy)
20CD00BXUS	i5-4300U	4GB	12.5" FHD	anti-glare	Pen	720p	500G 7200	7260 ac + BT	16GB	None	Black	8	vPro	Win8.1 Pro64	01/14
20CD00BYUS	i7-4600U	8GB	12.5" HD	anti-smudge	None	720p	500G 7200	7260 ac + BT	16GB	None	Black	8	vPro	Win8.1 Pro64	01/14
20CD00C3US	i5-4300U	4GB	12.5" FHD	anti-glare	Pen	720p	180G OPAL	7260 ac + BT	None	None	Black	8	vPro	Win7 Pro64	01/14
20CD00C1US	i5-4300U	4GB	12.5" HD	anti-smudge	None	720p	180G OPAL	7260 ac + BT	None	None	Black	8	vPro	Win7 Pro64	01/14
20CD00C2US	i7-4600U	8GB	12.5" FHD	anti-glare	Pen	720p	256G SSD	7260 ac + BT	None	None	Black	8	vPro	Win7 Pro64	01/14
20CD00C4US	i7-4600U	8GB	12.5" FHD	anti-smudge	None	720p	256G SSD	7260 ac + BT	None	None	Black	8	vPro	Win7 Pro64	01/14
20CD00B2US	i7-4600U	8GB	12.5" FHD	anti-smudge	None	720p	256G SSD	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20CD00B1US	i7-4600U	8GB	12.5" FHD	anti-glare	Pen	720p	256G SSD	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20CD00AXUS	i7-4600U	8GB	12.5" FHD	anti-glare	Pen	720p	180G OPAL	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20CD00AVUS	i5-4300U	4GB	12.5" FHD	anti-glare	Pen	720p	180G OPAL	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20CD00AWUS	i5-4300U	4GB	12.5" HD	anti-smudge	None	720p	180G OPAL	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14

Positioning	<i>Convertible tablet ultrabook™; one spindle</i>											Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8.1 Pro 64-bit - Some: Windows 8.1 Pro 64-bit Preloaded applications¹⁴ (only some listed, for Windows 8.1 models) • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage • Password Manager • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Microsoft Office preloaded; purchase a product key to activate • Skype™
Processor	Intel® Core™ i5-4300U processor (2 cores, 1.90GHz, 3MB Cache), Intel HD Graphics 4400, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology Intel Core i7-4600U processor (2 cores, 2.10GHz, 4MB Cache), Intel HD Graphics 4400, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology											
Memory	4GB or 8GB / PC3-12800 1600MHz DDR3L / soldered to systemboard, no SO-DIMM sockets											
Optical	None											
SATA disk	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™ Some: M.2 Solid State Drive (SSD), via M.2 Card slot											
M.2 SSD												
Widescreen display	Some: 12.5" (317.5mm) HD (1366x768) TFT color , smudgeless, 10-point touch screen LED backlight, 300 nits, 16:9 aspect ratio, IPS; Some: 12.5" (317.5mm) FHD (1920x1080) TFT color , smudgeless, 10-point touch screen LED backlight, 400 nits, 16:9 aspect ratio, IPS; Some: 12.5" (317.5mm) FHD (1920x1080) TFT color , anti-glare, 10-point touch screen with Pen, LED backlight, 400 nits, 16:9 aspect ratio, IPS HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus											
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus											
Graphics	Intel HD Graphics 4400 in processor, supports external digital monitor via Mini HDMI; supports dual independent display; <i>Maximum external resolution: 1920x1200 (Mini HDMI)@60Hz</i>											
Keyboard	6-row, 83-key, spill-resistant, multimedia Fn keys, LED backlight											
TrackPoint®	TrackPoint pointing device											
Touchpad	UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch											
Light sensor	Ambient light sensor											
ThinkLight™	None											
Dimensions ³	8-cell: 12.44" x 8.70" x 0.74"; 316mm x 221mm x 18.8mm 8-cell with Pen: 12.44" x 8.70" x 0.76"; 316mm x 221mm x 19.4mm											
Weight ²	8-cell: from 3.46 lb (1.57kg) 8-cell with Pen: from 3.59 lb (1.63kg)											
Case material	Display cover: Magnesium and Aluminum + Polyphenylene sulfide (PPS); Bottom: Magnesium and Aluminum + Polyphenylene sulfide (PPS);											
Battery - type	Integrated Li-Polymer 8-cell, HW Authentication											
Battery - life ¹⁰	8-cell (47Whr): up to 7.0 hr											
Multicard Reader	4-in-1 reader (SD, SDHC, SDXC, MMC)											
ExpressCard	None											
Ports	Two USB 3.0(one powered), external monitor (mini-HDMI)											
PCIe Mini Card	One PCI Express Mini Card slot											
PCIe WLAN ⁴	11ac, PCIe Half Mini Card, Intel Dual Band Wireless-AC 7260, Wi-Fi + Bluetooth combo adapter, 2x2											
M.2 Card	One M.2 Card slot for support of WWAN card or SSD											
WWAN	None											
Bluetooth™	Bluetooth 4.0 wireless, integrated in WLAN PCIe Half Mini Card											
Ethernet	None											
Intel AMT	Intel Active Management Technology (iAMT)											
Audio support	High Definition (HD) Audio, Conexant CX20751 codec / stereo speakers, 2 watt x 2, Dolby® Home Theater® v4 certified / volume up, down, mute buttons / dual array microphone, combo audio/mic jack											
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	Trusted Platform Module, TCG 1.2-compliant											
Fingerprint reader	None											
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available											

See footnotes for more detailed information
 US model(s) announced January 28, 2014

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 (STLA1-3) January 2014

Type-model	Processor	Memory	Widescreen display	Screen type	Pen	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	M.2 Card WWAN /SSD	SIM card	Top color	Battery cells	Intel vPro	Preload	Ann date (mm/yy)
20C0004PUS	i5-4300U	4GB	12.5" HD	anti-smudge	None	720p	500G 7200	7260 ac + BT	16GB	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0003WUS	i5-4300U	8GB	12.5" FHD	anti-glare	Pen	720p	500G 7200	7260 ac + BT	16GB	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004VUS	i5-4300U	8GB	12.5" HD	anti-smudge	None	720p	500G 7200	7260 ac + BT	16GB	None	Black	8	vPro	Win8.1 Pro64	01/14
20C00041US	i7-4600U	8GB	12.5" HD	anti-smudge	None	720p	500G 7200	7260 ac + BT	16GB	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004WUS	i5-4300U	4GB	12.5" FHD	anti-glare	Pen	720p	500G 7200	7260 ac + BT	16GB	None	Black	8	vPro	Win8.1 Pro64	01/14
20C00049US	i7-4600U	8GB	12.5" FHD	anti-glare	Pen	720p	500G 7200	7260 ac + BT	16GB	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0003XUS	i5-4300U	4GB	12.5" FHD	anti-glare	Pen	720p	180G OPAL	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004BUS	i5-4300U	4GB	12.5" HD	anti-smudge	None	720p	256G SSD	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C00045US	i7-4600U	8GB	12.5" FHD	anti-glare	Pen	720p	256G SSD	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004EUS	i7-4600U	8GB	12.5" FHD	anti-glare	Pen	720p	180G OPAL	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C00042US	i5-4300U	8GB	12.5" HD	anti-smudge	None	720p	256G SSD	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004JUS	i7-4600U	8GB	12.5" FHD	anti-smudge	None	720p	256G SSD	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004LUS	i7-4600U	8GB	12.5" FHD	anti-smudge	None	720p	180G OPAL	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C00046US	i5-4300U	4GB	12.5" HD	anti-smudge	None	720p	180G OPAL	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004RUS	i5-4300U	8GB	12.5" FHD	anti-glare	Pen	720p	256G SSD	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004UUS	i7-4600U	8GB	12.5" HD	anti-smudge	None	720p	180G OPAL	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004NUS	i7-4600U	8GB	12.5" HD	anti-smudge	None	720p	256G SSD	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14

Positioning	<i>Convertible tablet ultrabook™; one spindle</i>											Preloaded operating system²⁰			
Processor	Intel® Core™ i5-4300U processor (2 cores, 1.90GHz, 3MB Cache), Intel HD Graphics 4400, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology Intel Core i7-4600U processor (2 cores, 2.10GHz, 4MB Cache), Intel HD Graphics 4400, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology											- <i>Some: Windows 8.1 Pro 64-bit</i>			
Memory	4GB or 8GB / PC3-12800 1600MHz DDR3L / soldered to systemboard, no SO-DIMM sockets											Preloaded applications¹⁴ (only some listed)			
Optical	None											<ul style="list-style-type: none"> • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage • Password Manager • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Microsoft Office preloaded; purchase a product key to activate • Skype™ 			
SATA disk	<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>														
M.2 SSD	<i>Some: M.2 Solid State Drive (SSD), via M.2 Card slot</i>														
Widescreen display	<i>Some: 12.5" (317.5mm) HD (1366x768) TFT color, smudgeless, 10-point touch screen LED backlight, 300 nits, 16:9 aspect ratio, IPS;</i> <i>Some: 12.5" (317.5mm) FHD (1920x1080) TFT color, smudgeless, 10-point touch screen LED backlight, 400 nits, 16:9 aspect ratio, IPS;</i> <i>Some: 12.5" (317.5mm) FHD (1920x1080) TFT color, anti-glare, 10-point touch screen with Pen, LED backlight, 400 nits, 16:9 aspect ratio, IPS</i>														
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus														
Graphics	Intel HD Graphics 4400 in processor, supports external digital monitor via Mini HDMI; supports dual independent display; <i>Maximum external resolution: 1920x1200 (Mini HDMI)@60Hz</i>														
Keyboard	6-row, 83-key, spill-resistant, multimedia Fn keys, LED backlight														
TrackPoint®	TrackPoint pointing device														
Touchpad	UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch														
Light sensor	Ambient light sensor														
ThinkLight™	None														
Dimensions ³	<i>8-cell: 12.44" x 8.70" x 0.74"; 316mm x 221mm x 18.8mm</i> <i>8-cell with Pen: 12.44" x 8.70" x 0.76"; 316mm x 221mm x 19.4mm</i>														
Weight ²	<i>8-cell: from 3.46 lb (1.57kg)</i> <i>8-cell with Pen: from 3.59 lb (1.63kg)</i>														
Case material	<i>Display cover: Magnesium and Aluminum + Polyphenylene sulfide (PPS);</i> <i>Bottom: Magnesium and Aluminum + Polyphenylene sulfide (PPS);</i>														
Battery - type	Integrated Li-Polymer 8-cell, HW Authentication														
Battery - life ¹⁰	<i>8-cell (47Whr): up to 7.0 hr</i>														
Multicard Reader	4-in-1 reader (SD, SDHC, SDXC, MMC)														
ExpressCard	None														
Ports	Two USB 3.0 (one powered), external monitor (mini-HDMI)														
PCIe Mini Card	One PCI Express Mini Card slot														
PCIe WLAN ⁴	11ac, PCIe Half Mini Card, Intel Dual Band Wireless-AC 7260, Wi-Fi + Bluetooth combo adapter, 2x2														
M.2 Card	One M.2 Card slot for support of WWAN card or SSD														
WWAN	None														
Bluetooth™	Bluetooth 4.0 wireless, integrated in WLAN PCIe Half Mini Card											Supports ThinkVantage® technologies			
Ethernet	None														
Intel AMT	Intel Active Management Technology (iAMT)														
Audio support	High Definition (HD) Audio, Conexant CX20751 codec / stereo speakers, 2 watt x 2, Dolby® Home Theater® v4 certified / volume up, down, mute buttons / dual array microphone, combo audio/mic jack											45-watt AC Adapter ENERGY STAR® 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														
Security chip	Trusted Platform Module, TCG 1.2-compliant														
Fingerprint reader	None											For Lenovo ²² service upgrade options, please go to S-EDGE sheet			
Limited warranty ¹²	3-year - depot repair service / service upgrades ²² available														

See footnotes for more detailed information
US model(s) announced January 28, 2014

ThinkPad® S1 Yoga (20C0) - Onsite

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Screen type	Pen	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	M.2 Card WWAN /SSD	SIM card	Top color	Battery cells	Intel vPro	Preload	Ann date (mm/yy)
20C0003YUS	i5-4300U	8GB	12.5" HD	anti-smudge	None	720p	500G 7200	7260 ac + BT	16GB	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004DUS	i5-4300U	4GB	12.5" FHD	anti-glare	Pen	720p	500G 7200	7260 ac + BT	16GB	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004AUS	i5-4300U	8GB	12.5" FHD	anti-glare	Pen	720p	500G 7200	7260 ac + BT	16GB	None	Black	8	vPro	Win8.1 Pro64	01/14
20C00040US	i5-4300U	4GB	12.5" HD	anti-smudge	None	720p	500G 7200	7260 ac + BT	16GB	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004FUS	i7-4600U	8GB	12.5" FHD	anti-glare	Pen	720p	500G 7200	7260 ac + BT	16GB	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004CUS	i7-4600U	8GB	12.5" HD	anti-smudge	None	720p	500G 7200	7260 ac + BT	16GB	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004MUS	i7-4600U	8GB	12.5" HD	anti-smudge	None	720p	256G SSD	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004HUS	i7-4600U	8GB	12.5" FHD	anti-glare	Pen	720p	256G SSD	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C00044US	i7-4600U	8GB	12.5" FHD	anti-smudge	None	720p	180G OPAL	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004CUS	i5-4300U	4GB	12.5" HD	anti-smudge	None	720p	180G OPAL	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004TUS	i7-4600U	8GB	12.5" FHD	anti-smudge	None	720p	256G SSD	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C00043US	i5-4300U	8GB	12.5" HD	anti-smudge	None	720p	256G SSD	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004GUS	i5-4300U	4GB	12.5" HD	anti-smudge	None	720p	256G SSD	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C00047US	i7-4600U	8GB	12.5" FHD	anti-glare	Pen	720p	180G OPAL	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004KUS	i5-4300U	4GB	12.5" FHD	anti-glare	Pen	720p	180G OPAL	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C0004SUS	i5-4300U	8GB	12.5" FHD	anti-glare	Pen	720p	256G SSD	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14
20C00048US	i7-4600U	8GB	12.5" HD	anti-smudge	None	720p	180G OPAL	7260 ac + BT	None	None	Black	8	vPro	Win8.1 Pro64	01/14

Positioning	<i>Convertible tablet ultrabook™; one spindle</i>											Preloaded operating system ²⁰
Processor	Intel® Core™ i5-4300U processor (2 cores, 1.90GHz, 3MB Cache), Intel HD Graphics 4400, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology Intel Core i7-4600U processor (2 cores, 2.10GHz, 4MB Cache), Intel HD Graphics 4400, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology											- Some: Windows 8.1 Pro 64-bit
Memory	4GB or 8GB / PC3-12800 1600MHz DDR3L / soldered to systemboard, no SO-DIMM sockets											Preloaded applications¹⁴ (only some listed)
Optical	None											• Lenovo Support
SATA disk	None <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>Some:</i> M.2 Solid State Drive (SSD), via M.2 Card slot											• Lenovo Companion
M.2 SSD												• Lenovo Cloud Storage
Widescreen display	<i>Some:</i> 12.5" (317.5mm) HD (1366x768) TFT color , smudgeless, 10-point touch screen LED backlight, 300 nits, 16:9 aspect ratio, IPS; <i>Some:</i> 12.5" (317.5mm) FHD (1920x1080) TFT color , smudgeless, 10-point touch screen LED backlight, 400 nits, 16:9 aspect ratio, IPS; <i>Some:</i> 12.5" (317.5mm) FHD (1920x1080) TFT color , anti-glare, 10-point touch screen with Pen, LED backlight, 400 nits, 16:9 aspect ratio, IPS											• Password Manager
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus											• ThinkVantage System Update
Graphics	Intel HD Graphics 4400 in processor, supports external digital monitor via Mini HDMI; supports dual independent display; <i>Maximum external resolution:</i> 1920x1200 (Mini HDMI)@60Hz											• Norton™ Internet Security (30 days of virus definitions)
Keyboard	6-row, 83-key, spill-resistant, multimedia Fn keys, LED backlight											• Microsoft Office preloaded; purchase a product key to activate
TrackPoint®	TrackPoint pointing device											• Skype™
Touchpad	UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch											
Light sensor	Ambient light sensor											
ThinkLight™	None											
Dimensions ³	<i>8-cell:</i> 12.44" x 8.70" x 0.74"; 316mm x 221mm x 18.8mm <i>8-cell with Pen:</i> 12.44" x 8.70" x 0.76"; 316mm x 221mm x 19.4mm											
Weight ²	<i>8-cell:</i> from 3.46 lb (1.57kg) <i>8-cell with Pen:</i> from 3.59 lb (1.63kg)											
Case material	<i>Display cover:</i> Magnesium and Aluminum + Polyphenylene sulfide (PPS); <i>Bottom:</i> Magnesium and Aluminum + Polyphenylene sulfide (PPS);											
Battery - type	Integrated Li-Polymer 8-cell, HW Authentication											
Battery - life ¹⁰	<i>8-cell (47Whr):</i> up to 7.0 hr											
Multicard Reader	4-in-1 reader (SD, SDHC, SDXC, MMC)											
ExpressCard	None											
Ports	Two USB 3.0(one powered), external monitor (mini-HDMI)											
PCIe Mini Card	One PCI Express Mini Card slot											
PCIe WLAN ⁴	11ac, PCIe Half Mini Card, Intel Dual Band Wireless-AC 7260, Wi-Fi + Bluetooth combo adapter, 2x2											
M.2 Card	One M.2 Card slot for support of WWAN card or SSD											
WWAN	None											
Bluetooth™	Bluetooth 4.0 wireless, integrated in WLAN PCIe Half Mini Card											Supports ThinkVantage® technologies
Ethernet	None											
Intel AMT	Intel Active Management Technology (iAMT)											45-watt AC Adapter
Audio support	High Definition (HD) Audio, Conexant CX20751 codec / stereo speakers, 2 watt x 2, Dolby® Home Theater® v4 certified / volume up, down, mute buttons / dual array microphone, combo audio/mic jack											ENERGY STAR® compliant
Security	Power-on password, hard disk password, supervisor password, security keyhole											ROHS-compliant
Security chip	Trusted Platform Module, TCG 1.2-compliant											International Warranty Service ¹⁷
Fingerprint reader	None											24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Limited warranty ¹²	3-year/1-year battery, limited onsite service / service upgrades²² available											For Lenovo ²² service upgrade options, please go to S-EDGE sheet

See footnotes for more detailed information
US model(s) announced January 28, 2014

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ThinkPad®



Lenovo® ThinkPad S3-S431



Lenovo® ThinkPad S3-S431



Lenovo® ThinkPad S3-S431



Lenovo® ThinkPad S3-S431



Lenovo® ThinkPad S3-S431



Lenovo® ThinkPad S3-S431

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN / BT	M.2 Card WWAN /SSD	Top color	Finger-print reader	Bat-tery cells	Bat-tery /Wh	Preload	Ann date (mm/yy)
20AX0000US	i3-3227U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n + BT	24G	Black	Finger	4	46	Win7 Pro64	06/13
20AX0001US	i5-3337U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n + BT	24G	Black	Finger	4	46	Win7 Pro64	06/13
20AX000MUS	i7-3687U	8GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n + BT	24G	Black	Finger	4	46	Win7 Pro64	06/13
20AX000NUS	i3-3227U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n + BT	24G	Black	Finger	4	46	Win8 Pro64	06/13
20AX000PUS	i5-3337U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n + BT	24G	Black	Finger	4	46	Win8 Pro64	06/13
20AX000QUS	i7-3687U	8GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n + BT	24G	Black	Finger	4	46	Win8 Pro64	06/13
20AX000RUS	i3-3227U	4GBx1	14.0" HD	720p	320G 7200	TP 11a/b/g/n + BT	None	Black	Finger	4	46	Win7 Pro64	06/13
20AX000SUS	i3-3227U	4GBx1	14.0" HD	720p	320G 7200	TP 11a/b/g/n + BT	None	Black	Finger	4	46	Win8 Pro64	06/13
20AX004KUS	i5-3437U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n + BT	24G	Black	Finger	4	46	Win7 Pro64	11/13

Positioning Processor	<p><i>Sophisticated design with quality, durability and reliability for SMB customers; one spindles</i> Intel® Core™ i3-3227U processor (2 cores, 1.90GHz, 3MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), 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 i5-3437U 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</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 applications (only some listed) - Windows 7 models • Access Connections™ • ThinkVantage Power Manager • ThinkVantage Tools • Adobe® Reader®</p> - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage - All models • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Skype™ • Microsoft Office preloaded; purchase a product key to activate
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3L, non-parity, one 204-pin SO-DIMM socket										
Optical SATA disk	None 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, removable, upgradable, Active Protection System™										
M.2 SSD	Some: M.2 Solid State Drive (SSD), via M.2 Card slot										
Widescreen display	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio										
Camera	HD720p resolution, low light sensitive, fixed focus, LED indicator										
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via HDMI™ (supporting HDCP to output protected content); Max external resolution: 1920x1200 (HDMI)@60Hz										
Keyboard	6-row, spill-resistant, multimedia Fn keys, LED backlight										
TrackPoint®	TrackPoint pointing device, Internet Scroll Bar ¹³										
Touchpad	UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch										
ThinkLight™	None										
Dimensions ³	14.0W" (WxDxH): 13.11" x 8.86" x 0.81"; 332.8mm x 224.8mm x 20.3mm										
Weight ²	4-cell: from 3.92 lb (1.78kg)										
Case color	Black or silver (top); black bottom										
Case material	Sand Blast Aluminum										
Battery - type ³⁷	Li-Polymer 4-cell (46Whr)										
Battery - life ¹⁰	MobileMark 2007: Windows 7: up to 9.1 hr MobileMark 2012: Windows 8: up to 5.9 hr										
Chipset	Mobile Intel HM76 Express Chipset										
ExpressCard	None										
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)										
Ports	One USB 3.0, one USB 3.0 (powered), OneLink Docking port (supports optional 4X10A06077) external monitor (HDMI), ethernet (RJ-45)										
PCIe Mini Card	One PCI Express Mini Card slot										
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, Wi-Fi + Bluetooth combo adapter, 2x2										
M.2 Card	One M.2 Card slot for support of WWAN card or SSD										
M.2 WWAN	None										
Bluetooth™	Bluetooth 4.0 wireless, integrated in selected WLAN PCIe Half Mini Card										
Ethernet	Realtek® RTL8111F Gigabit Network Connection										
Audio support	High Definition (HD) Audio, Conexant 20671 codec / stereo speakers, 1.5 watt x 2 / Dolby® Home Theater® v4 / 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	UPEK Fingerprint reader on palm rest, swipe sensor										
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available										Supports ThinkVantage® technologies 65-watt AC adapter ENERGY STAR® compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² For Lenovo ²² service upgrade options, please go to S-EDGE sheet

See footnotes for more detailed information
 US model(s) announced June 4, or November 19, 2013

ThinkPad® S3-S431 20AX (AMD HD) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN / BT	M.2 Card WWAN /SSD	Top color	Finger-print reader	Bat-tery cells	Bat-tery /Wh	Preload	Ann date (mm/yy)
20AX003WUS	i3-3217U	4GBx1	14.0" HD+	720p	500G 7200	TP 11a/b/g/n + BT	24G	Black	Finger	4	46	Win7 Pro64	07/13

Positioning Processor	<i>Sophisticated design with quality, durability and reliability for SMB customers; one spindles</i> Intel® Core™ i3-3217U processor (2 cores, 1.80GHz, 3MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), 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 Preloaded applications (only some listed) - Windows 7 models • Access Connections™ • ThinkVantage Power Manager • ThinkVantage Tools • Adobe® Reader® - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage - All models • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Skype™ • Microsoft Office 2013 preloaded; purchase product key to activate
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3L, non-parity, one 204-pin SO-DIMM socket										
Optical SATA disk	None <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, removable, upgradable, Active Protection System™										
M.2 SSD	M.2 Solid State Drive (SSD), via M.2 Card slot										
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio										
Camera	HD720p resolution, low light sensitive, fixed focus, LED indicator										
Graphics	AMD Radeon™ HD 8670M Graphics, 1GB memory external digital monitor support via HDMI™; <i>Max external resolution: 1920x1200 (HDMI)@60Hz</i>										
Keyboard TrackPoint®	6-row, spill-resistant, multimedia Fn keys, LED backlight TrackPoint pointing device, Internet Scroll Bar ¹³										
Touchpad ThinkLight™	UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch None										
Dimensions ³	14.0W" (WxDxH): 13.11" x 8.86" x 0.81"; 332.8mm x 224.8mm x 20.3mm										
Weight ²	4-cell: from 3.92 lb (1.78kg)										
Case color	Black or silver (top); black bottom										
Case material	Sand Blast Aluminum										
Battery - type ³⁷	Li-Polymer 4-cell (46Whr)										
Battery - life ¹⁰	<i>MobileMark 2007:</i> Windows 7: up to 7.2 hr <i>MobileMark 2012:</i> Windows 8: up to 5.2 hr										
Chipset	Mobile Intel HM76 Express Chipset										
ExpressCard	None										
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)										
Ports	One USB 3.0, one USB 3.0 (powered), OneLink Docking port (supports optional 4X10A06077) external monitor (HDMI), ethernet (RJ-45)										
PCIe Mini Card	One PCI Express Mini Card slot										
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, Wi-Fi + Bluetooth combo adapter, 2x2										
M.2 Card	One M.2 Card slot for support of WWAN card or SSD										
M.2 WWAN	None										
Bluetooth™	Bluetooth 4.0 wireless, integrated in selected WLAN PCIe Half Mini Card										
Ethernet	Realtek® RTL8111F Gigabit Network Connection										
Audio support	High Definition (HD) Audio, Conexant 20671 codec / stereo speakers, 1.5 watt x 2 / Dolby® Home Theater® v4 / 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	UPEK Fingerprint reader on palm rest, swipe sensor										
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available										
											Supports ThinkVantage® technologies
											65-watt AC adapter ENERGY STAR® compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
											For Lenovo ²² service upgrade options, please go to S-EDGE sheet

See footnotes for more detailed information
US model(s) announced July 2, 2013

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Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card WLAN / BT	M.2 Card WWAN /SSD	Top color	Finger-print reader	Bat-tery cells	Bat-tery /Wh	Preload	Ann date (mm/yy)
20BA0000US	i5-3437U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n + BT	24G	Black	Finger	4	46	Win8 Pro64	06/13
20BA0001US	i7-3687U	8GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n + BT	24G	Black	Finger	4	46	Win8 Pro64	06/13

Positioning Processor	<i>Sophisticated design with quality, durability and reliability for SMB customers; one spindles</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 system ²⁰ - Windows 8 Pro 64-bit Preloaded applications (only some listed) • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Skype™ • Microsoft Office 2013 preloaded; purchase product key to activate
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3L, non-parity, one 204-pin SO-DIMM socket										
Optical SATA disk	None <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, removable, upgradable, Active Protection System™										
M.2 SSD	M.2 Solid State Drive (SSD), via M.2 Card slot										
Widescreen display Camera	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio HD720p resolution, low light sensitive, fixed focus, LED indicator										
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via HDMI™ (supporting HDCP to output protected content); <i>Max external resolution: 2048x1536 (VGA)@75Hz; 1920x1200 (HDMI)@60Hz</i>										
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, spill-resistant, multimedia Fn keys, LED backlight TrackPoint pointing device, Internet Scroll Bar ¹³ UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch None										
Dimensions ³ Weight ² Case color Case material Battery - type ³⁷ Battery - life ¹⁰	14.0W" (WxDxH): 13.11" x 8.86" x 0.81"; 332.8mm x 224.8mm x 20.3mm 4-cell: from 3.92 lb (1.78kg) Black or silver (top); black bottom Sand Blast Aluminum Li-Polymer 4-cell (46Whr) <i>MobileMark 2007:</i> Windows 7: up to 9.1 hr <i>MobileMark 2012:</i> Windows 8: up to 5.9 hr										
Chipset ExpressCard Multicard Reader Ports	Mobile Intel HM76 Express Chipset None 4-in-1 reader (MMC, SD, SDHC, SDXC) One USB 3.0, one USB 3.0 (powered), OneLink Docking port (supports optional 4X10A06077) external monitor (HDMI), ethernet (RJ-45)										
PCIe Mini Card PCIe WLAN ⁴ M.2 Card M.2 WWAN Bluetooth™ Ethernet Audio support Security Security chip Fingerprint reader	One PCI Express Mini Card slot 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, Wi-Fi + Bluetooth combo adapter, 2x2 One M.2 Card slot for support of WWAN card or SSD None Bluetooth 4.0 wireless, integrated in selected WLAN PCIe Half Mini Card Realtek® RTL8111F Gigabit Network Connection High Definition (HD) Audio, Conexant 20671 codec / stereo speakers, 1.5 watt x 2 / Dolby® Home Theater® v4 / dual array microphone, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant IPEK Fingerprint reader on palm rest, swipe sensor										Supports ThinkVantage® technologies 65-watt AC adapter ENERGY STAR® compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² For Lenovo ²² service upgrade options, please go to S-EDGE sheet
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available										

See footnotes for more detailed information
US model(s) announced June 4, 2013

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ThinkPad® S3-S431 20AX (TopSeller) - MultiTouch

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN / BT	M.2 Card WWAN /SSD Top color	Finger print reader	Bat-tery cells	Bat-tery /Wh	Preload	Ann date (mm/yy)
20AX000VUS	i7-3687U	8GBx1	14.0" HD+ Touch	720p	500G 7200	TP 11a/b/g/n + BT	24G Black	Finger	4	46	Win8 Pro64	08/13
20AX000TUS	i3-3227U	4GBx1	14.0" HD+ Touch	720p	500G 7200	TP 11a/b/g/n + BT	24G Black	Finger	4	46	Win8 Pro64	08/13
20AX000UUS	i5-3337U	4GBx1	14.0" HD+ Touch	720p	500G 7200	TP 11a/b/g/n + BT	24G Black	Finger	4	46	Win8 Pro64	08/13

Positioning Processor	<i>Sophisticated design with quality, durability and reliability for SMB customers; one spindles</i> Intel® Core™ i3-3227U processor (2 cores, 1.90GHz, 3MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), 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 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 - Windows 8 Pro 64-bit Preloaded applications (only some listed) • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Skype™ • Microsoft Office preloaded; purchase a product key to activate
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3L, non-parity, one 204-pin SO-DIMM socket										
Optical SATA disk	None <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, removable, upgradable, Active Protection System™										
M.2 SSD	M.2 Solid State Drive (SSD), via M.2 Card slot										
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color, anti-glare, LED backlight, 200 nits, 16:9 aspect ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color, anti-glare, 10-point touch screen LED backlight, 220 nits, 16:9 aspect ratio										
Camera	HD720p resolution, low light sensitive, fixed focus, LED indicator										
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via HDMI™ (supporting HDCP to output protected content); <i>Max external resolution:</i> 1920x1200 (HDMI)@60Hz										
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, spill-resistant, multimedia Fn keys, LED backlight TrackPoint pointing device, Internet Scroll Bar ¹³ UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch None										
Dimensions ³ Weight ² Case color Case material Battery - type ³⁷ Battery - life ¹⁰	14.0W" (WxDxH): 13.10" x 8.85" x 0.87"; 332.8mm x 224.8mm x 22.1mm 4-cell: from 4.10 lb (1.86kg) Black or silver (top); black bottom Sand Blast Aluminum Li-Polymer 4-cell (46Whr) <i>MobileMark 2007:</i> Windows 7: up to 6.7 hr <i>MobileMark 2012:</i> Windows 8: up to 4.9 hr										
Chipset ExpressCard Multicard Reader Ports	Mobile Intel HM76 Express Chipset None 4-in-1 reader (MMC, SD, SDHC, SDXC) One USB 3.0, one USB 3.0 (powered), OneLink Docking port (supports optional 4X10A06077) external monitor (HDMI), ethernet (RJ-45)										
PCIe Mini Card PCIe WLAN ⁴ M.2 Card M.2 WWAN Bluetooth™ Ethernet Audio support	One PCI Express Mini Card slot 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, Wi-Fi + Bluetooth combo adapter, 2x2 One M.2 Card slot for support of WWAN card or SSD None Bluetooth 4.0 wireless, integrated in selected WLAN PCIe Half Mini Card Realtek® RTL8111F Gigabit Network Connection High Definition (HD) Audio, Conexant 20671 codec / stereo speakers, 1.5 watt x 2 / Dolby® Home Theater® v4 / dual array microphone, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole										Supports ThinkVantage® technologies 65-watt AC adapter ENERGY STAR® 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	Trusted Platform Module, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor										For Lenovo ²² service upgrade options, please go to S-EDGE sheet
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available										

See footnotes for more detailed information
US model(s) announced August 13, 2013

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ThinkPad® S3-S431 20BA (MultiTouch)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁶ rpm	PCIe Mini Card WLAN / BT	M.2 Card WWAN /SSD Top color	Finger print reader	Bat-tery cells /Wh	Bat-tery /Wh	Preload	Ann date (mm/yy)
20BA0002US	i5-3437U	4GBx1	14.0" HD+ Touch	720p	500G 7200	TP 11a/b/g/n + BT	24G Black	Finger	4	46	Win8 Pro64	08/13
20BA0003US	i7-3687U	8GBx1	14.0" HD+ Touch	720p	500G 7200	TP 11a/b/g/n + BT	24G Black	Finger	4	46	Win8 Pro64	08/13

Positioning Processor	<i>Sophisticated design with quality, durability and reliability for SMB customers; one spindles</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 - Windows 8 Pro 64-bit Preloaded applications (only some listed) <ul style="list-style-type: none"> • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Skype™ • Microsoft Office preloaded; purchase a product key to activate
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3L, non-parity, one 204-pin SO-DIMM socket										
Optical SATA disk	None <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, removable, upgradable, Active Protection System™										
M.2 SSD	M.2 Solid State Drive (SSD), via M.2 Card slot										
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, 10-point touch screen LED backlight, 220 nits, 16:9 aspect ratio										
Camera	HD720p resolution, low light sensitive, fixed focus, LED indicator										
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via HDMI™ (supporting HDCP to output protected content); <i>Max external resolution: 2048x1536 (VGA) @75Hz; 1920x1200 (HDMI) @60Hz</i>										
Keyboard	6-row, spill-resistant, multimedia Fn keys, LED backlight										
TrackPoint®	TrackPoint pointing device, Internet Scroll Bar ¹³										
Touchpad	UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch										
ThinkLight™	None										
Dimensions ³	14.0W" (WxDxH): 13.10" x 8.85" x 0.87"; 332.8mm x 224.8mm x 22.1mm										
Weight ²	4-cell: from 4.10 lb (1.86kg)										
Case color	Black or silver (top); black bottom										
Case material	Sand Blast Aluminum										
Battery - type ³⁷	Li-Polymer 4-cell (46Whr)										
Battery - life ¹⁰	<i>MobileMark 2007:</i> Windows 7: up to 6.7 hr <i>MobileMark 2012:</i> Windows 8: up to 4.9 hr										
Chipset	Mobile Intel HM76 Express Chipset										
ExpressCard	None										
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)										
Ports	One USB 3.0, one USB 3.0 (powered), OneLink Docking port (supports optional 4X10A06077) external monitor (HDMI), ethernet (RJ-45)										
PCIe Mini Card	One PCI Express Mini Card slot										
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, Wi-Fi + Bluetooth combo adapter, 2x2										
M.2 Card	One M.2 Card slot for support of WWAN card or SSD										Supports ThinkVantage® technologies
M.2 WWAN	None										
Bluetooth™	Bluetooth 4.0 wireless, integrated in selected WLAN PCIe Half Mini Card										65-watt AC adapter ENERGY STAR® compliant RoHS-compliant
Ethernet	Realtek® RTL8111F Gigabit Network Connection										International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Audio support	High Definition (HD) Audio, Conexant 20671 codec / stereo speakers, 1.5 watt x 2 / Dolby® Home Theater® v4 / 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	Fingerprint reader on palm rest, swipe sensor										For Lenovo ²² service upgrade options, please go to S-EDGE sheet
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available										

See footnotes for more detailed information
US model(s) announced August 13, 2013

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The TopSeller™ services are designed to make selling the popular services with TopSeller systems faster and easier. Channel partners should always use TopSeller services with TopSeller systems. TopSeller services part numbers typically provide enhanced discounts and incentives for channel partners. The TopSeller service delivered to the customer is identical to the service delivered using a standard service part number. In situations where a desired service is not offered under a TopSeller service part number or the sale requires a special bid process, use available standard service part numbers.

TopSeller services should always be offered by channel business partners with TopSeller hardware, unless the sale requires special bid pricing or the desired service is not offered as a TopSeller service part.

For more information see:

<http://www2.partnerinfo.lenovo.com/partners/us/resources/salestoolkit.shtml>

TopSeller service upgrade options for ThinkPad Edge/Twist/S3 Series

ThinkPad Edge E430c/E530c notebooks with 1-year Depot warranty

3 YEAR Depot Warranty	04W8706
3 YEAR Depot Warranty & Accidental Damage Protection	04W8708
3 YEAR Onsite Warranty	04W8707
3 YEAR Onsite Warranty & Accidental Damage Protection	04W8709

ThinkPad Twist S230u notebook with 1-year Depot warranty

3 YEAR Depot Warranty with Battery Replacement	04W8702
3 YEAR Depot Warranty with Battery Replacement & Accidental Damage Protection	04W8704
3 YEAR Onsite Warranty with Battery Replacement	04W8703
3 YEAR Onsite Warranty with Battery Replacement & Accidental Damage Protection	04W8705

ThinkPad Edge E431/E531 notebooks with 1-year Depot warranty

2 YEAR Depot Warranty	5WS0A23679
3 YEAR Depot Warranty	5WS0A23741
3 YEAR Depot Warranty & Accidental Damage Protection	5PS0A23716
2 YEAR Onsite Warranty	5WS0A23708
3 YEAR Onsite Warranty	5WS0A23776

ThinkPad S3 S431 notebooks with 1-year Depot warranty

3 YEAR Depot Warranty with Battery Replacement & Accidental Damage Protection	5PS0A14104
3 YEAR Onsite Warranty with Battery Replacement & Accidental Damage Protection	5WS0A14076

TopSeller Priority Support

- 24x7 support with priority routing and advanced level technicians

ThinkPad Edge E430c/E530c notebooks with 1-year Depot warranty

Add to 3-year warranty coverage - 3-year Priority Support*	45J9094
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ThinkPad Twist S230u notebook with 1-year Depot warranty

Add to 3-year warranty coverage - 3-year Priority Support*	45J9094
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ThinkPad Edge E431/E531 notebooks with 1-year Depot warranty

Add to 3-year warranty coverage - 3-year Priority Support*	5WS0A23257
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ThinkPad S3 S431 notebooks with 1-year Depot warranty

Add to 3-year warranty coverage - 3-year Priority Support*	5WS0A14092
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* Covered machine must have concurrent warranty coverage.

Partial list of Lenovo® Services²² for ThinkPad E/Twist/S series notebooks

For more information see: http://www.lenovo.com/services_warranty/us/en/index.html

Lenovo service upgrade options for ThinkPad E/Twist/S series

ThinkPad Twist S230u notebook with 1-year Depot warranty

2 YEAR Depot Warranty	0C07006
3 YEAR Depot Warranty	0C07010
1 YEAR Onsite Warranty	45K5968
2 YEAR Onsite Warranty	0C07007
3 YEAR Onsite Warranty	0C07011

ThinkPad Edge E431/E531/E545 notebooks with 1-year Depot warranty

2 YEAR Depot Warranty	5WS0A23781
3 YEAR Depot Warranty	5WS0A23813
2 YEAR Onsite Warranty	5WS0A23747
3 YEAR Onsite Warranty	5WS0A23681

ThinkPad E440/E540 notebooks with 1-year Depot warranty

2 YEAR Depot Warranty	5WS0A23781
3 YEAR Depot Warranty	5WS0A23813
2 YEAR Onsite Warranty	5WS0A23747
3 YEAR Onsite Warranty	5WS0A23681

ThinkPad S1 Yoga notebooks with 1-year Depot warranty

2 YEAR Depot Warranty	5WS0E97281
3 YEAR Depot Warranty	5WS0E97328
2 YEAR Onsite Warranty	5WS0E97258
3 YEAR Onsite Warranty	5WS0E97384

ThinkPad S3 S431 notebooks with 1-year Depot warranty

2 YEAR Depot Warranty	5WS0A14073
3 YEAR Depot Warranty	5WS0A14081
2 YEAR Onsite Warranty	5WS0A14078
3 YEAR Onsite Warranty	5WS0A14086

Disclaimer

Lenovo provides the information in the Product Specifications Reference (PSREF) withdrawn product books on an "AS-IS" basis. Because the actual products have been withdrawn from marketing, the information in these withdrawn product books is no longer maintained or updated. The referenced footnote numbering may not correspond with the listed footnotes.

PSREF books for the withdrawn systems:

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

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.
- ⁶ **Public network download modem speeds** are limited to 53Kbps. Upload speeds are limited to 48Kbps for V.92 modems. Actual speeds depend on many factors and are often less than the maximum possible. V.92 functions and speeds require compatible phone line and server equipment. Check with your telephone and ISP service providers for availability.
- ⁷ **Maximum memory capacity** may require the replacement of standard component with largest supported component available. On ThinkPad systems, even though it is possible to physically install 4GB of memory, the actual amount of memory addressable by a 32-bit operating system will be limited to 3GB. This limitation does not exist with 64-bit operating systems.
- ⁸ **Hard drive:** GB = billion bytes, TB = trillion bytes. Accessible capacity is less; up to 4GB is service partition.

¹⁰ **Battery:** These model numbers achieved the battery life based on MobileMark® 2007 during testing. Battery life (and recharge times) will vary based on many factors including screen brightness, applications, features, power management, battery conditioning, and other customer preferences.

¹² **Limited warranty:** Support unrelated to a warranty issue may be subject to additional charges.

¹³ **Internet access not included.**

¹⁴ **Included software** may differ from its retail version (if available), and may not include user manuals or all program functionality. Software license agreements may apply.

¹⁶ **Activating Verizon Wireless Service:** Lenovo customers will be contacted after purchase to activate service; requires separate agreement with Verizon Wireless and is subject to the Customer Agreement, Calling Plan, and credit approval. Service, airtime, and early termination charges may apply. Verizon Wireless, not Lenovo, is solely responsible for service. Service not available in all areas; purchaser is responsible for verifying that service is available for the intended location before purchasing a computer equipped with WAN card. Network details, coverage limitations, and maps at www.verizonwireless.com.

¹⁷ **International Warranty Service** is available in any country in which this product is sold and serviced. Service delivery methods and parts availability vary by country, may be different from that in the country of purchase, and are subject to change without notice. Fees and restrictions may apply in some countries.

¹⁸ **Telephone support** may be subject to additional charges, even during the limited warranty period. Response times may vary. May exclude some holidays. If a machine is listed as having "On-site service for select repairs", this means that onsite service is available only for the replacement of select parts. For all other warranty repairs, Lenovo will provide the customer a replacement part for customer installation. The parts for which onsite service is available varies by machine, but may include the processor, power supply, heat sink, system board, or base cover. For ThinkPad notebooks with 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.

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.

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

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

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

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

³⁵ **Operating system:** Level of support varies by operating system. Operating systems not preloaded on the system may not provide full feature functionality. Refer to lenovo.com/think/support and enter your machine type and model number for more information.

³⁷ **Battery:** The ThinkPad Edge and ThinkPad SL series do not support batteries that are not genuine Lenovo-made or authorized. These systems will continue to boot, but may not charge unauthorized batteries.

Warning: Lenovo has no responsibility for the performance or safety of unauthorized batteries, and provides no warranties for failures or damage arising out of their use.

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