



Personal Systems Reference *Lenovo® ThinkPad® Notebooks*

May 2013 - Version 436



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USB 3.0 Secure 1TB Hard Drive
0A65621



ThinkVision® LT1421 with ThinkPad X1



90W Ultraslim AC/DC Combo Adapter
41R4493



Ultraslim Plus Wireless Keyboard and Mouse
0A34032



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



ThinkPad Mini Dock Plus Series 3 with USB 3.0 - 90W
433815U

ThinkPad®



Lenovo® ThinkPad Tablet 2



Lenovo ThinkPad Tablet 2



Lenovo ThinkPad Tablet 2 with
ThinkPad Tablet 2 Digitizer Pen
0A33899



Lenovo ThinkPad Tablet 2 with
ThinkPad Tablet 2 Dock
0B47109



Lenovo ThinkPad Tablet 2 with
ThinkPad In-Ear Headphones with microphone
57Y4488



Lenovo ThinkPad Tablet 2 with
ThinkPad Tablet 2 Dock
0B47109



Lenovo® ThinkPad Tablet 2 with
ThinkPad Tablet 2 Bluetooth Keyboard with Stand
0B47270



Lenovo ThinkPad Tablet 2 with
ThinkPad Tablet 2 Fitted Sleeve
0A33902



Lenovo ThinkPad Tablet 2 with
ThinkPad Tablet 2 VGA Adapter
0B47084



Lenovo ThinkPad Tablet 2 with
ThinkPad Tablet 2 Fitted Sleeve
0A33902



Lenovo ThinkPad Tablet 2 with
ThinkPad Tablet 2 Bluetooth Keyboard with Stand
0B47270



ThinkPad Tablet 2 Dock
0B47109

ThinkPad® Tablet 2 (3679) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Storage	Tablet Pen	Camera Front/Rear (MP)	Bluetooth Keyboard w/ Stand	WLAN 802.11	PCIe Mini Card WWAN	Carrier	NFC	Blue-tooth	Preload	Ann Date (mm/yy)
3679-23U	Atom Z2760	2GB	10.1" HD	64G	No	2.0/8.0	None	11a/b/g/n ²⁸	None	None	None	BT	Win8 32	10/12
3679-26U	Atom Z2760	2GB	10.1" HD	64G	Pen	2.0/8.0	None	11a/b/g/n	None	None	None	BT	Win8 32	10/12
3679-27U	Atom Z2760	2GB	10.1" HD	64G	Pen	2.0/8.0	None	11a/b/g/n	None	None	None	BT	Win8 Pro32	10/12
3679-28U	Atom Z2760	2GB	10.1" HD	64G	No	2.0/8.0	None	11a/b/g/n	None	None	None	BT	Win8 Pro32	10/12
3679-4JU	Atom Z2760	2GB	10.1" HD	64G	No	2.0/8.0	None	11a/b/g/n	Gobi 4000	AT&T	None	BT	Win8 Pro32	12/12
3679-22U	Atom Z2760	2GB	10.1" HD	32G	No	2.0/8.0	None	11a/b/g/n	None	None	None	BT	Win8 32	01/13
3679-5HU	Atom Z2760	2GB	10.1" HD	64G	Pen	2.0/8.0	None	11a/b/g/n	Gobi 4000	AT&T	NFC	BT	Win8 Pro32	03/13

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

Positioning	Touchscreen tablet for on-the-go business		Preloaded operating system ²⁰ - Some: Windows® 8 32-bit - Some: Windows 8 Pro 32-bit Preloaded applications ¹⁴ (only some listed) • Lenovo® Settings • Lenovo Support • Lenovo Companion • Lenovo QuickSnip • AT&T® All Access • Lenovo Cloud Storage by SugarSync • Password Manager • Norton™ Internet Security 2012 (30 days of virus definitions) • ThinkVantage System Update • AccuWeather • Evernote® • Nitro PDF • Skype™ • Amazon Kindle
Processor	Intel® Atom™ Processor Z2760 (2 cores, 1.80GHz, 1MB cache) , LPDDR2 memory controller (800MHz), HT technology		
Memory	2GB / 800MHz LPDDR2, mobile DDR / soldered to systemboard, no sockets		
Storage	32GB or 64GB / eMMC (embedded Multi Media Card) flash memory on board		
Storage extension	One microSD Card slot		
Graphics	PowerVR™ SGX545 graphics in Intel Atom SoC, supports 1080p video out via mini-HDMI™ connector, HDCP-compliant		
Display	10.1" (256.5mm) HD (1366x768) TFT color , anti-reflective display with infinity AGC Dragontrail™ Glass, LED backlight, 400 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, WideView (170° viewing), MultiTouch screen supports five-finger gesture		
Tablet pen	<i>Some:</i> ThinkPad Tablet 2 Digitizer Pen (0A33899), supports hover, tip, and pressure modes / a button for selection / no batteries required *The models without Tablet Pen can not support pen input function via optional ThinkPad Tablet 2 Digitizer Pen (0A33899)		
Camera	<i>Front camera:</i> 2.0-megapixel, fixed focus <i>Rear camera:</i> 8.0-megapixel, auto focus, flash LED		
Video capture	720p video capture		
Audio support	Realtek® ALC5642 codec / stereo speakers, 0.5 watt x 2 / dual array digital microphone, combo audio/microphone jack		
Media capable	Audio formats: MP3, AAC, AAC+, eAAC+, WAV, PCM, WMA Video formats: MPEG-4, H.263, H.264, VC-1, WMV9, Xvid		
Control buttons	Windows button, Power button, volume control button, rotation lock switch, reset switch		
Bluetooth	<i>Some:</i> ThinkPad Tablet 2 Bluetooth Keyboard with Stand (0B47270), 6-row, TrackPoint® pointing device w/ three mouse buttons, landscape stand included, connects system via bluetooth, sealed battery with 30-day battery life, chargeable via micro-USB (one USB to micro-USB cable included)		
Keyboard with Stand			
Light sensor	Ambient Light Sensor, Capella CM3218		
G-sensor/ eCompass	3D accelerometer and 3D magnetometer module, STMicroelectronics LSM303DLHC		
Gyroscope	3-axis gyroscope, STMicroelectronics L3G4200D		
Platform	Intel Atom Z2760 SoC (System on Chip) platform		
Ports	One USB 2.0, one micro-USB 2.0 (only for power supply / charging), one mini-HDMI, headphone/microphone combo jack, one ThinkPad Tablet 2 Dock connector		
WLAN ⁴	11a/b/g/n ²⁸ wireless, ThinkPad 11a/b/g/n, 1x1, WiFi + Bluetooth combo chip		
WWAN	<i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 4000 chipset, LTE (4G), WCDMA/HSPA/HSPA+		
Carrier	<i>Some:</i> AT&T® LTE (4G), contract required with service provider		
GNSS	Global Navigation Satellite System		
Bluetooth™	Bluetooth 4.0 wireless, integrated in WiFi + Bluetooth combo chip		
NFC	<i>Some:</i> Near Field Communication, easy for two devices to communicate with each other		
Dimensions ³	10.34" x 6.48" x 0.39"; 262.6mm x 164.6mm x 9.8mm		
Weight ²	<i>WiFi only:</i> from 1.26 lb (0.57kg); <i>WiFi + Digitizer Pen:</i> from 1.30 lb (0.59kg); <i>WiFi + Digitizer Pen + WWAN:</i> from 1.35 lb (0.61kg)		
Case color	Black		
Case material	Magnesium frame, PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) cover		
Battery - type	Lithium Polymer, 30Whr		
Battery - life ¹⁰	up to 25 days (standby); up to 150 hr (MP3 playback); up to 10 hr (web browsing with flash); up to 10 hr (local video playback)		
Limited Warranty ¹²	1-year - depot repair service / service upgrades ²² available		
			10-watt AC adapter (via micro-USB) GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
			For compatible accessories, please go to O-Tablet-2 sheet; For Lenovo service ²² upgrade options, please go to S-Tablet sheet

See footnotes for more detailed information
US model(s) announced October 23 or December 18, 2012, or January 15 or March 5, 2013

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(CLT1-1) March 2013

ThinkPad® Tablet 2 (3679) - TopSeller - II

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Storage	Tablet Pen	Camera Front/Rear (MP)	Bluetooth Keyboard w/ Stand	WLAN 802.11	PCIe Mini Card WWAN	Carrier	NFC	Bluetooth	Preload	Ann Date (mm/yy)
3679-5YU	Atom Z2760	2GB	10.1" HD	64G	No	2.0/8.0	None	11a/b/g/n ²⁸	None	None	None	BT	Win8 32	04/13
3679-5XU	Atom Z2760	2GB	10.1" HD	64G	Pen	2.0/8.0	None	11a/b/g/n	Gobi 4000	AT&T	NFC	BT	Win8 32	04/13
3679-5VU	Atom Z2760	2GB	10.1" HD	64G	No	2.0/8.0	None	11a/b/g/n	Gobi 4000	AT&T	NFC	BT	Win8 32	04/13
3679-5QU	Atom Z2760	2GB	10.1" HD	64G	No	2.0/8.0	None	11a/b/g/n	None	None	NFC	BT	Win8 32	04/13
3679-5PU	Atom Z2760	2GB	10.1" HD	64G	Pen	2.0/8.0	None	11a/b/g/n	None	None	NFC	BT	Win8 32	04/13
3679-5MU	Atom Z2760	2GB	10.1" HD	64G	Pen	2.0/8.0	None	11a/b/g/n	None	None	None	BT	Win8 32	04/13

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

Positioning	Touchscreen tablet for on-the-go business		Preloaded operating system ²⁰ - Windows® 8 32-bit Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Microsoft Office Home and Student 2013 (included in Windows 8)• Lenovo® Settings• Lenovo Support• Lenovo Companion• Lenovo QuickSnap• AT&T® All Access• Lenovo Cloud Storage by SugarSync• Password Manager• Norton™ Internet Security 2012 (30 days of virus definitions)• ThinkVantage System Update• AccuWeather• Evernote®• Nitro PDF• Skype™• Amazon Kindle
Processor	Intel® Atom™ Processor Z2760 (2 cores, 1.80GHz, 1MB cache) , LPDDR2 memory controller (800MHz), HT technology		
Memory	2GB / 800MHz LPDDR2, mobile DDR / soldered to systemboard, no sockets		
Storage	32GB or 64GB / eMMC (embedded Multi Media Card) flash memory on board		
Storage extension	One microSD Card slot		
Graphics	PowerVR™ SGX545 graphics in Intel Atom SoC, supports 1080p video out via mini-HDMI™ connector, HDCP-compliant		
Display	10.1" (256.5mm) HD (1366x768) TFT color , anti-reflective display with infinity AGC Dragontrail™ Glass, LED backlight, 400 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, WideView (170° viewing), MultiTouch screen supports five-finger gesture		
Tablet pen	<i>Some:</i> ThinkPad Tablet 2 Digitizer Pen (0A33899), supports hover, tip, and pressure modes / a button for selection / no batteries required *The models without Tablet Pen can not support pen input function via optional ThinkPad Tablet 2 Digitizer Pen (0A33899)		
Camera	<i>Front camera:</i> 2.0-megapixel, fixed focus <i>Rear camera:</i> 8.0-megapixel, auto focus, flash LED		
Video capture	720p video capture		
Audio support	Realtek® ALC5642 codec / stereo speakers, 0.5 watt x 2 / dual array digital microphone, combo audio/microphone jack		
Media capable	Audio formats: MP3, AAC, AAC+, eAAC+, WAV, PCM, WMA Video formats: MPEG-4, H.263, H.264, VC-1, WMV9, Xvid		
Control buttons	Windows button, Power button, volume control button, rotation lock switch, reset switch		
Bluetooth	<i>Some:</i> ThinkPad Tablet 2 Bluetooth Keyboard with Stand (0B47270), 6-row, TrackPoint® pointing device w/ three mouse buttons, landscape stand included, connects system via bluetooth, sealed battery with 30-day battery life, chargeable via micro-USB (one USB to micro-USB cable included)		
Keyboard with Stand			
Light sensor	Ambient Light Sensor, Capella CM3218		
G-sensor/ eCompass	3D accelerometer and 3D magnetometer module, STMicroelectronics LSM303DLHC		
Gyroscope	3-axis gyroscope, STMicroelectronics L3G4200D		
Platform	Intel Atom Z2760 SoC (System on Chip) platform		
Ports	One USB 2.0, one micro-USB 2.0 (only for power supply / charging), one mini-HDMI, headphone/microphone combo jack, one ThinkPad Tablet 2 Dock connector		
WLAN ⁴	11a/b/g/n ²⁸ wireless, ThinkPad 11a/b/g/n, 1x1, WiFi + Bluetooth combo chip		
WWAN	<i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 4000 chipset, LTE (4G), WCDMA/HSPA/HSPA+		
Carrier	<i>Some:</i> AT&T® LTE (4G), contract required with service provider		
GNSS	Global Navigation Satellite System		
Bluetooth™	Bluetooth 4.0 wireless, integrated in WiFi + Bluetooth combo chip		
NFC	<i>Some:</i> Near Field Communication, easy for two devices to communicate with each other		
Dimensions ³	10.34" x 6.48" x 0.39"; 262.6mm x 164.6mm x 9.8mm		
Weight ²	<i>WiFi only:</i> from 1.26 lb (0.57kg); <i>WiFi + Digitizer Pen:</i> from 1.30 lb (0.59kg); <i>WiFi + Digitizer Pen + WWAN:</i> from 1.35 lb (0.61kg)		
Case color	Black		
Case material	Magnesium frame, PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) cover		
Battery - type	Lithium Polymer, 30Whr		
Battery - life ¹⁰	up to 25 days (standby); up to 150 hr (MP3 playback); up to 10 hr (web browsing with flash); up to 10 hr (local video playback)		
Limited Warranty ¹²	1-year - depot repair service / service upgrades ²² available		

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

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(CLT1-3) May 2013

ThinkPad® Tablet 2 (3682)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Storage	Tablet Pen	Camera Front/Rear (MP)	Bluetooth Keyboard w/ Stand	WLAN 802.11	PCIe Mini Card WWAN	Carrier	NFC	Global (G) Blue-tooth (P)	Preload	Ann Date (mm/yy)
3682-28U	Atom Z2760	2GB	10.1" HD	64G	Pen	2.0/8.0	None	11a/b/g/n ²⁸	None	None	None	BT	G	Win8 Pro32 10/12
3682-29U	Atom Z2760	2GB	10.1" HD	64G	Pen	2.0/8.0	None	11a/b/g/n	None	None	NFC	BT	G	Win8 Pro32 10/12
3682-22U	Atom Z2760	2GB	10.1" HD	64G	Pen	2.0/8.0	None	11a/b/g/n	Gobi 4000	AT&T	NFC	BT		Win8 Pro32 12/12
3682-2AU	Atom Z2760	2GB	10.1" HD	64G	Pen	2.0/8.0	None	11a/b/g/n	Gobi 4000	AT&T	NFC	BT		Win8 Pro32 12/12

Positioning	Touchscreen tablet for on-the-go business		Preloaded operating system ²⁰ - Windows® 8 Pro 32-bit Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo® Settings• Lenovo Support• Lenovo Companion• Lenovo QuickSnap• AT&T® All Access• Lenovo Cloud Storage by SugarSync• Password Manager• Norton™ Internet Security 2012 (30 days of virus definitions)• ThinkVantage System Update• AccuWeather• Evernote®• Nitro PDF• Skype™• Amazon Kindle
Processor	Intel® Atom™ Processor Z2760 (2 cores, 1.80GHz, 1MB cache) , LPDDR2 memory controller (800MHz), HT technology		
Memory	2GB / 800MHz LPDDR2, mobile DDR / soldered to systemboard, no sockets		
Storage	32GB or 64GB / eMMC (embedded Multi Media Card) flash memory on board		
Storage extension	One microSD Card slot		
Graphics	PowerVR™ SGX545 graphics in Intel Atom SoC, supports 1080p video out via mini-HDMI™ connector, HDCP-compliant		
Display	10.1" (256.5mm) HD (1366x768) TFT color , anti-reflective display with infinity AGC Dragontrail™ Glass, LED backlight, 400 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, WideView (170° viewing), MultiTouch screen supports five-finger gesture		
Tablet pen	ThinkPad Tablet 2 Digitizer Pen (0A33899), supports hover, tip, and pressure modes / a button for selection / no batteries required *The models without Tablet Pen can not support pen input function via optional ThinkPad Tablet 2 Digitizer Pen (0A33899)		
Camera	<i>Front camera:</i> 2.0-megapixel, fixed focus <i>Rear camera:</i> 8.0-megapixel, auto focus, flash LED		
Video capture	720p video capture		
Audio support	Realtek® ALC5642 codec / stereo speakers, 0.5 watt x 2 / dual array digital microphone, combo audio/microphone jack		
Media capable	Audio formats: MP3, AAC, AAC+, eAAC+, WAV, PCM, WMA Video formats: MPEG-4, H.263, H.264, VC-1, WMV9, Xvid		
Control buttons	Windows button, Power button, volume control button, rotation lock switch, reset switch		
Bluetooth	<i>Some:</i> ThinkPad Tablet 2 Bluetooth Keyboard with Stand (0B47270), 6-row, TrackPoint® pointing device w/ three mouse buttons, landscape stand included, connects system via bluetooth, sealed battery with 30-day battery life, chargeable via micro-USB (one USB to micro-USB cable included)		
Keyboard with Stand			
Light sensor	Ambient Light Sensor, Capella CM3218		
G-sensor/ eCompass	3D accelerometer and 3D magnetometer module, STMicroelectronics LSM303DLHC		
Gyroscope	3-axis gyroscope, STMicroelectronics L3G4200D		
Platform	Intel Atom Z2760 SoC (System on Chip) platform		
Ports	One USB 2.0, one micro-USB 2.0 (only for power supply / charging), one mini-HDMI, headphone/microphone combo jack, one ThinkPad Tablet 2 Dock connector		
WLAN ⁴	11a/b/g/n ²⁸ wireless, ThinkPad 11a/b/g/n, 1x1, WiFi + Bluetooth combo chip		
WWAN	<i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 4000 chipset, LTE (4G), WCDMA/HSPA/HSPA+		
Carrier	<i>Some:</i> AT&T® LTE (4G), contract required with service provider		
GNSS	Global Navigation Satellite System		
Bluetooth™	Bluetooth 4.0 wireless, integrated in WiFi + Bluetooth combo chip		
NFC	<i>Some:</i> Near Field Communication, easy for two devices to communicate with each other		
Dimensions ³	10.34" x 6.48" x 0.39"; 262.6mm x 164.6mm x 9.8mm		
Weight ²	<i>WiFi only:</i> from 1.26 lb (0.57kg); <i>WiFi + Digitizer Pen:</i> from 1.30 lb (0.59kg); <i>WiFi + Digitizer Pen + WWAN:</i> from 1.35 lb (0.61kg)		
Case color	Black		
Case material	Magnesium frame, PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) cover		
Battery - type	Lithium Polymer, 30Whr		
Battery - life ¹⁰	up to 25 days (standby); up to 150 hr (MP3 playback); up to 10 hr (web browsing with flash); up to 10 hr (local video playback)		
Limited Warranty ¹²	1-year - depot repair service / service upgrades ²² available		
			10-watt AC adapter (via micro-USB) GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
			For compatible accessories, please go to O-Tablet-2 sheet; For Lenovo service ²² upgrade options, please go to S-Tablet sheet

See footnotes for more detailed information
US model(s) announced October 23 or December 18, 2012
3682 US model(s) withdrawn effective February 2013

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(CLT1-2) February 2013

10-watt AC adapter (via micro-USB)
GREENGUARD® certified
RoHS-compliant
International Warranty Service¹⁷
24 hour x 7 day¹⁸ toll-free support during the warranty period¹²
For compatible accessories, please go to O-Tablet-2 sheet;
For Lenovo service²² upgrade options, please go to S-Tablet sheet

ThinkPad Tablet Expansion

ThinkPad Tablet 2 Dock 0B47109 ann 10/23/12

Keyboard

ThinkPad Tablet 2 Bluetooth Keyboard with Stand 0B47270 ann 10/23/12

Multimedia

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

Tablet

ThinkPad Tablet 2 Digitizer Pen 0A33899 ann 10/23/12

⁷³ The ThinkPad Tablet 2 models without Tablet Pen can not support pen input function via *ThinkPad Tablet 2 Digitizer Pen (0A33899)*

Security

3M ThinkPad Tablet 2 Privacy Filter (landscape) 0C33167 ann 10/23/12

3M ThinkPad Tablet 2 Privacy Filter (portrait) 0C33168 ann 10/23/12

3M ThinkPad Tablet 2 Privacy Filter (4-way) 0C33170 ann 10/23/12

3M ThinkPad Tablet 2 Anti-glare Matte Removable Film 0C33169 ann 10/23/12

Power Adapters

ThinkPad Tablet 2 AC Charger 0B47010 ann 10/23/12

ThinkPad Tablet DC Charger 0A36247 ann 08/16/11

ThinkPad 65W AC Adapter⁶⁶ 40Y7696 ann 01/05/06

⁶⁶ Attachment via the *ThinkPad Tablet 2 Dock 0B47109*

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

Carrying Cases

ThinkPad Tablet 2 Fitted Sleeve⁷¹ 0A33902 ann 10/23/12

⁷¹ *ThinkPad Tablet 2 Fitted Sleeve* perfectly fits the *ThinkPad Tablet 2* and *ThinkPad Tablet 2 Bluetooth Keyboard with Stand 0B47270*

ThinkPad 11W Sling Case 57Y4287 ann 08/16/11

ThinkPad Tablet 2 Slim Case - Black 0A33907 ann 10/23/12

ThinkPad Tablet 2 Slim Case - Red 0A33905 ann 10/23/12

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

Lenovo luxury cases at www.lenovoluxurycases.com

Monitor Accessories⁴⁶

ThinkPad Tablet 2 VGA Adapter 0B47084 ann 10/23/12

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

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 Tablet / Tablet 2

ThinkPad Tablet / Tablet 2 with 1-year Depot warranty

3 YEAR Depot Warranty	04W8773
3 YEAR Depot Warranty & ThinkPad Protection	04W8775
3 YEAR Onsite Warranty	04W8774
3 YEAR Onsite Warranty & ThinkPad Protection	04W8776

Partial list of Lenovo Services²² for ThinkPad Tablet / Tablet 2

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

Lenovo service upgrade options for ThinkPad Tablet / Tablet 2

ThinkPad Tablet / Tablet 2 with 1-year Depot warranty

1 YEAR Depot Warranty & ThinkPad Protection	04W8309
2 YEAR Depot Warranty	04W8312
2 YEAR Depot Warranty & ThinkPad Protection	04W8313
3 YEAR Depot Warranty	04W8319
3 YEAR Depot Warranty & ThinkPad Protection	04W8320
1 YEAR Onsite Warranty	04W8326
2 YEAR Onsite Warranty	04W8330
3 YEAR Onsite Warranty	04W8337

Lenovo Priority Support for enterprise customers

- 24x7 support with priority routing and advanced level technicians

ThinkPad Tablet / Tablet 2 with 1-year Depot warranty

1 YEAR Depot Warranty & Priority Support*	04W8310
1 YEAR Depot Warranty & ThinkPad Protection & Priority Support*	04W8311
2 YEAR Depot Warranty & Priority Support*	04W8315
2 YEAR Depot Warranty & ThinkPad Protection & Priority Support*	04W8316
3 YEAR Depot Warranty & Priority Support*	04W8322
3 YEAR Depot Warranty & ThinkPad Protection & Priority Support*	04W8323
1 YEAR Onsite Warranty & Priority Support*	04W8328
2 YEAR Onsite Warranty & Priority Support*	04W8333
2 YEAR Onsite Warranty & ThinkPad Protection & Priority Support*	04W8334
3 YEAR Onsite Warranty & Priority Support*	04W8340
3 YEAR Onsite Warranty & ThinkPad Protection & Priority Support*	04W8341

* Covered machine must have concurrent warranty coverage.

ThinkPad®



Lenovo® ThinkPad Helix (Stand mode)



Lenovo ThinkPad Helix (Tablet mode) with
ThinkPad Helix Digitizer Pen
0A33910



Lenovo ThinkPad Helix (Notebook mode)



Lenovo ThinkPad Helix



Lenovo ThinkPad Helix (Notebook mode)



Lenovo ThinkPad Helix

ThinkPad®



Lenovo® ThinkPad Helix
(Tablet mode)



Lenovo ThinkPad Helix
(Tablet only)



Lenovo ThinkPad Helix (Notebook mode)



Lenovo ThinkPad Helix (Tablet+ mode)



Lenovo ThinkPad Helix



Lenovo ThinkPad Helix (Notebook mode)

ThinkPad® Helix (3698) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Storage	Digitizer Pen	Camera Enhanced		WLAN 802.11	PCIe		Carrier	NFC	Blue-tooth	Intel AMT	Intel vPro	Preload	Ann Date (mm/yy)
						Front/ Rear	Keyboard Dock		Mini Card	WWAN							
3698-4UU	i7-3667U	8GB	11.6" FHD	256G	Pen	2.0/5.0	Dock	Intel 6205S ²⁸	Gobi 4000	AT&T	NFC	BT	iAMT	vPro	Win8	Pro64	03/13
3698-4TU	i7-3667U	8GB	11.6" FHD	180G	Pen	2.0/5.0	Dock	Intel 6205S	Gobi 4000	AT&T	None	BT	iAMT	vPro	Win8	Pro64	03/13
3698-4PU	i5-3427U	4GB	11.6" FHD	256G	Pen	2.0/5.0	Dock	Intel 6205S	Gobi 4000	AT&T	NFC	BT	iAMT	vPro	Win8	Pro64	03/13
3698-4NU	i5-3427U	4GB	11.6" FHD	180G	Pen	2.0/5.0	Dock	Intel 6205S	Gobi 4000	AT&T	NFC	BT	iAMT	vPro	Win8	Pro64	03/13
3698-4SU	i7-3667U	8GB	11.6" FHD	256G	Pen	2.0/5.0	Dock	Intel 6205S	None	None	NFC	BT	iAMT	vPro	Win8	Pro64	03/13
3698-4RU	i7-3667U	8GB	11.6" FHD	180G	Pen	2.0/5.0	Dock	Intel 6205S	None	None	NFC	BT	iAMT	vPro	Win8	Pro64	03/13
3698-4MU	i5-3427U	4GB	11.6" FHD	180G	Pen	2.0/5.0	Dock	Intel 6205S	None	None	NFC	BT	iAMT	vPro	Win8	Pro64	03/13
3698-4LU	i5-3337U	4GB	11.6" FHD	180G	Pen	2.0/5.0	Dock	Intel 6205S	None	None	NFC	BT	None	No	Win8	Pro64	03/13
3698-4KU	i5-3337U	4GB	11.6" FHD	256G	No	2.0/5.0	Dock	Intel 6205S	None	None	NFC	BT	None	No	Win8	Pro64	03/13
3698-4JU	i5-3337U	4GB	11.6" FHD	180G	No	2.0/5.0	Dock	Intel 6205S	None	None	NFC	BT	None	No	Win8	Pro64	03/13
3698-6EU	i5-3337U	4GB	11.6" FHD	128G	Pen	2.0/5.0	Dock	Intel 6205S	None	None	NFC	BT	None	No	Win8	Pro64	04/13

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

Positioning	Convertible design for four modes - Notebook, Stand, Tablet, and Tablet +		Preloaded operating system ²⁰ - Windows® 8 Pro 64-bit Preloaded applications ¹⁴ (only some listed) - Traditional Desktop apps <ul style="list-style-type: none">• Lenovo® Solution Center• ThinkVantage System Update• Password Manager• Lenovo Cloud Storage by SugarSync• PC Device Stage• Nitro PDF Reader• Microsoft Office 2013 preloaded; purchase product key to activate• Intel Small Business Advantage - Windows Store apps <ul style="list-style-type: none">• Lenovo Settings• Lenovo Experience• Lenovo Support• Lenovo Companion• AT&T® All Access• Norton™ Internet Security 2013 (30 days of virus definitions)• AccuWeather• Evernote® Sketch (MultiTouch models)• Skype™• Amazon Kindle
Processor	Intel® Core™ i5-3337U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.70GHz), HT technology Intel Core i5-3427U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.80GHz), HT technology Intel Core i7-3667U processor (2 cores, 2.0GHz, 4MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology		
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3L / soldered to systemboard, no sockets		
Storage	mSATA Solid State Drive (SSD), via PCIe Mini Card slot		
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via Mini DisplayPort (supports VGA analog monitor via Mini DisplayPort to VGA Monitor Cable 0A36536); supports dual independent display; <i>Max external resolution: 2560x1600 (Mini-DisplayPort)@60Hz</i>		
Display	11.6" (295mm) FHD (1920x1080) TFT color, VibrantView (glossy) display with infinity Corning® Gorilla® Glass, LED backlight, 350 nits, 16:9 aspect ratio, 800:1 contrast ratio, IPS, WideView (170° viewing), MultiTouch screen supports ten-finger gesture, One Glass Solution <i>Some: Wacom® digitizer pen, supports hover, tip, and pressure modes / a button for selection / no batteries required, pen holder on Tablet</i> <i>* The models without Digitizer Pen can not support pen input function via optional ThinkPad Helix Digitizer Pen (0A33910)</i>		
Digitizer Pen			
Camera	<i>Front camera:</i> 2.0-megapixel, 1080p resolution, fixed focus <i>Rear camera:</i> 5.0-megapixel, 1080p resolution, auto focus, flash LED		
Video capture	1080p video capture		
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1 watt x 2 / dual array digital microphone, combo audio/microphone jack		
Media capable	Audio formats: MP3, AAC, AAC+, eAAC+, WAV, WMA Video formats: MPEG-4, H.263, H.264, VC-1, WMV9, Xvid		
Control buttons	Windows button, Power button, volume control button, rotation lock switch, reset switch		
Keyboard Dock	Keyboard Dock, 6-row spill-resistant keyboard, TrackPoint® pointing device, MultiTouch glass touchpad w/ 5 integrated buttons, landscape stand, security keyhole, two USB 3.0, one Mini DisplayPort, integrated 4-cell battery (Li-Polymer, 28Wh), the 45-watt AC adapter can charge both the Tablet battery and Keyboard Dock battery		
Light sensor	Ambient Light Sensor, Capella CM3218		
G-sensor/ eCompass	3D accelerometer and 3D magnetometer module, STMicroelectronics LSM303DLHC		
Gyroscope	3D gyroscope, STMicroelectronics L3GD20		
Chipset	Mobile Intel QS77 Express Chipset		
Tablet ports	One USB 2.0, one Mini DisplayPort, SIM card slot, Keyboard Dock connector		
Monitor Cable	None		
WLAN ⁴	11a/b/g/n ²⁸ , PCIe SFF (Small Form Factor) Mini Card, Intel Centrino® Advanced-N 6205S, 2x2		
WWAN	<i>Some: Wireless WAN, Qualcomm® Gobi™ 4000 chipset, LTE (4G), PCIe TFF (Thin Form Factor) Mini Card, WCDMA/HSPA/HSPA+, GPS</i>		
Carrier	<i>Some: AT&T® LTE (4G), contract required with service provider</i>		
Bluetooth™	Bluetooth 4.0 wireless		
Ethernet	None		
NFC	<i>Some: Near Field Communication, easy for two devices to communicate with each other</i>		
Intel AMT	<i>Some: Intel Active Management Technology (iAMT)</i>		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Dimensions ³	<i>Tablet only:</i> 11.66" x 7.37" x 0.46"; 296.1mm x 187.3mm x 11.6mm <i>Tablet with Keyboard Dock:</i> 11.66" x 8.90" x 0.80"; 296.1mm x 226mm x 20.4mm		
Weight ²	<i>Tablet only:</i> from 1.73 lb (0.785kg); <i>Tablet with Keyboard Dock:</i> from 3.54 lb (1.606kg)		
Case color	Black		
Case material	Magnesium + PC/ABS (PolyCarbonate/Acrylonitrile-Butadiene-Styrene)		
Battery - type	<i>Tablet battery:</i> Integrated Lithium Polymer 3-cell battery, 42Whr <i>Keyboard Dock battery:</i> Integrated Lithium Polymer 4-cell battery, 28Whr		
Battery - life ¹⁰	<i>MobileMark® 2012: Tablet only:</i> up to 5.6 hr; <i>Tablet with Keyboard Dock:</i> up to 8.0 hr		
Limited Warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		
	45-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		
	For Lenovo service ²² upgrade options, please go to S-TA sheet		

See footnotes for more detailed information
US model(s) announced March 26 or April 2, 2013

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Type-model	Processor	Memory	Widescreen display	Storage	Digitizer Pen	Camera Front/Rear (MP)	Enhanced Keyboard Dock	WLAN 802.11	PCIe Mini Card WWAN	Carrier	NFC	Blue-tooth	Global (G) Intel vPro (P)	Preload	Ann Date (mm/yy)
3701-37U	i7-3667U	8GB	11.6" FHD	180G	Pen	2.0/5.0	Dock	Intel 6205S ²⁸	Gobi 4000	AT&T	NFC	BT	vPro	Win8 Pro64	03/13
3701-36U	i7-3667U	8GB	11.6" FHD	256G	Pen	2.0/5.0	Dock	Intel 6205S	Gobi 4000	AT&T	NFC	BT	vPro	Win8 Pro64	03/13
3701-35U	i5-3427U	4GB	11.6" FHD	256G	Pen	2.0/5.0	Dock	Intel 6205S	Gobi 4000	AT&T	NFC	BT	vPro	Win8 Pro64	03/13
3701-34U	i5-3427U	4GB	11.6" FHD	180G	Pen	2.0/5.0	Dock	Intel 6205S	Gobi 4000	AT&T	NFC	BT	vPro	Win8 Pro64	03/13
3701-33U	i7-3667U	8GB	11.6" FHD	256G	Pen	2.0/5.0	Dock	Intel 6205S	None	None	NFC	BT	vPro	G Win8 Pro64	03/13
3701-32U	i5-3427U	4GB	11.6" FHD	256G	Pen	2.0/5.0	Dock	Intel 6205S	None	None	NFC	BT	vPro	G Win8 Pro64	03/13
3701-2QU	i7-3667U	8GB	11.6" FHD	180G	Pen	2.0/5.0	Dock	Intel 6205S	None	None	None	BT	vPro	Win8 Pro64	03/13
3701-2PU	i5-3427U	4GB	11.6" FHD	180G	Pen	2.0/5.0	Dock	Intel 6205S	None	None	None	BT	vPro	Win8 Pro64	03/13

• A depot repair service 3-year limited warranty

Positioning	Convertible design for four modes - Notebook, Stand, Tablet, and Tablet +			Preloaded operating system ²⁰ - Windows® 8 Pro 64-bit Preloaded applications ¹⁴ (only some listed) - Traditional Desktop apps • Lenovo® Solution Center • ThinkVantage System Update • Password Manager • Lenovo Cloud Storage by SugarSync • PC Device Stage • Nitro PDF Reader • Microsoft Office 2013 preloaded; purchase product key to activate • Intel Small Business Advantage - Windows Store apps • Lenovo Settings • Lenovo Experience • Lenovo Support • Lenovo Companion • AT&T® All Access • Norton™ Internet Security 2013 (30 days of virus definitions) • AccuWeather • Evernote® Skitch (MultiTouch models) • Skype™ • Amazon Kindle
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	8GB max ⁷ / PC3-10600 1333MHz DDR3L / soldered to systemboard, no sockets			
Storage	mSATA Solid State Drive (SSD), via PCIe Mini Card slot			
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via Mini DisplayPort (supports VGA analog monitor via Mini DisplayPort to VGA Monitor Cable 0A36536); supports dual independent display; <i>Max external resolution: 2560x1600 (Mini-DisplayPort)@60Hz</i>			
Display	11.6" (295mm) FHD (1920x1080) TFT color , VibrantView (glossy) display with infinity Corning® Gorilla® Glass, LED backlight, 350 nits, 16:9 aspect ratio, 800:1 contrast ratio, IPS, WideView (170° viewing), MultiTouch screen supports ten-finger gesture, One Glass Solution			
Digitizer Pen	Wacom® digitizer pen, supports hover, tip, and pressure modes / a button for selection / no batteries required, pen holder on Tablet * The models without Digitizer Pen can not support pen input function via optional ThinkPad Helix Digitizer Pen (0A33910)			
Camera	<i>Front camera:</i> 2.0-megapixel, 1080p resolution, fixed focus <i>Rear camera:</i> 5.0-megapixel, 1080p resolution, auto focus, flash LED			
Video capture	1080p video capture			
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1 watt x 2 / dual array digital microphone, combo audio/microphone jack			
Media capable	Audio formats: MP3, AAC, AAC+, eAAC+, WAV, WMA Video formats: MPEG-4, H.263, H.264, VC-1, WMV9, Xvid			
Control buttons Keyboard Dock	Windows button, Power button, volume control button, rotation lock switch, reset switch Keyboard Dock, 6-row spill-resistant keyboard, TrackPoint® pointing device, MultiTouch glass touchpad w/ 5 integrated buttons, landscape stand, security keyhole, two USB 3.0, one Mini DisplayPort, integrated 4-cell battery (Li-Polymer, 28Wh), the 45-watt AC adapter can charge both the Tablet battery and Keyboard Dock battery			
Light sensor G-sensor/ eCompass Gyroscope	Ambient Light Sensor, Capella CM3218 3D accelerometer and 3D magnetometer module, STMicroelectronics LSM303DLHC 3D gyroscope, STMicroelectronics L3GD20			
Chipset	Mobile Intel QS77 Express Chipset			
Tablet ports Monitor Cable	One USB 2.0, one Mini DisplayPort, SIM card slot, Keyboard Dock connector None			
WLAN ⁴ WWAN	11a/b/g/n ²⁸ , PCIe SFF (Small Form Factor) Mini Card, Intel Centrino® Advanced-N 6205S, 2x2 <i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 4000 chipset, LTE (4G), PCIe TFF (Thin Form Factor) Mini Card, WCDMA/HSPA/HSPA+, GPS			
Carrier	<i>Some:</i> AT&T® LTE (4G), contract required with service provider			
Bluetooth™	Bluetooth 4.0 wireless			
Ethernet	None			
NFC	<i>Some:</i> Near Field Communication, easy for two devices to communicate with each other			
Intel AMT	Intel Active Management Technology (iAMT)			
Security chip	Trusted Platform Module, TCG 1.2-compliant			
Dimensions ³	<i>Tablet only:</i> 11.66" x 7.37" x 0.46"; 296.1mm x 187.3mm x 11.6mm <i>Tablet with Keyboard Dock:</i> 11.66" x 8.90" x 0.80"; 296.1mm x 226mm x 20.4mm			
Weight ²	<i>Tablet only:</i> from 1.73 lb (0.785kg); <i>Tablet with Keyboard Dock:</i> from 3.54 lb (1.606kg)			
Case color	Black			
Case material	Magnesium + PC/ABS (PolyCarbonate/Acrylonitrile-Butadiene-Styrene)			
Battery - type	<i>Tablet battery:</i> Integrated Lithium Polymer 3-cell battery, 42Whr <i>Keyboard Dock battery:</i> Integrated Lithium Polymer 4-cell battery, 28Whr			
Battery - life ¹⁰	<i>MobileMark® 2012:</i> <i>Tablet only:</i> up to 5.6 hr; <i>Tablet with Keyboard Dock:</i> up to 8.0 hr			
Limited Warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available			
45-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				
For Lenovo service ²² upgrade options, please go to S-TA sheet				

See footnotes for more detailed information
US model(s) announced March 26, 2013

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ThinkPad® Helix (3702) - Onsite

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Storage	Digitizer Pen	Camera Front/Rear (MP)	Enhanced Keyboard Dock	WLAN 802.11	PCIe Mini Card WWAN	Carrier	NFC	Blue-tooth	Global (G) Intel vPro (P)	Preload	Ann Date (mm/yy)	
3702-5AU	i5-3427U	4GB	11.6" FHD	256G	Pen	2.0/5.0	Dock	Intel 6205S ²⁸	None	None	NFC	BT	vPro	G P	Win8 Pro64	03/13
3702-46U	i7-3667U	8GB	11.6" FHD	180G	Pen	2.0/5.0	Dock	Intel 6205S	Gobi 4000	AT&T	NFC	BT	vPro		Win8 Pro64	03/13
3702-45U	i7-3667U	8GB	11.6" FHD	256G	Pen	2.0/5.0	Dock	Intel 6205S	Gobi 4000	AT&T	NFC	BT	vPro		Win8 Pro64	03/13
3702-44U	i5-3427U	4GB	11.6" FHD	256G	Pen	2.0/5.0	Dock	Intel 6205S	Gobi 4000	AT&T	NFC	BT	vPro		Win8 Pro64	03/13
3702-43U	i5-3427U	4GB	11.6" FHD	180G	Pen	2.0/5.0	Dock	Intel 6205S	Gobi 4000	AT&T	NFC	BT	vPro		Win8 Pro64	03/13

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

Positioning	Convertible design for four modes - Notebook, Stand, Tablet, and Tablet +			Preloaded operating system ²⁰ - Windows® 8 Pro 64-bit Preloaded applications ¹⁴ (only some listed) - Traditional Desktop apps <ul style="list-style-type: none">• Lenovo® Solution Center• ThinkVantage System Update• Password Manager• Lenovo Cloud Storage by SugarSync• PC Device Stage• Nitro PDF Reader• Microsoft Office 2013 preloaded; purchase product key to activate• Intel Small Business Advantage - Windows Store apps <ul style="list-style-type: none">• Lenovo Settings• Lenovo Experience• Lenovo Support• Lenovo Companion• AT&T® All Access• Norton™ Internet Security 2013 (30 days of virus definitions)• AccuWeather• Evernote® Skitch (MultiTouch models)• Skype™• Amazon Kindle
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	8GB max ⁷ / PC3-10600 1333MHz DDR3L / soldered to systemboard, no sockets			
Storage	mSATA Solid State Drive (SSD), via PCIe Mini Card slot			
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via Mini DisplayPort (supports VGA analog monitor via Mini DisplayPort to VGA Monitor Cable 0A36536); supports dual independent display; <i>Max external resolution: 2560x1600 (Mini-DisplayPort)@60Hz</i>			
Display	11.6" (295mm) FHD (1920x1080) TFT color, VibrantView (glossy) display with infinity Corning® Gorilla® Glass, LED backlight, 350 nits, 16:9 aspect ratio, 800:1 contrast ratio, IPS, WideView (170° viewing), MultiTouch screen supports ten-finger gesture, One Glass Solution			
Digitizer Pen	Wacom® digitizer pen, supports hover, tip, and pressure modes / a button for selection / no batteries required, pen holder on Tablet * The models without Digitizer Pen can not support pen input function via optional ThinkPad Helix Digitizer Pen (0A33910)			
Camera	<i>Front camera:</i> 2.0-megapixel, 1080p resolution, fixed focus <i>Rear camera:</i> 5.0-megapixel, 1080p resolution, auto focus, flash LED			
Video capture	1080p video capture			
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1 watt x 2 / dual array digital microphone, combo audio/microphone jack			
Media capable	Audio formats: MP3, AAC, AAC+, eAAC+, WAV, WMA Video formats: MPEG-4, H.263, H.264, VC-1, WMV9, Xvid			
Control buttons	Windows button, Power button, volume control button, rotation lock switch, reset switch			
Keyboard Dock	Keyboard Dock, 6-row spill-resistant keyboard, TrackPoint® pointing device, MultiTouch glass touchpad w/ 5 integrated buttons, landscape stand, security keyhole, two USB 3.0, one Mini DisplayPort, integrated 4-cell battery (Li-Polymer, 28Wh), the 45-watt AC adapter can charge both the Tablet battery and Keyboard Dock battery			
Light sensor	Ambient Light Sensor, Capella CM3218			
G-sensor/ eCompass	3D accelerometer and 3D magnetometer module, STMicroelectronics LSM303DLHC			
Gyroscope	3D gyroscope, STMicroelectronics L3GD20			
Chipset	Mobile Intel QS77 Express Chipset			
Tablet ports	One USB 2.0, one Mini DisplayPort, SIM card slot, Keyboard Dock connector			
Monitor Cable	None			
WLAN ⁴	11a/b/g/n ²⁸ , PCIe SFF (Small Form Factor) Mini Card, Intel Centrino® Advanced-N 6205S, 2x2			
WWAN	<i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 4000 chipset, LTE (4G), PCIe TFF (Thin Form Factor) Mini Card, WCDMA/HSPA/HSPA+, GPS			
Carrier	<i>Some:</i> AT&T® LTE (4G), contract required with service provider			
Bluetooth™	Bluetooth 4.0 wireless			
Ethernet	None			
NFC	Near Field Communication, easy for two devices to communicate with each other			
Intel AMT	Intel Active Management Technology (iAMT)			
Security chip	Trusted Platform Module, TCG 1.2-compliant			
Dimensions ³	<i>Tablet only:</i> 11.66" x 7.37" x 0.46"; 296.1mm x 187.3mm x 11.6mm <i>Tablet with Keyboard Dock:</i> 11.66" x 8.90" x 0.80"; 296.1mm x 226mm x 20.4mm			
Weight ²	<i>Tablet only:</i> from 1.73 lb (0.785kg); <i>Tablet with Keyboard Dock:</i> from 3.54 lb (1.606kg)			
Case color	Black			
Case material	Magnesium + PC/ABS (PolyCarbonate/Acrylonitrile-Butadiene-Styrene)			
Battery - type	<i>Tablet battery:</i> Integrated Lithium Polymer 3-cell battery, 42Whr <i>Keyboard Dock battery:</i> Integrated Lithium Polymer 4-cell battery, 28Whr			
Battery - life ¹⁰	<i>MobileMark® 2012:</i> <i>Tablet only:</i> up to 5.6 hr; <i>Tablet with Keyboard Dock:</i> up to 8.0 hr			
Limited Warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available			
	For Lenovo service ²² upgrade options, please go to S-TA sheet			

See footnotes for more detailed information
US model(s) announced March 26, 2013

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Storage and removable storage

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

ThinkPad Expansion

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

Keyboard

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

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

Mouse

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

Multimedia

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

ThinkPad Helix Digitizer Pen ⁷³	0A33910	ann 01/29/13
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⁷³ The ThinkPad Helix models without Tablet Pen can not support pen input function via *ThinkPad Helix Digitizer Pen* (0A33910)

Modem

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

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

3M ThinkPad Helix Privacy Filter (4-way)	4Z10A23288	ann 03/26/13
3M ThinkPad Helix Anti-glare Screen Protector	4Z10A23289	ann 03/26/13
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06

Power Adapters

ThinkPad 45W AC Adapter	0B47030	ann 01/29/13
90W Ultraslim AC/DC Combo Adapter ⁷⁰	41R4493	ann 09/22/09

⁷⁰ Requires the *Lenovo Slim Power Tip* 0B47048

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

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

•Lenovo Slim Power Tip	0B47048	ann 08/14/12
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More information at www.lenovopowertips.com

Carrying Cases

Up to 12.5" widescreen models:

ThinkPad 12W Case Sleeve	51J0476	ann 08/18/09
ThinkPad 12.5" Ultrabook Topload	0B47416	ann 12/04/12

Up to 14" widescreen models:

ThinkPad 14W Case Sleeve	57Y4294	ann 03/16/10
ThinkPad Ultralight Backpack	0B47306	ann 12/11/12
ThinkPad Ultralight Topload	0B47307	ann 12/11/12

Up to 15.6" widescreen models:

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

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

Monitors

ThinkVision LT2452p Wide 24" (VGA, DP, DVI-D) ⁶⁹ 4420MB2	ann 09/13/11
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⁶⁹ DisplayPort cable is not included.

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

Monitor Accessories⁴⁶

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

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

For more information on accessories:

www.lenovo.com/accessories

Purchase Lenovo accessories

www.lenovo.com/support/accessories

Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide

Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com

An Options Compatibility Configurator for Lenovo systems

ThinkPad®



Lenovo® ThinkPad L430



Lenovo ThinkPad L430



Lenovo ThinkPad L430



Lenovo ThinkPad L430



Lenovo ThinkPad L430



Lenovo ThinkPad L430

ThinkPad® L430 2468 (TopSeller)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Card slot	Finger print reader	Blue-tooth	Battery cells	Preload	Ann Date (mm/yy)
2468-2AU	i3-2370M	4GBx1	14.0" HD	720p	320G 7200	Intel 2200	WWAN upg	Express 54	None	None	6	Pro 64	06/12
2468-3AU	i5-2520M	4GBx1	14.0" HD	720p	500G 7200	Intel 2200	WWAN upg	None	None	None	6	Pro 64	07/12

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

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3-2370M processor (2 cores, 2.40GHz, 3MB cache), Intel HD Graphics 3000, DDR3 memory controller (up to 1333MHz), HT technology Intel Core i5-2520M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 3000, DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology		Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications ¹⁴ (only some listed) • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™		
mSATA™ SSD	None		
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 400:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 400:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 3000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		
Keyboard	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass		
Touch pad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch		
ThinkLight™	None		
Dimensions ³	14.0W" (WxDxH): 13.94" x 9.57" x 1.17–1.24"; 354mm x 243mm x 29.6–31.4mm		
Weight ²	6-cell: from 5.11 lb (2.32kg); 9-cell: from 5.48 lb (2.49kg)		
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic		
Battery - type	Lithium Ion 6-cell or 9-cell, HW Authentication		
Battery - life ¹⁰	6-cell (57Whr): up to 7.5 hr; 9-cell (94Whr): up to 12.3 hr		
Chipset	Mobile Intel HM76 Express Chipset		
ExpressCard	<i>Some:</i> One slot (ExpressCard/34, ExpressCard/54)		
Smart Card read	None		
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)		
Ports	One USB 3.0, three USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2		
PCIe WWAN	Wireless WAN upgradable		
Carrier	None		
Modem	None		
Bluetooth™	None		
Ethernet	Realtek® RTL8111F Gigabit Network Connection		
Intel AMT	None		
Audio support	HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1.5W x 2 / volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	None		
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available		

Supports ThinkVantage® technologies		
65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹²		
For compatible accessories, please go to O-L430 sheet; For Lenovo service²² upgrade options, please go to S-TA sheet		

See footnotes for more detailed information
US model(s) announced June 5 or July 31, 2012

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ThinkPad® L430 2468 (TopSeller) - Windows 8

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Card slot	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Ann Date (mm/yy)
2468-3BU	i5-2520M	4GBx1	14.0" HD	720p	500G 7200	Intel 2200	WWAN upg	None	None	No	6	Win8 Pro64	10/12
2468-4YU	i5-3230M	4GBx1	14.0" HD	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	Express 54	Finger	BT	6	Win7 Pro64	02/13
2468-4XU	i5-3230M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	Express 54	Finger	BT	6	Win7 Pro64	02/13
2468-62U	i3-2348M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	Express 54	Finger	BT	6	Win7 Pro64	05/13

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

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3-2348M processor (2 cores, 2.30GHz, 3MB cache), Intel HD Graphics 3000 , DDR3 memory controller (up to 1333MHz), HT technology Intel Core i5-2520M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 3000 , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-3230M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology								Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit				
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller								Preloaded applications⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded; purchase product key to activate • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Norton™ Internet Security (30 days of virus definitions)				
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™												
mSATA™ SSD	None												
Widescreen display	Some: 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 400:1 contrast ratio Some: 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 400:1 contrast ratio												
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus												
Graphics	Intel HD Graphics 3000 or 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; Maximum external resolution: 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)												
Keyboard TrackPoint®	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys												
Touch pad ThinkLight™	TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch None												
Dimensions ³	14.0W" (WxDxH): 13.94" x 9.57" x 1.17–1.24"; 354mm x 243mm x 29.6–31.4mm												
Weight ²	6-cell: from 5.11 lb (2.32kg); 9-cell: from 5.48 lb (2.49kg)												
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic												
Battery - type	Lithium Ion 6-cell or 9-cell, HW Authentication												
Battery - life ¹⁰	6-cell (57Whr): up to 7.5 hr; 9-cell (94Whr): up to 12.3 hr												
Chipset	Mobile Intel HM76 Express Chipset												
ExpressCard	Some: One slot (ExpressCard/34, ExpressCard/54)												
Smart Card read	None												
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)												
Ports	One USB 3.0, three USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)												
PCIe Mini Card	Two PCI Express Mini Card slots												
PCIe WLAN ⁴	Some: 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 Some: 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2												
PCIe WWAN	Wireless WAN upgradable												
Carrier	None												
Modem	None												
Bluetooth™	Some: Bluetooth 4.0 wireless												
Ethernet	Realtek® RTL8111F Gigabit Network Connection												
Intel AMT	None												
Audio support	HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1.5W x 2 / volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, TCG 1.2-compliant												
Fingerprint reader	Some: AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, supports the security chip												
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available												

See footnotes for more detailed information

US model(s) announced October 23, 2012, February 5 or May 7, 2013

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Supports ThinkVantage® technologies

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

For compatible accessories, please go to O-L430 sheet;

For Lenovo service²² upgrade options, please go to S-TA sheet

ThinkPad® L430 2469 (TopSeller)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Card slot	Finger print reader	Blue-tooth	Battery cells	Preload	Ann Date (mm/yy)
2469-24U	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205 ²⁸	WWAN upg	None	Finger	BT	6	Pro 64	06/12
2469-25U	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	Intel 6205	WWAN upg	None	Finger	BT	6	Pro 64	06/12
2469-26U	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	None	None	None	6	Pro 64	06/12
2469-27U	i5-3210M	4GBx1	14.0" HD	720p	320G 7200	Intel 2200	WWAN upg	None	None	None	6	Pro 64	06/12
2469-28U	i3-2370M	4GBx1	14.0" HD	720p	500G 7200	Intel 2200	WWAN upg	None	Finger	BT	6	Pro 64	06/12

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

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3-2370M processor (2 cores, 2.40GHz, 3MB cache), Intel HD Graphics 3000, DDR3 memory controller (up to 1333MHz), HT technology Intel Core i5-3210M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology	Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications ¹⁴ (only some listed) • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller	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 compatible accessories, please go to O-L430 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™	
mSATA™ SSD	None	
Widescreen display	Some: 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 400:1 contrast ratio Some: 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 400:1 contrast ratio	
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus	
Graphics	Intel HD Graphics 3000 or 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; Maximum external resolution: 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)	
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch None	
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	14.0W" (WxDxH): 13.94" x 9.57" x 1.17–1.24"; 354mm x 243mm x 29.6–31.4mm 6-cell: from 5.11 lb (2.32kg); 9-cell: from 5.48 lb (2.49kg) Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell or 9-cell, HW Authentication 6-cell (57Whr): up to 7.5 hr; 9-cell (94Whr): up to 12.3 hr	
Chipset ExpressCard Smart Card read Multicard Reader Ports	Mobile Intel HM76 Express Chipset None None 4-in-1 reader (MMC, SD, SDHC, SDXC) One USB 3.0, three USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)	
PCIe Mini Card PCIe WLAN ⁴	Two PCI Express Mini Card slots Some: 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 Some: 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2	
PCIe WWAN Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	Wireless WAN upgradable None None Some: Bluetooth 4.0 wireless Realtek® RTL8111F Gigabit Network Connection None HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1.5W x 2 / volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant Some: AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

See footnotes for more detailed information

US model(s) announced June 5, 2012

2469-27U US model(s) withdrawn effective March 2013

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(CD1-2) June 2012

ThinkPad® L430 2469 (TopSeller) - Windows 8

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Card slot	Finger print reader	Blue-tooth	Battery cells	Preload	Ann Date (mm/yy)
2469-2TU	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	Express 54	Finger	BT	6	Win7 Pro64	10/12
2469-2SU	i5-3210M	4GBx1	14.0" HD	720p	500G 7200	Intel 2200	WWAN upg	Express 54	None	None	6	Win7 Pro64	10/12
2469-2RU	i3-3110M	4GBx1	14.0" HD	720p	320G 7200	Intel 2200	WWAN upg	Express 54	None	None	6	Win7 Pro64	10/12
2469-32U	i5-3230M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	None	Finger	BT	6	Win7 Pro64	02/13
2469-2ZU	i5-3230M	4GBx1	14.0" HD	720p	320G 7200	Intel 2200	WWAN upg	None	None	None	6	Win7 Pro64	02/13
2469-2YU	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	None	Finger	BT	6	Win7 Pro64	02/13
2469-2XU	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	None	None	None	6	Win7 Pro64	02/13
2469-2WU	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	WLAN upg	WWAN upg	None	Finger	BT	6	Win7 Pro64	02/13

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

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3-3110M processor (2 cores, 2.40GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), HT technology Intel Core i5-3210M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology Intel Core i5-3230M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology		Preloaded operating system²⁰ - Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit Preloaded applications⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded; purchase product key to activate • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Norton™ Internet Security (30 days of virus definitions) • Skype™	
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller			
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™			
mSATA™ SSD	None			
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 400:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 400:1 contrast ratio			
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus			
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)			
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch None			
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	14.0W" (WxDxH): 13.94" x 9.57" x 1.17–1.24"; 354mm x 243mm x 29.6–31.4mm <i>6-cell:</i> from 5.11 lb (2.32kg); <i>9-cell:</i> from 5.48 lb (2.49kg) Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell or 9-cell, HW Authentication <i>6-cell (57Whr):</i> up to 7.5 hr; <i>9-cell (94Whr):</i> up to 12.3 hr			
Chipset ExpressCard Smart Card read Multicard Reader Ports	Mobile Intel HM76 Express Chipset <i>Some:</i> One slot (ExpressCard/34, ExpressCard/54) None 4-in-1 reader (MMC, SD, SDHC, SDXC) One USB 3.0, three USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)			
PCIe Mini Card PCIe WLAN ⁴	Two PCI Express Mini Card slots <i>Some:</i> Wireless LAN upgradable <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2			
PCIe WWAN Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	Wireless WAN upgradable None None <i>Some:</i> Bluetooth 4.0 wireless Realtek® RTL8111F Gigabit Network Connection None HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1.5W x 2 / volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack			
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, supports the security chip			
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		Supports ThinkVantage® technologies 65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² For compatible accessories, please go to O-L430 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet	

See footnotes for more detailed information

US model(s) announced October 30, 2012 or February 5, 2013

⚡ US model(s) withdrawn effective March 2013

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Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Mini Card Carrier	Smart Card Reader	Card slot	Finger print reader	Blue-tooth	Bat-tery cells	Workhorse (W) Global (G)	Pre-load	Ann Date (mm/yy)
2465-33U	i5-3360M	4GBx1	14.0" HD	720p	500G 7200	Intel 6205 ²⁸	upg	None	Smart	Exp 54	Finger	BT	6	W G	Pro 64	06/12
2465-32U	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	upg	None	Smart	Exp 54	Finger	BT	6	W G	Pro 64	06/12
2465-28U	i7-3520M	4GBx1	14.0" HD+	720p	320G 7200	Intel 6205	upg	None	None	None	Finger	BT	9		Pro 64	06/12
2465-29U	i5-3360M	4GBx1	14.0" HD+	720p	500G 7200	Intel 6205	upg	None	None	Exp 54	Finger	BT	9	G	Pro 64	06/12
2465-2AU	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	Intel 6205	upg	None	None	Exp 54	Finger	BT	6	G	Pro 64	06/12
2465-2BU	i5-3360M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	upg	None	None	Exp 54	Finger	BT	6	G	Pro 64	06/12
2465-2CU	i5-3320M	4GBx1	14.0" HD	None	320G 7200	Intel 2200	upg	None	None	Exp 54	None	BT	6	G	Pro 64	06/12
2465-2DU	i5-3360M	4GBx1	14.0" HD+	720p	320G 7200	Intel 6205	upg	None	None	Exp 54	Finger	BT	9	G	Pro 64	06/12
2465-2EU	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	upg	None	None	Exp 54	Finger	BT	6	G	Pro 64	06/12
2465-2FU	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	upg	None	None	Exp 54	None	No	6	G	Pro 64	06/12
2465-2GU	i5-3320M	4GBx1	14.0" HD+	720p	320G 7200	Intel 6205	Gobi	select	None	None	Finger	BT	9		Pro 64	06/12
2465-2HU	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	Gobi	select	None	None	Finger	BT	6		Pro 64	06/12
2465-2JU	i5-3320M	4GBx1	14.0" HD	None	500G 7200	Intel 2200	upg	None	None	None	None	No	6		Pro 64	06/12
2465-2KU	i5-3320M	4GBx1	14.0" HD	None	320G 7200	Intel 2200	upg	None	None	None	None	No	6		Pro 64	06/12

- A depot repair service 3-year limited warranty
- Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i5-3360M processor (2 cores, 2.80GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications ¹⁴ (only some listed) • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™		
mSATA™ SSD	None		
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 400:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 400:1 contrast ratio		
Camera	<i>Some:</i> HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch None		
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>14.0W" (WxDxH):</i> 13.94" x 9.57" x 1.17–1.24"; 354mm x 243mm x 29.6–31.4mm <i>6-cell:</i> from 5.11 lb (2.32kg); <i>9-cell:</i> from 5.48 lb (2.49kg) Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell or 9-cell, HW Authentication <i>6-cell (57Whr):</i> up to 7.5 hr; <i>9-cell (94Whr):</i> up to 12.3 hr		
Chipset ExpressCard Smart Card read Multicard Reader Ports	Mobile Intel HM76 Express Chipset <i>Some:</i> One slot (ExpressCard/34, ExpressCard/54) <i>Some:</i> Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) One USB 3.0, three USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)		
PCIe Mini Card PCIe WLAN ⁴	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2		
PCIe WWAN	<i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS		
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> User selectable, AT&T®, Verizon®, or Sprint®, contract required with service provider None <i>Some:</i> Bluetooth 4.0 wireless Realtek® RTL8111F Gigabit Network Connection None HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1.5W x 2 / volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack		
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

Supports ThinkVantage® technologies		
65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹²		
For compatible accessories, please go to O-L430 sheet; For Lenovo service²² upgrade options, please go to S-TA sheet		

See footnotes for more detailed information

US model(s) announced June 5, 2012

≠ US model(s) withdrawn effective April 2013

ThinkPad® L430 2465 (Windows 8)

Personal Systems Reference (PSREF)

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

• A depot repair service 3-year limited warranty

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system ²⁰ - Windows® 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models <ul style="list-style-type: none">• Lenovo® Message Center Plus• ThinkVantage Product Recovery• Access Connections™• ThinkVantage Power Manager• Lenovo SimpleTap• Adobe® Reader®• Microsoft® Office 2010 preloaded; purchase product key to activate• Corel® WinDVD® (DVD±RW)• Corel Burn.Now™ Lenovo Edition (DVD±RW)• Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models <ul style="list-style-type: none">• Lenovo Support• Lenovo Companion• Lenovo QuickLaunch• Microsoft® Office 2013 preloaded; purchase product key to activate• PC Device Stage• Cyberlink Power2Go (DVD±RW)• Cyberlink PowerProducer (DVD±RW) - All models <ul style="list-style-type: none">• Lenovo Solution Center• Password Manager• ThinkVantage System Update• Fingerprint Software (fingerprint models)• Lenovo Cloud Storage by SugarSync• Norton™ Internet Security (30 days of virus definitions)• Skype™
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™		
mSATA™ SSD	None		
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 400:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 400:1 contrast ratio		
Camera	<i>Some:</i> HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		
Keyboard	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass		
Touch pad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch		
ThinkLight™	None		
Dimensions ³	14.0W" (WxDxH): 13.94" x 9.57" x 1.17–1.24"; 354mm x 243mm x 29.6–31.4mm		
Weight ²	<i>6-cell:</i> from 5.11 lb (2.32kg); <i>9-cell:</i> from 5.48 lb (2.49kg)		
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic		
Battery - type	Lithium Ion 6-cell or 9-cell, HW Authentication		
Battery - life ¹⁰	<i>6-cell (57Whr):</i> up to 7.5 hr; <i>9-cell (94Whr):</i> up to 12.3 hr		
Chipset	Mobile Intel HM76 Express Chipset		
ExpressCard	None		
Smart Card read	None		
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)		
Ports	One USB 3.0, three USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	<i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2		
PCIe WWAN	Wireless WAN upgradable		
Carrier	None		
Modem	None		
Bluetooth™	<i>Some:</i> Bluetooth 4.0 wireless		
Ethernet	Realtek® RTL8111F Gigabit Network Connection		
Intel AMT	None		
Audio support	HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1.5W x 2 / volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	<i>Some:</i> AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		Supports ThinkVantage® technologies 65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² For compatible accessories, please go to O-L430 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet

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

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ThinkPad® L430 2465 (Windows 8) - II

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Card slot	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Ann Date (mm/yy)
⚡ 2465-7BU	i5-3360M	4GBx1	14.0" HD+	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	Express 54	Finger	BT	9	Win7 Pro64	02/13
⚡ 2465-7AU	i5-3360M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	Express 54	Finger	BT	6	Win7 Pro64	02/13
⚡ 2465-79U	i5-3360M	4GBx1	14.0" HD+	720p	320G 7200	Intel 6205	WWAN upg	Express 54	Finger	BT	9	Win7 Pro64	02/13
2465-78U	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	Express 54	Finger	BT	6	Win7 Pro64	02/13
2465-77U	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	Express 54	None	No	6	Win7 Pro64	02/13
2465-7QU	i3-2348M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	Express 54	Finger	BT	6	Win7 Pro64	02/13
2465-7PU	i3-2348M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	Express 54	Finger	BT	9	Win7 Pro64	02/13
2465-7NU	i5-3230M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	Express 54	Finger	BT	9	Win7 Pro64	02/13
2465-7MU	i5-3230M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	Express 54	Finger	BT	6	Win8 Pro64	02/13
2465-7GU	i5-3230M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	Express 54	Finger	BT	6	Win7 Pro64	02/13

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3-2348M processor (2 cores, 2.30GHz, 3MB cache), Intel HD Graphics 3000, DDR3 memory controller (up to 1333MHz), HT technology Intel Core i5-3230M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i5-3360M processor (2 cores, 2.80GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology		Preloaded operating system ²⁰ - <i>Some:</i> Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - <i>Some:</i> Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded; purchase product key to activate • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • 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 compatible accessories, please go to O-L430 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™		
mSATA™ SSD	None		
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 400:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 400:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 3000 or 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch None		
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	14.0W" (WxDxH): 13.94" x 9.57" x 1.17–1.24"; 354mm x 243mm x 29.6–31.4mm 6-cell: from 5.11 lb (2.32kg); 9-cell: from 5.48 lb (2.49kg) Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell or 9-cell, HW Authentication 6-cell (57Whr): up to 7.5 hr; 9-cell (94Whr): up to 12.3 hr		
Chipset ExpressCard Smart Card read Multicard Reader Ports	Mobile Intel HM76 Express Chipset One slot (ExpressCard/34, ExpressCard/54) None 4-in-1 reader (MMC, SD, SDHC, SDXC) One USB 3.0, three USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)		
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None <i>Some:</i> Bluetooth 4.0 wireless Realtek® RTL8111F Gigabit Network Connection None HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1.5W x 2 / volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole		
Security Security chip Fingerprint reader	Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, supports the security chip		
Limited warranty ¹² 3-years/1-yr battery - depot repair service / service upgrades ²² available			

See footnotes for more detailed information

US model(s) announced February 5, 2013

⚡ US model(s) withdrawn effective March 2013

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(CD1-12) February 2013

ThinkPad® L430 2465 (Optimus)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Card slot	Finger print reader	Blue-tooth	Battery cells	Preload	Ann Date (mm/yy)
2465-27U	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	Intel 6205 ²⁸	None	Express 54	Finger	BT	9	Pro 64	06/12

- A depot repair service 3-year limited warranty
- Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology								Preloaded operating system²⁰ Genuine Windows® 7 Professional 64				
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller								Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager				
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™								Preloaded applications¹⁴ (only some listed) • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)				
mSATA™ SSD	None												
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 400:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 400:1 contrast ratio												
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus												
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA NVS™ 5400M , PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)												
Keyboard	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys												
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass												
Touch pad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch												
ThinkLight™	None												
Dimensions ³	14.0W" (WxDxH): 13.94" x 9.57" x 1.17–1.24"; 354mm x 243mm x 29.6–31.4mm												
Weight ²	6-cell: from 5.16 lb (2.34kg); 9-cell: from 5.52 lb (2.51kg)												
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic												
Battery - type	Lithium Ion 6-cell or 9-cell, HW Authentication												
Battery - life ¹⁰	6-cell (57Whr): up to 5.6 hr; 9-cell (94Whr): up to 9.3 hr												
Chipset	Mobile Intel HM76 Express Chipset												
ExpressCard	One slot (ExpressCard/34, ExpressCard/54)												
Smart Card read	None												
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)												
Ports	One USB 3.0, three USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)												
PCIe Mini Card	Two PCI Express Mini Card slots												
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2												
PCIe WWAN	None												
Carrier	None												
Modem	None												
Bluetooth™	Bluetooth 4.0 wireless												
Ethernet	Realtek® RTL8111F Gigabit Network Connection												
Intel AMT	None												
Audio support	HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1.5W x 2 / volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, TCG 1.2-compliant												
Fingerprint reader	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, supports the security chip												
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available												

See footnotes for more detailed information
US model(s) announced June 5, 2012

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Supports ThinkVantage® technologies

90-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 compatible accessories, please go to O-L430 sheet;
For Lenovo service²² upgrade options, please go to S-TA sheet

ThinkPad® L430 2465 (Optimus) - Windows 8

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Card slot	Finger print reader	Blue-tooth	Battery cells	Preload	Ann Date (mm/yy)
2465-7DU	i7-3520M	4GBx2	14.0" HD+	720p	180G SSD	Intel 6205 ²⁸	None	Express 54	Finger	BT	9	Win7 Pro64	02/13
2465-7CU	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	Intel 6205	None	Express 54	Finger	BT	9	Win7 Pro64	02/13

• A depot repair service 3-year limited warranty

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system ²⁰ - Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded; purchase product key to activate • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Norton™ Internet Security (30 days of virus definitions) Supports ThinkVantage® technologies 90-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² For compatible accessories, please go to O-L430 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™		
mSATA™ SSD	None		
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 400:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 400:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA NVS™ 5400M , PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)		
Keyboard	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass		
Touch pad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch		
ThinkLight™	None		
Dimensions ³	14.0W" (WxDxH): 13.94" x 9.57" x 1.17–1.24"; 354mm x 243mm x 29.6–31.4mm		
Weight ²	<i>6-cell:</i> from 5.16 lb (2.34kg); <i>9-cell:</i> from 5.52 lb (2.51kg)		
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic		
Battery - type	Lithium Ion 6-cell or 9-cell, HW Authentication		
Battery - life ¹⁰	<i>6-cell (57Whr):</i> up to 5.6 hr; <i>9-cell (94Whr):</i> up to 9.3 hr		
Chipset	Mobile Intel HM76 Express Chipset		
ExpressCard	One slot (ExpressCard/34, ExpressCard/54)		
Smart Card read	None		
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)		
Ports	One USB 3.0, three USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2		
PCIe WWAN	None		
Carrier	None		
Modem	None		
Bluetooth™	Bluetooth 4.0 wireless		
Ethernet	Realtek® RTL8111F Gigabit Network Connection		
Intel AMT	None		
Audio support	HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1.5W x 2 / volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

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

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Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Carrier	Smart Card Reader	Card slot	Finger print reader	Blue-tooth	Battery cells	Workhorse (W) Global (G) Pre-load (mm/yy)	Ann Date
2466-33U	i5-3360M	4GBx1	14.0" HD	720p	500G 7200	Intel 6205 ²⁸	upg	None	Smart	Exp 54	Finger	BT	6	W G P Pro 64	06/12
2466-32U	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	upg	None	Smart	Exp 54	Finger	BT	6	W G P Pro 64	06/12
2466-3AU	i7-3520M	4GBx1	14.0" HD+	720p	320G 7200	Intel 6205	upg	None	None	Exp 54	Finger	BT	9	Pro 64	06/12
2466-3BU	i5-3360M	4GBx1	14.0" HD+	720p	500G 7200	Intel 6205	upg	None	None	Exp 54	Finger	BT	9	G P Pro 64	06/12
2466-3CU	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	Intel 6205	upg	None	None	Exp 54	Finger	BT	6	G P Pro 64	06/12
2466-3DU	i5-3360M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	upg	None	None	Exp 54	Finger	BT	6	G P Pro 64	06/12
2466-3EU	i5-3360M	4GBx1	14.0" HD+	720p	320G 7200	Intel 6205	upg	None	None	Exp 54	Finger	BT	9	G P Pro 64	06/12
2466-3FU	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	upg	None	None	Exp 54	Finger	BT	6	G P Pro 64	06/12
2466-3GU	i5-3320M	4GBx1	14.0" HD+	720p	320G 7200	Intel 6205	Gobi	select	None	Exp 54	Finger	BT	9	Pro 64	06/12
2466-3HU	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	Gobi	select	None	Exp 54	Finger	BT	6	Pro 64	06/12
2466-3JU	i5-3320M	4GBx1	14.0" HD	None	500G 7200	Intel 2200	upg	None	None	Exp 54	None	No	6	Pro 64	06/12
2466-3KU	i5-3320M	4GBx1	14.0" HD	None	320G 7200	Intel 2200	upg	None	None	Exp 54	None	No	6	Pro 64	06/12

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

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i5-3360M processor (2 cores, 2.80GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology										Preloaded operating system²⁰ Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager				
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller										Preloaded applications¹⁴ (only some listed) • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)				
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™														
mSATA™ SSD	None														
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 400:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 400:1 contrast ratio														
Camera	<i>Some:</i> HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus														
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)														
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch None														
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	14.0W" (WxDxH): 13.94" x 9.57" x 1.17–1.24"; 354mm x 243mm x 29.6–31.4mm <i>6-cell:</i> from 5.11 lb (2.32kg); <i>9-cell:</i> from 5.48 lb (2.49kg) Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell or 9-cell, HW Authentication <i>6-cell (57Whr):</i> up to 7.5 hr; <i>9-cell (94Whr):</i> up to 12.3 hr														
Chipset ExpressCard Smart Card read Multicard Reader Ports	Mobile Intel HM76 Express Chipset One slot (ExpressCard/34, ExpressCard/54) <i>Some:</i> Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) One USB 3.0, three USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)														
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS														
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> User selectable, AT&T®, Verizon®, or Sprint®, contract required with service provider None <i>Some:</i> Bluetooth 4.0 wireless Realtek® RTL8111F Gigabit Network Connection None HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1.5W x 2 / volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack														
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, supports the security chip														
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available														

See footnotes for more detailed information

US model(s) announced June 5, 2012

✗ US model(s) withdrawn effective March 2013

ThinkPad® L430 2466 (Onsite) - Windows 8

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Smart Card Reader	Card slot	Finger print reader	Blue-tooth	Bat-tery cells	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
2466-62U	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	None	None	Finger	BT	6	G P	Win8 Pro64	10/12
2466-63U	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	None	None	Finger	BT	6	G P	Win8 Pro64	10/12
2466-64U	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	Intel 6205	WWAN upg	None	None	Finger	BT	6	G P	Win8 Pro64	10/12
2466-5UU	i5-2520M	4GBx1	14.0" HD	720p	500G 7200	Intel 2200	WWAN upg	None	None	None	No	6		Win7 Pro64	02/13
2466-5TU	i5-3320M	2GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	None	Exp 54	Finger	BT	6		Win7 Pro64	02/13
2466-5SU	i5-3320M	2GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	Smart	Exp 54	Finger	BT	6		Win7 Pro64	02/13

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

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i5-2520M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 3000 , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology										Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit				
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller										Preloaded applications⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded; purchase product key to activate • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Skype™				
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™														
mSATA™ SSD	None														
Widescreen display	Some: 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 400:1 contrast ratio Some: 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 400:1 contrast ratio														
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus														
Graphics	Intel HD Graphics 3000 or 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; Maximum external resolution: 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)														
Keyboard	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys														
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch														
ThinkLight™	None														
Dimensions ³	14.0W" (WxDxH): 13.94" x 9.57" x 1.17–1.24"; 354mm x 243mm x 29.6–31.4mm														
Weight ²	6-cell: from 5.11 lb (2.32kg); 9-cell: from 5.48 lb (2.49kg)														
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic														
Battery - type	Lithium Ion 6-cell or 9-cell, HW Authentication														
Battery - life ¹⁰	6-cell (57Whr): up to 7.5 hr; 9-cell (94Whr): up to 12.3 hr														
Chipset	Mobile Intel HM76 Express Chipset														
ExpressCard	Some: One slot (ExpressCard/34, ExpressCard/54)														
Smart Card read	Some: Smart Card reader														
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)														
Ports	One USB 3.0, three USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)														
PCIe Mini Card	Two PCI Express Mini Card slots														
PCIe WLAN ⁴	Some: 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 Some: 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2														
PCIe WWAN	Wireless WAN upgradable														
Carrier	None														
Modem	None														
Bluetooth™	Some: Bluetooth 4.0 wireless														
Ethernet	Realtek® RTL8111F Gigabit Network Connection														
Intel AMT	None														
Audio support	HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1.5W x 2 / volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module, TCG 1.2-compliant														
Fingerprint reader	Some: AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, supports the security chip														
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available														

See footnotes for more detailed information
US model(s) announced October 23, 2012 or February 5, 2013

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Supports ThinkVantage® technologies

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

For compatible accessories, please go to O-L430 sheet;

For Lenovo service²² upgrade options, please go to S-TA sheet

ThinkPad® L430 2466 (Optimus) - Onsite

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Card slot	Finger print reader	Blue-tooth	Bat-tery cells	Global (G) GMP (P)	Ann Date (mm/yy)
2466-39U	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	Intel 6205 ²⁸	None	Express 54	Finger	BT	9	No	Pro 64 06/12

• Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology										Preloaded operating system²⁰ Genuine Windows® 7 Professional 64		
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller										Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager		
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™										Preloaded applications¹⁴ (only some listed) • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)		
mSATA™ SSD	None												
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 400:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 400:1 contrast ratio												
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus												
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA NVS™ 5400M , PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)												
Keyboard	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys												
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass												
Touch pad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch												
ThinkLight™	None												
Dimensions ³	14.0W" (WxDxH): 13.94" x 9.57" x 1.17–1.24"; 354mm x 243mm x 29.6–31.4mm												
Weight ²	6-cell: from 5.16 lb (2.34kg); 9-cell: from 5.52 lb (2.51kg)												
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic												
Battery - type	Lithium Ion 6-cell or 9-cell, HW Authentication												
Battery - life ¹⁰	6-cell (57Whr): up to 5.6 hr; 9-cell (94Whr): up to 9.3 hr												
Chipset	Mobile Intel HM76 Express Chipset												
ExpressCard	One slot (ExpressCard/34, ExpressCard/54)												
Smart Card read	None												
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)												
Ports	One USB 3.0, three USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)												
PCIe Mini Card	Two PCI Express Mini Card slots												
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2												
PCIe WWAN	None												
Carrier	None												
Modem	None												
Bluetooth™	Bluetooth 4.0 wireless												
Ethernet	Realtek® RTL8111F Gigabit Network Connection												
Intel AMT	None												
Audio support	HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1.5W x 2 / volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, TCG 1.2-compliant												
Fingerprint reader	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, supports the security chip												
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available												
											Supports ThinkVantage® technologies		
											90-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²		
											For compatible accessories, please go to O-L430 sheet;		
											For Lenovo service ²² upgrade options, please go to S-TA sheet		

See footnotes for more detailed information
US model(s) announced June 5, 2012

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(CD1-6) June 2012

Memory

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

Storage and removable storage

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

ThinkPad Expansion

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

Keyboard

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

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

Mouse

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

Multimedia

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

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

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

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

Batteries

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

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

More information at www.lenovo.com/alldaycomputing

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

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

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

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

More information at www.lenovopowertips.com

Carrying Cases

Up to 14" widescreen models:

ThinkPad 14W Case Sleeve	57Y4294	ann 03/16/10
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Up to 15.6" widescreen models:

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

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

Monitors

ThinkVision® L1711p 17" (VGA, DVI-D)	5047HB2	ann 10/20/09
ThinkVision L1900p 19" (VGA, DVI-D)	4431HE1	ann 11/11/08
ThinkVision LT1952p Wide 19" (VGA, DP, DVI-D) ⁶⁹	2448MB6	ann 09/13/11
ThinkVision L2250p Wide 22" (VGA, DVI-D)	2572HB6	ann 10/20/09
ThinkVision L2251x Wide 22" (VGA, DP) ⁶⁹	2578HB6	ann 10/20/09
ThinkVision LT2252p Wide 22" (VGA, DP, DVI-D) ⁶⁹	2572MB6	ann 09/13/11
ThinkVision LT2452p Wide 24" (VGA, DP, DVI-D) ⁶⁹	4420MB2	ann 09/13/11
⁶⁹ DisplayPort cable is not included.		
ThinkVision LT1421 Wide 14" Mobile Monitor with Protective Screen Cover (USB 2.0)	1452DS6	ann 08/16/11
ThinkVision LT1421 Wide 14" Mobile Monitor with Protective Case (USB 2.0)	1452DB6	ann 08/16/11

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

Monitor Accessories⁴⁶

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

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

For more information on accessories:

www.lenovo.com/accessories

Purchase Lenovo accessories

www.lenovo.com/support/accessories

Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide

Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com

An Options Compatibility Configurator for Lenovo systems

ThinkPad®



Lenovo® ThinkPad L530



Lenovo ThinkPad L530



Lenovo ThinkPad L530



Lenovo ThinkPad L530



Lenovo ThinkPad L530



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

ThinkPad® L530 2481 (TopSeller)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB [®] rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Card slot	Finger print reader	Blue-tooth	Battery cells	Preload	Ann Date (mm/yy)
2481-26U	i3-2370M	4GBx1	15.6" HD	720p	320G 7200	Intel 2200	WWAN upg	None	None	None	6	Pro 64	06/12
2481-34U	i5-2520M	4GBx1	15.6" HD	720p	500G 7200	Intel 2200	WWAN upg	None	None	None	6	Pro 64	07/12

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

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3-2370M processor (2 cores, 2.40GHz, 3MB cache), Intel HD Graphics 3000, DDR3 memory controller (up to 1333MHz), HT technology Intel Core i5-2520M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 3000, DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology			Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications ¹⁴ (only some listed) • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller			
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™			
mSATA™ SSD	None			
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio			
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus			
Graphics	Intel HD Graphics 3000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)			
Keyboard	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys			
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass			
Touch pad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch			
ThinkLight™	None			
Dimensions ³	15.6W" (WxDxH): 14.96" x 9.72" x 1.25–1.31"; 380mm x 247mm x 31.7–33.4mm			
Weight ²	6-cell: from 5.69 lb (2.58kg); 9-cell: from 6.05 lb (2.75kg)			
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic			
Battery - type	Lithium Ion 6-cell or 9-cell, HW Authentication			
Battery - life ¹⁰	6-cell (57Whr): up to 7.5 hr; 9-cell (94Whr): up to 12.3 hr			
Chipset	Mobile Intel HM76 Express Chipset			
ExpressCard	None			
Smart Card read	None			
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)			
Ports	One USB 3.0, three USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)			
PCIe Mini Card	Two PCI Express Mini Card slots			
PCIe WLAN ⁴	11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2			
PCIe WWAN	Wireless WAN upgradable			
Carrier	None			
Modem	None			
Bluetooth™	None			
Ethernet	Realtek® RTL8111F Gigabit Network Connection			
Intel AMT	None			
Audio support	HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1.5W x 2 / volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack			
Security	Power-on password, hard disk password, supervisor password, security keyhole			
Security chip	Trusted Platform Module, TCG 1.2-compliant			
Fingerprint reader	None			
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available			

Supports ThinkVantage® technologies			
65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹²			
For compatible accessories, please go to O-L530 sheet;			
For Lenovo service²² upgrade options, please go to S-TA sheet			

See footnotes for more detailed information
US model(s) announced June 5 or July 31, 2012

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(BF1-1) August 2012

ThinkPad® L530 2481 (TopSeller) - Windows 8

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Smart Card Reader	Card slot	Finger print reader	Blue-tooth	Battery cells	Preload	Ann Date (mm/yy)
2481-33U	i5-2520M	4GBx1	15.6" HD	720p	500G 7200	Intel 2200	WWAN upg	None	None	None	No	6	Win8 Pro64	10/12
2481-4RU	i3-2348M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	None	Express 54	Finger	BT	9	Win7 Pro64	02/13
2481-4QU	i3-2348M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	None	Express 54	Finger	BT	6	Win7 Pro64	02/13
2481-55U	i5-3230M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	Smart	Express 54	Finger	BT	6	Win7 Pro64	05/13

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

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3-2348M processor (2 cores, 2.30GHz, 3MB cache), Intel HD Graphics 3000, DDR3 memory controller (up to 1333MHz), HT technology Intel Core i5-2520M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 3000, DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-3230M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology		Preloaded operating system ²⁰ - <i>Some:</i> Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - <i>Some:</i> Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded; purchase product key to activate • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Norton™ Internet Security (30 days of virus definitions)
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™		
mSATA™ SSD	None		
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 3000 or 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch None		
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 14.96" x 9.72" x 1.25–1.31"; 380mm x 247mm x 31.7–33.4mm <i>6-cell:</i> from 5.69 lb (2.58kg); <i>9-cell:</i> from 6.05 lb (2.75kg) Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell or 9-cell, HW Authentication <i>6-cell (57Whr):</i> up to 7.5 hr; <i>9-cell (94Whr):</i> up to 12.3 hr		
Chipset ExpressCard Smart Card read Multicard Reader Ports	Mobile Intel HM76 Express Chipset <i>Some:</i> One slot (ExpressCard/34, ExpressCard/54) <i>Some:</i> Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) One USB 3.0, three USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)		
PCIe Mini Card PCIe WLAN ⁴	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2		
PCIe WWAN Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	Wireless WAN upgradable None None <i>Some:</i> Bluetooth 4.0 wireless Realtek® RTL8111F Gigabit Network Connection None HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1.5W x 2 / volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack		
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, supports the security chip		
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available		

Supports ThinkVantage® technologies		
65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹²		
For compatible accessories, please go to O-L530 sheet; For Lenovo service²² upgrade options, please go to S-TA sheet		

See footnotes for more detailed information

US model(s) announced October 23, 2012, February 5 or May 7, 2013

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(BF1-5) May 2013

ThinkPad® L530 2485 (TopSeller)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Card slot	Finger print reader	Blue-tooth	Battery cells	Preload	Ann Date (mm/yy)
2485-22U	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	None	Finger	BT	6	Pro 64	06/12
2485-23U	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	None	Finger	BT	6	Pro 64	06/12
2485-24U	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	None	None	None	6	Pro 64	06/12
≡ 2485-25U	i5-3210M	4GBx1	15.6" HD	720p	320G 7200	Intel 2200	WWAN upg	None	None	None	6	Pro 64	06/12
2485-26U	i3-2370M	4GBx1	15.6" HD	720p	500G 7200	Intel 2200	WWAN upg	None	Finger	BT	6	Pro 64	06/12

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

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3-2370M processor (2 cores, 2.40GHz, 3MB cache), Intel HD Graphics 3000 , DDR3 memory controller (up to 1333MHz), HT technology Intel Core i5-3210M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology		Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications ¹⁴ (only some listed) • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)	
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller			
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™			
mSATA™ SSD	None			
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio			
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus			
Graphics	Intel HD Graphics 3000 or 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)			
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch None			
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>15.6W"</i> (WxDxH): 14.96" x 9.72" x 1.25–1.31"; 380mm x 247mm x 31.7–33.4mm <i>6-cell:</i> from 5.69 lb (2.58kg); <i>9-cell:</i> from 6.05 lb (2.75kg) Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell or 9-cell, HW Authentication <i>6-cell (57Whr):</i> up to 7.5 hr; <i>9-cell (94Whr):</i> up to 12.3 hr			
Chipset ExpressCard Smart Card read Multicard Reader Ports	Mobile Intel HM76 Express Chipset None None 4-in-1 reader (MMC, SD, SDHC, SDXC) One USB 3.0, three USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)			
PCIe Mini Card PCIe WLAN ⁴	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2			
PCIe WWAN Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	Wireless WAN upgradable None None <i>Some:</i> Bluetooth 4.0 wireless Realtek® RTL8111F Gigabit Network Connection None HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1.5W x 2 / volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack			
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, supports the security chip			
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		Supports ThinkVantage® technologies 65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² For compatible accessories, please go to O-L530 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet	

See footnotes for more detailed information

US model(s) announced June 5, 2012

≡ US model(s) withdrawn effective March 2013

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(BF1-2) August 2012

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Carrier	Smart Card Reader	Card slot	Finger print reader	Blue-tooth	Bat-tery cells	Workhorse (W) Global (G)	Pre-load	Ann Date (mm/yy)
2478-23U	i7-3520M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205 ²⁸	upg	None	None	None	Finger	BT	9		Pro 64	06/12
2478-24U	i7-3520M	4GBx1	15.6" HD+	720p	320G 7200	Intel 6205	upg	None	None	None	Finger	BT	9		Pro 64	06/12
2478-25U	i5-3360M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205	upg	None	None	None	Finger	BT	9	G	Pro 64	06/12
2478-26U	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	upg	None	None	None	Finger	BT	6	G	Pro 64	06/12
2478-27U	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	upg	None	None	None	None	No	6	G	Pro 64	06/12
2478-28U	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 2200	upg	None	None	None	Finger	BT	6	G	Pro 64	06/12
2478-29U	i5-3320M	4GBx1	15.6" HD	None	320G 7200	Intel 2200	upg	None	None	None	None	BT	6	G	Pro 64	06/12
2478-2AU	i5-3360M	4GBx1	15.6" HD+	720p	320G 7200	Intel 6205	upg	None	None	None	Finger	BT	9	G	Pro 64	06/12
2478-2BU	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	upg	None	None	None	Finger	BT	6	G	Pro 64	06/12
2478-2CU	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	upg	None	None	None	None	No	6	G	Pro 64	06/12
2478-2DU	i5-3360M	4GBx1	15.6" HD+	720p	320G 7200	Intel 6205	Gobi	select	None	None	Finger	BT	9		Pro 64	06/12
2478-2FU	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	Gobi	select	None	None	Finger	BT	6		Pro 64	06/12
2478-2GU	i5-3320M	4GBx1	15.6" HD	None	500G 7200	Intel 2200	upg	None	None	None	None	No	6		Pro 64	06/12
2478-2HU	i5-3320M	4GBx1	15.6" HD	None	320G 7200	Intel 2200	upg	None	None	None	None	No	6		Pro 64	06/12
2478-2XU	i5-3360M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	upg	None	Smart	Exp 54	Finger	BT	9	G	Pro 64	06/12
2478-2YU	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	upg	None	Smart	Exp 54	Finger	BT	6	G	Pro 64	06/12
2478-32U	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	upg	None	Smart	Exp 54	Finger	BT	6	W G	Pro 64	06/12
2478-33U	i5-3360M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	upg	None	Smart	Exp 54	Finger	BT	9	W G	Pro 64	06/12
Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i5-3360M processor (2 cores, 2.80GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology											Preloaded operating system²⁰ Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager				
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller											Preloaded applications¹⁴ (only some listed) • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)				
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™															
mSATA™ SSD	None															
Widescreen display	Some: 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Some: 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio															
Camera	Some: HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus															
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; Maximum external resolution: 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)															
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch None															
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 14.96" x 9.72" x 1.25–1.31"; 380mm x 247mm x 31.7–33.4mm 6-cell: from 5.69 lb (2.58kg); 9-cell: from 6.05 lb (2.75kg) Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell or 9-cell, HW Authentication 6-cell (57Whr): up to 7.5 hr; 9-cell (94Whr): up to 12.3 hr															
Chipset ExpressCard Smart Card read Multicard Reader Ports	Mobile Intel HM76 Express Chipset Some: One slot (ExpressCard/34, ExpressCard/54) Some: Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) One USB 3.0, three USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)															
PCIe Mini Card PCIe WLAN ⁴	Two PCI Express Mini Card slots Some: 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 Some: 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2															
PCIe WWAN	Some: Wireless WAN upgradable Some: Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS											Supports ThinkVantage® technologies				
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	Some: User selectable, AT&T®, Verizon®, or Sprint®, contract required with service provider None Some: Bluetooth 4.0 wireless Realtek® RTL8111F Gigabit Network Connection None HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1.5W x 2 / volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack											65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant Some: AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, supports the security chip											For compatible accessories, please go to O-L530 sheet;				
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available											For Lenovo service ²² upgrade options, please go to S-TA sheet				

See footnotes for more detailed information

US model(s) announced June 5, 2012

2478 US model(s) withdrawn effective March 2013

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Smart Card Reader	Card slot	Finger print reader	Blue-tooth	Bat- tery cells	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
2478-62U	i7-3520M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	None	None	Finger	BT	6	G	Win8 Pro64	10/12
2478-4NU	i5-3320M	4GBx1	15.6" HD	None	320G 7200	Intel 2200	WWAN upg	None	None	None	No	6	G	Win8 Pro64	10/12
2478-63U	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	None	None	Finger	BT	6	G	Win8 Pro64	10/12
2478-64U	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	WWAN upg	None	None	Finger	BT	6	G	Win8 Pro64	10/12
2478-5RU	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	WWAN upg	None	None	Finger	BT	6		Win7 Pro64	02/13
2478-5QU	i5-3230M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	WWAN upg	None	None	Finger	BT	6		Win7 Pro64	02/13
2478-5PU	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	WWAN upg	None	None	None	No	6		Win7 Pro64	02/13
2478-5NU	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	None	None	Finger	BT	6		Win7 Pro64	02/13
2478-5MU	i5-3320M	4GBx1	15.6" HD	None	320G 7200	Intel 2200	WWAN upg	None	None	None	No	6		Win7 Pro64	02/13
2478-5LU	i5-3230M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	Smart	Exp 54	Finger	BT	6		Win7 Pro64	02/13
2478-5KU	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	Smart	Exp 54	Finger	BT	6		Win7 Pro64	02/13
2478-5SU	i5-3230M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	None	Exp 54	Finger	BT	6		Win7 Pro64	02/13

• A depot repair service 3-year limited warranty

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i5-3230M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit Preloaded applications⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded; purchase product key to activate • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • 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 compatible accessories, please go to O-L530 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™		
mSATA™ SSD	None		
Widescreen display	Some: 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Some: 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio		
Camera	Some: HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; Maximum external resolution: 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch None		
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 14.96" x 9.72" x 1.25–1.31"; 380mm x 247mm x 31.7–33.4mm 6-cell: from 5.69 lb (2.58kg); 9-cell: from 6.05 lb (2.75kg) Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell or 9-cell, HW Authentication 6-cell (57Whr): up to 7.5 hr; 9-cell (94Whr): up to 12.3 hr		
Chipset ExpressCard Smart Card read Multicard Reader Ports	Mobile Intel HM76 Express Chipset Some: One slot (ExpressCard/34, ExpressCard/54) Some: Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) One USB 3.0, three USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)		
PCIe Mini Card PCIe WLAN ⁴	Two PCI Express Mini Card slots Some: 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 Some: 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2		
PCIe WWAN Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	Wireless WAN upgradable None None Some: Bluetooth 4.0 wireless Realtek® RTL8111F Gigabit Network Connection None HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1.5W x 2 / volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole		
Security Security chip Fingerprint reader	Trusted Platform Module, TCG 1.2-compliant Some: AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for more detailed information
US model(s) announced October 23, 2012 or February 5, 2013

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(BF1-6) February 2013

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Card Carrier	Smart Card Reader	Card slot	Finger print reader	Blue-tooth	Bat-tery cells	Workhorse (W) Global (G)	Pre-load	Ann Date (mm/yy)
2479-32U	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205 ²⁸	upg	None	Smart	Exp 54	Finger	BT	6	W G P	Pro 64	06/12
2479-33U	i5-3360M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	upg	None	Smart	Exp 54	Finger	BT	9	W G P	Pro 64	06/12
2479-39U	i7-3520M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205	upg	None	None	None	Finger	BT	9		Pro 64	06/12
2479-3AU	i7-3520M	4GBx1	15.6" HD+	720p	320G 7200	Intel 6205	upg	None	None	None	Finger	BT	9		Pro 64	06/12
2479-3BU	i5-3360M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205	upg	None	None	None	Finger	BT	9	G P	Pro 64	06/12
2479-3CU	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	upg	None	None	None	Finger	BT	6	G P	Pro 64	06/12
2479-3DU	i5-3360M	4GBx1	15.6" HD+	720p	320G 7200	Intel 6205	upg	None	None	None	Finger	BT	9	G P	Pro 64	06/12
2479-3EU	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	upg	None	None	None	Finger	BT	6	G P	Pro 64	06/12
2479-3GU	i5-3360M	4GBx1	15.6" HD+	720p	320G 7200	Intel 6205	Gobi select	None	None	None	Finger	BT	9		Pro 64	06/12
2479-53U	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	Gobi select	None	None	None	Finger	BT	6		Pro 64	06/12
2479-3MU	i5-3320M	4GBx1	15.6" HD	None	500G 7200	Intel 2200	upg	None	None	None	None	No	6		Pro 64	06/12
2479-3PU	i5-3320M	4GBx1	15.6" HD	None	320G 7200	Intel 2200	upg	None	None	None	None	No	6		Pro 64	06/12
2479-44U	i5-3360M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	upg	None	Smart	Exp 54	Finger	BT	9		Pro 64	06/12
2479-45U	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	upg	None	Smart	Exp 54	Finger	BT	6		Pro 64	06/12

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

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i5-3360M processor (2 cores, 2.80GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications ¹⁴ (only some listed) • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™		
mSATA™ SSD	None		
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio		
Camera	<i>Some:</i> HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		
Keyboard	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass		
Touch pad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch		
ThinkLight™	None		
Dimensions ³	<i>15.6W"</i> (WxDxH): 14.96" x 9.72" x 1.25–1.31"; 380mm x 247mm x 31.7–33.4mm		
Weight ²	<i>6-cell:</i> from 5.69 lb (2.58kg); <i>9-cell:</i> from 6.05 lb (2.75kg)		
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic		
Battery - type	Lithium Ion 6-cell or 9-cell, HW Authentication		
Battery - life ¹⁰	<i>6-cell (57Whr):</i> up to 7.5 hr; <i>9-cell (94Whr):</i> up to 12.3 hr		
Chipset	Mobile Intel HM76 Express Chipset		
ExpressCard	<i>Some:</i> One slot (ExpressCard/34, ExpressCard/54)		
Smart Card read	<i>Some:</i> Smart Card reader		
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)		
Ports	One USB 3.0, three USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	<i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2		
PCIe WWAN	<i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS		
Carrier	<i>Some:</i> User selectable, AT&T®, Verizon®, or Sprint®, contract required with service provider		
Modem	None		
Bluetooth™	<i>Some:</i> Bluetooth 4.0 wireless		
Ethernet	Realtek® RTL8111F Gigabit Network Connection		
Intel AMT	None		
Audio support	HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1.5W x 2 / volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	<i>Some:</i> AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, supports the security chip		
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available		

See footnotes for more detailed information

US model(s) announced June 5, 2012

✗ US model(s) withdrawn effective March 2013

ThinkPad® L530 2479 (Onsite) - Windows 8

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Smart Card Reader	Card slot	Finger print reader	Blue-tooth	Bat- tery cells	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
2479-62U	i7-3520M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	None	None	Finger	BT	6	G P	Win8 Pro64	10/12
2479-63U	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	None	None	Finger	BT	6	G P	Win8 Pro64	10/12
2479-64U	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	WWAN upg	None	None	Finger	BT	6	G P	Win8 Pro64	10/12
2479-5LU	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	Smart	Exp 54	Finger	BT	6		Win7 Pro64	02/13
2479-5KU	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	None	None	Finger	BT	6		Win7 Pro64	02/13

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

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000. DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000. DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology										Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit				
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller										Preloaded applications⁵ (only some listed)				
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™										- Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)				
mSATA™ SSD	None										- Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded; purchase product key to activate • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW)				
Widescreen display	Some: 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Some: 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio										- All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Skype™				
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus										Supports ThinkVantage® technologies				
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; Maximum external resolution: 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)										65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				
Keyboard TrackPoint®	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys										For compatible accessories, please go to O-L530 sheet;				
Touch pad	TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass										For Lenovo service ²² upgrade options, please go to S-TA sheet				
ThinkLight™	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch														
Dimensions ³	15.6W" (WxDxH): 14.96" x 9.72" x 1.25–1.31"; 380mm x 247mm x 31.7–33.4mm														
Weight ²	6-cell: from 5.69 lb (2.58kg); 9-cell: from 6.05 lb (2.75kg)														
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic														
Battery - type	Lithium Ion 6-cell or 9-cell, HW Authentication														
Battery - life ¹⁰	6-cell (57Whr): up to 7.5 hr; 9-cell (94Whr): up to 12.3 hr														
Chipset	Mobile Intel HM76 Express Chipset														
ExpressCard	Some: One slot (ExpressCard/34, ExpressCard/54)														
Smart Card read	Some: Smart Card reader														
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)														
Ports	One USB 3.0, three USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)														
PCIe Mini Card	Two PCI Express Mini Card slots														
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2														
PCIe WWAN	Wireless WAN upgradable														
Carrier	None														
Modem	None														
Bluetooth™	Bluetooth 4.0 wireless														
Ethernet	Realtek® RTL8111F Gigabit Network Connection														
Intel AMT	None														
Audio support	HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1.5W x 2 / volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module, TCG 1.2-compliant														
Fingerprint reader	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, supports the security chip														
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available														

See footnotes for more detailed information
US model(s) announced October 23, 2012 or February 5, 2013

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Memory

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

Storage and removable storage

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

ThinkPad Expansion

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

Keyboard

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

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

Mouse

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

Multimedia

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

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

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

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

Batteries

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

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

More information at www.lenovo.com/alldaycomputing

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

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

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

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

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

More information at www.lenovopowertips.com

Carrying Cases

Up to 15.6" widescreen models:

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

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

Monitors

ThinkVision® L1711p 17" (VGA, DVI-D)	5047HB2	ann	10/20/09
ThinkVision L1900p 19" (VGA, DVI-D)	4431HE1	ann	11/11/08
ThinkVision LT1952p Wide 19" (VGA, DP, DVI-D) ⁶⁹	2448MB6	ann	09/13/11
ThinkVision L2250p Wide 22" (VGA, DVI-D)	2572HB6	ann	10/20/09
ThinkVision L2251x Wide 22" (VGA, DP) ⁶⁹	2578HB6	ann	10/20/09
ThinkVision LT2252p Wide 22" (VGA, DP, DVI-D) ⁶⁹	2572MB6	ann	09/13/11
ThinkVision LT2452p Wide 24" (VGA, DP, DVI-D) ⁶⁹	4420MB2	ann	09/13/11

⁶⁹ DisplayPort cable is not included.

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

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

Monitor Accessories⁴⁶

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

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

For more information on accessories:

www.lenovo.com/accessories

Purchase Lenovo accessories

www.lenovo.com/support/accessories

Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide

Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com

An Options Compatibility Configurator for Lenovo systems

ThinkPad®



Lenovo® ThinkPad T430



Lenovo ThinkPad T430



Lenovo ThinkPad T430



Lenovo ThinkPad T430



Lenovo ThinkPad T430



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

ThinkPad® T430 2342 (TopSeller)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ² rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Finger print reader	Blue-tooth	Bat-tery cells	Intel AMT	Intel vPro	Preload (mm/yy)	Ann Date
2342-38U	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 6205 ²⁸	WWAN upg	None	No	6	iAMT	vPro	Pro 64	06/12
2342-37U	i5-3320M	4GBx2	14.0" HD	720p	320G 7200	None	Intel 6205	WWAN upg	None	No	6	iAMT	vPro	Pro 64	06/12
2342-36U	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	None	Intel 6205	WWAN upg	None	No	6	iAMT	vPro	Pro 64	06/12
2342-35U	i5-3210M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 2200	WWAN upg	None	No	6	None	No	Pro 64	06/12
2342-34U	i5-3210M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 2200	WWAN upg	None	No	6	None	No	Pro 64	06/12
2342-33U	i5-3210M	4GBx1	14.0" HD+	720p	320G 7200	None	Intel 2200	WWAN upg	None	No	6	None	No	Pro 64	06/12
2342-32U	i5-3210M	4GBx1	14.0" HD	720p	320G 7200	None	Intel 2200	WWAN upg	None	No	6	None	No	Pro 64	06/12
2342-4AU	i5-2520M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 2200	WWAN upg	None	No	6	None	No	Pro 64	07/12
2342-6CU	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	BT	6	iAMT	vPro	Pro 64	09/12

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-2520M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 3000, DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-3210M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology	Preloaded operating system²⁰ Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller	Preloaded applications¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • RapidBoot HDD Accelerator • Symantec™ VIP • Windows Live™ Essentials • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive	
mSATA™ SSD	None	
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio	
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus	
Graphics	Intel HD Graphics 3000 or 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)	
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material	<i>14.0W" (WxDxH):</i> 13.4" x 9.13" x 1.17–1.18"; 340.5mm x 232.0mm x 29.8–29.9mm <i>6-cell:</i> from 4.77 lb (2.17kg); <i>9-cell:</i> from 5.13 lb (2.33kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 9.7 hr; <i>9-cell (94Whr):</i> up to 16.2 hr; <i>9-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> up to 32.5 hr	
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)	
PCIe Mini Card PCIe WLAN ⁴	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2	Supports ThinkVantage® technologies
PCIe WWAN Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Wireless WAN upgradable None None None <i>Some:</i> Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>Some:</i> Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole	65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Security Security chip Fingerprint reader	Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	For compatible accessories, please go to O-T430 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet
Limited warranty ¹² 1-year - depot repair service / service upgrades ²² available		

See footnotes for more detailed information
US model(s) announced June 5, July 31, or September 4, 2012
⚡ US model(s) withdrawn effective March 2013

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ThinkPad® T430 2342 (TopSeller) - Windows 8

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Finger print reader	Blue-tooth	Bat-tery cells	Intel AMT	Intel vPro	Preload	Ann Date (mm/yy)
⚡ 2342-6FU	i5-3210M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 2200	WWAN upg	None	No	6	None	No	Win7 Pro64	10/12
2342-6DU	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	Backlit	Intel 6205 ²⁸	WWAN upg	Finger	BT	6	iAMT	vPro	Win8 Pro64	10/12
2342-49U	i5-2520M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 2200	WWAN upg	None	No	6	None	No	Win8 Pro64	10/12
2342-48U	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 6205	WWAN upg	None	No	6	iAMT	vPro	Win8 Pro64	10/12
⚡ 2342-47U	i5-3210M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 2200	WWAN upg	None	No	6	None	No	Win8 Pro64	10/12
2342-7PU	i5-3230M	4GBx1	14.0" HD+	720p	128G SSD	None	Intel 6205	WWAN upg	Finger	BT	6	None	No	Win7 Pro64	02/13
2342-7NU	i5-3230M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 2200	WWAN upg	None	No	6	None	No	Win8 Pro64	02/13
2342-6QU	i5-3230M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 2200	WWAN upg	None	No	6	None	No	Win7 Pro64	02/13
2342-7YU	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 6205	WWAN upg	None	No	6	iAMT	vPro	Win7 Pro64	04/13

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

Positioning Processor	Premiere performance; two spindles Intel® Core™ i5-2520M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 3000, DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-3210M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology Intel Core i5-3230M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology										Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit Preloaded applications⁵ (only some listed)				
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller										- Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded; purchase product key to activate • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Norton™ Internet Security (30 days of virus definitions) • Skype™				
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive														
mSATA™ SSD	None														
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio														
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus														
Graphics	Intel HD Graphics 3000 or 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)														
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ² Case material	14.0W" (WxDxH): 13.4" x 9.13" x 1.17–1.18"; 340.5mm x 232.0mm x 29.8–29.9mm 6-cell: from 4.77 lb (2.17kg); 9-cell: from 5.13 lb (2.33kg) Display cover: Carbon-fiber / Glass-fiber hybrid; Bottom: Carbon-Fiber Reinforced Plastic														
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication 6-cell (57Whr): up to 9.7 hr; 9-cell (94Whr): up to 16.2 hr; 9-cell plus 9-cell Slice battery (94Whr, 0A36304): up to 32.5 hr														
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)														
PCIe Mini Card PCIe WLAN ⁴	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2														
PCIe WWAN Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Wireless WAN upgradable None None None <i>Some:</i> Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>Some:</i> Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant														
Security Security chip Fingerprint reader	Some: AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip														
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available										Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² For compatible accessories, please go to O-T430 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet				

See footnotes for more detailed information
 US model(s) announced October 23, 2012, February 5, 2013, or April 2, 2013
 ⚡ US model(s) withdrawn effective March 2013

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 (NZ4-9) April 2013

ThinkPad® T430 2344 (TopSeller)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Bat-Blue-tooth	Intel AMT	Intel vPro	Preload (mm/yy)	Ann Date
2344-5NU	i7-3520M	4GBx2	14.0" HD+	720p	500G 7200	None	Intel 6205 ²⁸	WWAN upg	Finger	BT	6	iAMT	vPro	Pro 64 06/12
2344-5MU	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	6	iAMT	vPro	Pro 64 06/12
2344-5LU	i7-3520M	4GBx2	14.0" HD	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	6	iAMT	vPro	Pro 64 06/12
2344-5KU	i7-3520M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	6	iAMT	vPro	Pro 64 06/12
2344-5HU	i5-3320M	4GBx1	14.0" HD+	720p	180G SSD	None	Intel 6205	WWAN upg	Finger	BT	6	iAMT	vPro	Pro 64 06/12
2344-5FU	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	6	iAMT	vPro	Pro 64 06/12
2344-5EU	i5-3320M	8GBx1	14.0" HD	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	6	iAMT	vPro	Pro 64 06/12
2344-5DU	i5-3210M	4GBx1	14.0" HD+	720p	128G SSD	None	Intel 6205	WWAN upg	Finger	BT	6	None	None	Pro 64 06/12
2344-2HU	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	6	iAMT	vPro	Pro 64 06/12
2344-6XU	i5-3320M	4GBx1	14.0" HD+	720p	180G SSD	Backlit	Intel 6205	WWAN upg	Finger	BT	6	iAMT	vPro	Pro 64 07/12
2344-6RU	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	BT	6	iAMT	vPro	Pro 64 07/12

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-3210M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000. DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000. DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000. DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology	Preloaded operating system²⁰ Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller	Preloaded applications¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage • by SugarSync • Lenovo SimpleTap • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • RapidBoot HDD Accelerator • Symantec™ VIP • Windows Live™ Essentials • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive	
mSATA™ SSD	None	
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio	
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus	
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)	
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material	<i>14.0W" (WxDxH):</i> 13.4" x 9.13" x 1.17–1.18"; 340.5mm x 232.0mm x 29.8–29.9mm <i>6-cell:</i> from 4.77 lb (2.17kg); <i>9-cell:</i> from 5.13 lb (2.33kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 9.7 hr; <i>9-cell (94Whr):</i> up to 16.2 hr; <i>9-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> up to 32.5 hr	
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)	
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>Some:</i> Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant	Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Security Security chip Fingerprint reader	Power On Authentication, supports the security chip AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	For compatible accessories, please go to O-T430 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet
Limited warranty ¹² 3-years/1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for more detailed information

US model(s) announced June 5 or July 31, 2012

≠ US model(s) withdrawn effective March 2013

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(NZ4-2) August 2012

ThinkPad® T430 2344 (TopSeller) - Windows 8

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Disk SATA GB ⁹ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Finger print reader	Blue-tooth cells	Bat-tery	Intel AMT	Intel vPro	Preload	Ann Date (mm/yy)
2344-BZU	i5-3320M	4GBx1	14.0" HD+	500G 7200	Backlit	Intel 6205 ²⁸	WWAN upg	Finger	BT	6	iAMT	vPro	Win7 Pro64	10/12
2344-BYU	i5-3320M	4GBx1	14.0" HD+	500G 7200	None	Intel 6205	WWAN upg	None	No	6	iAMT	vPro	Win8 Pro64	10/12
2344-BNU	i5-3320M	4GBx1	14.0" HD+	180G SSD	Backlit	Intel 6205	WWAN upg	Finger	BT	6	iAMT	vPro	Win7 Pro64	10/12
2344-BKU	i5-3320M	4GBx1	14.0" HD+	500G 7200	None	Intel 6205	WWAN upg	None	No	6	iAMT	vPro	Win7 Pro64	10/12
2344-6ZU	i7-3520M	4GBx1	14.0" HD+	500G 7200	Backlit	Intel 2200	WWAN upg	Finger	BT	6	None	No	Win8 Pro64	10/12
2344-6YU	i5-3320M	4GBx1	14.0" HD+	180G SSD	Backlit	Intel 6205	WWAN upg	Finger	BT	6	iAMT	vPro	Win8 Pro64	10/12
2344-6SU	i5-3320M	4GBx1	14.0" HD	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	BT	6	iAMT	vPro	Win8 Pro64	10/12
2344-C4U	i5-3320M	4GBx1	14.0" HD	500G 7200	None	Intel 6205	WWAN upg	None	No	6	iAMT	vPro	Win7 Pro64	10/12

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology	Preloaded operating system ²⁰ - <i>Some:</i> Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - <i>Some:</i> Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Microsoft® Office 2010 preloaded: purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded: purchase product key to activate • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Skype™ Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² For compatible accessories, please go to O-T430 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller	
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive	
mSATA™ SSD	None	
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio	
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus	
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)	
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material	14.0W" (WxDxH): 13.4" x 9.13" x 1.17–1.18"; 340.5mm x 232.0mm x 29.8–29.9mm <i>6-cell:</i> from 4.77 lb (2.17kg); <i>9-cell:</i> from 5.13 lb (2.33kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 9.7 hr; <i>9-cell (94Whr):</i> up to 16.2 hr; <i>9-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> up to 32.5 hr	
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)	
PCIe Mini Card PCIe WLAN ⁴	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2	
PCIe WWAN Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Wireless WAN upgradable None None None <i>Some:</i> Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>Some:</i> Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole	
Security Security chip Fingerprint reader	Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

See footnotes for more detailed information
 US model(s) announced October 23 or October 30, 2012

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 (NZ4-11) November 2012

ThinkPad® T430 2342 (Optimus) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Bat-tery cells	Intel vPro	Preload	Ann Date (mm/yy)
2342-4BU	i5-2520M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 2200	WWAN upg	None	None	6	None	Pro 64	07/12

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-2520M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 3000 , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology										Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64			
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller										Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager			
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive										Preloaded applications ¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • RapidBoot HDD Accelerator • Symantec™ VIP • Windows Live™ Essentials • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)			
mSATA™ SSD	None													
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio													
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus													
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 in processor, and NVIDIA NVS™ 5400M , PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)													
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case material	<i>14.0W" (WxDxH):</i> 13.4" x 9.13" x 1.17–1.18"; 340.5mm x 232.0mm x 29.8–29.9mm <i>6-cell:</i> from 4.77 lb (2.17kg); <i>9-cell:</i> from 5.13 lb (2.33kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Carbon-Fiber Reinforced Plastic													
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 9.4 hr; <i>9-cell (94Whr):</i> up to 15.8 hr; <i>6-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> up to 31.6 hr													
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)										Supports ThinkVantage® technologies			
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 Wireless WAN upgradable None None None None Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 None HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole										90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²			
Security Security chip Fingerprint reader	None Trusted Platform Module, TCG 1.2-compliant None										For compatible accessories, please go to O-T430 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet			
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available													

See footnotes for more detailed information
US model(s) announced July 31, 2012

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ThinkPad® T430 2342 (Optimus) - TopSeller (Windows 8)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ² rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Battery cells	Intel vPro	Preload	Ann Date (mm/yy)
2342-4CU	i5-2520M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 2200	WWAN upg	None	6	None	Win8 Pro64	10/12

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-2520M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 3000 , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology	Preloaded operating system²⁰ - Windows® 8 Pro 64-bit
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller	Preloaded applications⁵ (only some listed) - Windows 7 models <ul style="list-style-type: none">• Lenovo® Message Center Plus• ThinkVantage Product Recovery• Access Connections™• ThinkVantage Power Manager• Lenovo SimpleTap• Adobe® Reader®• Microsoft® Office 2010 preloaded; purchase product key to activate• Corel® WinDVD® (DVD±RW)• Corel Burn.Now™ Lenovo Edition (DVD±RW)• Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive	
mSATA™ SSD	None	
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio	
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus	
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 in processor, and NVIDIA NVS™ 5400M , PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)	 - Windows 8 models <ul style="list-style-type: none">• Lenovo Support• Lenovo Companion• Lenovo QuickLaunch• Microsoft® Office 2013 preloaded; purchase product key to activate• PC Device Stage• Cyberlink Power2Go (DVD±RW)• Cyberlink PowerProducer (DVD±RW)
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material	14.0W" (WxDxH): 13.4" x 9.13" x 1.17–1.18"; 340.5mm x 232.0mm x 29.8–29.9mm <i>6-cell:</i> from 4.77 lb (2.17kg); <i>9-cell:</i> from 5.13 lb (2.33kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	 - All models <ul style="list-style-type: none">• Lenovo Solution Center• Password Manager• ThinkVantage System Update• Fingerprint Software (fingerprint models)• Lenovo Cloud Storage by SugarSync• Norton™ Internet Security (30 days of virus definitions)• Skype™
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 9.4 hr; <i>9-cell (94Whr):</i> up to 15.8 hr; <i>9-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> up to 31.6 hr	
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)	Supports ThinkVantage® technologies
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 Wireless WAN upgradable None None None None Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 None HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole	90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Security Security chip Fingerprint reader	Trusted Platform Module, TCG 1.2-compliant None	For compatible accessories, please go to O-T430 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

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

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(NZ4-10) October 2012

ThinkPad® T430 2344 (Optimus) - TopSeller

Personal Systems Reference (PSREF)

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

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology			Preloaded operating system²⁰ Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo® Solution Center• Lenovo Message Center Plus• ThinkVantage Product Recovery• Access Connections™• Fingerprint Software (fingerprint models)• ThinkVantage System Update• ThinkVantage Power Manager• Lenovo Cloud Storage by SugarSync• Lenovo SimpleTap• Norton™ Internet Security 2012 (30 days of virus definitions)• Adobe® Reader®• Skype™ for Windows• Evernote®• Intel Small Business Advantage• RapidBoot HDD Accelerator• Symantec™ VIP• Windows Live™ Essentials• Microsoft® Office 2010 preloaded; purchase product key to activate• Corel® WinDVD® (DVD±RW)• Corel Burn.Now™ Lenovo Edition (DVD±RW)• Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller			
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive			
mSATA™ SSD	None			
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio			
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus			
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, and Intel HD Graphics 4000 in processor, and NVIDIA NVS™ 5400M , PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)			
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions			
Dimensions ³ Weight ² Case material	<i>14.0W" (WxDxH):</i> 13.4" x 9.13" x 1.17–1.18"; 340.5mm x 232.0mm x 29.8–29.9mm <i>6-cell:</i> from 4.77 lb (2.17kg); <i>9-cell:</i> from 5.13 lb (2.33kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Carbon-Fiber Reinforced Plastic			
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 9.4 hr; <i>9-cell (94Whr):</i> up to 15.8 hr; <i>9-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> up to 31.6 hr			
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)			
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack			
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip			
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available			

See footnotes for more detailed information
 US model(s) announced June 5 or July 31, 2012

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 (NZ4-3) August 2012

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

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ² rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Bat-tery Intel vPro	Blue-tooth cells	Preload	Ann Date (mm/yy)
2344-BPU	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	Backlit	Intel 6205 ²⁸	WWAN upg	Finger	BT	9	Win7 Pro64	10/12
2344-BMU	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	BT	9	Win7 Pro64	10/12
2344-6WU	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	BT	9	Win8 Pro64	10/12
2344-6UU	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	BT	9	Win8 Pro64	10/12

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology										Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit Preloaded applications⁵ (only some listed) - Windows 7 models <ul style="list-style-type: none"> • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models <ul style="list-style-type: none"> • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded; purchase product key to activate • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models <ul style="list-style-type: none"> • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Norton™ Internet Security (30 days of virus definitions) • Skype™ Supports ThinkVantage® technologies			
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller													
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive													
mSATA™ SSD	None													
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio													
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus													
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA NVS™ 5400M , PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)													
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	<i>14.0W"</i> (WxDxH): 13.4" x 9.13" x 1.17–1.18"; 340.5mm x 232.0mm x 29.8–29.9mm													
Weight ²	<i>6-cell:</i> from 4.77 lb (2.17kg); <i>9-cell:</i> from 5.13 lb (2.33kg)													
Case material	<i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Carbon-Fiber Reinforced Plastic													
Battery - type	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication													
Battery - life ¹⁰	<i>6-cell (57Whr):</i> up to 9.4 hr; <i>9-cell (94Whr):</i> up to 15.8 hr; <i>9-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> up to 31.6 hr													
Chipset	Mobile Intel QM77 Express Chipset													
ExpressCard	One slot (ExpressCard/34)													
Smart Card read	None													
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)													
Ports	Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)													
PCIe Mini Card	Two PCI Express Mini Card slots													
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2													
PCIe WWAN	Wireless WAN upgradable													
Carrier	None													
Modem	None													
IEEE 1394	None													
Bluetooth™	Bluetooth 4.0 wireless													
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1													
Intel AMT	Intel Active Management Technology (iAMT)													
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module, TCG 1.2-compliant													
Fingerprint reader	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available													

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

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Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ² rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Carrier	Finger print reader	Blue-tooth	Bat-tery cells	Intel vPro	Global (G) GMP (P)	Preload (mm/yy)	Ann Date
2347-GAU	i5-3320M	4GBx1	14.0" HD+	720p	180G SSD	None	Intel 6205 ²⁸	upg	None	Finger	BT	6	vPro	G	Pro 64	06/12
2347-H9U	i5-3320M	4GBx1	14.0" HD	720p	180G SSD	None	Intel 6205	upg	None	Finger	BT	6	vPro	G	Pro 64	06/12
2347-G8U	i5-3320M	4GBx1	14.0" HD+	720p	128G SSD	None	Intel 6205	upg	None	Finger	BT	6	vPro	G	Pro 64	06/12
2347-GBU	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	upg	None	Finger	BT	6	vPro	G	Pro 64	06/12
2347-G5U	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	upg	None	Finger	BT	6	vPro	G	Pro 64	06/12
2347-H8U	i7-3520M	4GBx1	14.0" HD	No	500G 7200	None	Intel 6205	upg	None	None	No	6	vPro		Pro 64	06/12
2347-H7U	i5-3320M	4GBx1	14.0" HD	No	320G 7200	None	Intel 6205	upg	None	None	No	6	vPro		Pro 64	06/12
2347-H6U	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	None	Intel 6205	upg	None	Finger	BT	6	vPro		Pro 64	06/12
2347-H2U	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 6205	upg	None	Finger	BT	6	vPro		Pro 64	06/12
2347-GZU	i5-3320M	4GBx1	14.0" HD	720p	128G SSD	None	Intel 6205	upg	None	Finger	BT	6	vPro		Pro 64	06/12
2347-G3U	i7-3520M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 6205	upg	None	Finger	BT	6	vPro	G	Pro 64	06/12
2347-G2U	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	None	Intel 6205	upg	None	Finger	BT	6	vPro	G	Pro 64	06/12
2347-K9U	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	Gobi	AT&T	Finger	BT	6	vPro		Pro 64	09/12
2347-K8U	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	Gobi	Verizon	Finger	BT	6	vPro		Pro 64	09/12

- A depot repair service 3-year limited warranty
- Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo® Solution Center• Lenovo Message Center Plus• ThinkVantage Product Recovery• Access Connections™• Fingerprint Software (fingerprint models)• ThinkVantage System Update• ThinkVantage Power Manager• Lenovo Cloud Storage by SugarSync• Lenovo SimpleTap• Norton™ Internet Security 2012 (30 days of virus definitions)• Adobe® Reader®• Skype™ for Windows• Evernote®• Intel Small Business Advantage• RapidBoot HDD Accelerator• Symantec™ VIP• Windows Live™ Essentials• Microsoft® Office 2010 preloaded; purchase product key to activate• Corel® WinDVD® (DVD±RW)• Corel Burn.Now™ Lenovo Edition (DVD±RW)• Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive		
mSATA™ SSD	None		
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio		
Camera	<i>Some:</i> HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	<i>14.0W" (WxDxH):</i> 13.4" x 9.13" x 1.17–1.18"; 340.5mm x 232.0mm x 29.8–29.9mm		
Weight ²	<i>6-cell:</i> from 4.77 lb (2.17kg); <i>9-cell:</i> from 5.13 lb (2.33kg)		
Case material	<i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Carbon-Fiber Reinforced Plastic		
Battery - type	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication		
Battery - life ¹⁰	<i>6-cell (57Whr):</i> up to 9.7 hr; <i>9-cell (94Whr):</i> up to 16.2 hr; <i>9-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> up to 32.5 hr		
Chipset	Mobile Intel QM77 Express Chipset		
ExpressCard	One slot (ExpressCard/34)		
Smart Card read	None		
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)		
Ports	Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2		
PCIe WWAN	<i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 4000 chipset, PCIe Mini Card, LTE, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS		
Carrier	<i>Some:</i> AT&T® or Verizon® LTE (4G), contract required with service provider		
Modem	None		
IEEE 1394	None		
Bluetooth™	<i>Some:</i> Bluetooth 4.0 wireless		
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1		
Intel AMT	Intel Active Management Technology (iAMT)		
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant		
Security	<i>Some:</i> AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	<i>Some:</i> AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

Supports ThinkVantage® technologies		
65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ 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 compatible accessories, please go to O-T430 sheet; For Lenovo service²² upgrade options, please go to S-TA sheet		

See footnotes for more detailed information
 US model(s) announced June 5 or September 4, 2012

ThinkPad® T430 2347 (Windows 8)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Finger print reader	Blue-tooth	Bat-tery cells	Intel vPro	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
2347-JKU	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205 ²⁸	WWAN upg	Finger	BT	6	vPro	Win8 Pro64		10/12
2347-JGU	i5-3320M	4GBx1	14.0" HD+	720p	180G SSD	None	Intel 6205	WWAN upg	Finger	BT	6	vPro	Win8 Pro64		10/12
2347-JBU	i7-3520M	4GBx1	14.0" HD	No	500G 7200	None	Intel 6205	WWAN upg	None	No	6	vPro	Win8 Pro64		10/12
2347-JAU	i5-3320M	4GBx1	14.0" HD	No	320G 7200	None	Intel 6205	WWAN upg	None	No	6	vPro	Win8 Pro64		10/12
2347-J9U	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	6	vPro	G Win8 Pro64		10/12
2347-J8U	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	None	Intel 6205	WWAN upg	Finger	BT	6	vPro	G Win8 Pro64		10/12
2347-L4U	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	6	vPro	Win7 Pro64		12/12
2347-L3U	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	6	vPro	Win7 Pro64		12/12

• A depot repair service 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system ²⁰ - <i>Some:</i> Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - <i>Some:</i> Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded; purchase product key to activate • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Skype™ Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² For compatible accessories, please go to O-T430 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive		
mSATA™ SSD	None		
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio		
Camera	<i>Some:</i> HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint™ pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material	14.0W" (WxDxH): 13.4" x 9.13" x 1.17–1.18"; 340.5mm x 232.0mm x 29.8–29.9mm <i>6-cell:</i> from 4.77 lb (2.17kg); <i>9-cell:</i> from 5.13 lb (2.33kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Carbon-Fiber Reinforced Plastic		
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 9.7 hr; <i>9-cell (94Whr):</i> up to 16.2 hr; <i>9-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> up to 32.5 hr		
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)		
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None None <i>Some:</i> Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack		
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for more detailed information
 US model(s) announced October 23 or December 4, 2012

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 (NZ4-13) December 2012

ThinkPad® T430 2347 (Optimus)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Bat-Blue- tooth	tery cells	Global (G) Intel vPro	GMP (P) Preload (mm/yy)	Ann Date
2347-G9U	i7-3520M	4GBx1	14.0" HD+	720p	180G SSD	None	Intel 6205 ²⁸	WWAN upg	Finger	BT	9	vPro	G Pro 64	06/12
2347-G7U	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	9	vPro	G Pro 64	06/12
2347-G6U	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	9	vPro	G Pro 64	06/12
2347-G4U	i5-3320M	4GBx1	14.0" HD+	720p	320G 7200	None	Intel 6205	WWAN upg	Finger	BT	9	vPro	G Pro 64	06/12

- A depot repair service 3-year limited warranty
- Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Premiere performance; two spindles Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications ¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • RapidBoot HDD Accelerator • Symantec™ VIP • Windows Live™ Essentials • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive		
mSATA™ SSD	None		
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA NVS™ 5400M , PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material	14.0W" (WxDxH): 13.4" x 9.13" x 1.17–1.18"; 340.5mm x 232.0mm x 29.8–29.9mm 6-cell: from 4.77 lb (2.17kg); 9-cell: from 5.13 lb (2.33kg) Display cover: Carbon-fiber / Glass-fiber hybrid; Bottom: Carbon-Fiber Reinforced Plastic		
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication 6-cell (57Whr): up to 9.4 hr; 9-cell (94Whr): up to 15.8 hr; 9-cell plus 9-cell Slice battery (94Whr, 0A36304): up to 31.6 hr		
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)		
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant		
Security Security chip Fingerprint reader	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for more detailed information
 US model(s) announced June 5, 2012

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 (NZ4-5) June 2012

ThinkPad® T430 2347 (Optimus) - Windows 8

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Bat-tery Blue-tooth cells	Intel vPro	Preload	Ann Date (mm/yy)
2347-L5U	i7-3520M	4GBx1	14.0" HD+	720p	180G SSD	Backlit	Intel 6205 ²⁸	WWAN upg	Finger	BT	9	vPro Win7 Pro64	12/12

• A depot repair service 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system²⁰ - Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit Preloaded applications⁵ (only some listed) - Windows 7 models <ul style="list-style-type: none">• Lenovo® Message Center Plus• ThinkVantage Product Recovery• Access Connections™• ThinkVantage Power Manager• Lenovo SimpleTap• Adobe® Reader®• Microsoft® Office 2010 preloaded; purchase product key to activate• Corel® WinDVD® (DVD±RW)• Corel Burn.Now™ Lenovo Edition (DVD±RW)• Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models <ul style="list-style-type: none">• Lenovo Support• Lenovo Companion• Lenovo QuickLaunch• Microsoft® Office 2013 preloaded; purchase product key to activate• PC Device Stage• Cyberlink Power2Go (DVD±RW)• Cyberlink PowerProducer (DVD±RW) - All models <ul style="list-style-type: none">• Lenovo Solution Center• Password Manager• ThinkVantage System Update• Fingerprint Software (fingerprint models)• Lenovo Cloud Storage by SugarSync• Skype™ Supports ThinkVantage® technologies 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² For compatible accessories, please go to O-T430 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive		
mSATA™ SSD	None		
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA NVS™ 5400M , PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint™ pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material	<i>14.0W" (WxDxH):</i> 13.4" x 9.13" x 1.17–1.18"; 340.5mm x 232.0mm x 29.8–29.9mm <i>6-cell:</i> from 4.77 lb (2.17kg); <i>9-cell:</i> from 5.13 lb (2.33kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Carbon-Fiber Reinforced Plastic		
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 9.4 hr; <i>9-cell (94Whr):</i> up to 15.8 hr; <i>9-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> up to 31.6 hr		
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)		
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole		
Security Security chip Fingerprint reader	Trusted Platform Module, TCG 1.2-compliant AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for more detailed information
US model(s) announced December 4, 2012

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Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Carrier	Smart Card Reader	Finger print reader	Blue-tooth	Battery cells vPro	Global (G) Intel GMP (P)	Preload	Ann Date (mm/yy)
2349-GAU	i5-3320M	4GBx1	14.0" HD+	720p	180G SSD	None	Intel 6205 ²⁸	upg	None	None	Fing	BT	6 vPro	G P	Pro 64	06/12
2349-GDU	i5-3320M	4GBx1	14.0" HD	720p	128G SSD	None	Intel 6205	upg	None	None	Fing	BT	6 vPro	G P	Pro 64	06/12
2349-G8U	i5-3320M	4GBx1	14.0" HD+	720p	128G SSD	None	Intel 6205	upg	None	None	Fing	BT	6 vPro	G P	Pro 64	06/12
2349-G5U	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	upg	None	None	Fing	BT	6 vPro	G P	Pro 64	06/12
2349-GCU	i5-3320M	4GBx1	14.0" HD+	720p	320G 7200	None	Intel 6205	upg	None	None	Fing	BT	6 vPro	G P	Pro 64	06/12
2349-GWU	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	None	Intel 6205	upg	None	None	Fing	BT	6 vPro		Pro 64	06/12
2349-GVU	i7-3520M	4GBx1	14.0" HD	No	500G 7200	None	Intel 6205	upg	None	None	No	No	6 vPro		Pro 64	06/12
2349-GUU	i5-3320M	4GBx1	14.0" HD	No	320G 7200	None	Intel 6205	upg	None	None	No	No	6 vPro		Pro 64	06/12
2349-GRU	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 6205	upg	None	None	Fing	BT	6 vPro		Pro 64	06/12
2349-G3U	i7-3520M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 6205	upg	None	None	Fing	BT	6 vPro	G P	Pro 64	06/12
2349-G2U	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	None	Intel 6205	upg	None	None	Fing	BT	6 vPro	G P	Pro 64	06/12
2349-HFU	i5-3320M	4GBx1	14.0" HD+	720p	320G 7200	None	Intel 6205	upg	None	Smart	Fing	BT	6 vPro	G P	Pro 64	06/12
2349-HNU	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	None	Intel 6205	upg	None	None	No	BT	6 vPro	G P	Pro 64	07/12
2349-JTU	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 6205	Gobi	AT&T	None	Fing	BT	6 vPro		Pro 64	09/12
2349-JSU	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 6205	Gobi	Verizon	None	Fing	BT	6 vPro		Pro 64	09/12

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology	Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo® Solution Center• Lenovo Message Center Plus• ThinkVantage Product Recovery• Access Connections™• Fingerprint Software (fingerprint models)• ThinkVantage System Update• ThinkVantage Power Manager• Lenovo Cloud Storage by SugarSync• Lenovo SimpleTap• Norton™ Internet Security 2012 (30 days of virus definitions)• Adobe® Reader®• Skype™ for Windows• Evernote®• Intel Small Business Advantage• RapidBoot HDD Accelerator• Symantec™ VIP• Windows Live™ Essentials• Microsoft® Office 2010 preloaded; purchase product key to activate• Corel® WinDVD® (DVD±RW)• Corel Burn.Now™ Lenovo Edition (DVD±RW)• Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller	
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive	
mSATA™ SSD	None	
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio	
Camera	<i>Some:</i> HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus	
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)	
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material	14.0W" (WxDxH): 13.4" x 9.13" x 1.17–1.18"; 340.5mm x 232.0mm x 29.8–29.9mm <i>6-cell:</i> from 4.77 lb (2.17kg); <i>9-cell:</i> from 5.13 lb (2.33kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 9.7 hr; <i>9-cell (94Whr):</i> up to 16.2 hr; <i>9-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> up to 32.5 hr	
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) <i>Some:</i> Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)	
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 4000 chipset, PCIe Mini Card, LTE, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS	
Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> AT&T® or Verizon® LTE (4G), contract required with service provider None None <i>Some:</i> Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time/ service upgrades ²² available	Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² For compatible accessories, please go to O-T430 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet

ThinkPad® T430 2349 (Onsite) - Windows 8

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁷ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Bat-tery cells	Global (G) Intel vPro	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
2349-JQU	i7-3520M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 6205 ²⁸	WWAN upg	Finger	BT	6	vPro	G P	Win8 Pro64	10/12
2349-JPU	i5-3320M	4GBx1	14.0" HD+	720p	180G SSD	None	Intel 6205	WWAN upg	Finger	BT	6	vPro	G P	Win8 Pro64	10/12
2349-JNU	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	6	vPro	G P	Win8 Pro64	10/12
2349-JMU	i5-3320M	4GBx1	14.0" HD	720p	320G 7200	None	Intel 6205	WWAN upg	Finger	BT	6	vPro	G P	Win8 Pro64	10/12
2349-LTU	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	6	vPro		Win7 Pro64	12/12
2349-LSU	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	6	vPro		Win7 Pro64	12/12
2349-LRU	i5-3320M	4GBx1	14.0" HD	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	6	vPro		Win7 Pro64	12/12

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

Positioning Processor	Premiere performance; two spindles Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system ²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models <ul style="list-style-type: none">• Lenovo® Message Center Plus• ThinkVantage Product Recovery• Access Connections™• ThinkVantage Power Manager• Lenovo SimpleTap• Adobe® Reader®• Microsoft® Office 2010 preloaded; purchase product key to activate• Corel® WinDVD® (DVD±RW)• Corel Burn.Now™ Lenovo Edition (DVD±RW)• Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models <ul style="list-style-type: none">• Lenovo Support• Lenovo Companion• Lenovo QuickLaunch• Microsoft® Office 2013 preloaded; purchase product key to activate• PC Device Stage• Cyberlink Power2Go (DVD±RW)• Cyberlink PowerProducer (DVD±RW) - All models <ul style="list-style-type: none">• Lenovo Solution Center• Password Manager• ThinkVantage System Update• Fingerprint Software (fingerprint models)• Lenovo Cloud Storage by SugarSync• Skype™ Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² For compatible accessories, please go to O-T430 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ All: removable, upgradable, supports the second disk, Shock Mounted Hard Drive		
mSATA™ SSD	None		
Widescreen display	Some: 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio Some: 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; Maximum external resolution: 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material	14.0W" (WxDxH): 13.4" x 9.13" x 1.17–1.18"; 340.5mm x 232.0mm x 29.8–29.9mm 6-cell: from 4.77 lb (2.17kg); 9-cell: from 5.13 lb (2.33kg) Display cover: Carbon-fiber / Glass-fiber hybrid; Bottom: Carbon-Fiber Reinforced Plastic		
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication 6-cell (57Whr): up to 9.7 hr; 9-cell (94Whr): up to 16.2 hr; 9-cell plus 9-cell Slice battery (94Whr, 0A36304): up to 32.5 hr		
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)		
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant		
Security Security chip Fingerprint reader	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available		

See footnotes for more detailed information
 US model(s) announced October 23 or December 4, 2012

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ThinkPad® T430 2349 (Optimus) - Onsite

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Battery cells	Intel vPro	Global (G) GMP (P)	Preload (mm/yy)	Ann Date
2349-G9U	i7-3520M	4GBx1	14.0" HD+	720p	180G SSD	None	Intel 6205 ²⁸	WWAN upg	Finger	BT	9	vPro	G P	Pro 64	06/12
2349-G7U	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	9	vPro	G P	Pro 64	06/12
2349-G6U	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	9	vPro	G P	Pro 64	06/12
2349-G4U	i5-3320M	4GBx1	14.0" HD+	720p	320G 7200	None	Intel 6205	WWAN upg	Finger	BT	9	vPro	G P	Pro 64	06/12

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

Positioning Processor	Premiere performance; two spindles Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications ¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • RapidBoot HDD Accelerator • Symantec™ VIP • Windows Live™ Essentials • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive		
mSATA™ SSD	None		
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA NVS™ 5400M , PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material	14.0W" (WxDxH): 13.4" x 9.13" x 1.17–1.18"; 340.5mm x 232.0mm x 29.8–29.9mm <i>6-cell:</i> from 4.77 lb (2.17kg); <i>9-cell:</i> from 5.13 lb (2.33kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Carbon-Fiber Reinforced Plastic		
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 9.4 hr; <i>9-cell (94Whr):</i> up to 15.8 hr; <i>9-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> up to 31.6 hr		
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)		
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant		
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available		
			Supports ThinkVantage® technologies 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² For compatible accessories, please go to O-T430 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet

See footnotes for more detailed information
 US model(s) announced June 5, 2012

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 (NZ4-7) June 2012

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

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Bat-Blue- tooth cells	Intel vPro	Preload	Ann Date (mm/yy)
2349-LUU	i7-3520M	4GBx1	14.0" HD+	720p	180G SSD	Backlit	Intel 6205 ²⁸	WWAN upg	Finger	BT 9	vPro	Win7 Pro64	12/12

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology	Preloaded operating system ²⁰ - Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded; purchase product key to activate • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Norton™ Internet Security (30 days of virus definitions) • Skype™ Supports ThinkVantage® technologies 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² For compatible accessories, please go to O-T430 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller	
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive	
mSATA™ SSD	None	
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio	
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus	
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA NVS™ 5400M , PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)	
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material	<i>14.0W" (WxDxH):</i> 13.4" x 9.13" x 1.17–1.18"; 340.5mm x 232.0mm x 29.8–29.9mm <i>6-cell:</i> from 4.77 lb (2.17kg); <i>9-cell:</i> from 5.13 lb (2.33kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 9.4 hr; <i>9-cell (94Whr):</i> up to 15.8 hr; <i>9-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> up to 31.6 hr	
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)	
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole	
Security Security chip Fingerprint reader	Trusted Platform Module, TCG 1.2-compliant AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available	

See footnotes for more detailed information
US model(s) announced December 4, 2012

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(NZ4-16) February 2013

ThinkPad® T430 Accessories

Personal Systems Reference (PSREF)

Memory

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

Ultrabay Enhanced 12.7mm

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

Storage and removable storage

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

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

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

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

ThinkPad Gobi™ 3000 Mobile Broadband	0A36185	ann	04/12/11
ThinkPad Gobi 4000 Mobile Broadband - AT&T®	0A36320	ann	06/05/12
ThinkPad Gobi 4000 Mobile Broadband - Verizon®	0A36318	ann	06/26/12

ThinkPad Expansion

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

Keyboard

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

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

Mouse

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

Multimedia

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

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

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

Batteries

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

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

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

More information at www.lenovo.com/alldaycomputing

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

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

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

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

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

More information at www.lenovopowertips.com

Carrying Cases

Up to 14" widescreen models:

ThinkPad 14W Case Sleeve	57Y4294	ann	03/16/10
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Up to 15.6" widescreen models:

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

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

Monitors

ThinkVision® L1711p 17" (VGA, DVI-D)	5047HB2	ann	10/20/09
ThinkVision L1900p 19" (VGA, DVI-D)	4431HE1	ann	11/11/08
ThinkVision LT1952p Wide 19" (VGA, DP, DVI-D) ⁶⁹	2448MB6	ann	09/13/11
ThinkVision L2250p Wide 22" (VGA, DVI-D)	2572HB6	ann	10/20/09
ThinkVision L2251x Wide 22" (VGA, DP) ⁶⁹	2578HB6	ann	10/20/09
ThinkVision LT2252p Wide 22" (VGA, DP, DVI-D) ⁶⁹	2572MB6	ann	09/13/11
ThinkVision LT2452p Wide 24" (VGA, DP, DVI-D) ⁶⁹	4420MB2	ann	09/13/11

⁶⁹ DisplayPort cable is not included.

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

Monitor Accessories⁴⁶

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

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

For more information on accessories:

www.lenovo.com/accessories

Purchase Lenovo accessories

www.lenovo.com/support/accessories

Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide

Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com

An Options Compatibility Configurator for Lenovo systems

ThinkPad®



Lenovo® ThinkPad T430s



Lenovo ThinkPad T430s



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



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



Lenovo ThinkPad T430s



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

ThinkPad® T430s 2352 (TopSeller)

Personal Systems Reference (PSREF)

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

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

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology		Preloaded operating system²⁰ Genuine Windows® 7 Professional 64
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager
Optical Bay battery Ultrabay SATA disk	<i>Some:</i> DVD burner, 9.5mm Ultrabay slim, removable <i>Some:</i> ThinkPad Battery 43 (3-cell, bay) (0A36310), used in Option Bay One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive		Preloaded applications¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • RapidBoot HDD Accelerator • Symantec™ VIP • Windows Live™ Essentials • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
mSATA™ SSD	None		
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>14.0W"</i> (WxDxH): 13.5" x 9.05" x 0.83–1.02"; 343mm x 230mm x 21.2–26.0mm <i>6-cell:</i> from 3.96 lb (1.79kg) <i>Display cover:</i> Hybrid Carbon-fiber reinforced plastic; <i>Bottom:</i> Magnesium alloy Lithium Ion 6-cell, supports optional Ultrabay Slim battery as 2nd battery, HW authentication <i>6-cell (43.2Whr):</i> up to 7.6 hr; <i>6-cell plus 3-cell Bay battery (31.3Whr, 0A36310):</i> up to 13.2 hr		
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) via ExpressCard adapter Two USB 3.0, one powered USB 2.0, ethernet (RJ-45), VGA DB-15, Mini DisplayPort (Mini DP / Thunderbolt™ combo port on i7 integrated model, switch via BIOS)		
PCIe Mini Card PCIe WLAN ⁴	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2		Supports ThinkVantage® technologies
PCIe WWAN Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Wireless WAN upgradable None None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>Some:</i> Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack		65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		For compatible accessories, please go to O-T430-S sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet
Limited warranty ¹² 1-year - depot repair service / service upgrades ²² available			

See footnotes for more detailed information
US model(s) announced June 5, 2012

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(SN4-1) November 2012

ThinkPad® T430s 2353 (TopSeller)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Disk SATA GB ⁸ rpm	Optical or battery	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Finger print reader	Bat-tery cells	Power Adapter (watt)	Intel vPro	Preload (mm/yy)	Ann Date
2353-2NU	i7-3520M	4GBx1	14.0" HD+	180G SSD	DVD±RW	None	Intel 6205 ²⁸	WWAN upg	Finger	6	90W	vPro	Pro 64	06/12
2353-2MU	i5-3320M	4GBx1	14.0" HD+	500G 7200	DVD±RW	None	Intel 6205	WWAN upg	Finger	6	65W	vPro	Pro 64	06/12
2353-2LU	i5-3320M	4GBx1	14.0" HD+	128G SSD	DVD±RW	None	Intel 6205	WWAN upg	Finger	6	65W	vPro	Pro 64	06/12
2353-6GU	i7-3520M	4GBx1	14.0" HD+	500G 7200	DVD±RW	Backlit	Intel 6205	WWAN upg	Finger	6	65W	vPro	Pro 64	07/12
2353-6FU	i7-3520M	4GBx1	14.0" HD+	180G SSD	DVD±RW	Backlit	Intel 6205	WWAN upg	Finger	6	65W	vPro	Pro 64	07/12
2353-6DU	i5-3320M	4GBx1	14.0" HD+	180G SSD	DVD±RW	Backlit	Intel 6205	WWAN upg	Finger	6	65W	vPro	Pro 64	07/12
2353-6AU	i5-3320M	4GBx1	14.0" HD+	128G SSD	DVD±RW	Backlit	Intel 6205	WWAN upg	Finger	6	65W	vPro	Pro 64	07/12
2353-69U	i5-3320M	4GBx1	14.0" HD+	500G 7200	DVD±RW	Backlit	Intel 6205	WWAN upg	Finger	6	65W	vPro	Pro 64	07/12

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

Positioning Processor	Premiere performance and ultraportability; two spindles Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo® Solution Center• Lenovo Message Center Plus• ThinkVantage Product Recovery• Access Connections™• Fingerprint Software (fingerprint models)• ThinkVantage System Update• ThinkVantage Power Manager• Lenovo Cloud Storage by SugarSync• Lenovo SimpleTap• Norton™ Internet Security 2012 (30 days of virus definitions)• Adobe® Reader®• Skype™ for Windows• Evernote®• Intel Small Business Advantage• RapidBoot HDD Accelerator• Symantec™ VIP• Windows Live™ Essentials• Microsoft® Office 2010 preloaded; purchase product key to activate• Corel® WinDVD® (DVD±RW)• Corel Burn.Now™ Lenovo Edition (DVD±RW)• Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
Optical Bay battery	DVD burner, 9.5mm Ultrabay slim, removable None		
Ultrabay SATA disk	One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive		
mSATA™ SSD	None		
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		
Keyboard TrackPoint®	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight		
Touchpad	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass		
ThinkLight™	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch		
	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	14.0W" (WxDxH): 13.5" x 9.05" x 0.83–1.02"; 343mm x 230mm x 21.2–26.0mm		
Weight ²	6-cell: from 3.96 lb (1.79kg)		
Case material	<i>Display cover:</i> Hybrid Carbon-fiber reinforced plastic; <i>Bottom:</i> Magnesium alloy		
Battery - type	Lithium Ion 6-cell, supports optional Ultrabay Slim battery as 2nd battery, HW authentication		
Battery - life ¹⁰	6-cell (43.2Whr): up to 7.6 hr; 6-cell plus 3-cell Bay battery (31.3Whr, 0A36310): up to 13.2 hr		
Chipset	Mobile Intel QM77 Express Chipset		
ExpressCard	One slot (ExpressCard/34)		
Smart Card Read	None		
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC) via ExpressCard adapter		
Ports	Two USB 3.0, one powered USB 2.0, ethernet (RJ-45), VGA DB-15, Mini DisplayPort (Mini DP / Thunderbolt™ combo port on i7 integrated model, switch via BIOS)		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2		
PCIe WWAN	Wireless WAN upgradable		
Carrier	None		
Modem	None		
IEEE 1394	None		
Bluetooth™	Bluetooth 4.0 wireless		
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1		
Intel AMT	Intel Active Management Technology (iAMT)		
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		
Supports ThinkVantage® technologies			
65-watt or 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²			
For compatible accessories, please go to O-T430-S sheet;			
For Lenovo service ²² upgrade options, please go to S-TA sheet			

See footnotes for more detailed information
 US model(s) announced June 5 or July 31, 2012

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ThinkPad® T430s 2353 (TopSeller) - Windows 8

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Disk SATA GB ³ rpm	Optical or battery	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Finger-print reader	Bat-tery cells	Intel vPro	Preload	Ann Date (mm/yy)
2353-9VU	i7-3520M	4GBx1	14.0" HD+	500G 7200	DVD±RW	None	Intel 6205 ²⁸	WWAN upg	Finger	6	vPro	Win7 Pro64	10/12
2353-9MU	i5-3320M	4GBx1	14.0" HD+	128G SSD	DVD±RW	Backlit	Intel 6205	WWAN upg	Finger	6	vPro	Win7 Pro64	10/12
2353-9LU	i5-3320M	4GBx1	14.0" HD+	500G 7200	DVD±RW	Backlit	Intel 6205	WWAN upg	Finger	6	vPro	Win7 Pro64	10/12
2353-6HU	i7-3520M	4GBx1	14.0" HD+	500G 7200	DVD±RW	Backlit	Intel 6205	WWAN upg	Finger	6	vPro	Win8 Pro64	10/12
2353-6EU	i7-3520M	4GBx1	14.0" HD+	180G SSD	DVD±RW	Backlit	Intel 6205	WWAN upg	Finger	6	vPro	Win8 Pro64	10/12
2353-6CU	i5-3320M	4GBx1	14.0" HD+	180G SSD	DVD±RW	Backlit	Intel 6205	WWAN upg	Finger	6	vPro	Win8 Pro64	10/12
2353-6BU	i5-3320M	4GBx1	14.0" HD+	128G SSD	DVD±RW	Backlit	Intel 6205	WWAN upg	Finger	6	vPro	Win8 Pro64	10/12
2353-68U	i5-3320M	4GBx1	14.0" HD+	500G 7200	DVD±RW	Backlit	Intel 6205	WWAN upg	Finger	6	vPro	Win8 Pro64	10/12

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

Positioning Processor	Premiere performance and ultraportability; two spindles Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system ²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded; purchase product key to activate • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Skype™
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
Optical Bay battery Ultrabay SATA disk	DVD burner, 9.5mm Ultrabay slim, removable None One modular bay for interchangeable devices (right side), 9.5mm high, bottom access Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ All: removable, upgradable, supports the second disk, Shock Mounted Hard Drive		
mSATA™ SSD	None		
Widescreen display	Some: 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio Some: 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	14.0W" (WxDxH): 13.5" x 9.05" x 0.83–1.02"; 343mm x 230mm x 21.2–26.0mm 6-cell: from 3.96 lb (1.79kg) <i>Display cover:</i> Hybrid Carbon-fiber reinforced plastic; <i>Bottom:</i> Magnesium alloy Lithium Ion 6-cell, supports optional Ultrabay Slim battery as 2nd battery, HW authentication 6-cell (43.2Whr): up to 7.6 hr; 6-cell plus 3-cell Bay battery (31.3Whr, 0A36310): up to 13.2 hr		
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) via ExpressCard adapter Two USB 3.0, one powered USB 2.0, ethernet (RJ-45), VGA DB-15, Mini DisplayPort (Mini DP / Thunderbolt™ combo port on i7 integrated model, switch via BIOS)		
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant		
Security Security chip Fingerprint reader	Power On Authentication, supports the security chip AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

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

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

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Finger print reader	Battery cells	Intel AMT	Intel vPro	Preload	Ann Date (mm/yy)
2353-9WU	i7-3520M	4GBx1	14.0" HD+	720p	180G SSD	Backlit	Intel 6205 ²⁸	WWAN upg	Finger	6	iAMT	vPro	Win7 Pro64	10/12
2353-9KU	i5-3210M	4GBx1	14.0" HD+	720p	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	6	None	No	Win7 Pro64	10/12
2353-67U	i5-3210M	4GBx1	14.0" HD	720p	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	6	None	No	Win8 Pro64	10/12
2353-ALU	i5-3230M	4GBx1	14.0" HD	720p	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	6	None	No	Win8 Pro64	02/13
2353-ABU	i5-3230M	4GBx1	14.0" HD+	720p	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	6	None	No	Win7 Pro64	02/13

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

Positioning Processor	<p><i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5-3210M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology Intel Core i5-3230M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology</p>										<p>Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit</p> <p>Preloaded applications⁵ (only some listed)</p> <p>- Windows 7 models</p> <ul style="list-style-type: none"> • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) <p>- Windows 8 models</p> <ul style="list-style-type: none"> • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded; purchase product key to activate • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) <p>- All models</p> <ul style="list-style-type: none"> • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Norton™ Internet Security (30 days of virus definitions) • Skype™ 			
Memory	<p>16GB max⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller</p>													
Optical Bay battery	DVD burner, 9.5mm Ultrabay slim, removable													
Ultrabay	None													
SATA disk	<p>One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive</p>													
mSATA™ SSD	None													
Widescreen display	<p><i>Some:</i> 14.0" (355mm) HD (1366x768) color, anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color, anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio</p>													
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus													
Graphics	<p>NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA NVS™ 5200M, PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort or Thunderbolt (i7 integrated models); supports three independent displays; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)</p>													
Keyboard	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touchpad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	14.0W" (WxDxH): 13.5" x 9.05" x 0.83–1.02"; 343mm x 230mm x 21.2–26.0mm													
Weight ²	6-cell: from 3.96 lb (1.79kg)													
Case material	<i>Display cover:</i> Hybrid Carbon-fiber reinforced plastic; <i>Bottom:</i> Magnesium alloy													
Battery - type	Lithium Ion 6-cell, supports optional Ultrabay Slim battery as 2nd battery, HW authentication													
Battery - life ¹⁰	6-cell (43.2Whr): up to 7.6 hr; 6-cell plus 3-cell Bay battery (31.3Whr, 0A36310): up to 13.2 hr													
Chipset	Mobile Intel QM77 Express Chipset													
ExpressCard	One slot (ExpressCard/34)													
Smart Card Read	None													
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC) via ExpressCard adapter													
Ports	Two USB 3.0, one powered USB 2.0, ethernet (RJ-45), VGA DB-15, Mini DisplayPort													
PCIe Mini Card	Two PCI Express Mini Card slots													
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2													
PCIe WWAN	Wireless WAN upgradable													
Carrier	None													
Modem	None													
IEEE 1394	None													
Bluetooth™	Bluetooth 4.0 wireless													
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1													
Intel AMT	<i>Some:</i> Intel Active Management Technology (iAMT)													
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module, TCG 1.2-compliant													
Fingerprint reader	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available													

See footnotes for more detailed information

US model(s) announced October 23, 2012 or February 5, 2013

⚡ US model(s) withdrawn effective March 2013

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For compatible accessories, please go to O-T430-S sheet;
For Lenovo service²² upgrade options, please go to S-TA sheet

ThinkPad® T430s 2355

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ¹ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Carrier	Finger print reader	Bat- tery cells	Bay battery cells	Global (G) Intel vPro	GMP (P)	Pre-load	Ann Date (mm/yy)
2355-HMU	i7-3520M	4GBx1	14.0" HD+	720p	320G 7200	None	Intel 6205 ²⁸	WWAN upg	None	Finger	6	No	vPro	G	Pro 64	06/12
2355-HLU	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	None	Finger	6	No	vPro	G	Pro 64	06/12
2355-HKU	i7-3520M	4GBx2	14.0" HD+	720p	180G SSD	None	Intel 6205	WWAN upg	None	Finger	6	No	vPro	G	Pro 64	06/12
2355-HFU	i5-3320M	4GBx1	14.0" HD+	720p	128G SSD	None	Intel 6205	WWAN upg	None	Finger	6	No	vPro	G	Pro 64	06/12
2355-HEU	i5-3320M	4GBx1	14.0" HD+	720p	128G SSD	None	Intel 6205	Gobi 3000	select	Finger	6	No	vPro	G	Pro 64	06/12
2355-HDU	i5-3320M	4GBx1	14.0" HD+	None	320G 7200	None	Intel 6205	WWAN upg	None	Finger	6	3	vPro	G	Pro 64	06/12
2355-HCU	i5-3320M	4GBx1	14.0" HD+	720p	128G SSD	None	Intel 6205	WWAN upg	None	Finger	6	3	vPro	G	Pro 64	06/12
2355-GUU	i5-3320M	4GBx1	14.0" HD+	720p	320G 7200	None	Intel 6205	WWAN upg	None	None	6	No	vPro	G	Pro 64	06/12
2355-GTU	i5-3320M	4GBx1	14.0" HD+	720p	128G SSD	None	Intel 6205	WWAN upg	None	None	6	No	vPro	G	Pro 64	06/12
2355-GMU	i7-3520M	4GBx1	14.0" HD+	720p	320G 7200	None	Intel 6205	WWAN upg	None	None	6	No	vPro	G	Pro 64	06/12
2355-G3U	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	None	Finger	6	No	vPro	G	Pro 64	06/12
2355-G2U	i5-3320M	4GBx1	14.0" HD+	720p	320G 7200	None	Intel 6205	WWAN upg	None	Finger	6	No	vPro	G	Pro 64	06/12
2355-K8U	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	Gobi 4000	AT&T	Finger	6	No	vPro	G	Pro 64	09/12
• A depot repair service 3-year limited warranty • Microsoft® Office 2010 Product Key Ready (O10PKR)																
Positioning Processor	Premiere performance and ultraportability; two spindles Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology										Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager					
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller										Preloaded applications ¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • RapidBoot HDD Accelerator • Symantec™ VIP • Windows Live™ Essentials • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)					
Optical Bay battery	DVD burner, 9.5mm Ultrabay slim, removable															
Ultrabay	Some: ThinkPad Battery 43 (3-cell, bay) (0A36310), used in Option Bay															
SATA disk	One modular bay for interchangeable devices (right side), 9.5mm high, bottom access Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™															
mSATA™ SSD	All: removable, upgradable, supports the second disk, Shock Mounted Hard Drive															
None																
Widescreen display	Some: 14.0" (355mm) HD (1366x768) color, anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio Some: 14.0" (355mm) HD+ (1600x900) color, anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio															
Camera	Some: HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus															
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; Maximum external resolution: 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)															
Keyboard	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight															
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass															
Touchpad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch															
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³	14.0W" (WxDxH): 13.5" x 9.05" x 0.83–1.02"; 343mm x 230mm x 21.2–26.0mm															
Weight ²	6-cell: from 3.96 lb (1.79kg)															
Case material	Display cover: Hybrid Carbon-fiber reinforced plastic; Bottom: Magnesium alloy															
Battery - type	Lithium Ion 6-cell, supports optional Ultrabay Slim battery as 2nd battery, HW authentication															
Battery - life ¹⁰	6-cell (43.2Whr): up to 7.6 hr; 6-cell plus 3-cell Bay battery (31.3Whr, 0A36310): up to 13.2 hr															
Chipset	Mobile Intel QM77 Express Chipset															
ExpressCard	One slot (ExpressCard/34)															
Smart Card Read	None															
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC) via ExpressCard adapter															
Ports	Two USB 3.0, one powered USB 2.0, ethernet (RJ-45), VGA DB-15, Mini DisplayPort (Mini DP / Thunderbolt™ combo port on i7 integrated model, switch via BIOS)															
PCIe Mini Card	Two PCI Express Mini Card slots															
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2															
PCIe WWAN	Some: Wireless WAN upgradable Some: Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS Some: Wireless WAN, Qualcomm® Gobi™ 4000 chipset, PCIe Mini Card, LTE, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS										Supports ThinkVantage® technologies					
Carrier	Some: User selectable, AT&T®, Verizon®, or Sprint®, contract required with service provider Some: AT&T® LTE (4G), contract required with service provider										65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²					
Modem	None										For compatible accessories, please go to O-T430-S sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet					
IEEE 1394	None															
Bluetooth™	Bluetooth 4.0 wireless															
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1															
Intel AMT	Intel Active Management Technology (iAMT)															
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack															
Security	Power-on password, hard disk password, supervisor password, security keyhole															
Security chip	Trusted Platform Module, TCG 1.2-compliant															
Fingerprint reader	Some: AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip															
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available															

See footnotes for more detailed information
US model(s) announced June 5 or September 4, 2012

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ThinkPad® T430s 2355 (Windows 8)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Finger print reader	Battery cells	Bay battery cells	Global (G) Intel vPro	GMP (P)	Preload	Ann Date (mm/yy)
2355-K7U	i7-3520M	4GBx1	14.0" HD+	720p	180G SSD	None	Intel 6205 ²⁸	WWAN upg	Finger	6	No	vPro	G	Win8 Pro64	10/12
2355-JQU	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	6	No	vPro		Win8 Pro64	10/12
2355-JCU	i5-3320M	4GBx1	14.0" HD+	720p	320G 7200	None	Intel 6205	WWAN upg	Finger	6	No	vPro		Win8 Pro64	10/12
2355-KNU	i5-3320M	4GBx1	14.0" HD+	720p	180G SSD	None	Intel 6205	WWAN upg	Finger	6	No	vPro		Win7 Pro64	12/12
2355-KMU	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	6	No	vPro		Win7 Pro64	12/12

• A depot repair service 3-year limited warranty

Positioning Processor	Premiere performance and ultraportability; two spindles Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology										Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit Preloaded applications⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded; purchase product key to activate • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Skype™				
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller														
Optical Bay battery	DVD burner, 9.5mm Ultrabay slim, removable														
Ultrabay SATA disk	None One modular bay for interchangeable devices (right side), 9.5mm high, bottom access Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ All: removable, upgradable, supports the second disk, Shock Mounted Hard Drive														
mSATA™ SSD	None														
Widescreen display	Some: 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio Some: 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio														
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus														
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; Maximum external resolution: 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)														
Keyboard TrackPoint®	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight														
Touchpad UltraNav™	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
ThinkLight™	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	14.0W" (WxDxH): 13.5" x 9.05" x 0.83–1.02"; 343mm x 230mm x 21.2–26.0mm														
Weight ²	6-cell: from 3.96 lb (1.79kg)														
Case material	Display cover: Hybrid Carbon-fiber reinforced plastic; Bottom: Magnesium alloy														
Battery - type	Lithium Ion 6-cell, supports optional Ultrabay Slim battery as 2nd battery, HW authentication														
Battery - life ¹⁰	6-cell (43.2Whr): up to 7.6 hr; 6-cell plus 3-cell Bay battery (31.3Whr, 0A36310): up to 13.2 hr														
Chipset	Mobile Intel QM77 Express Chipset														
ExpressCard	One slot (ExpressCard/34)														
Smart Card Reader	None														
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC) via ExpressCard adapter														
Ports	Two USB 3.0, one powered USB 2.0, ethernet (RJ-45), VGA DB-15, Mini DisplayPort (Mini DP / Thunderbolt™ combo port on i7 integrated model, switch via BIOS)														
PCIe Mini Card	Two PCI Express Mini Card slots														
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2														
PCIe WWAN	Wireless WAN upgradable														
Carrier	None														
Modem	None														
IEEE 1394	None														
Bluetooth™	Bluetooth 4.0 wireless														
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1														
Intel AMT	Intel Active Management Technology (iAMT)														
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module, TCG 1.2-compliant														
Fingerprint reader	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available														

See footnotes for more detailed information
US model(s) announced October 23 or December 4, 2012

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(SN4-10) December 2012

ThinkPad® T430s 2355 (Optimus)

Personal Systems Reference (PSREF)

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

- A depot repair service 3-year limited warranty
- Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology		Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo® Solution Center• Lenovo Message Center Plus• ThinkVantage Product Recovery• Access Connections™• Fingerprint Software (fingerprint models)• ThinkVantage System Update• ThinkVantage Power Manager• Lenovo Cloud Storage by SugarSync• Lenovo SimpleTap• Norton™ Internet Security 2012 (30 days of virus definitions)• Adobe® Reader®• Skype™ for Windows• Evernote®• Intel Small Business Advantage• RapidBoot HDD Accelerator• Symantec™ VIP• Windows Live™ Essentials• Microsoft® Office 2010 preloaded; purchase product key to activate• Corel® WinDVD® (DVD±RW)• Corel Burn.Now™ Lenovo Edition (DVD±RW)• Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
Optical Bay battery	DVD burner, 9.5mm Ultrabay slim, removable None		
Ultrabay SATA disk	One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive		
mSATA™ SSD	None		
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA NVS™ 5200M , PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort or Thunderbolt (i7 integrated models); supports three independent displays; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)		
Keyboard	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass		
Touchpad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	14.0W" (WxDxH): 13.5" x 9.05" x 0.83–1.02"; 343mm x 230mm x 21.2–26.0mm		
Weight ²	6-cell: from 3.96 lb (1.79kg)		
Case material	<i>Display cover:</i> Hybrid Carbon-fiber reinforced plastic; <i>Bottom:</i> Magnesium alloy		
Battery - type	Lithium Ion 6-cell, supports optional Ultrabay Slim battery as 2nd battery, HW authentication		
Battery - life ¹⁰	6-cell (43.2Whr): up to 7.6 hr; 6-cell plus 3-cell Bay battery (31.3Whr, 0A36310): up to 13.2 hr		
Chipset	Mobile Intel QM77 Express Chipset		
ExpressCard	One slot (ExpressCard/34)		
Smart Card Read	None		
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC) via ExpressCard adapter		
Ports	Two USB 3.0, one powered USB 2.0, ethernet (RJ-45), VGA DB-15, Mini DisplayPort		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2		
PCIe WWAN	Wireless WAN upgradable		
Carrier	None		
Modem	None		
IEEE 1394	None		
Bluetooth™	Bluetooth 4.0 wireless		
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1		
Intel AMT	Intel Active Management Technology (iAMT)		
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

Supports ThinkVantage® technologies		
90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹²		
For compatible accessories, please go to O-T430-S sheet; For Lenovo service²² upgrade options, please go to S-TA sheet		

See footnotes for more detailed information
US model(s) announced June 5, 2012

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(SN4-4) November 2012

ThinkPad® T430s 2355 (Optimus) - Windows 8

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Bat-tery cells	Global (G) Intel vPro (P)	Preload	Ann Date (mm/yy)
2355-K6U	i5-3320M	4GBx1	14.0" HD+	720p	180G SSD	None	Intel 6205 ²⁸	WWAN upg	Finger	6	vPro G	Win8 Pro64	10/12
2355-JEU	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	6	vPro	Win8 Pro64	10/12
2355-KPU	i7-3520M	4GBx1	14.0" HD+	720p	240G FDE SSD	Backlit	Intel 6205	WWAN upg	Finger	6	vPro	Win7 Pro64	12/12

• A depot repair service 3-year limited warranty

Positioning Processor	Premiere performance and ultraportability; two spindles Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system ²⁰ - <i>Some:</i> Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - <i>Some:</i> Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded; purchase product key to activate • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Norton™ Internet Security (30 days of virus definitions) • Skype™
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
Optical Bay battery Ultrabay SATA disk	DVD burner, 9.5mm Ultrabay slim, removable None One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive		
mSATA™ SSD	None		
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA NVS™ 5200M , PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort or Thunderbolt (i7 integrated models); supports three independent displays; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>14.0W" (WxDxH):</i> 13.5" x 9.05" x 0.83–1.02"; 343mm x 230mm x 21.2–26.0mm <i>6-cell:</i> from 3.96 lb (1.79kg) <i>Display cover:</i> Hybrid Carbon-fiber reinforced plastic; <i>Bottom:</i> Magnesium alloy Lithium Ion 6-cell, supports optional Ultrabay Slim battery as 2nd battery, HW authentication <i>6-cell (43.2Whr):</i> up to 7.6 hr; <i>6-cell plus 3-cell Bay battery (31.3Whr, 0A36310):</i> up to 13.2 hr		
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) via ExpressCard adapter Two USB 3.0, one powered USB 2.0, ethernet (RJ-45), VGA DB-15, Mini DisplayPort		
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole		
Security Security chip Fingerprint reader	Trusted Platform Module, TCG 1.2-compliant AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

Supports ThinkVantage® technologies
90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
For compatible accessories, please go to O-T430-S sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet

See footnotes for more detailed information
US model(s) announced October 23 or December 4, 2012

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(SN4-11) December 2012

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	Optical or battery	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Carrier	Finger-print reader	Bat-tery cells vPro	Global (G) GMP (P)	Pre-load (mm/yy)	Ann Date
2356-HCU	i7-3520M	4GBx1	14.0" HD	720p	500G 7200	DVD±RW	None	Intel 6205 ²⁸	WWAN upg	None	Finger	6	vPro G P	Pro 64	06/12
2356-HBU	i7-3520M	4GBx1	14.0" HD+	720p	320G 7200	DVD±RW	None	Intel 6205	WWAN upg	None	Finger	6	vPro G P	Pro 64	06/12
2356-HAU	i7-3520M	4GBx2	14.0" HD+	720p	180G SSD	DVD±RW	None	Intel 6205	WWAN upg	None	Finger	6	vPro G P	Pro 64	06/12
2356-GUU	i7-3520M	4GBx1	14.0" HD+	720p	320G 7200	DVD±RW	None	Intel 6205	WWAN upg	None	None	6	vPro G P	Pro 64	06/12
2356-GTU	i5-3320M	4GBx1	14.0" HD+	None	320G 7200	DVD±RW	None	Intel 6205	WWAN upg	None	Finger	6	vPro G P	Pro 64	06/12
2356-GRU	i5-3320M	4GBx1	14.0" HD+	720p	128G SSD	DVD±RW	None	Intel 6205	WWAN upg	None	Finger	6	vPro G P	Pro 64	06/12
2356-GPU	i5-3320M	4GBx1	14.0" HD+	720p	320G 7200	DVD±RW	None	Intel 6205	WWAN upg	None	None	6	vPro G P	Pro 64	06/12
2356-GJU	i5-3320M	4GBx1	14.0" HD+	720p	128G SSD	DVD±RW	None	Intel 6205	WWAN upg	None	None	6	vPro G P	Pro 64	06/12
2356-G3U	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	DVD±RW	None	Intel 6205	WWAN upg	None	Finger	6	vPro G P	Pro 64	06/12
2356-G2U	i5-3320M	4GBx1	14.0" HD+	720p	320G 7200	DVD±RW	None	Intel 6205	WWAN upg	None	Finger	6	vPro G P	Pro 64	06/12

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

Positioning Processor	Premiere performance and ultraportability; two spindles Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology			Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64		
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller			Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager		
Optical Bay battery Ultrabay SATA disk	DVD burner, 9.5mm Ultrabay slim, removable None One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive			Preloaded applications ¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • RapidBoot HDD Accelerator • Symantec™ VIP • Windows Live™ Essentials • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)		
mSATA™ SSD	None					
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio					
Camera	<i>Some:</i> HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus					
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)					
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions					
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>14.0W"</i> (WxDxH): 13.5" x 9.05" x 0.83–1.02"; 343mm x 230mm x 21.2–26.0mm <i>6-cell:</i> from 3.96 lb (1.79kg) <i>Display cover:</i> Hybrid Carbon-fiber reinforced plastic; <i>Bottom:</i> Magnesium alloy Lithium Ion 6-cell, supports optional Ultrabay Slim battery as 2nd battery, HW authentication <i>6-cell (43.2Whr):</i> up to 7.6 hr; <i>6-cell plus 3-cell Bay battery (31.3Whr, 0A36310):</i> up to 13.2 hr					
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) via ExpressCard adapter Two USB 3.0, one powered USB 2.0, ethernet (RJ-45), VGA DB-15, Mini DisplayPort (Mini DP / Thunderbolt™ combo port on i7 integrated model, switch via BIOS)					
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole			Supports ThinkVantage® technologies		
Security Security chip Fingerprint reader	Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip			65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²		
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available			For compatible accessories, please go to O-T430-S sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet		

See footnotes for more detailed information
US model(s) announced June 5, 2012

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(SN4-5) November 2012

ThinkPad® T430s 2356 (Onsite) - Windows 8

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Finger print reader	Bat-tery cells	Intel vPro	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
2356-LDU	i7-3520M	4GBx1	14.0" HD+	720p	180G SSD	None	Intel 6205 ²⁸	WWAN upg	Finger	6	vPro	G P	Win8 Pro64	10/12
2356-LAU	i5-3320M	4GBx1	14.0" HD+	720p	320G 7200	None	Intel 6205	WWAN upg	Finger	6	vPro	G P	Win8 Pro64	10/12
2356-MHU	i5-3320M	4GBx1	14.0" HD+	720p	180G SSD	None	Intel 6205	WWAN upg	Finger	6	vPro		Win7 Pro64	10/12
2356-MGU	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	6	vPro		Win7 Pro64	12/12

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

Positioning Processor	Premiere performance and ultraportability; two spindles Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology	Preloaded operating system ²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded; purchase product key to activate • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Skype™
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller	
Optical Bay battery	DVD burner, 9.5mm Ultrabay slim, removable None	
Ultrabay SATA disk	One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 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™	
mSATA™ SSD	All: removable, upgradable, supports the second disk, Shock Mounted Hard Drive None	
Widescreen display	Some: 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio Some: 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio	
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus	
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)	
Keyboard TrackPoint®	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight	
Touchpad ThinkLight™	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	<i>14.0W" (WxDxH):</i> 13.5" x 9.05" x 0.83–1.02"; 343mm x 230mm x 21.2–26.0mm	
Weight ²	<i>6-cell:</i> from 3.96 lb (1.79kg)	
Case material	<i>Display cover:</i> Hybrid Carbon-fiber reinforced plastic; <i>Bottom:</i> Magnesium alloy	
Battery - type	Lithium Ion 6-cell, supports optional Ultrabay Slim battery as 2nd battery, HW authentication	
Battery - life ¹⁰	<i>6-cell (43.2Whr):</i> up to 7.6 hr; <i>6-cell plus 3-cell Bay battery (31.3Whr, 0A36310):</i> up to 13.2 hr	
Chipset	Mobile Intel QM77 Express Chipset	
ExpressCard	One slot (ExpressCard/34)	
Smart Card Read	None	
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC) via ExpressCard adapter	
Ports	Two USB 3.0, one powered USB 2.0, ethernet (RJ-45), VGA DB-15, Mini DisplayPort (Mini DP / Thunderbolt™ combo port on i7 integrated model, switch via BIOS)	
PCIe Mini Card	Two PCI Express Mini Card slots	
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2	
PCIe WWAN	Wireless WAN upgradable	
Carrier	None	
Modem	None	
IEEE 1394	None	
Bluetooth™	Bluetooth 4.0 wireless	
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1	
Intel AMT	Intel Active Management Technology (iAMT)	
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	Trusted Platform Module, TCG 1.2-compliant	
Fingerprint reader	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available	

Supports ThinkVantage® technologies
65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
For compatible accessories, please go to O-T430-S sheet;
For Lenovo service ²² upgrade options, please go to S-TA sheet

See footnotes for more detailed information
US model(s) announced October 23 or December 4, 2012

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(SN4-12) December 2012

ThinkPad® T430s 2356 (Optimus) - Onsite

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	Optical or battery	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Bat-tery Intel vPro	Global (G) GMP (P)	Pre-load	Ann Date (mm/yy)
2356-H9U	i5-3320M	4GBx2	14.0" HD+	720p	180G SSD	DVD±RW	None	Intel 6205 ²⁸	WWAN upg	Finger	BT	6 vPro	G P	Pro 64	06/12
2356-H8U	i5-3320M	4GBx1	14.0" HD+	720p	320G 7200	DVD±RW	None	Intel 6205	WWAN upg	Finger	BT	6 vPro	G P	Pro 64	06/12
2356-H7U	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	DVD±RW	None	Intel 6205	WWAN upg	Finger	BT	6 vPro	G P	Pro 64	06/12

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

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology		Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo® Solution Center• Lenovo Message Center Plus• ThinkVantage Product Recovery• Access Connections™• Fingerprint Software (fingerprint models)• ThinkVantage System Update• ThinkVantage Power Manager• Lenovo Cloud Storage by SugarSync• Lenovo SimpleTap• Norton™ Internet Security 2012 (30 days of virus definitions)• Adobe® Reader®• Skype™ for Windows• Evernote®• Intel Small Business Advantage• RapidBoot HDD Accelerator• Symantec™ VIP• Windows Live™ Essentials• Microsoft® Office 2010 preloaded; purchase product key to activate• Corel® WinDVD® (DVD±RW)• Corel Burn.Now™ Lenovo Edition (DVD±RW)• Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
Optical Bay battery	DVD burner, 9.5mm Ultrabay slim, removable None		
Ultrabay SATA disk	One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive		
mSATA™ SSD	None		
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA NVS™ 5200M , PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort or Thunderbolt (i7 integrated models); supports three independent displays; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)		
Keyboard TrackPoint®	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight		
Touchpad	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass		
ThinkLight™	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	<i>14.0W" (WxDxH):</i> 13.5" x 9.05" x 0.83–1.02"; 343mm x 230mm x 21.2–26.0mm		
Weight ²	<i>6-cell:</i> from 3.96 lb (1.79kg)		
Case material	<i>Display cover:</i> Hybrid Carbon-fiber reinforced plastic; <i>Bottom:</i> Magnesium alloy		
Battery - type	Lithium Ion 6-cell, supports optional Ultrabay Slim battery as 2nd battery, HW authentication		
Battery - life ¹⁰	<i>6-cell (43.2Whr):</i> up to 7.6 hr; <i>6-cell plus 3-cell Bay battery (31.3Whr, 0A36310):</i> up to 13.2 hr		
Chipset	Mobile Intel QM77 Express Chipset		
ExpressCard	One slot (ExpressCard/34)		
Smart Card Read	None		
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC) via ExpressCard adapter		
Ports	Two USB 3.0, one powered USB 2.0, ethernet (RJ-45), VGA DB-15, Mini DisplayPort		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2		
PCIe WWAN	Wireless WAN upgradable		
Carrier	None		
Modem	None		
IEEE 1394	None		
Bluetooth™	Bluetooth 4.0 wireless		
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1		
Intel AMT	Intel Active Management Technology (iAMT)		
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available		
For compatible accessories, please go to O-T430-S sheet;			
For Lenovo service ²² upgrade options, please go to S-TA sheet			

See footnotes for more detailed information
US model(s) announced June 5, 2012

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(SN4-6) November 2012

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

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger-print reader	Battery cells	Intel vPro	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
2356-LCU	i5-3320M	4GBx1	14.0" HD+	720p	180G SSD	None	Intel 6205 ²⁸	WWAN upg	Finger	6	vPro	G P	Win8 Pro64	10/12
2356-LBU	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	6	vPro	G P	Win8 Pro64	10/12
2356-L9U	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	6	vPro		Win8 Pro64	10/12
2356-MJU	i7-3520M	4GBx1	14.0" HD+	720p	240G FDE SSD	Backlit	Intel 6205	WWAN upg	Finger	6	vPro		Win7 Pro64	12/12

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

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology										Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit			
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller										Preloaded applications⁵ (only some listed)			
Optical Bay battery Ultrabay SATA disk	DVD burner, 9.5mm Ultrabay slim, removable None One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive										- Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)			
mSATA™ SSD	None										- Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded; purchase product key to activate • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW)			
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio										- All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Norton™ Internet Security (30 days of virus definitions) • Skype™			
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus													
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA NVS™ 5200M , PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort or Thunderbolt (i7 integrated models); supports three independent displays; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)										- All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Norton™ Internet Security (30 days of virus definitions) • Skype™			
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	14.0W" (WxDxH): 13.5" x 9.05" x 0.83–1.02"; 343mm x 230mm x 21.2–26.0mm 6-cell: from 3.96 lb (1.79kg) <i>Display cover:</i> Hybrid Carbon-fiber reinforced plastic; <i>Bottom:</i> Magnesium alloy Lithium Ion 6-cell, supports optional Ultrabay Slim battery as 2nd battery, HW authentication 6-cell (43.2Whr): up to 7.6 hr; 6-cell plus 3-cell Bay battery (31.3Whr, 0A36310): up to 13.2 hr													
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) via ExpressCard adapter Two USB 3.0, one powered USB 2.0, ethernet (RJ-45), VGA DB-15, Mini DisplayPort													
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										Supports ThinkVantage® technologies 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²			
Security Security chip Fingerprint reader											For compatible accessories, please go to O-T430-S sheet;			
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available										For Lenovo service ²² upgrade options, please go to S-TA sheet			

See footnotes for more detailed information
 US model(s) announced October 23 or December 4, 2012

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 (SN4-13) December 2012

ThinkPad® T430s Accessories

Personal Systems Reference (PSREF)

Memory

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

Ultrabay Slim 9.5mm

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

Storage and removable storage

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

⁴¹ Can be used as the main HDD or with

Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 in the Ultrabay.

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

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

ThinkPad Gobi™ 3000 Mobile Broadband	0A36185	ann	04/12/11
ThinkPad Gobi 4000 Mobile Broadband - AT&T®	0A36320	ann	06/05/12
ThinkPad Gobi 4000 Mobile Broadband - Verizon®	0A36318	ann	06/26/12

ThinkPad Expansion

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

Keyboard

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

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

Mouse

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

Multimedia

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

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

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

Batteries

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

More information at www.lenovo.com/alldaycomputing

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

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

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

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

More information at www.lenovopowertips.com

Carrying Cases

Up to 14" widescreen models:

ThinkPad 14W Case Sleeve	57Y4294	ann	03/16/10
ThinkPad Ultralight Backpack	0B47306	ann	12/11/12
ThinkPad Ultralight Topload	0B47307	ann	12/11/12

Up to 15.6" widescreen models:

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

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

Monitors

ThinkVision® L1711p 17" (VGA, DVI-D)	5047HB2	ann	10/20/09
ThinkVision L1900p 19" (VGA, DVI-D)	4431HE1	ann	11/11/08
ThinkVision LT1952p Wide 19" (VGA, DP, DVI-D) ⁶⁹	2448MB6	ann	09/13/11
ThinkVision L2250p Wide 22" (VGA, DVI-D)	2572HB6	ann	10/20/09
ThinkVision L2251x Wide 22" (VGA, DP) ⁶⁹	2578HB6	ann	10/20/09
ThinkVision LT2252p Wide 22" (VGA, DP, DVI-D) ⁶⁹	2572MB6	ann	09/13/11
ThinkVision LT2452p Wide 24" (VGA, DP, DVI-D) ⁶⁹	4420MB2	ann	09/13/11

⁶⁹ DisplayPort cable is not included.

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

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

Monitor Accessories⁴⁶

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

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

For more information on accessories:

www.lenovo.com/accessories

Purchase Lenovo accessories

www.lenovo.com/support/accessories

Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide

Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com

An Options Compatibility Configurator for Lenovo systems



Lenovo® ThinkPad T430u



Lenovo ThinkPad T430u



Lenovo ThinkPad T430u



Lenovo ThinkPad T430u



Lenovo ThinkPad T430u



Lenovo ThinkPad T430u

ThinkPad® T430u 3351 (TopSeller) - Windows 8

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Battery cells	Preload	Ann Date (mm/yy)
3351-8EU	i5-3317U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n	24GB mSATA	None	BT	3	Win7 Pro64	10/12
3351-7BU	i5-3427U	4GBx1	14.0" HD	720p	500G 7200	Intel 2230	24GB mSATA	Finger	BT	3	Win8 Pro64	10/12
3351-7AU	i5-3317U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n	24GB mSATA	Finger	BT	3	Win8 Pro64	10/12
3351-B4U	i5-3427U	4GBx1	14.0" HD	720p	500G 7200	Intel 2230	24GB mSATA	Finger	BT	3	Win7 Pro64	02/13
3351-B3U	i5-3337U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n	24GB mSATA	None	BT	3	Win8 Pro64	02/13
3351-B2U	i5-3337U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n	24GB mSATA	None	BT	3	Win7 Pro64	02/13
3351-99U	i5-3337U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n	24GB mSATA	None	BT	3	Win7 Pro64	02/13

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

Positioning Processor	Mainstream Ultrabook™; one spindle Intel® Core™ i5-3317U processor (2 cores, 1.70GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.60GHz), HT technology Intel Core i5-3337U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.70GHz), HT technology Intel Core i5-3427U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.80GHz), HT technology							Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit				
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets							Preloaded applications⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Microsoft® Office 2010 preloaded; purchase product key to activate - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded; purchase product key to activate - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Norton™ Internet Security (30 days of virus definitions) • Skype™				
Optical SATA disk	None Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™											
mSATA™ SSD	mSATA Solid State Drive (SSD), via PCIe Mini Card slot											
Widescreen display	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 500:1 contrast ratio											
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus											
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via HDMI™ or Mini DisplayPort supports three independent displays; Maximum external resolution: 2560x1600 (Mini-DisplayPort or HDMI) @60Hz											
Keyboard	6-row, spill-resistant, multimedia Fn keys											
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³											
Touchpad	UltraNav™, buttonless touchpad below keyboard, multi-touch											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions ³	14.0W" (WxDxH): 13.39" x 9.29" x 0.83"; 340mm x 236mm x 21mm											
Weight ²	3-cell: from 4.08 lb (1.85kg)											
Case material	Display cover: Aluminum; Bottom: Glass-Fiber Reinforced Plastic											
Battery - type	Integrated Li-Polymer 3-cell											
Battery - life ¹⁰	3-cell (47Whr): up to 7.1 hr											
Chipset	Mobile Intel UM77 Express Chipset											
ExpressCard	None											
Smart Card read	None											
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)											
Ports	Two USB 3.0, external monitor (Mini DisplayPort, HDMI), ethernet (RJ-45)											
PCIe Mini Card	Two PCI Express Mini Card slots											
PCIe WLAN ⁴	Some: 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + BT combo adapter Some: 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, 2x2, Wi-Fi + Bluetooth combo adapter											
PCIe WWAN	None											
Carrier	None											
Modem	None											
IEEE 1394	None											
Bluetooth™	Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter											
Ethernet	Realtek® RTL8111F Gigabit Network Connection											
Intel AMT	None											
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 2W x 2 / dual array microphone, combo audio/microphone jack											
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	Trusted Platform Module, TCG 1.2-compliant											
Fingerprint reader	Some: AuthenTec fingerprint reader on the keyboard bezel, swipe sensor, LED indicator, supports the security chip											
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available											

See footnotes for more detailed information

US model(s) announced October 23, 2012 or February 5, 2013

3351 US model(s) withdrawn effective March 2013

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(ABBA1-7) February 2013

Supports ThinkVantage® technologies
65-watt AC adapter
ThinkPad Roll Cage (bottom cover)
EPEAT™ Gold rating
ENERGY STAR® 5.0-compliant
GREENGUARD® certified
RoHS-compliant
International Warranty Service¹⁷
24 hour x 7 day¹⁸ toll-free support during the warranty period¹²
For compatible accessories, please go to O-T430-U sheet;
For Lenovo service²² upgrade options, please go to S-TA sheet

ThinkPad® T430u 8614 (TopSeller)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Battery cells	Preload	Ann Date (mm/yy)
8614-45U	i5-3427U	4GBx1	14.0" HD	720p	128G SSD	TP 11a/b/g/n	None	Finger	BT	3	Pro 64	08/12
8614-3KU	i5-3427U	4GBx1	14.0" HD	720p	128G SSD	TP 11a/b/g/n	None	Finger	BT	3	Pro 64	08/12
8614-3JU	i5-3427U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n	24GB mSATA	Finger	BT	3	Pro 64	08/12

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

Positioning Processor	Mainstream Ultrabook™; one spindle Intel® Core™ i5-3427U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.80GHz), HT technology							Preloaded operating system²⁰ Genuine Windows® 7 Professional 64				
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets							Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager				
Optical SATA disk	None <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™							Preloaded applications¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • RapidBoot HDD Accelerator • Symantec™ VIP • Windows Live™ Essentials • Microsoft® Office 2010 preloaded; purchase product key to activate				
mSATA™ SSD	<i>Some:</i> mSATA Solid State Drive (SSD), via PCIe Mini Card slot											
Widescreen display	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 500:1 contrast ratio											
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus											
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via HDMI™ or Mini DisplayPort supports three independent displays; <i>Maximum external resolution:</i> 2560x1600 (Mini-DisplayPort or HDMI) @60Hz											
Keyboard	6-row, spill-resistant, multimedia Fn keys											
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³											
Touchpad	UltraNav™, buttonless touchpad below keyboard, multi-touch											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions ³	14.0W" (WxDxH): 13.39" x 9.29" x 0.83"; 340mm x 236mm x 21mm											
Weight ²	3-cell: from 4.08 lb (1.85kg)											
Case material	<i>Display cover:</i> Aluminum; <i>Bottom:</i> Glass-Fiber Reinforced Plastic											
Battery - type	Integrated Li-Polymer 3-cell											
Battery - life ¹⁰	3-cell (47Whr): up to 7.1 hr											
Chipset	Mobile Intel UM77 Express Chipset											
ExpressCard	None											
Smart Card read	None											
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)											
Ports	Two USB 3.0, external monitor (Mini DisplayPort, HDMI), ethernet (RJ-45)											
PCIe Mini Card	Two PCI Express Mini Card slots											
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + BT combo adapter											
PCIe WWAN	None											
Carrier	None											
Modem	None											
IEEE 1394	None											
Bluetooth™	Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter											
Ethernet	Realtek® RTL8111F Gigabit Network Connection											
Intel AMT	None											
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 2W x 2 / dual array microphone, combo audio/microphone jack											
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	Trusted Platform Module, TCG 1.2-compliant											
Fingerprint reader	AuthenTec fingerprint reader on the keyboard bezel, swipe sensor, LED indicator, supports the security chip											
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available											

See footnotes for more detailed information
US model(s) announced August 28, 2012

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(ABBA1-2) August 2012

ThinkPad® T430u 8614 (TopSeller) - Windows 8

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Battery cells	Preload	Ann Date (mm/yy)
8614-8BU	i5-3427U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n	24GB mSATA	Finger	BT	3	Win7 Pro64	10/12
8614-6WU	i5-3427U	4GBx1	14.0" HD	720p	128G SSD	Intel 2230	None	Finger	BT	3	Win8 Pro64	10/12
8614-6VU	i5-3427U	4GBx1	14.0" HD	720p	500G 7200	Intel 2230	24GB mSATA	Finger	BT	3	Win8 Pro64	10/12
8614-ANU	i5-3427U	4GBx1	14.0" HD	720p	128G SSD	Intel 2230	None	Finger	BT	3	Win7 Pro64	02/13

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

Positioning Processor	Mainstream Ultrabook™; one spindle Intel® Core™ i5-3427U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.80GHz), HT technology		Preloaded operating system ²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Microsoft® Office 2010 preloaded; purchase product key to activate - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded; purchase product key to activate - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Norton™ Internet Security (30 days of virus definitions) • Skype™ Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (bottom cover) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² For compatible accessories, please go to O-T430-U sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
Optical SATA disk	None Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™		
mSATA™ SSD	Some: mSATA Solid State Drive (SSD), via PCIe Mini Card slot		
Widescreen display	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 500:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via HDMI™ or Mini DisplayPort supports three independent displays; <i>Maximum external resolution: 2560x1600 (Mini-DisplayPort or HDMI) @60Hz</i>		
Keyboard	6-row, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³		
Touchpad	UltraNav™, buttonless touchpad below keyboard, multi-touch		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	14.0W" (WxDxH): 13.39" x 9.29" x 0.83"; 340mm x 236mm x 21mm		
Weight ²	3-cell: from 4.08 lb (1.85kg)		
Case material	<i>Display cover:</i> Aluminum; <i>Bottom:</i> Glass-Fiber Reinforced Plastic		
Battery - type	Integrated Li-Polymer 3-cell		
Battery - life ¹⁰	3-cell (47Whr): up to 7.1 hr		
Chipset	Mobile Intel UM77 Express Chipset		
ExpressCard	None		
Smart Card read	None		
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)		
Ports	Two USB 3.0, external monitor (Mini DisplayPort, HDMI), ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	Some: 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + BT combo adapter Some: 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, 2x2, Wi-Fi + Bluetooth combo adapter		
PCIe WWAN	None		
Carrier	None		
Modem	None		
IEEE 1394	None		
Bluetooth™	Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter		
Ethernet	Realtek® RTL8111F Gigabit Network Connection		
Intel AMT	None		
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 2W x 2 / dual array microphone, combo audio/microphone jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	AuthenTec fingerprint reader on the keyboard bezel, swipe sensor, LED indicator, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for more detailed information

US model(s) announced October 23, 2012 or February 5, 2013

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(ABBA1-9) February 2013

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

Personal Systems Reference (PSREF)

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

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

Positioning Processor	Mainstream Ultrabook™; one spindle Intel® Core™ i7-3517U processor (2 cores, 1.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.0GHz), HT technology Intel Core i7-3537U processor (2 cores, 2.0GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.1GHz), HT technology	Preloaded operating system ²⁰ - <i>Some:</i> Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - <i>Some:</i> Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models <ul style="list-style-type: none">• Lenovo® Message Center Plus• ThinkVantage Product Recovery• Access Connections™• ThinkVantage Power Manager• Lenovo SimpleTap• Adobe® Reader® • Microsoft® Office 2010 preloaded; purchase product key to activate - Windows 8 models<ul style="list-style-type: none">• Lenovo Support• Lenovo Companion• Lenovo QuickLaunch• Microsoft® Office 2013 preloaded; purchase product key to activate - All models<ul style="list-style-type: none">• Lenovo Solution Center• Password Manager• ThinkVantage System Update• Fingerprint Software (fingerprint models)• Lenovo Cloud Storage by SugarSync• Norton™ Internet Security (30 days of virus definitions)• Skype™
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	
Optical SATA disk	None <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™	
mSATA™ SSD	<i>Some:</i> mSATA Solid State Drive (SSD), via PCIe Mini Card slot	
Widescreen display	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 500:1 contrast ratio	
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus	
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA GeForce® GT 620M , PCI Express® x16, 1GB memory, external digital monitor support via HDMI™ or Mini DisplayPort supports three independent displays; <i>Maximum external resolution:</i> 2560x1600 (Mini-DisplayPort or HDMI) @60Hz	
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ UltraNav™, buttonless touchpad below keyboard, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material	14.0W" (WxDxH): 13.39" x 9.29" x 0.83"; 340mm x 236mm x 21mm 3-cell: from 4.12 lb (1.87kg) <i>Display cover:</i> Aluminum; <i>Bottom:</i> Glass-Fiber Reinforced Plastic	
Battery - type Battery - life ¹⁰	Integrated Li-Polymer 3-cell 3-cell (47Whr): up to 6.6 hr	
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel UM77 Express Chipset None None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, external monitor (Mini DisplayPort, HDMI), ethernet (RJ-45)	
PCIe Mini Card PCIe WLAN ⁴	Two PCI Express Mini Card slots <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + BT combo adapter <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, 2x2, Wi-Fi + Bluetooth combo adapter	
PCIe WWAN Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	None None None None Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter Realtek® RTL8111F Gigabit Network Connection None HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 2W x 2 / dual array microphone, combo audio/microphone jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant AuthenTec fingerprint reader on the keyboard bezel, swipe sensor, LED indicator, supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	
		Supports ThinkVantage® technologies
		65-watt AC adapter ThinkPad Roll Cage (bottom cover) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
		For compatible accessories, please go to O-T430-U sheet;
		For Lenovo service ²² upgrade options, please go to S-TA sheet

See footnotes for more detailed information
US model(s) announced October 23, 2012 or February 5, 2013
≈< US model(s) withdrawn effective March 5, 2013

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(ABBA1-10) February 2013

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Bat- tery (G) cells	Global (P) GMP	Preload	Ann Date (mm/yy)
3352-2SU	i5-3427U	4GBx1	14.0" HD	720p	128G SSD	TP 11a/b/g/n	None	Finger	BT	3	G	Pro 64	08/12
3352-2NU	i5-3427U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n	24GB mSATA	Finger	BT	3		Pro 64	08/12

- A depot repair service 3-year limited warranty
- Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Mainstream Ultrabook™; one spindle Intel® Core™ i5-3427U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.80GHz), HT technology							Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64					
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets							Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager					
Optical SATA disk	None <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™							Preloaded applications ¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • RapidBoot HDD Accelerator • Symantec™ VIP • Windows Live™ Essentials • Microsoft® Office 2010 preloaded; purchase product key to activate					
mSATA™ SSD	<i>Some:</i> mSATA Solid State Drive (SSD), via PCIe Mini Card slot												
Widescreen display	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 500:1 contrast ratio												
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus												
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via HDMI™ or Mini DisplayPort supports three independent displays; <i>Maximum external resolution:</i> 2560x1600 (Mini-DisplayPort or HDMI) @60Hz												
Keyboard	6-row, spill-resistant, multimedia Fn keys												
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³												
Touchpad	UltraNav™, buttonless touchpad below keyboard, multi-touch												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	14.0W" (WxDxH): 13.39" x 9.29" x 0.83"; 340mm x 236mm x 21mm												
Weight ²	3-cell: from 4.08 lb (1.85kg)												
Case material	<i>Display cover:</i> Aluminum; <i>Bottom:</i> Glass-Fiber Reinforced Plastic												
Battery - type	Integrated Li-Polymer 3-cell												
Battery - life ¹⁰	3-cell (47Whr): up to 7.1 hr												
Chipset	Mobile Intel UM77 Express Chipset												
ExpressCard	None												
Smart Card read	None												
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)												
Ports	Two USB 3.0, external monitor (Mini DisplayPort, HDMI), ethernet (RJ-45)												
PCIe Mini Card	Two PCI Express Mini Card slots												
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + BT combo adapter												
PCIe WWAN	None												
Carrier	None												
Modem	None												
IEEE 1394	None												
Bluetooth™	Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter												
Ethernet	Realtek® RTL8111F Gigabit Network Connection												
Intel AMT	None												
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 2W x 2 / dual array microphone, combo audio/microphone jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, TCG 1.2-compliant												
Fingerprint reader	AuthenTec fingerprint reader on the keyboard bezel, swipe sensor, LED indicator, supports the security chip												
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available												

See footnotes for more detailed information
US model(s) announced August 28, 2012

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ThinkPad® T430u 3352 (Windows 8)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ^a rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Bat-tery cells	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
3352-3CU	i5-3427U	4GBx1	14.0" HD	720p	128G SSD	Intel 2230	None	Finger	BT	3	G	Win8 Pro64	10/12
3352-33U	i5-3427U	4GBx1	14.0" HD	720p	500G 7200	Intel 2230	24GB mSATA	Finger	BT	3		Win8 Pro64	10/12
3352-3TU	i5-3427U	4GBx1	14.0" HD	720p	128G SSD	TP 11a/b/g/n	None	Finger	BT	3		Win7 Pro64	12/12
3352-3SU	i5-3427U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n	24GB mSATA	Finger	BT	3		Win7 Pro64	12/12

• A depot repair service 3-year limited warranty

Positioning Processor	Mainstream Ultrabook™; one spindle Intel® Core™ i5-3427U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.80GHz), HT technology		Preloaded operating system ²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Microsoft® Office 2010 preloaded; purchase product key to activate - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded; purchase product key to activate - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Norton™ Internet Security (30 days of virus definitions) • Skype™
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
Optical SATA disk	None Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™		
mSATA™ SSD	Some: mSATA Solid State Drive (SSD), via PCIe Mini Card slot		
Widescreen display	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 500:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via HDMI™ or Mini DisplayPort supports three independent displays; Maximum external resolution: 2560x1600 (Mini-DisplayPort or HDMI) @60Hz		
Keyboard	6-row, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³		
Touchpad	UltraNav™, buttonless touchpad below keyboard, multi-touch		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	14.0W" (WxDxH): 13.39" x 9.29" x 0.83"; 340mm x 236mm x 21mm		
Weight ²	3-cell: from 4.08 lb (1.85kg)		
Case material	Display cover: Aluminum; Bottom: Glass-Fiber Reinforced Plastic		
Battery - type	Integrated Li-Polymer 3-cell		
Battery - life ¹⁰	3-cell (47Whr): up to 7.1 hr		
Chipset	Mobile Intel UM77 Express Chipset		
ExpressCard	None		
Smart Card read	None		
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)		
Ports	Two USB 3.0, external monitor (Mini DisplayPort, HDMI), ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	Some: 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + BT combo adapter Some: 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, 2x2, Wi-Fi + Bluetooth combo adapter		
PCIe WWAN	None		
Carrier	None		
Modem	None		
IEEE 1394	None		
Bluetooth™	Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter		
Ethernet	Realtek® RTL8111F Gigabit Network Connection		
Intel AMT	None		
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 2W x 2 / dual array microphone, combo audio/microphone jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	AuthenTec fingerprint reader on the keyboard bezel, swipe sensor, LED indicator, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

Supports ThinkVantage® technologies
65-watt AC adapter ThinkPad Roll Cage (bottom cover) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
For compatible accessories, please go to O-T430-U sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet

See footnotes for more detailed information
US model(s) announced October 23 or December 4, 2012

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ThinkPad® T430u 6273 (Onsite)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ² rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Finger print reader	Blue-tooth	Bat- tery cells	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
6273-2SU	i5-3427U	4GBx1	14.0" HD	720p	128G SSD	TP 11a/b/g/n	None	Finger	BT	3	G P	Pro 64	08/12

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

Positioning Processor	Mainstream Ultrabook™; one spindle Intel® Core™ i5-3427U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.80GHz), HT technology		Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications ¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • RapidBoot HDD Accelerator • Symantec™ VIP • Windows Live™ Essentials • Microsoft® Office 2010 preloaded; purchase product key to activate
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
Optical SATA disk	None <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™		
mSATA™ SSD	None		
Widescreen display	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 500:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via HDMI™ or Mini DisplayPort supports three independent displays; <i>Maximum external resolution: 2560x1600 (Mini-DisplayPort or HDMI) @60Hz</i>		
Keyboard	6-row, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³		
Touchpad	UltraNav™, buttonless touchpad below keyboard, multi-touch		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	14.0W" (WxDxH): 13.39" x 9.29" x 0.83"; 340mm x 236mm x 21mm		
Weight ²	3-cell: from 4.08 lb (1.85kg)		
Case material	<i>Display cover:</i> Aluminum; <i>Bottom:</i> Glass-Fiber Reinforced Plastic		
Battery - type	Integrated Li-Polymer 3-cell		
Battery - life ¹⁰	3-cell (47Whr): up to 7.1 hr		
Chipset	Mobile Intel UM77 Express Chipset		
ExpressCard	None		
Smart Card read	None		
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)		
Ports	Two USB 3.0, external monitor (Mini DisplayPort, HDMI), ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + BT combo adapter		
PCIe WWAN	None		
Carrier	None		
Modem	None		
IEEE 1394	None		
Bluetooth™	Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter		
Ethernet	Realtek® RTL8111F Gigabit Network Connection		
Intel AMT	None		
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 2W x 2 / dual array microphone, combo audio/microphone jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	AuthenTec fingerprint reader on the keyboard bezel, swipe sensor, LED indicator, supports the security chip		
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available		

Supports ThinkVantage® technologies
65-watt AC adapter ThinkPad Roll Cage (bottom cover) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
For compatible accessories, please go to O-T430-U sheet;
For Lenovo service ²² upgrade options, please go to S-TA sheet

See footnotes for more detailed information
US model(s) announced August 28, 2012

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ThinkPad® T430u 6273 (Onsite) - Windows 8

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Finger print reader	Blue-tooth	Bat-tery cells	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
6273-23U	i5-3427U	4+2GB	14.0" HD	720p	500G 7200	TP 11a/b/g/n	None	Finger	BT	3	G P	Win8 Pro64	10/12
6273-24U	i5-3427U	8GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n	None	Finger	BT	3	G P	Win8 Pro64	10/12
6273-25U	i5-3427U	8GBx1	14.0" HD	720p	1T 5400	TP 11a/b/g/n	None	Finger	BT	3	G P	Win8 Pro64	10/12
6273-26U	i5-3427U	4GBx1	14.0" HD	720p	500G 7200	TP 11a/b/g/n	None	Finger	BT	3	G P	Win8 Pro64	10/12
6273-3CU	i5-3427U	4GBx1	14.0" HD	720p	128G SSD	Intel 2230	None	Finger	BT	3	G P	Win8 Pro64	10/12
6273-3DU	i5-3337U	2GBx1	14.0" HD	720p	128G SSD	WLAN upg	None	Finger	No	3	G P	Win8 Pro64	03/13

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

Positioning Processor	Mainstream Ultrabook™; one spindle Intel® Core™ i5-3337U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.70GHz), HT technology Intel Core i5-3427U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.80GHz), HT technology										Preloaded operating system ²⁰ - Windows® 8 Pro 64-bit
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Preloaded applications ⁵ (only some listed)
Optical SATA disk	None Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™										- Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Microsoft® Office 2010 preloaded; purchase product key to activate
mSATA™ SSD	None										- Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded; purchase product key to activate
Widescreen display	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 500:1 contrast ratio										- All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Norton™ Internet Security (30 days of virus definitions) • Skype™
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus										
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via HDMI™ or Mini DisplayPort supports three independent displays; Maximum external resolution: 2560x1600 (Mini-DisplayPort or HDMI) @60Hz										
Keyboard	6-row, spill-resistant, multimedia Fn keys										
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³										
Touchpad	UltraNav™, buttonless touchpad below keyboard, multi-touch										
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions ³	14.0W" (WxDxH): 13.39" x 9.29" x 0.83"; 340mm x 236mm x 21mm										
Weight ²	3-cell: from 4.08 lb (1.85kg)										
Case material	Display cover: Aluminum; Bottom: Glass-Fiber Reinforced Plastic										
Battery - type	Integrated Li-Polymer 3-cell										
Battery - life ¹⁰	3-cell (47Whr): up to 7.1 hr										
Chipset	Mobile Intel UM77 Express Chipset										
ExpressCard	None										
Smart Card read	None										
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)										
Ports	Two USB 3.0, external monitor (Mini DisplayPort, HDMI), ethernet (RJ-45)										
PCIe Mini Card	Two PCI Express Mini Card slots										
PCIe WLAN ⁴	Some: Wireless LAN upgradable Some: 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + BT combo adapter Some: 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, 2x2, Wi-Fi + Bluetooth combo adapter										
PCIe WWAN	None										Supports ThinkVantage® technologies
Carrier	None										65-watt AC adapter
Modem	None										ThinkPad Roll Cage (bottom cover)
IEEE 1394	None										EPEAT™ Gold rating
Bluetooth™	Some: Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter										ENERGY STAR® 5.0-compliant
Ethernet	Realtek® RTL8111F Gigabit Network Connection										GREENGUARD® certified
Intel AMT	None										RoHS-compliant
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 2W x 2 / dual array microphone, combo audio/microphone jack										International Warranty Service ¹⁷
Security	Power-on password, hard disk password, supervisor password, security keyhole										24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Security chip	Trusted Platform Module, TCG 1.2-compliant										
Fingerprint reader	AuthenTec fingerprint reader on the keyboard bezel, swipe sensor, LED indicator, supports the security chip										For compatible accessories, please go to O-T430-U sheet;
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available										For Lenovo service ²² upgrade options, please go to S-TA sheet

See footnotes for more detailed information

US model(s) announced October 23, 2012 or March 5, 2013

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(ABBA1-11) March 2013

Memory

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

Storage and removable storage

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

ThinkPad Expansion

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

Keyboard

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

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

Mouse

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

Multimedia

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

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

Power Adapters

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

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

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

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

More information at www.lenovopowertips.com

Carrying Cases

Up to 14" widescreen models:

ThinkPad 14W Case Sleeve	57Y4294	ann	03/16/10
ThinkPad Ultralight Backpack	0B47306	ann	12/11/12
ThinkPad Ultralight Topload	0B47307	ann	12/11/12
14W Ultrabook Topload & Standard Sleeve Set - Black	0B95750	ann	08/07/12
14W Ultrabook Topload & Standard Sleeve Set - Brown	0B95751	ann	08/07/12

Up to 15.6" widescreen models:

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

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

Monitors

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

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

Monitor Accessories⁴⁶

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

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

For more information on accessories:

www.lenovo.com/accessories

Purchase Lenovo accessories

www.lenovo.com/support/accessories

Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide

Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com

An Options Compatibility Configurator for Lenovo systems

ThinkPad®



Lenovo® ThinkPad T431s



Lenovo ThinkPad T431s



Lenovo ThinkPad T431s



Lenovo ThinkPad T431s



Lenovo ThinkPad T431s



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

ThinkPad® T431s Transactional (20AA)

Personal Systems Reference (PSREF)

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

• A depot repair service 3-year limited warranty

Positioning Processor	<i>Thin and light enterprise-class Ultrabook™; one spindle</i> Intel® Core™ i5-3337U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.70GHz), HT technology Intel Core i5-3437U processor (2 cores, 1.90GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology Intel Core i7-3687U processor (2 cores, 2.10GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology										Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit				
Memory	12GB max ⁷ / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, 4GB memory soldered to systemboard, one 204-pin SO-DIMM socket										Preloaded applications⁵ (only some listed)				
Optical SATA disk	None Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™										- Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader®				
M.2 SSD	Some: M.2 Solid State Drive (SSD), via M.2 Card slot										- Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch				
Widescreen display	14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 400:1 contrast ratio										- All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office 2013 preloaded; purchase product key to activate • Skype™ • Amazon Kindle • Nitro Pro • PC Device Stage • Evernote				
Camera	HD720p resolution, low light sensitive, face tracking, fixed focus														
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)														
Keyboard UltraNav™ ThinkLight™	6-row, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device and glass surface touchpad, integrated five buttons, multi-touch None														
Dimensions ³ Weight ² Case color Case material	<i>14.0W" (WxDxH):</i> 13.03" x 8.90" x 0.81"; 331mm x 226mm x 20.65mm <i>3-cell:</i> from 3.6 lb (1.63kg) Graphite Black <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Base:</i> Magnesium alloy														
Battery - type Battery - life ¹⁰	Integrated Li-Polymer 3-cell (47Whr), HW Authentication <i>MobileMark® 2007:</i> Windows 7: up to 9.0 hr <i>MobileMark 2012:</i> Windows 7: up to 5.9 hr; Windows 8: up to 6.4 hr														
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM77 Express Chipset None None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45), Dock connector														
PCIe WLAN ⁴ PCIe WWAN Carrier Bluetooth™ Ethernet Intel AMT Audio support	11a/b/g/n, M.2 Card, Intel Centrino® Advanced-N 6235, 2x2, Wi-Fi + BT combo adapter Some: Wireless WAN upgradable None Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter Intel 82579LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Some: Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W x 2 / dual array microphone, combo audio/microphone jack										Supports ThinkVantage® technologies				
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant AuthenTec fingerprint reader on the keyboard bezel, swipe sensor, LED indicator, Power On Authentication, supports the security chip										45-watt AC adapter EPEAT™ Silver rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available										For Lenovo service ²² upgrade options, please go to S-TA sheet				

See footnotes for more detailed information
US model(s) announced March 19 or April 9, 2013

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(ST1-1) April 2013

ThinkPad® T431s Relationship (20AC)

Personal Systems Reference (PSREF)

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

• A depot repair service 3-year limited warranty

Positioning Processor	<i>Thin and light enterprise-class Ultrabook™; one spindle</i> Intel® Core™ i5-3437U processor (2 cores, 1.90GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology Intel Core i7-3687U processor (2 cores, 2.10GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology									Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit				
Memory	12GB max ⁷ / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, 4GB memory soldered to systemboard, one 204-pin SO-DIMM socket									Preloaded applications⁵ (only some listed)				
Optical SATA disk	None Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™									- Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader®				
M.2 SSD	Some: M.2 Solid State Drive (SSD), via M.2 Card slot									- Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch				
Widescreen display	14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 400:1 contrast ratio									- All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office 2013 preloaded; purchase product key to activate • Skype™ • Amazon Kindle • Nitro Pro • PC Device Stage • Evernote				
Camera	HD720p resolution, low light sensitive, face tracking, fixed focus									Supports ThinkVantage® technologies				
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)									45-watt AC adapter EPEAT™ Silver rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				
Keyboard UltraNav™ ThinkLight™	6-row, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device and glass surface touchpad, integrated five buttons, multi-touch None									For Lenovo service ²² upgrade options, please go to S-TA sheet				
Dimensions ³	14.0W" (WxDxH): 13.03" x 8.90" x 0.81"; 331mm x 226mm x 20.65mm													
Weight ²	3-cell: from 3.6 lb (1.63kg)													
Case color	Graphite Black													
Case material	<i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Base:</i> Magnesium alloy													
Battery - type	Integrated Li-Polymer 3-cell (<i>47Whr</i>), HW Authentication													
Battery - life ¹⁰	<i>MobileMark® 2007:</i> Windows 7: up to 9.0 hr <i>MobileMark 2012:</i> Windows 7: up to 5.9 hr; Windows 8: up to 6.4 hr													
Chipset	Mobile Intel QM77 Express Chipset													
ExpressCard	None													
Smart Card read	None													
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)													
Ports	Two USB 3.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45), Dock connector													
PCIe WLAN ⁴	11a/b/g/n, M.2 Card, Intel Centrino® Advanced-N 6235, 2x2, Wi-Fi + BT combo adapter													
PCIe WWAN	Some: Wireless WAN upgradable													
Carrier	None													
Bluetooth™	Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter													
Ethernet	Intel 82579LM Gigabit Network Connection (Hanksville), PHY, PCIe x1													
Intel AMT	Intel Active Management Technology (iAMT)													
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W x 2 / dual array microphone, combo audio/microphone jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module, TCG 1.2-compliant													
Fingerprint reader	Some: AuthenTec fingerprint reader on the keyboard bezel, swipe sensor, LED indicator, Power On Authentication, supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available													

See footnotes for more detailed information
US model(s) announced March 19, 2013

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(ST1-2) March 2013

ThinkPad® T431s Relationship (20AC) - Onsite

Personal Systems Reference (PSREF)

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

Positioning Processor	<i>Thin and light enterprise-class Ultrabook™; one spindle</i> Intel® Core™ i5-3437U processor (2 cores, 1.90GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology Intel Core i7-3687U processor (2 cores, 2.10GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology	Preloaded operating system ²⁰ - <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 ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office 2013 preloaded; purchase product key to activate • Skype™ • Amazon Kindle • Nitro Pro • PC Device Stage • Evernote
Memory	12GB max ⁷ / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, 4GB memory soldered to systemboard, one 204-pin SO-DIMM socket	
Optical SATA disk	None <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™	
M.2 SSD	<i>Some:</i> M.2 Solid State Drive (SSD), via M.2 Card slot	
Widescreen display	14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 400:1 contrast ratio	
Camera	HD720p resolution, low light sensitive, face tracking, fixed focus	
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)	
Keyboard UltraNav™ ThinkLight™	6-row, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device and glass surface touchpad, integrated five buttons, multi-touch None	
Dimensions ³	14.0W" (WxDxH): 13.03" x 8.90" x 0.81"; 331mm x 226mm x 20.65mm	
Weight ²	3-cell: from 3.6 lb (1.63kg)	
Case color	Graphite Black	
Case material	<i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Base:</i> Magnesium alloy	
Battery - type	Integrated Li-Polymer 3-cell (<i>47Whr</i>), HW Authentication	
Battery - life ¹⁰	<i>MobileMark® 2007:</i> Windows 7: up to 9.0 hr <i>MobileMark 2012:</i> Windows 7: up to 5.9 hr; Windows 8: up to 6.4 hr	
Chipset	Mobile Intel QM77 Express Chipset	
ExpressCard	None	
Smart Card read	None	
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)	
Ports	Two USB 3.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45), Dock connector	
PCIe WLAN ⁴	11a/b/g/n, M.2 Card, Intel Centrino® Advanced-N 6235, 2x2, Wi-Fi + BT combo adapter	
PCIe WWAN	<i>Some:</i> Wireless WAN upgradable	
Carrier	None	
Bluetooth™	Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter	
Ethernet	Intel 82579LM Gigabit Network Connection (Hanksville), PHY, PCIe x1	
Intel AMT	Intel Active Management Technology (iAMT)	
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W x 2 / dual array microphone, combo audio/microphone jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	Trusted Platform Module, TCG 1.2-compliant	
Fingerprint reader	<i>Some:</i> AuthenTec fingerprint reader on the keyboard bezel, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available	Supports ThinkVantage® technologies 45-watt AC adapter EPEAT™ Silver rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² For Lenovo service ²² upgrade options, please go to S-TA sheet

See footnotes for more detailed information
US model(s) announced March 19, 2013

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(ST1-3) March 2013



Lenovo® ThinkPad T530



Lenovo ThinkPad T530



Lenovo ThinkPad T530



Lenovo ThinkPad T530



Lenovo ThinkPad T530



Lenovo ThinkPad T530

ThinkPad® T530 2359 (TopSeller)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	Carrier	Finger print reader	Bat-Blue- tooth	Intel AMT	Intel vPro	Pre-load	Ann Date (mm/yy)
2359-2HU	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	None	Intel 6205 ²⁸	WWAN upg	None	None	None	6 iAMT	vPro	Pro 64	06/12
2359-2GU	i5-3320M	4GBx2	15.6" HD	720p	320G 7200	None	Intel 6205	WWAN upg	None	None	None	6 iAMT	vPro	Pro 64	06/12
2359-2FU	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	None	Intel 6205	WWAN upg	None	None	None	6 iAMT	vPro	Pro 64	06/12
2359-2EU	i5-3210M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 2200	WWAN upg	None	None	None	6 None	None	Pro 64	06/12
2359-2DU	i5-3210M	4GBx1	15.6" HD	720p	500G 7200	None	Intel 2200	WWAN upg	None	None	None	6 None	None	Pro 64	06/12
2359-2CU	i5-3210M	4GBx1	15.6" HD+	720p	320G 7200	None	Intel 2200	WWAN upg	None	None	None	6 None	None	Pro 64	06/12
2359-2BU	i5-3210M	4GBx1	15.6" HD	720p	320G 7200	None	Intel 2200	WWAN upg	None	None	None	6 None	None	Pro 64	06/12

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-3210M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology	Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo® Solution Center• Lenovo Message Center Plus• ThinkVantage Product Recovery• Access Connections™• Fingerprint Software (fingerprint models)• ThinkVantage System Update• ThinkVantage Power Manager• Lenovo Cloud Storage by SugarSync• Lenovo SimpleTap• Norton™ Internet Security 2012 (30 days of virus definitions)• Adobe® Reader®• Skype™ for Windows• Evernote®• Intel Small Business Advantage• RapidBoot HDD Accelerator• Symantec™ VIP• Windows Live™ Essentials• Microsoft® Office 2010 preloaded; purchase product key to activate• Corel® WinDVD® (DVD±RW)• Corel Burn.Now™ Lenovo Edition (DVD±RW)• Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller	
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive	
mSATA™ SSD	None	
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut	
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus	
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)	
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material	15.6W" (WxDxH): 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm 6-cell: starting at 5.39 lb (2.45kg); 9-cell: starting at 5.76 lb (2.62kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication 6-cell (57Whr): up to 9.1 hr; 9-cell (94Whr): up to 15.3 hr; 9-cell plus 9-cell Slice battery (94Whr, 0A36304): up to 30.6 hr	
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)	
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2 Wireless WAN upgradable None None None None Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>Some:</i> Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant	
Security Security chip Fingerprint reader	None None None	
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

Supports ThinkVantage® technologies
65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
For compatible accessories, please go to O-T530 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet

See footnotes for more detailed information
US model(s) announced June 5, 2012

⚡ US model(s) withdrawn effective March 2013

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(KN4-1) June 2012

ThinkPad® T530 2359 (TopSeller) - Windows 8

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	Finger print reader	Blue-tooth	Bat-tery cells	Intel AMT	Intel vPro	Preload	Ann Date (mm/yy)
2359-4DU	i5-3210M	4GBx1	15.6" HD	720p	500G 7200	None	Intel 2200	WWAN upg	None	None	6	None	None	Win7 Pro64	10/12
2359-2YU	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	None	Intel 6205 ²⁸	WWAN upg	None	None	6	iAMT	vPro	Win8 Pro64	10/12
2359-5CU	i5-3230M	4GBx1	15.6" HD	720p	500G 7200	None	Intel 2200	WWAN upg	None	None	6	None	None	Win8 Pro64	02/13
2359-4LU	i5-3230M	4GBx1	15.6" HD	720p	500G 7200	None	Intel 2200	WWAN upg	None	None	6	None	None	Win7 Pro64	02/13
2359-5JU	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	None	Intel 6205	WWAN upg	None	None	6	iAMT	vPro	Win7 Pro64	04/13

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-3210M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology Intel Core i5-3230M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology		Preloaded operating system²⁰ - <i>Some:</i> Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - <i>Some:</i> Windows 8 Pro 64-bit
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		Preloaded applications⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded; purchase product key to activate • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Norton™ Internet Security (30 days of virus definitions) • Skype™
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive		
mSATA™ SSD	None		
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material	15.6W" (WxDxH): 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>6-cell:</i> starting at 5.39 lb (2.45kg); <i>9-cell:</i> starting at 5.76 lb (2.62kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint		
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 9.1 hr; <i>9-cell (94Whr):</i> up to 15.3 hr; <i>9-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> up to 30.6 hr		
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)		
PCIe Mini Card PCIe WLAN ⁴	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2		Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
PCIe WWAN Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Wireless WAN upgradable None None None None Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>Some:</i> Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack		
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None		
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available		
			For compatible accessories, please go to O-T530 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet

See footnotes for more detailed information

US model(s) announced October 23, 2012, February 5, 2013, or April 2, 2013

≠ US model(s) withdrawn effective March 2013

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(KN4-9) April 2013

ThinkPad® T530 2392 (TopSeller)

Personal Systems Reference (PSREF)

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

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

Positioning Processor	Premiere performance; two spindles Intel® Core™ i5-3210M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications ¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • RapidBoot HDD Accelerator • Symantec™ VIP • Windows Live™ Essentials • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)	
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller			
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high Some: HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ All: removable, upgradable, supports the second disk, Shock Mounted Hard Drive			
mSATA™ SSD	None			
Widescreen display	Some: 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut Some: 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut Some: 15.6" (396mm) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut			
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus			
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; Maximum external resolution: 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)			
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions			
Dimensions ³ Weight ² Case material	15.6W" (WxDxH): 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm 6-cell: starting at 5.39 lb (2.45kg); 9-cell: starting at 5.76 lb (2.62kg) Display cover: Carbon-fiber / Glass-fiber hybrid; Bottom: Glass-fiber reinforced plastic without paint			
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication 6-cell (57Whr): up to 9.1 hr; 9-cell (94Whr): up to 15.3 hr; 9-cell plus 9-cell Slice battery (94Whr, 0A36304): up to 30.6 hr			
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)			
PCle Mini Card PCle WLAN ⁴ PCle WWAN	Two PCI Express Mini Card slots 11a/b/g/n, PCle Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Some: Wireless WAN upgradable Some: Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCle Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS		Supports ThinkVantage® technologies	
Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Some: User selectable, AT&T®, Verizon®, or Sprint®, contract required with service provider None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCle x1 Some: Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant		65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		For compatible accessories, please go to O-T530 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available			

See footnotes for more detailed information

US model(s) announced June 5, 2012

⚠ US model(s) withdrawn effective March 2013

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(KN4-2) June 2012

ThinkPad® T530 2392 (TopSeller) - II

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	Finger print reader	Blue-tooth	Bat-tery cells	Intel AMT	Intel vPro	Preload	Ann Date (mm/yy)
2392-6EU	i5-2520M	4GBx1	15.6" HD	720p	500G 7200	Backlit	Intel 2200	WWAN upg	None	No	6	None	None	Pro 64	07/12
2392-6DU	i7-3520M	4GBx1	15.6" HD	720p	500G 7200	Backlit	Intel 6205 ²⁸	WWAN upg	Finger	BT	6	iAMT	vPro	Pro 64	07/12
2392-6AU	i5-3320M	4GBx1	15.6" HD+	720p	180G SSD	Backlit	Intel 6205	WWAN upg	Finger	BT	9	iAMT	vPro	Pro 64	07/12
2392-64U	i5-3320M	4GBx1	15.6" HD+	720p	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	BT	6	iAMT	vPro	Pro 64	07/12

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

Positioning Processor	Premiere performance; two spindles Intel® Core™ i5-2520M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 3000, DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo® Solution Center• Lenovo Message Center Plus• ThinkVantage Product Recovery• Access Connections™• Fingerprint Software (fingerprint models)• ThinkVantage System Update• ThinkVantage Power Manager• Lenovo Cloud Storage by SugarSync• Lenovo SimpleTap• Norton™ Internet Security 2012 (30 days of virus definitions)• Adobe® Reader®• Skype™ for Windows• Evernote®• Intel Small Business Advantage• RapidBoot HDD Accelerator• Symantec™ VIP• Windows Live™ Essentials• Microsoft® Office 2010 preloaded; purchase product key to activate• Corel® WinDVD® (DVD±RW)• Corel Burn.Now™ Lenovo Edition (DVD±RW)• Corel DVD MovieFactory® Lenovo Edition (DVD±RW)	
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller			
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive			
mSATA™ SSD	None			
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut			
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus			
Graphics	Intel HD Graphics 3000 or 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)			
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions			
Dimensions ³ Weight ² Case material	<i>15.6W"</i> (WxDxH): 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>6-cell:</i> starting at 5.39 lb (2.45kg); <i>9-cell:</i> starting at 5.76 lb (2.62kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint			
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 9.1 hr; <i>9-cell (94Whr):</i> up to 15.3 hr; <i>9-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> up to 30.6 hr			
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)			
PCIe Mini Card PCIe WLAN ⁴	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2		Supports ThinkVantage® technologies	
PCIe WWAN Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Wireless WAN upgradable None None None <i>Some:</i> Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>Some:</i> Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack		65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		For compatible accessories, please go to O-T530 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available			

See footnotes for more detailed information
US model(s) announced July 31, 2012

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(KN4-8) October 2012

ThinkPad® T530 2392 (TopSeller) - Windows 8

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	Backlit key-board	PCle Mini Card WLAN	PCle Mini Card WWAN /mSATA	Finger print reader	Blue-tooth	Bat-tery cells	Intel AMT	Intel vPro	Preload	Ann Date (mm/yy)
2392-ARU	i5-3320M	4GBx1	15.6" HD+	720p	180G SSD	Backlit	Intel 6205 ²⁸	WWAN upg	Finger	BT	6	iAMT	vPro	Win7 Pro64	10/12
2392-APU	i5-3320M	4GBx1	15.6" HD+	720p	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	BT	6	iAMT	vPro	Win7 Pro64	10/12
2392-ANU	i5-3320M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	None	No	6	iAMT	vPro	Win7 Pro64	10/12
2392-6HU	i5-2520M	4GBx1	15.6" HD	720p	500G 7200	Backlit	Intel 2200	WWAN upg	None	No	6	None	None	Win8 Pro64	10/12
2392-6CU	i7-3520M	4GBx1	15.6" HD	720p	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	BT	6	iAMT	vPro	Win8 Pro64	10/12
2392-6BU	i5-3320M	4GBx1	15.6" HD+	720p	180G SSD	Backlit	Intel 6205	WWAN upg	Finger	BT	6	iAMT	vPro	Win8 Pro64	10/12
2392-65U	i5-3320M	4GBx1	15.6" HD+	720p	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	BT	6	iAMT	vPro	Win8 Pro64	10/12
2392-B3U	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	None	Intel 6205	WWAN upg	None	No	6	iAMT	vPro	Win7 Pro64	10/12
2392-DYU	i5-3230M	4GBx1	15.6" HD+	720p	128G SSD	None	Intel 6205	WWAN upg	Finger	BT	6	None	None	Win7 Pro64	02/13

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

Positioning Processor	Premiere performance; two spindles Intel® Core™ i5-2520M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 3000 , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-3230M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system ²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit Preloaded applications⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded; purchase product key to activate • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Norton™ Internet Security (30 days of virus definitions) • Skype™	
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller			
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high Some: HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ All: removable, upgradable, supports the second disk, Shock Mounted Hard Drive			
mSATA™ SSD	None			
Widescreen display	Some: 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut Some: 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut Some: 15.6" (396mm) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut			
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus			
Graphics	Intel HD Graphics 3000 or 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; Maximum external resolution: 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)			
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions			
Dimensions ³ Weight ² Case material	15.6W" (WxDxH): 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm 6-cell: starting at 5.39 lb (2.45kg); 9-cell: starting at 5.76 lb (2.62kg) Display cover: Carbon-fiber / Glass-fiber hybrid; Bottom: Glass-fiber reinforced plastic without paint			
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication 6-cell (57Whr): up to 9.1 hr; 9-cell (94Whr): up to 15.3 hr; 9-cell plus 9-cell Slice battery (94Whr, 0A36304): up to 30.6 hr			
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)			
PCle Mini Card PCle WLAN ⁴	Two PCI Express Mini Card slots Some: 11b/g/n, PCle Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 Some: 11a/b/g/n, PCle Half Mini Card, Intel Centrino Advanced-N 6205, 2x2		Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² For compatible accessories, please go to O-T530 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet	
PCle WWAN Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Wireless WAN upgradable None None None Some: Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCle x1 Some: Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant			
Security Security chip Fingerprint reader	Some: AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip			
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available			

See footnotes for more detailed information
 US model(s) announced October 23 or October 30, 2012, or February 5, 2013

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 (KN4-10) February 2013

ThinkPad® T530 2392 (Optimus) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	Finger print reader	Blue-tooth	Bat-tery cells	Intel AMT	Intel vPro	Preload (mm/yy)	Ann Date
2392-4EU	i7-3520M	4GBx2	15.6" FHD	720p	180G SSD	None	Intel 6205 ²⁸	WWAN upg	Finger	BT	9	iAMT	vPro	Pro 64	06/12
2392-4DU	i7-3520M	4GBx1	15.6" HD+	720p	180G SSD	None	Intel 6205	WWAN upg	Finger	BT	9	iAMT	vPro	Pro 64	06/12
2392-4CU	i7-3520M	4GBx2	15.6" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	9	iAMT	vPro	Pro 64	06/12
2392-4BU	i7-3520M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	9	iAMT	vPro	Pro 64	06/12
2392-47U	i5-3320M	4GBx1	15.6" HD+	720p	180G SSD	None	Intel 6205	WWAN upg	Finger	BT	9	iAMT	vPro	Pro 64	06/12
2392-45U	i5-3320M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	9	iAMT	vPro	Pro 64	06/12
2392-6FU	i5-2520M	4GBx1	15.6" HD	720p	500G 7200	Backlit	Intel 2200	WWAN upg	None	No	6	None	None	Pro 64	07/12
2392-69U	i7-3520M	4GBx1	15.6" HD+	720p	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	BT	9	iAMT	vPro	Pro 64	07/12
2392-66U	i5-3320M	4GBx1	15.6" HD+	720p	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	BT	9	iAMT	vPro	Pro 64	07/12

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

Positioning Processor	Premiere performance; two spindles Intel® Core™ i5-2520M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 3000 , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology	Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo® Solution Center• Lenovo Message Center Plus• ThinkVantage Product Recovery• Access Connections™• Fingerprint Software (fingerprint models)• ThinkVantage System Update• ThinkVantage Power Manager• Lenovo Cloud Storage by SugarSync• Lenovo SimpleTap• Norton™ Internet Security 2012 (30 days of virus definitions)• Adobe® Reader®• Skype™ for Windows• Evernote®• Intel Small Business Advantage• RapidBoot HDD Accelerator• Symantec™ VIP• Windows Live™ Essentials• Microsoft® Office 2010 preloaded; purchase product key to activate• Corel® WinDVD® (DVD±RW)• Corel Burn.Now™ Lenovo Edition (DVD±RW)• Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller	
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive	
mSATA™ SSD	None	
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut	
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus	
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 or 4000 in processor, and NVIDIA NVS™ 5400M , PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)	
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material	<i>15.6W" (WxDxH):</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>6-cell:</i> starting at 5.73 lb (2.60kg); <i>9-cell:</i> starting at 6.10 lb (2.77kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 7.7 hr; <i>9-cell (94Whr):</i> up to 12.8 hr; <i>9-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> up to 25.6 hr	
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)	
PCIe Mini Card PCIe WLAN ⁴	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2	Supports ThinkVantage® technologies
PCIe WWAN Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Wireless WAN upgradable None None IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) <i>Some:</i> Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>Some:</i> Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant	90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	For compatible accessories, please go to O-T530 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

See footnotes for more detailed information
 US model(s) announced June 5 or July 31, 2012

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 (KN4-3) August 2012

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

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Disk SATA GB ³ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	Finger print reader	Blue-tooth	Bat-tery cells	Intel AMT	Intel vPro	Preload	Ann Date (mm/yy)
2392-ASU	i7-3520M	4GBx1	15.6" HD+	500G 7200	Backlit	Intel 6205 ²⁸	WWAN upg	Finger	BT	9	iAMT	vPro	Win7 Pro64	10/12
2392-AQU	i5-3320M	4GBx1	15.6" HD+	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	BT	9	iAMT	vPro	Win7 Pro64	10/12
2392-6GU	i5-2520M	4GBx1	15.6" HD	500G 7200	Backlit	Intel 2200	WWAN upg	None	No	6	None	None	Win8 Pro64	10/12
2392-68U	i7-3520M	4GBx1	15.6" HD+	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	BT	9	iAMT	vPro	Win8 Pro64	10/12
2392-67U	i5-3320M	4GBx1	15.6" HD+	500G 7200	Backlit	Intel 6205	WWAN upg	Finger	BT	9	iAMT	vPro	Win8 Pro64	10/12

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-2520M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 3000 , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology	Preloaded operating system²⁰ - <i>Some:</i> Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - <i>Some:</i> Windows 8 Pro 64-bit
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller	Preloaded applications⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded; purchase product key to activate • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Norton™ Internet Security (30 days of virus definitions) • Skype™
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive	
mSATA™ SSD	None	
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut	
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus	
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 or 4000 in processor, and NVIDIA NVS™ 5400M , PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)	
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material	15.6W" (WxDxH): 14.68" x 9.65" x 1.25-1.40" ; 372.8mm x 245.1mm x 31.8-35.6mm <i>6-cell:</i> starting at 5.73 lb (2.60kg); <i>9-cell:</i> starting at 6.10 lb (2.77kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 7.7 hr; <i>9-cell (94Whr):</i> up to 12.8 hr; <i>9-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> up to 25.6 hr	
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)	
PCIe Mini Card PCIe WLAN ⁴	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2	Supports ThinkVantage® technologies
PCIe WWAN Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Wireless WAN upgradable None None IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) <i>Some:</i> Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>Some:</i> Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack	90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	For compatible accessories, please go to O-T530 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

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

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(KN4-11) October 2012

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	Card Carrier	Smart Card Reader	Finger print reader	Bat-Blue- tery tooth cells	Global (G) Intel vPro (P)	Pre-load	Ann Date (mm/yy)	
2394-5UU	i5-3320M	4GBx1	15.6" HD+	720p	180G SSD	None	Intel 6205 ²⁸	upg	None	None	Finger	BT 6	vPro	G	Pro 64	06/12
2394-5VU	i5-3320M	4GBx1	15.6" HD+	720p	128G SSD	None	Intel 6205	upg	None	None	Finger	BT 6	vPro	G	Pro 64	06/12
2394-5YU	i7-3520M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205	upg	None	None	Finger	BT 6	vPro	G	Pro 64	06/12
2394-62U	i5-3320M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205	upg	None	None	Finger	BT 6	vPro	G	Pro 64	06/12
2394-63U	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	None	Intel 6205	upg	None	None	Finger	BT 6	vPro	G	Pro 64	06/12
2394-64U	i5-3320M	4GBx1	15.6" HD	None	320G 7200	None	Intel 6205	upg	None	Smart	None	No 9	vPro	G	Pro 64	06/12
2394-36U	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	None	Intel 6205	Gobi	select	None	Finger	BT 6	vPro		Pro 64	06/12
2394-35U	i7-3520M	4GBx1	15.6" HD	None	500G 7200	None	Intel 6205	upg	None	None	None	No 6	vPro		Pro 64	06/12
2394-34U	i5-3320M	4GBx1	15.6" HD	None	320G 7200	None	Intel 6205	upg	None	None	None	No 6	vPro		Pro 64	06/12
2394-2SU	i5-3320M	4GBx1	15.6" HD+	720p	320G 7200	None	Intel 6205	upg	None	None	Finger	BT 6	vPro		Pro 64	06/12
2394-2GU	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	None	Intel 6205	upg	None	None	Finger	BT 6	vPro		Pro 64	06/12
2394-23U	i7-3520M	4GBx1	15.6" HD	720p	500G 7200	None	Intel 6205	upg	None	None	Finger	BT 6	vPro	G	Pro 64	06/12
2394-22U	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	None	Intel 6205	upg	None	None	Finger	BT 6	vPro	G	Pro 64	06/12
2394-70U	i5-3320M	4GBx1	15.6" HD+	720p	320G 7200	None	Intel 6205	upg	None	Smart	Finger	BT 6	vPro	G	Pro 64	07/12

- A depot repair service 3-year limited warranty
- Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000. DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000. DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology										Preloaded operating system²⁰ Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) <ul style="list-style-type: none"> • Rescue and Recovery™ • Password Manager Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none"> • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • RapidBoot HDD Accelerator • Symantec™ VIP • Windows Live™ Essentials • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) 					
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller															
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive															
mSATA™ SSD	None															
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut															
Camera	<i>Some:</i> HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus															
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)															
Keyboard TrackPoint®	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight															
Touchpad UltraNav™	wide touchpad below keyboard, Tap Zones, scrolling, multi-touch															
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³	15.6W" (WxDxH): 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm															
Weight ²	<i>6-cell:</i> starting at 5.39 lb (2.45kg); <i>9-cell:</i> starting at 5.76 lb (2.62kg)															
Case material	<i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint															
Battery - type	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication															
Battery - life ¹⁰	<i>6-cell (57Whr):</i> up to 9.1 hr; <i>9-cell (94Whr):</i> up to 15.3 hr; <i>9-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> up to 30.6 hr															
Chipset	Mobile Intel QM77 Express Chipset															
ExpressCard	One slot (ExpressCard/34)															
Smart Card Read	<i>Some:</i> Smart Card reader															
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)															
Ports	Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)															
PCIe Mini Card	Two PCI Express Mini Card slots															
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2															
PCIe WWAN	<i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS															
Carrier	<i>Some:</i> User selectable, AT&T®, Verizon®, or Sprint®, contract required with service provider															
Modem	None															
IEEE 1394	None															
Bluetooth™	<i>Some:</i> Bluetooth 4.0 wireless															
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1															
Intel AMT	Intel Active Management Technology (iAMT)															
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant															
Security	Power On Authentication, supports the security chip															
Security chip	<i>Some:</i> AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip															
Fingerprint reader																
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available															

See footnotes for more detailed information
 US model(s) announced June 5 or July 3, 2012

ThinkPad® T530 2394 (Windows 8)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	Finger print reader	Blue-tooth cells	Bat-tery	Global (G) Intel vPro	GMP (P)	Preload	Ann Date (mm/yy)
2394-6EU	i7-3520M	4GBx1	15.6" HD	None	500G 7200	None	Intel 6205 ²⁸	WWAN upg	None	No	6	vPro		Win8 Pro64	10/12
2394-6DU	i5-3320M	4GBx1	15.6" HD	None	320G 7200	None	Intel 6205	WWAN upg	None	No	6	vPro		Win8 Pro64	10/12
2394-42U	i7-3520M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	6	vPro	G	Win8 Pro64	10/12
2394-43U	i5-3320M	4GBx1	15.6" HD+	720p	180G SSD	None	Intel 6205	WWAN upg	Finger	BT	6	vPro	G	Win8 Pro64	10/12
2394-44U	i5-3320M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	6	vPro	G	Win8 Pro64	10/12
2394-45U	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	None	Intel 6205	WWAN upg	Finger	BT	6	vPro	G	Win8 Pro64	10/12
2394-7NU	i5-3320M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	6	vPro		Win7 Pro64	12/12
2394-7MU	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	6	vPro		Win7 Pro64	12/12

• A depot repair service 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology										Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit				
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller										Preloaded applications⁵ (only some listed)				
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high Some: HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ All: removable, upgradable, supports the second disk, Shock Mounted Hard Drive										- Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)				
mSATA™ SSD	None														
Widescreen display	Some: 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut Some: 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut Some: 15.6" (396mm) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut														
Camera	Some: HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus														
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; Maximum external resolution: 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)										- Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded; purchase product key to activate • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW)				
Keyboard TrackPoint®	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight														
Touchpad UltraNav™	wide touchpad below keyboard, Tap Zones, scrolling, multi-touch														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	15.6W" (WxDxH): 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm														
Weight ²	6-cell: starting at 5.39 lb (2.45kg); 9-cell: starting at 5.76 lb (2.62kg)														
Case material	Display cover: Carbon-fiber / Glass-fiber hybrid; Bottom: Glass-fiber reinforced plastic without paint														
Battery - type	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication														
Battery - life ¹⁰	6-cell (57Whr): up to 9.1 hr; 9-cell (94Whr): up to 15.3 hr; 9-cell plus 9-cell Slice battery (94Whr, 0A36304): up to 30.6 hr														
Chipset	Mobile Intel QM77 Express Chipset														
ExpressCard	One slot (ExpressCard/34)														
Smart Card Read	None														
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)														
Ports	Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)														
PCIe Mini Card	Two PCI Express Mini Card slots														
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2														
PCIe WWAN	Wireless WAN upgradable														
Carrier	None														
Modem	None														
IEEE 1394	None														
Bluetooth™	Some: Bluetooth 4.0 wireless														
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1														
Intel AMT	Intel Active Management Technology (iAMT)														
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module, TCG 1.2-compliant														
Fingerprint reader	Some: AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available														

See footnotes for more detailed information
US model(s) announced October 23 or December 4, 2012

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ThinkPad® T530 2394 (Optimus)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	Finger print reader	Blue-tooth	Bat-tery cells	Global (G) Intel vPro	GMP (P)	Preload (mm/yy)	Ann Date
2394-5RU	i7-3520M	4GBx1	15.6" FHD	720p	180G SSD	None	Intel 6205 ²⁸	WWAN upg	Finger	BT	9	vPro	G	Pro 64	06/12
2394-5TU	i7-3520M	4GBx1	15.6" HD+	720p	180G SSD	None	Intel 6205	WWAN upg	Finger	BT	9	vPro	G	Pro 64	06/12
2394-5WU	i7-3520M	4GBx1	15.6" FHD	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	9	vPro	G	Pro 64	06/12
2394-5XU	i7-3520M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	9	vPro	G	Pro 64	06/12
2394-5ZU	i5-3320M	4GBx1	15.6" FHD	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	9	vPro	G	Pro 64	06/12
2394-61U	i5-3320M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	9	vPro	G	Pro 64	06/12
2394-65U	i5-3320M	4GBx1	15.6" HD+	720p	320G 7200	None	Intel 6205	WWAN upg	Finger	BT	9	vPro	G	Pro 64	06/12

- A depot repair service 3-year limited warranty
- Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000. DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000. DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology									Preloaded operating system²⁰ Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • RapidBoot HDD Accelerator • Symantec™ VIP • Windows Live™ Essentials • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)					
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller														
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive														
mSATA™ SSD	None														
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut														
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus														
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA NVS™ 5400M , PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)														
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	<i>15.6W"</i> (WxDxH): 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm														
Weight ²	<i>6-cell:</i> starting at 5.73 lb (2.60kg); <i>9-cell:</i> starting at 6.10 lb (2.77kg)														
Case material	<i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint														
Battery - type	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication														
Battery - life ¹⁰	<i>6-cell (57Whr):</i> up to 7.7 hr; <i>9-cell (94Whr):</i> up to 12.8 hr; <i>9-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> up to 25.6 hr														
Chipset	Mobile Intel QM77 Express Chipset														
ExpressCard	One slot (ExpressCard/34)														
Smart Card Read	None														
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)														
Ports	Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)														
PCIe Mini Card	Two PCI Express Mini Card slots														
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2														
PCIe WWAN	Wireless WAN upgradable														
Carrier	None														
Modem	None														
IEEE 1394	IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
Bluetooth™	Bluetooth 4.0 wireless														
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1														
Intel AMT	Intel Active Management Technology (iAMT)														
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module, TCG 1.2-compliant														
Fingerprint reader	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available														

See footnotes for more detailed information
 US model(s) announced June 5, 2012

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 (KN4-5) June 2012

ThinkPad® T530 2394 (Optimus) - Windows 8

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	Finger print reader	Battery cells	Global (G) Intel vPro	GMP (P)	Preload	Ann Date (mm/yy)
2394-41U	i7-3520M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205 ²⁸	WWAN upg	Finger	9	vPro	G	Win8 Pro64	10/12
2394-7PU	i7-3520M	4GBx1	15.6" HD+	720p	180G SSD	Backlit	Intel 6205	WWAN upg	Finger	9	vPro		Win7 Pro64	12/12

• A depot repair service 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology	Preloaded operating system²⁰ - <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 applications⁵ (only some listed) - Windows 7 models <ul style="list-style-type: none">• Lenovo® Message Center Plus• ThinkVantage Product Recovery• Access Connections™• ThinkVantage Power Manager• Lenovo SimpleTap• Adobe® Reader®• Microsoft® Office 2010 preloaded; purchase product key to activate• Corel® WinDVD® (DVD±RW)• Corel Burn.Now™ Lenovo Edition (DVD±RW)• Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models <ul style="list-style-type: none">• Lenovo Support• Lenovo Companion• Lenovo QuickLaunch• Microsoft® Office 2013 preloaded; purchase product key to activate• PC Device Stage• Cyberlink Power2Go (DVD±RW)• Cyberlink PowerProducer (DVD±RW) - All models <ul style="list-style-type: none">• Lenovo Solution Center• Password Manager• ThinkVantage System Update• Fingerprint Software (fingerprint models)• Lenovo Cloud Storage by SugarSync• Skype™
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller	
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive	
mSATA™ SSD	None	
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut	
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus	
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA NVS™ 5400M , PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)	
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material	15.6W" (WxDxH): 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>6-cell:</i> starting at 5.73 lb (2.60kg); <i>9-cell:</i> starting at 6.10 lb (2.77kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 7.7 hr; <i>9-cell (94Whr):</i> up to 12.8 hr; <i>9-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> up to 25.6 hr	
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)	
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole	
Security Security chip Fingerprint reader	Trusted Platform Module, TCG 1.2-compliant AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades²² available	

		Supports ThinkVantage® technologies
		90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹²
		For compatible accessories, please go to O-T530 sheet; For Lenovo service²² upgrade options, please go to S-TA sheet

See footnotes for more detailed information
US model(s) announced October 23 or December 4, 2012

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(KN4-13) December 2012

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

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo® Solution Center• Lenovo Message Center Plus• ThinkVantage Product Recovery• Access Connections™• Fingerprint Software (fingerprint models)• ThinkVantage System Update• ThinkVantage Power Manager• Lenovo Cloud Storage by SugarSync• Lenovo SimpleTap• Norton™ Internet Security 2012 (30 days of virus definitions)• Adobe® Reader®• Skype™ for Windows• Evernote®• Intel Small Business Advantage• RapidBoot HDD Accelerator• Symantec™ VIP• Windows Live™ Essentials• Microsoft® Office 2010 preloaded; purchase product key to activate• Corel® WinDVD® (DVD±RW)• Corel Burn.Now™ Lenovo Edition (DVD±RW)• Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive		
mSATA™ SSD	None		
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut		
Camera	<i>Some:</i> HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material	<i>15.6W" (WxDxH):</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>6-cell:</i> starting at 5.39 lb (2.45kg); <i>9-cell:</i> starting at 5.76 lb (2.62kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint		
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 9.1 hr; <i>9-cell (94Whr):</i> up to 15.3 hr; <i>9-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> up to 30.6 hr		
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) <i>Some:</i> Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)		
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS		
Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> User selectable, AT&T®, Verizon®, or Sprint®, contract required with service provider None None <i>Some:</i> Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack		
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available		

Supports ThinkVantage® technologies
65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
For compatible accessories, please go to O-T530 sheet;
For Lenovo service ²² upgrade options, please go to S-TA sheet

See footnotes for more detailed information
US model(s) announced June 5 or July 3, 2012

ThinkPad® T530 2429 (Onsite) - Windows 8

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	Finger print reader	Blue- tery tooth cells	Intel vPro	Global (G) GMP (P)	Preload	Ann Date (mm/yy)	
2429-42U	i7-3520M	4GBx1	15.6" HD	720p	500G 7200	None	Intel 6205 ²⁸	WWAN upg	Finger	BT	6	vPro	G P	Win8 Pro64	10/12
2429-43U	i5-3320M	4GBx1	15.6" HD+	720p	180G SSD	None	Intel 6205	WWAN upg	Finger	BT	6	vPro	G P	Win8 Pro64	10/12
2429-44U	i5-3320M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	6	vPro	G P	Win8 Pro64	10/12
2429-45U	i5-3320M	4GBx1	15.6" HD	720p	320G 7200	None	Intel 6205	WWAN upg	Finger	BT	6	vPro	G P	Win8 Pro64	10/12
2429-7DU	i5-3320M	4GBx1	15.6" HD+	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	6	vPro		Win7 Pro64	12/12
2429-7CU	i5-3320M	4GBx1	15.6" HD	720p	500G 7200	None	Intel 6205	WWAN upg	Finger	BT	6	vPro		Win7 Pro64	12/12

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology	Preloaded operating system²⁰ - <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 applications⁵ (only some listed) - Windows 7 models <ul style="list-style-type: none">• Lenovo® Message Center Plus• ThinkVantage Product Recovery• Access Connections™• ThinkVantage Power Manager• Lenovo SimpleTap• Microsoft® Office 2010 preloaded; purchase product key to activate• Corel® WinDVD® (DVD±RW)• Corel Burn.Now™ Lenovo Edition (DVD±RW)• Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models <ul style="list-style-type: none">• Lenovo Support• Lenovo Companion• Lenovo QuickLaunch• Microsoft® Office 2013 preloaded; purchase product key to activate• PC Device Stage• Cyberlink Power2Go (DVD±RW)• Cyberlink PowerProducer (DVD±RW) - All models <ul style="list-style-type: none">• Lenovo Solution Center• Password Manager• ThinkVantage System Update• Fingerprint Software (fingerprint models)• Lenovo Cloud Storage by SugarSync• Norton™ Internet Security (30 days of virus definitions)• Skype™
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller	
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive	
mSATA™ SSD	None	
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut	
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus	
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)	
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material	<i>15.6W" (WxDxH):</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>6-cell:</i> starting at 5.39 lb (2.45kg); <i>9-cell:</i> starting at 5.76 lb (2.62kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 9.1 hr; <i>9-cell (94Whr):</i> up to 15.3 hr; <i>9-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> up to 30.6 hr	
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)	
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack	Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	For compatible accessories, please go to O-T530 sheet;
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available	For Lenovo service ²² upgrade options, please go to S-TA sheet

See footnotes for more detailed information
 US model(s) announced October 23 or December 4, 2012

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ThinkPad® T530 2429 (Optimus) - Onsite

Personal Systems Reference (PSREF)

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

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

Positioning Processor	Premiere performance; two spindles Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo® Solution Center• Lenovo Message Center Plus• ThinkVantage Product Recovery• Access Connections™• Fingerprint Software (fingerprint models)• ThinkVantage System Update• ThinkVantage Power Manager• Lenovo Cloud Storage by SugarSync• Lenovo SimpleTap• Norton™ Internet Security 2012 (30 days of virus definitions)• Adobe® Reader®• Skype™ for Windows• Evernote®• Intel Small Business Advantage• RapidBoot HDD Accelerator• Symantec™ VIP• Windows Live™ Essentials• Microsoft® Office 2010 preloaded; purchase product key to activate• Corel® WinDVD® (DVD±RW)• Corel Burn.Now™ Lenovo Edition (DVD±RW)• Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive		
mSATA™ SSD	None		
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA NVS™ 5400M , PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material	15.6W" (WxDxH): 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm 6-cell: starting at 5.73 lb (2.60kg); 9-cell: starting at 6.10 lb (2.77kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint		
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication 6-cell (57Whr): up to 7.7 hr; 9-cell (94Whr): up to 12.8 hr; 9-cell plus 9-cell Slice battery (94Whr, 0A36304): up to 25.6 hr		
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)		
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack		
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available		
For compatible accessories, please go to O-T530 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet			

See footnotes for more detailed information
 US model(s) announced June 5, 2012

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 (KN4-7) June 2012

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

Personal Systems Reference (PSREF)

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

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

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology	Preloaded operating system ²⁰ - <i>Some:</i> Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - <i>Some:</i> Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models <ul style="list-style-type: none">• Lenovo® Message Center Plus• ThinkVantage Product Recovery• Access Connections™• ThinkVantage Power Manager• Lenovo SimpleTap• Adobe® Reader®• Microsoft® Office 2010 preloaded; purchase product key to activate• Corel® WinDVD® (DVD±RW)• Corel Burn.Now™ Lenovo Edition (DVD±RW)• Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models <ul style="list-style-type: none">• Lenovo Support• Lenovo Companion• Lenovo QuickLaunch• Microsoft® Office 2013 preloaded; purchase product key to activate• PC Device Stage• Cyberlink Power2Go (DVD±RW)• Cyberlink PowerProducer (DVD±RW) - All models <ul style="list-style-type: none">• Lenovo Solution Center• Password Manager• ThinkVantage System Update• Fingerprint Software (fingerprint models)• Lenovo Cloud Storage by SugarSync• Norton™ Internet Security (30 days of virus definitions)• Skype™ Supports ThinkVantage® technologies 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² For compatible accessories, please go to O-T530 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller	
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive	
mSATA™ SSD	None	
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut	
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus	
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA NVS™ 5400M , PCI Express® x16, 1GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)	
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material	<i>15.6W" (WxDxH):</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>6-cell:</i> starting at 5.73 lb (2.60kg); <i>9-cell:</i> starting at 6.10 lb (2.77kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 7.7 hr; <i>9-cell (94Whr):</i> up to 12.8 hr; <i>9-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> up to 25.6 hr	
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45)	
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available	

See footnotes for more detailed information
US model(s) announced October 23 or December 4, 2012

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(KN4-15) December 2012

Memory

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

Ultrabay Enhanced 12.7mm

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

Storage and removable storage

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

⁴¹ Can be used as the main HDD or with

Serial ATA Hard Drive 12.7mm Bay Adapter III 0A65623 in the Ultrabay.

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

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

ThinkPad Gobi™ 3000 Mobile Broadband	0A36185	ann 04/12/11
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ThinkPad Expansion

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

⁶² Compatible only with dual core models.**Keyboard**

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

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

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

Multimedia

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

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

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

Batteries

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

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

ThinkPad External Battery Charger ⁴⁴	40Y7625	ann 09/20/05
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⁴⁴ Requires the *ThinkPad 90W AC Adapter 40Y7659* or the adapter provided with the system.More information at www.lenovo.com/alldaycomputing

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

⁴⁵ Only compatible with the integrated graphics models.⁶² Compatible only with dual core models.More info at www.lenovo.com/support/poweradapters

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

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

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

Up to 15.6" widescreen models:

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

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

ThinkVision® L1711p 17" (VGA, DVI-D)	5047HB2	ann 10/20/09
ThinkVision L1900p 19" (VGA, DVI-D)	4431HE1	ann 11/11/08
ThinkVision LT1952p Wide 19" (VGA, DP, DVI-D) ⁶⁹	2448MB6	ann 09/13/11
ThinkVision L2250p Wide 22" (VGA, DVI-D)	2572HB6	ann 10/20/09
ThinkVision L2251x Wide 22" (VGA, DP) ⁶⁹	2578HB6	ann 10/20/09
ThinkVision LT2252p Wide 22" (VGA, DP, DVI-D) ⁶⁹	2572MB6	ann 09/13/11
ThinkVision LT2452p Wide 24" (VGA, DP, DVI-D) ⁶⁹	4420MB2	ann 09/13/11

⁶⁹ DisplayPort cable is not included.

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

More information at www.lenovo.com/support/monitors
www.lenovo.com/support/thinkpad/optimus-monitors**Monitor Accessories⁴⁶**

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

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

For more information on accessories:

www.lenovo.com/accessories

Purchase Lenovo accessories

www.lenovo.com/support/accessories

Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide

Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com

An Options Compatibility Configurator for Lenovo systems

ThinkPad®



Lenovo® ThinkPad W530



Lenovo ThinkPad W530



Lenovo ThinkPad W530



Lenovo ThinkPad W530



Lenovo ThinkPad W530 with
four displays



Lenovo ThinkPad W530

ThinkPad® W530 2438 (Optimus) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Discrete graphics	Disk SATA GB ⁸ rpm	RAID	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Smart Card Reader	Color calib	Battery Intel cells vPro	Preload	Ann Date (mm/yy)
2438-2MU	i7-3920XM	4GBx4	15.6" FHD	K2000M	1x500G 7200	No	None	Intel 6205 ²⁸	WWAN upg	Smart	X-Rite	9 vPro	Pro 64	06/12
2438-2LU	i7-3720QM	4GBx1	15.6" FHD	K2000M	1x500G 7200	No	None	Intel 6205	WWAN upg	None	None	9 vPro	Pro 64	06/12
2438-2KU	i7-3820QM	4GBx2	15.6" FHD	K1000M	1x500G 7200	No	None	Intel 6205	WWAN upg	None	None	9 vPro	Pro 64	06/12
2438-2JU	i7-3720QM	4GBx1	15.6" HD+	K1000M	1x500G 7200	No	None	Intel 6205	WWAN upg	None	None	9 vPro	Pro 64	06/12
2438-2HU	i7-3720QM	4GBx2	15.6" FHD	K1000M	1x500G 7200	No	None	Intel 6205	WWAN upg	None	None	9 vPro	Pro 64	06/12
2438-3AU	i7-3720QM	8GBx1	15.6" FHD	K1000M	1x500G 7200	No	Backlit	Intel 6205	WWAN upg	None	None	9 vPro	Pro 64	07/12
2438-39U	i7-3720QM	8GBx1	15.6" HD+	K1000M	1x500G 7200	No	Backlit	Intel 6205	WWAN upg	None	None	9 vPro	Pro 64	07/12
2438-59U	i7-3840QM	4GBx2	15.6" FHD	K1000M	1x500G 7200	No	None	Intel 6205	WWAN upg	None	None	9 vPro	Pro 64	02/13
2438-58U	i7-3940XM	4GBx4	15.6" FHD	K2000M	1x500G 7200	No	None	Intel 6205	WWAN upg	Smart	X-Rite	9 vPro	Pro 64	02/13
2438-57U	i7-3740QM	4GBx1	15.6" FHD	K2000M	1x500G 7200	No	None	Intel 6205	WWAN upg	None	None	9 vPro	Pro 64	02/13
Positioning Processor	<i>Mobile workstation; two spindles</i> Intel® Core™ i7-3720QM processor (4 cores, 2.60GHz, 6MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology Intel Core i7-3740QM processor (4 cores, 2.70GHz, 6MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.70GHz), HT technology Intel Core i7-3820QM processor (4 cores, 2.70GHz, 8MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.70GHz), HT technology Intel Core i7-3840QM processor (4 cores, 2.80GHz, 8MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.80GHz), HT technology Intel Core i7-3920XM processor (4 cores, 2.90GHz, 8MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.80GHz), HT technology Intel Core i7-3940XM processor (4 cores, 3.0GHz, 8MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.90GHz), HT technology										Preloaded operating system²⁰ Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • RapidBoot HDD Accelerator • Symantec™ VIP • Windows Live™ Essentials • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) • X-Rite® Pantone® Color Calibrator (color calibration models)			
Memory	<i>dual-core model:</i> 16GB max ⁷ , two 204-pin SO-DIMM sockets <i>quad-core model:</i> 32GB max, four 204-pin SO-DIMM sockets <i>All:</i> PC3-12800 1600MHz DDR3, non-parity, dual-channel capable													
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive													
mSATA™ SSD	None													
Widescreen display	<i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut													
Color calibration Camera	<i>Some:</i> Pantone® color calibrator by X-Rite® color calibration sensor in palm rest, LED indicator HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus													
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA Quadro® K1000M or K2000M , PCI Express® x16, 2GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 3840x2160@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)													
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>15.6W" (WxDxH):</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>6-cell:</i> starting at 5.76 lb (2.62kg); <i>9-cell:</i> starting at 6.19 lb (2.81kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic w/o paint Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 7.7 hr; <i>9-cell (94Whr):</i> up to 12.8 hr; <i>9-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> up to 25.6 hr													
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) <i>Some:</i> Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										Supports ThinkVantage® technologies			
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole										170-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²			
Security Security chip Fingerprint reader	Trusted Platform Module, TCG 1.2-compliant AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										For compatible accessories, please go to O-W530 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet; For ISV certifications, please visit www.lenovo.com/support/ISV			
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available													

See footnotes for more detailed information

US model(s) announced June 5 or July 31, 2012, or February 5, 2013

≠ US model(s) withdrawn effective March 2013

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(KN4W-1) February 2013

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

Personal Systems Reference (PSREF)

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

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

Positioning Processor	Mobile workstation; two spindles Intel® Core™ i7-3630QM processor (4 cores, 2.40GHz, 6MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology Intel Core i7-3720QM processor (4 cores, 2.60GHz, 6MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology Intel Core i7-3740QM processor (4 cores, 2.70GHz, 6MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.70GHz), HT technology		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 applications⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded; purchase product key to activate • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Skype™	
Memory	<i>dual-core model:</i> 16GB max ⁷ , two 204-pin SO-DIMM sockets <i>quad-core model:</i> 32GB max, four 204-pin SO-DIMM sockets <i>All:</i> PC3-12800 1600MHz DDR3, non-parity, dual-channel capable			
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive			
mSATA™ SSD	None			
Widescreen display	<i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut			
Color calibration Camera	None HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus			
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA Quadro® K1000M or K2000M , PCI Express® x16, 2GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 3840x2160@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)			
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions			
Dimensions ³ Weight ² Case material	<i>15.6W" (WxDxH):</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>6-cell:</i> starting at 5.76 lb (2.62kg); <i>9-cell:</i> starting at 6.19 lb (2.81kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint			
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 7.7 hr; <i>9-cell (94Whr):</i> up to 12.8 hr; <i>9-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> up to 25.6 hr			
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)			
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>Some:</i> Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip			
Security Security chip Fingerprint reader				
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades²² available			
			Supports ThinkVantage® technologies 170-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² For compatible accessories, please go to O-W530 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet; For ISV certifications, please visit www.lenovo.com/support/ISV	

See footnotes for more detailed information
 US model(s) announced October 23 or October 30, 2012, or February 5, 2013
 < US model(s) withdrawn effective March 2013

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 (KN4W-4) February 2013

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

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Discrete graphics	Disk SATA GB ³ rpm	RAID	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Bat-tery cells	Intel AMT	Intel vPro	Preload	Ann Date (mm/yy)
2438-5JU	i7-3740QM	8GBx1	15.6" FHD	K2000M	1x500G 7200	No	Backlit	Intel 6205 ²⁸	WWAN upg	X-Rite	9	iAMT vPro	Win8 Pro64	03/13
2438-5HU	i7-3740QM	8GBx1	15.6" FHD	K2000M	1x500G 7200	No	Backlit	Intel 6205	WWAN upg	X-Rite	9	iAMT vPro	Win7 Pro64	03/13
2438-5GU	i7-3740QM	8GBx1	15.6" HD+	K2000M	1x500G 7200	No	Backlit	Intel 6205	WWAN upg	X-Rite	9	iAMT vPro	Win7 Pro64	03/13
2438-5FU	i7-3630QM	8GBx1	15.6" HD+	K2000M	1x500G 7200	No	Backlit	Intel 6205	WWAN upg	X-Rite	9	None	Win8 Pro64	03/13
2438-5EU	i7-3630QM	8GBx1	15.6" FHD	K2000M	1x500G 7200	No	Backlit	Intel 6205	WWAN upg	X-Rite	9	None	Win8 Pro64	03/13
2438-5DU	i7-3630QM	8GBx1	15.6" FHD	K2000M	1x500G 7200	No	Backlit	Intel 6205	WWAN upg	X-Rite	9	None	Win7 Pro64	03/13
2438-5CU	i7-3630QM	8GBx1	15.6" HD+	K2000M	1x500G 7200	No	Backlit	Intel 6205	WWAN upg	X-Rite	9	None	Win7 Pro64	03/13

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

Positioning Processor	Mobile workstation; two spindles Intel® Core™ i7-3630QM processor (4 cores, 2.40GHz, 6MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology Intel Core i7-3740QM processor (4 cores, 2.70GHz, 6MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.70GHz), HT technology		Preloaded operating system ²⁰ - <i>Some:</i> Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - <i>Some:</i> Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models <ul style="list-style-type: none">• Lenovo® Message Center Plus• ThinkVantage Product Recovery• Access Connections™• ThinkVantage Power Manager• Lenovo SimpleTap• Adobe® Reader®• Microsoft® Office 2010 preloaded; purchase product key to activate• Corel® WinDVD® (DVD±RW)• Corel Burn.Now™ Lenovo Edition (DVD±RW)• Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models <ul style="list-style-type: none">• Lenovo Support• Lenovo Companion• Lenovo QuickLaunch• Microsoft® Office 2013 preloaded; purchase product key to activate• PC Device Stage• Cyberlink Power2Go (DVD±RW)• Cyberlink PowerProducer (DVD±RW) - All models <ul style="list-style-type: none">• Lenovo Solution Center• Password Manager• ThinkVantage System Update• Fingerprint Software (fingerprint models)• Lenovo Cloud Storage by SugarSync• Skype™ Supports ThinkVantage® technologies 135-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² For compatible accessories, please go to O-W530 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet; For ISV certifications, please visit www.lenovo.com/support/ISV
Memory	<i>dual-core model:</i> 16GB max ⁷ , two 204-pin SO-DIMM sockets <i>quad-core model:</i> 32GB max, four 204-pin SO-DIMM sockets <i>All:</i> PC3-12800 1600MHz DDR3, non-parity, dual-channel capable		
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive		
mSATA™ SSD	None		
Widescreen display	<i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut		
Color calibration Camera	Pantone® color calibrator by X-Rite® color calibration sensor in palm rest, LED indicator HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA Quadro® K1000M or K2000M , PCI Express® x16, 2GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 3840x2160@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material	15.6W" (WxDxH): 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>6-cell:</i> starting at 5.76 lb (2.62kg); <i>9-cell:</i> starting at 6.19 lb (2.81kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 7.7 hr; <i>9-cell (94Whr):</i> up to 12.8 hr; <i>9-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> up to 25.6 hr		
Battery - type Battery - life ¹⁰			
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>Some:</i> Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant		
Security Security chip Fingerprint reader	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for more detailed information
 US model(s) announced March 5, 2013

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 (KN4W-7) March 2013

ThinkPad® W530 2441 (Optimus)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Discrete graphics	Disk SATA GB ⁵ rpm	RAID	SATA optical	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Bat-tery cells	Global (G) vPro (P)	Ann Date (mm/yy)
2441-3TU	i7-3720QM	4GBx1	15.6" FHD	K1000M	2x500G 7200	1	None	None	Intel 6205 ²⁸	upg	Finger	9	vPro	Pro 64 06/12
2441-3SU	i7-3720QM	4GBx1	15.6" FHD	K1000M	2x500G 7200	0	None	None	Intel 6205	upg	Finger	9	vPro	Pro 64 06/12
2441-37U	i7-3720QM	4GBx1	15.6" FHD	K2000M	1x500G 7200	No	DVD±RW	None	Intel 6300 ²⁸	upg	None	9	vPro	Pro 64 06/12
2441-36U	i7-3820QM	4GBx2	15.6" FHD	K2000M	1x500G 7200	No	DVD±RW	None	Intel 6300	upg	Finger	9	vPro	Pro 64 06/12
2441-2GU	i7-3720QM	4GBx1	15.6" FHD	K1000M	1x500G 7200	No	DVD±RW	None	Intel 6205	upg	Finger	9	vPro	Pro 64 06/12
2441-23U	i7-3820QM	4GBx2	15.6" FHD	K2000M	1x500G 7200	No	DVD±RW	None	Intel 6205	upg	Finger	9	vPro	Pro 64 06/12
2441-22U	i7-3720QM	4GBx1	15.6" HD+	K1000M	1x320G 7200	No	DVD±RW	None	Intel 6205	upg	Finger	9	vPro	Pro 64 06/12
2441-5RU	i7-3740QM	4GBx1	15.6" HD+	K1000M	1x320G 7200	No	DVD±RW	None	Intel 6205	upg	Finger	9	vPro	Pro 64 02/13
2441-5QU	i7-3840QM	4GBx2	15.6" FHD	K2000M	1x500G 7200	No	DVD±RW	None	Intel 6205	upg	Finger	9	vPro	Pro 64 02/13
2441-5PU	i7-3740QM	4GBx2	15.6" FHD	K2000M	1x500G 7200	No	DVD±RW	None	Intel 6300	upg	None	9	vPro	Pro 64 02/13
Positioning Processor	Mobile workstation; two spindles Intel® Core™ i7-3720QM processor (4 cores, 2.60GHz, 6MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology Intel Core i7-3740QM processor (4 cores, 2.70GHz, 6MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.70GHz), HT technology Intel Core i7-3820QM processor (4 cores, 2.70GHz, 8MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.70GHz), HT technology Intel Core i7-3840QM processor (4 cores, 2.80GHz, 8MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.80GHz), HT technology										Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications ¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • RapidBoot HDD Accelerator • Symantec™ VIP • Windows Live™ Essentials • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) • X-Rite® Pantone® Color Calibrator (color calibration models)			
Memory	dual-core model: 16GB max ⁷ , two 204-pin SO-DIMM sockets quad-core model: 32GB max, four 204-pin SO-DIMM sockets All: PC3-12800 1600MHz DDR3, non-parity, dual-channel capable													
Optical Ultrabay SATA disk	Some: DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high Some: HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ All: removable, upgradable, supports the second disk, Shock Mounted Hard Drive													
mSATA™ SSD	None													
Widescreen display	Some: 15.6" (396mm) HD+ (1600x900) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut Some: 15.6" (396mm) Full HD (1920x1080) color, anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut													
Color calibration	None													
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus													
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA Quadro® K1000M or K2000M, PCI Express® x16, 2GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; Maximum external resolution: 3840x2160@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)													
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case material	15.6W" (WxDxH): 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm 6-cell: starting at 5.76 lb (2.62kg); 9-cell: starting at 6.19 lb (2.81kg) Display cover: Carbon-fiber / Glass-fiber hybrid; Bottom: Glass-fiber reinforced plastic without paint													
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication 6-cell (57Whr): up to 7.7 hr; 9-cell (94Whr): up to 12.8 hr; 9-cell plus 9-cell Slice battery (94Whr, 0A36304): up to 25.6 hr													
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
PCIe Mini Card PCIe WLAN ⁴	Two PCI Express Mini Card slots Some: 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Some: 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3										Supports ThinkVantage® technologies			
PCIe WWAN Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	Wireless WAN upgradable None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant										170-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²			
Security Security chip Fingerprint reader	Some: AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										For compatible accessories, please go to O-W530 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet; For ISV certifications, please visit www.lenovo.com/support/ISV			
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available													

See footnotes for more detailed information
 US model(s) announced June 5, 2012 or February 5, 2013
 < US model(s) withdrawn effective March 2013

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 (KN4W-2) February 2013

ThinkPad® W530 2441 (Optimus) - Windows 8

Personal Systems Reference (PSREF)

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

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

Positioning Processor	<i>Mobile workstation; two spindles</i> Intel® Core™ i7-3720QM processor (4 cores, 2.60GHz, 6MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology Intel Core i7-3740QM processor (4 cores, 2.70GHz, 6MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.70GHz), HT technology Intel Core i7-3820QM processor (4 cores, 2.70GHz, 8MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.70GHz), HT technology Intel Core i7-3840QM processor (4 cores, 2.80GHz, 8MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.80GHz), HT technology		Preloaded operating system²⁰ - <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 applications⁵ (only some listed) - Windows 7 models <ul style="list-style-type: none">• Lenovo® Message Center Plus• ThinkVantage Product Recovery• Access Connections™• ThinkVantage Power Manager• Lenovo SimpleTap• Adobe® Reader®• Microsoft® Office 2010 preloaded; purchase product key to activate• Corel® WinDVD® (DVD±RW)• Corel Burn.Now™ Lenovo Edition (DVD±RW)• Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models <ul style="list-style-type: none">• Lenovo Support• Lenovo Companion• Lenovo QuickLaunch• Microsoft® Office 2013 preloaded; purchase product key to activate• PC Device Stage• Cyberlink Power2Go (DVD±RW)• Cyberlink PowerProducer (DVD±RW) - All models <ul style="list-style-type: none">• Lenovo Solution Center• Password Manager• ThinkVantage System Update• Fingerprint Software (fingerprint models)• Lenovo Cloud Storage by SugarSync• Norton™ Internet Security (30 days of virus definitions)• Skype™
Memory	<i>dual-core model:</i> 16GB max ⁷ , two 204-pin SO-DIMM sockets <i>quad-core model:</i> 32GB max, four 204-pin SO-DIMM sockets <i>All:</i> PC3-12800 1600MHz DDR3, non-parity, dual-channel capable		
Optical Ultrabay SATA disk	<i>Some:</i> DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive		
mSATA™ SSD	None		
Widescreen display	<i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut		
Color calibration Camera	<i>Some:</i> Pantone® color calibrator by X-Rite® color calibration sensor in palm rest, LED indicator HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA Quadro® K1000M or K2000M , PCI Express® x16, 2GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 3840x2160@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material	<i>15.6W" (WxDxH):</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>6-cell:</i> starting at 5.76 lb (2.62kg); <i>9-cell:</i> starting at 6.19 lb (2.81kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint		
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 7.7 hr; <i>9-cell (94Whr):</i> up to 12.8 hr; <i>9-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> up to 25.6 hr		
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant		
Security Security chip Fingerprint reader	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		
			Supports ThinkVantage® technologies
			170-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
			For compatible accessories, please go to O-W530 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet; For ISV certifications, please visit www.lenovo.com/support/ISV

See footnotes for more detailed information

US model(s) announced October 23, 2012 or February 5, 2013

≠ US model(s) withdrawn effective March 2013

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For compatible accessories, please go to O-W530 sheet;
For Lenovo service²² upgrade options, please go to S-TA sheet;
For ISV certifications, please visit www.lenovo.com/support/ISV

ThinkPad® W530 2447 (Optimus) - Onsite

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Discrete graphics	Disk SATA GB ⁸ rpm	RAID	SATA optical	Backlit key-board	PCIe Mini Card WLAN	Finger print reader	Color calib	Bat-tery cells	Global (G) Intel vPro	GMP (P)	Pre-load	Ann Date (mm/yy)
2447-3TU	i7-3720QM	4GBx1	15.6" FHD	K1000M	2x500G 7200	1	None	None	Intel 6205 ²⁸	Finger	None	9	vPro	G P	Pro 64	06/12
2447-3SU	i7-3720QM	4GBx1	15.6" FHD	K1000M	2x500G 7200	0	None	None	Intel 6205	Finger	None	9	vPro	G P	Pro 64	06/12
2447-2TU	i7-3720QM	4GBx1	15.6" FHD	K2000M	1x500G 7200	No	DVD±RW	None	Intel 6300 ²⁸	None	X-Rite	9	vPro		Pro 64	06/12
2447-2SU	i7-3820QM	4GBx2	15.6" FHD	K2000M	1x500G 7200	No	DVD±RW	None	Intel 6300	Finger	None	9	vPro		Pro 64	06/12
2447-23U	i7-3820QM	4GBx2	15.6" FHD	K2000M	1x500G 7200	No	DVD±RW	None	Intel 6205	Finger	None	9	vPro	G P	Pro 64	06/12
2447-22U	i7-3720QM	4GBx1	15.6" HD+	K1000M	1x320G 7200	No	DVD±RW	None	Intel 6205	Finger	None	9	vPro	G P	Pro 64	06/12
2447-52U	i7-3840QM	4GBx2	15.6" FHD	K2000M	1x500G 7200	No	DVD±RW	None	Intel 6205	Finger	None	9	vPro		Pro 64	02/13

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

Positioning Processor	Mobile workstation; two spindles Intel® Core™ i7-3720QM processor (4 cores, 2.60GHz, 6MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology Intel Core i7-3820QM processor (4 cores, 2.70GHz, 8MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.70GHz), HT technology Intel Core i7-3840QM processor (4 cores, 2.80GHz, 8MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.80GHz), HT technology										Preloaded operating system²⁰ Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) <ul style="list-style-type: none"> • Rescue and Recovery™ • Password Manager 						
Memory	<i>dual-core model:</i> 16GB max ⁷ , two 204-pin SO-DIMM sockets <i>quad-core model:</i> 32GB max, four 204-pin SO-DIMM sockets <i>All:</i> PC3-12800 1600MHz DDR3, non-parity, dual-channel capable										Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none"> • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • RapidBoot HDD Accelerator • Symantec™ VIP • Windows Live™ Essentials • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) • X-Rite® Pantone® Color Calibrator (color calibration models) 						
Optical Ultrabay SATA disk	<i>Some:</i> DVD burner, 12.7mm Ultrabay Enhanced, removable <i>One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access</i> <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive																
mSATA™ SSD	None																
Widescreen display	<i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) Full HD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut																
Color calibration Camera	<i>Some:</i> Pantone® color calibrator by X-Rite® color calibration sensor in palm rest, LED indicator HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus																
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA Quadro® K1000M or K2000M, PCI Express® x16, 2GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; <i>Maximum external resolution:</i> 3840x2160 @60Hz (DisplayPort via optional Mini DP cable); 1920x1200 @60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536 @85Hz (VGA)																
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions																
Dimensions ³ Weight ² Case material	<i>15.6W" (WxDxH):</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>6-cell:</i> starting at 5.76 lb (2.62kg); <i>9-cell:</i> starting at 6.19 lb (2.81kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint																
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication <i>6-cell (57Whr):</i> up to 7.7 hr; <i>9-cell (94Whr):</i> up to 12.8 hr; <i>9-cell plus 9-cell Slice battery (94Whr, 0A36304):</i> up to 25.6 hr																
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)																
PCIe Mini Card PCIe WLAN ⁴	Two PCI Express Mini Card slots <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3																
PCIe WWAN Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	Wireless WAN upgradable None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant																
Security Security chip Fingerprint reader	Some: AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip																
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available										Supports ThinkVantage® technologies 170-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² For compatible accessories, please go to O-W530 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet; For ISV certifications, please visit www.lenovo.com/support/ISV						

See footnotes for more detailed information
 US model(s) announced June 5, 2012 or February 5, 2013
 < US model(s) withdrawn effective March 2013

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

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Discrete graphics	Disk SATA GB ¹ rpm	RAID	SATA optical	Backlit key-board	PCIe Mini Card WLAN	Color calib	Bat-tery cells	Global (G) Intel vPro	GMP (P)	Preload	Ann Date (mm/yy)
2447-45U	i7-3720QM	4GBx1	15.6" HD+	K1000M	1x500G 7200	No	DVD±RW	None	Intel 6205 ²⁸	X-Rite	9	vPro	G P	Win8 Pro64	10/12
2447-46U	i7-3820QM	4GBx2	15.6" FHD	K2000M	1x500G 7200	No	DVD±RW	None	Intel 6205	X-Rite	9	vPro	G P	Win8 Pro64	10/12
2447-4ZU	i7-3740QM	4GBx2	15.6" FHD	K1000M	1x500G 7200	No	DVD±RW	Backlit	Intel 6205	None	9	vPro		Win7 Pro64	02/13
2447-4YU	i7-3840QM	4GBx2	15.6" FHD	K1000M	1x240G FDE SSD	No	DVD±RW	Backlit	Intel 6205	None	9	vPro		Win7 Pro64	02/13
2447-4XU	i7-3740QM	4GBx2	15.6" HD+	K1000M	2x500G 7200	1	None	Backlit	Intel 6205	None	9	vPro		Win7 Pro64	02/13
2447-4WU	i7-3740QM	4GBx2	15.6" HD+	K1000M	2x500G 7200	0	None	Backlit	Intel 6205	None	9	vPro		Win7 Pro64	02/13
2447-5KU	i7-3840QM	4GBx1	15.6" FHD	K2000M	1x500G 7200	No	DVD±RW	None	Intel 6205	X-Rite	9	vPro	G P	Win8 Pro64	05/13
2447-5JU	i7-3840QM	4GBx1	15.6" FHD	K1000M	1x500G 7200	No	DVD±RW	None	Intel 6205	X-Rite	9	vPro	G P	Win8 Pro64	05/13
2447-5HU	i7-3840QM	4GBx2	15.6" FHD	K2000M	1x500G 7200	No	DVD±RW	None	Intel 6205	X-Rite	9	vPro	G P	Win8 Pro64	05/13
2447-5GU	i7-3840QM	4GBx2	15.6" HD+	K2000M	1x500G 7200	No	DVD±RW	None	Intel 6205	X-Rite	9	vPro	G P	Win8 Pro64	05/13
2447-5FU	i7-3740QM	4GBx1	15.6" HD+	K1000M	1x500G 7200	No	DVD±RW	None	Intel 6205	X-Rite	9	vPro	G P	Win8 Pro64	05/13
Positioning Processor	Mobile workstation; two spindles Intel® Core™ i7-3720QM processor (4 cores, 2.60GHz, 6MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology Intel Core i7-3740QM processor (4 cores, 2.70GHz, 6MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.70GHz), HT technology Intel Core i7-3820QM processor (4 cores, 2.70GHz, 8MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.70GHz), HT technology Intel Core i7-3840QM processor (4 cores, 2.80GHz, 8MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.80GHz), HT technology										Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit Preloaded applications⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded; purchase product key to activate • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW) - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Norton™ Internet Security (30 days of virus definitions) • Skype™				
Memory	dual-core model: 16GB max ⁷ , two 204-pin SO-DIMM sockets quad-core model: 32GB max, four 204-pin SO-DIMM sockets All: PC3-12800 1600MHz DDR3, non-parity, dual-channel capable														
Optical Ultrabay SATA disk	Some: DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high Some: HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ All: removable, upgradable, supports the second disk, Shock Mounted Hard Drive														
mSATA™ SSD	None														
Widescreen display	Some: 15.6" (396mm) HD+ (1600x900) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut Some: 15.6" (396mm) Full HD (1920x1080) color, anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut														
Color calibration Camera	Some: Pantone® color calibrator by X-Rite® color calibration sensor in palm rest, LED indicator HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus														
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and NVIDIA Quadro® K1000M or K2000M, PCI Express® x16, 2GB memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports three independent displays; Maximum external resolution: 3840x2160@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)														
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ² Case material	15.6W" (WxDxH): 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm 6-cell: starting at 5.76 lb (2.62kg); 9-cell: starting at 6.19 lb (2.81kg) Display cover: Carbon-fiber / Glass-fiber hybrid; Bottom: Glass-fiber reinforced plastic without paint														
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery as 2nd battery, HW Authentication 6-cell (57Whr): up to 7.7 hr; 9-cell (94Whr): up to 12.8 hr; 9-cell plus 9-cell Slice battery (94Whr, 0A36304): up to 25.6 hr														
Chipset ExpressCard Smart Card Reader Multicard Reader Ports	Mobile Intel QM77 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0, two USB 2.0 (one powered), VGA DB-15, Mini DisplayPort, ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole														
Security Security chip Fingerprint reader	Trusted Platform Module, TCG 1.2-compliant AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip														
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available										Supports ThinkVantage® technologies 170-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² For compatible accessories, please go to O-W530 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet; For ISV certifications, please visit www.lenovo.com/support/ISV				

See footnotes for more detailed information
 US model(s) announced October 23, 2012, February 5 or May 7, 2013
 < US model(s) withdrawn effective March 2013

Memory

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

Ultrabay Enhanced 12.7mm

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

Storage and removable storage

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

⁴¹ Can be used as the main HDD or with

Serial ATA Hard Drive 12.7mm Bay Adapter III 0A65623 in the Ultrabay.

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

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

ThinkPad Gobi™ 3000 Mobile Broadband	0A36185	ann 04/12/11
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ThinkPad Expansion

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

Keyboard

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

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

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

Multimedia

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

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

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

Batteries

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

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

ThinkPad External Battery Charger ⁴⁴	40Y7625	ann 09/20/05
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⁴⁴ Requires the ThinkPad 90W AC Adapter 40Y7659 or the adapter provided with the system.More information at www.lenovo.com/alldaycomputing

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

Up to 15.6" widescreen models:

ThinkPad 15W Case Sleeve	51J0477	ann 08/18/09
Lenovo Messenger Max	41U5253	ann 05/01/07
Lenovo Performance Backpack	41U5254	ann 05/01/07
ThinkPad Business Topload Case	43R2476	ann 05/13/08
ThinkPad Business Backpack	43R2482	ann 05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann 05/13/08
ThinkPad Executive Leather Case	43R2480	ann 05/13/08
Lenovo Sport Backpack - Red	0A33896	ann 02/28/12
Lenovo Sport Slimcase - Red	0A33897	ann 02/28/12
Lenovo Sport Messenger - Red	0A33898	ann 02/28/12
Lenovo Sport Backpack - Blue	0B47298	ann 08/28/12
Lenovo Sport Slimcase - Blue	0B47300	ann 08/28/12
Lenovo Sport Messenger - Blue	0B47299	ann 08/28/12
Lenovo Sport Backpack - Grey	0B47301	ann 08/28/12
Lenovo Sport Slimcase - Grey	0B47303	ann 08/28/12
Lenovo Sport Messenger - Grey	0B47302	ann 08/28/12

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

ThinkVision® L1711p 17" (VGA, DVI-D)	5047HB2	ann 10/20/09
ThinkVision L1900p 19" (VGA, DVI-D)	4431HE1	ann 11/11/08
ThinkVision LT1952p Wide 19" (VGA, DP, DVI-D) ⁶⁹	2448MB6	ann 09/13/11
ThinkVision L2250p Wide 22" (VGA, DVI-D)	2572HB6	ann 10/20/09
ThinkVision L2251x Wide 22" (VGA, DP)	2578HB6	ann 10/20/09
ThinkVision LT2252p Wide 22" (VGA, DP, DVI-D) ⁶⁹	2572MB6	ann 09/13/11
ThinkVision LT2452p Wide 24" (VGA, DP, DVI-D) ⁶⁹	4420MB2	ann 09/13/11

⁶⁹ DisplayPort cable is not included.

ThinkVision LT1421 Wide 14" Mobile Monitor with Protective Screen Cover (USB 2.0)	1452DS6	ann 08/16/11
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ThinkVision LT1421 Wide 14" Mobile Monitor with Protective Case (USB 2.0)	1452DB6	ann 08/16/11
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More information at www.lenovo.com/support/monitorswww.lenovo.com/support/thinkpad/optimus-monitors**Monitor Accessories⁴⁶**

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

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

For more information on accessories:

www.lenovo.com/accessories

Purchase Lenovo accessories

www.lenovo.com/support/accessories

Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide

Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com

An Options Compatibility Configurator for Lenovo systems

ThinkPad®



Lenovo® ThinkPad X131e



Lenovo ThinkPad X131e



Lenovo ThinkPad X131e



Lenovo ThinkPad X131e



Lenovo ThinkPad X131e



Lenovo ThinkPad X131e

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

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	Carrier	Top color	Finger print reader	Blue-tooth	Battery cells	Preload	Ann Date (mm/yy)
3368-55U	i3-3227U	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win8 Pro64	02/13
3368-53U	i3-3227U	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win8 Pro64	02/13
3368-4UU	i3-3227U	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	02/13
3368-4SU	i3-3227U	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	02/13
3368-4RU	i3-3227U	2GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	02/13
3368-4QU	i3-3227U	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win8 64	02/13
3368-4MU	Cel 1007U	2GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win8 64	02/13
3368-4HU	Cel 1007U	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win8 Pro64	02/13
3368-4FU	Cel 1007U	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win8 Pro64	02/13
3368-4QU	Cel 1007U	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	02/13
3368-46U	Cel 1007U	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	02/13
3368-44U	Cel 1007U	2GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	02/13
3368-3PU	Cel 1007U	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Win8 Pro64	05/13
3368-3NU	Cel 1007U	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Win8 Pro64	05/13
3368-3MU	i3-3227U	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Win8 Pro64	05/13
3368-3LU	i3-3227U	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Win8 Pro64	05/13

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

Positioning Processor	Entry ultraportable for excellent usability and reliability; one spindle Intel® Celeron® 1007U processor (2 cores, 1.50GHz, 2MB cache), Intel HD Graphics, DDR3 memory controller (up to 1600MHz) Intel Core™ i3-3227U processor (2 cores, 1.90GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), HT technology		Preloaded operating system ²⁰ - <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 ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Microsoft® Office 2010 preloaded; purchase product key to activate - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded; purchase product key to activate • PC Device Stage - All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Skype™
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
Optical SATA disk	None (use optional USB-based optical drive) <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm, upgradable, Active Protection System™		
mSATA™ SSD	None		
Widescreen display	11.6" (295mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics or Intel HD Graphics 4000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI™ (supporting HDCP to output protected content); supports dual independent display; <i>Maximum external resolution: 2048x1536 (VGA) @75Hz; 1920x1200 (HDMI) @60Hz</i>		
Keyboard	6-row, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint pointing device, Internet Scroll Bar ¹³		
Touch pad	UltraNav™, buttonless touchpad below keyboard, multi-touch		
ThinkLight™	None		
Dimensions ³	11.6W" (WxDxH): 11.6" x 8.5" x 1.27"; 293.4mm x 216mm x 32.3mm		
Weight ²	6-cell: from 3.92 lb (1.78kg)		
Case color	Midnight black or Heatwave red (top); black bottom		
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic		
Battery - type	Lithium Ion 6-cell, HW Authentication		
Battery - life ¹⁰	6-cell (62.4Whr): up to 8.5 hr		
Chipset	Mobile Intel HM77 Express Chipset		
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)		
ExpressCard	None		
Ports	Two USB 3.0, one powered USB 2.0, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + BT combo adapter		
PCIe WWAN	<i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS		
Carrier	<i>Some:</i> User selectable, AT&T®, Verizon®, or Sprint®, contract required with service provider		
Modem	None		
Bluetooth™	Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter		
Ethernet	Realtek® RTL8111F Gigabit Network Connection		
Intel AMT	None		
Audio support	HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 2 watt x 2 / monaural digital microphone, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	None		
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available		

See footnotes for more detailed information
US model(s) announced February 5 or May 7, 2013

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(JT1-5) May 2013

ThinkPad® X131e 3367 (Intel) - Windows 8 - II

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	Carrier	Top color	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Ann Date (mm/yy)
3367-9GU	Cel 1007U	2GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win8 Pro64	02/13
3367-9FU	Cel 1007U	2GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	02/13
3367-9EU	Cel 1007U	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	02/13
3367-9DU	Cel 1007U	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win8 Pro64	02/13
3367-9CU	Cel 1007U	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win8 Pro64	02/13
3367-9BU	Cel 1007U	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	02/13
3367-9AU	i3-3227U	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win8 Pro64	02/13
3367-99U	i3-3227U	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	02/13
3367-98U	Cel 1007U	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	02/13
3367-8HU	i3-3227U	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Win8 Pro64	05/13
3367-8GU	Cel 1007U	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Win8 Pro64	05/13
3367-8FU	Cel 1007U	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Win8 Pro64	05/13
3367-8EU	i3-3227U	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Win8 Pro64	05/13

Positioning Processor	Entry ultraportable for excellent usability and reliability; one spindle Intel® Celeron® 1007U processor (2 cores, 1.50GHz, 2MB cache), Intel HD Graphics, DDR3 memory controller (up to 1600MHz) Intel Core™ i3-3227U processor (2 cores, 1.90GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), HT technology										Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit			
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller										Preloaded applications⁵ (only some listed)			
Optical SATA disk	None (use optional USB-based optical drive) Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm, upgradable Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm, upgradable, Active Protection System™										- Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Microsoft® Office 2010 preloaded; purchase product key to activate			
mSATA™ SSD	None										- Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded; purchase product key to activate			
Widescreen display	11.6" (295mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio										- All models • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Skype™			
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus													
Graphics	Intel HD Graphics or Intel HD Graphics 4000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI™ (supporting HDCP to output protected content); supports dual independent display; <i>Maximum external resolution: 2048x1536 (VGA) @75Hz; 1920x1200 (HDMI) @60Hz</i>													
Keyboard	6-row, spill-resistant, multimedia Fn keys													
TrackPoint®	TrackPoint pointing device, Internet Scroll Bar ¹³													
Touch pad	UltraNav™, buttonless touchpad below keyboard, multi-touch													
ThinkLight™	None													
Dimensions ³	11.6W" (WxDxH): 11.6" x 8.5" x 1.27"; 293.4mm x 216mm x 32.3mm													
Weight ²	6-cell: from 3.92 lb (1.78kg)													
Case color	Midnight black or Heatwave red (top); black bottom													
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic													
Battery - type	Lithium Ion 6-cell, HW Authentication													
Battery - life ¹⁰	6-cell (62.4Whr): up to 8.5 hr													
Chipset	Mobile Intel HM77 Express Chipset													
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)													
ExpressCard	None													
Ports	Two USB 3.0, one powered USB 2.0, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)													
PCIe Mini Card	Two PCI Express Mini Card slots													
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + Bluetooth combo adapter													
PCIe WWAN	Some: Wireless WAN upgradable Some: Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS													
Carrier	Some: User selectable, AT&T®, Verizon®, or Sprint®, contract required with service provider													
Modem	None													
Bluetooth™	Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter													
Ethernet	Realtek® RTL8111F Gigabit Network Connection													
Intel AMT	None													
Audio support	HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 2 watt x 2 / monaural digital microphone, combo audio/mic jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module, TCG 1.2-compliant													
Fingerprint reader	None													
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available													

See footnotes for more detailed information
US model(s) announced February 5 or May 7, 2013

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Supports ThinkVantage® technologies

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

For compatible accessories, please go to O-X131-E sheet;
For Lenovo service²² upgrade options, please go to S-TA sheet

ThinkPad® X131e 3372 (AMD) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB [®] rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	Carrier	Top color	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Ann Date (mm/yy)
⌘ 3372-29U	E-300	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Prem 64	07/12
⌘ 3372-2AU	E-300	2GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	07/12
⌘ 3372-2BU	E-300	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	07/12
3372-2CU	E2-1800	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Prem 64	07/12
3372-2DU	E2-1800	2GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	07/12
3372-2EU	E2-1800	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	07/12
3372-2FU	E2-1800	4GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	07/12
3372-2GU	E2-1800	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	07/12
⌘ 3372-2UU	E-300	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	09/12
⌘ 3372-2QU	E-300	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	09/12
3372-2PU	E2-1800	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	09/12
3372-2JU	E2-1800	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Pro 64	10/12
3372-3PU	E1-1200	2GBx1	11.6" HD	720p	320G 5400	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Prem 64	04/13
3372-3NU	E1-1200	4GBx1	11.6" HD	720p	500G 5400	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Prem 64	04/13

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

Positioning Processor	Entry ultraportable for excellent usability and reliability; one spindle AMD Accelerated Processor E-300 (2 cores, 1.30GHz, 1MB L2 cache) , integrated AMD Radeon™ HD 6310 Graphics, integrated DDR3 memory controller (up to 1066MHz) AMD Accelerated Processor E1-1200 (2 cores, 1.40GHz, 1MB L2 cache) , integrated AMD Radeon HD 7310 Graphics, integrated DDR3 memory controller (up to 1066MHz) AMD Accelerated Processor E2-1800 (2 cores, 1.70GHz, 1MB L2 cache) , integrated AMD Radeon HD 7340 Graphics, integrated DDR3 memory controller (up to 1333MHz)	Preloaded operating system²⁰ Some: Genuine Windows® 7 Home Premium 64 Some: Genuine Windows 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, two 204-pin SO-DIMM sockets * System clocks down for processors with 1066MHz or 1333MHz DDR3 memory controller	Preloaded applications¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Symantec™ VIP • Windows Live™ Essentials • Microsoft® Office 2010 preloaded; purchase product key to activate
Optical SATA disk	None (use optional USB-based optical drive) Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm, upgradable Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm, upgradable, Active Protection System™	
mSATA™ SSD	None	
Widescreen display	11.6" (295mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio	
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus	
Graphics	AMD Radeon HD 6310, 7310, or 7340 graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI™ (supporting HDCP to output protected content); supports dual independent display; <i>Maximum external resolution: 1920x1080 (VGA or HDMI)</i>	
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, spill-resistant, multimedia Fn keys TrackPoint pointing device, Internet Scroll Bar ¹³ UltraNav™, buttonless touchpad below keyboard, multi-touch None	
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	11.6W" (WxDxH): 11.6" x 8.5" x 1.27"; 293.4mm x 216mm x 32.3mm 6-cell: from 3.92 lb (1.78kg) Midnight black or Heatwave red (top); black bottom Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell, HW Authentication 6-cell (62.4Whr): up to 8.5 hr	
Chipset Multicard reader ExpressCard Ports	AMD A68M FCH Chipset 4-in-1 reader (MMC, SD, SDHC, SDXC) None Two USB 3.0, one powered USB 2.0, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)	
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN	Two PCI Express Mini Card slots Some: 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1, Wi-Fi + Bluetooth combo adapter Some: 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + BT combo adapter Some: Wireless WAN upgradable Some: Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS	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
Carrier Modem Bluetooth™ Ethernet Audio support	Some: User selectable, AT&T®, Verizon®, or Sprint®, contract required with service provider None Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter Realtek® RTL8111F Gigabit Network Connection HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 2 watt x 2 / monaural digital microphone, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole None None	For compatible accessories, please go to O-X131-E sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

See footnotes for more detailed information
US model(s) announced July 31, September 4, or October 23, 2012, or April 2, 2013
⌘ US model(s) withdrawn effective March 2013

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(JT11-1) April 2013

ThinkPad® X131e 3372 (AMD) - TopSeller (Windows 8)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCle Mini Card WLAN	PCle Mini Card WWAN /mSATA	Carrier	Top color	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Ann Date (mm/yy)
3372-32U	E2-1800	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Win7 Pro64	10/12
3372-2ZU	E-300	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Win7 Pro64	10/12
3372-2YU	E2-1800	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	10/12
3372-2XU	E-300	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	10/12
3372-2WU	E-300	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	10/12
3372-2VU	E2-1800	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	10/12
3372-2TU	E-300	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win8 Pro64	10/12
3372-2SU	E2-1800	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win8 Pro64	10/12
3372-2RU	E-300	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Win8 Pro64	10/12
3372-2NU	E2-1800	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	10/12
3372-2MU	E-300	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win8 Pro64	10/12
3372-3MU	E1-1200	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win8 Pro64	02/13
3372-3LU	E1-1200	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Win8 Pro64	02/13
3372-3JU	E1-1200	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win8 Pro64	02/13
3372-3HU	E1-1200	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Win8 64	02/13
3372-3GU	E1-1200	2GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	02/13
3372-3FU	E1-1200	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	02/13
3372-3QU	E1-1200	2GBx1	11.6" HD	720p	320G 5400	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	04/13
Positioning Processor	<p>Entry ultraportable for excellent usability and reliability; one spindle</p> <p>AMD Accelerated Processor E-300 (2 cores, 1.30GHz, 1MB L2 cache), integrated AMD Radeon™ HD 6310 Graphics, integrated DDR3 memory controller (up to 1066MHz)</p> <p>AMD Accelerated Processor E1-1200 (2 cores, 1.40GHz, 1MB L2 cache), integrated AMD Radeon HD 7310 Graphics, integrated DDR3 memory controller (up to 1066MHz)</p> <p>AMD Accelerated Processor E2-1800 (2 cores, 1.70GHz, 1MB L2 cache), integrated AMD Radeon HD 7340 Graphics, integrated DDR3 memory controller (up to 1333MHz)</p>									<p>Preloaded operating system²⁰</p> <ul style="list-style-type: none"> - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 64-bit - Some: Windows 8 Pro 64-bit <p>Preloaded applications⁵ (only some listed)</p> <ul style="list-style-type: none"> - Windows 7 models <ul style="list-style-type: none"> • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Microsoft® Office 2010 preloaded; purchase product key to activate - Windows 8 models <ul style="list-style-type: none"> • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded; purchase product key to activate - All models <ul style="list-style-type: none"> • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Skype™ 				
Memory	<p>8GB max⁷ / PC3-12800 1600MHz DDR3, non-parity, two 204-pin SO-DIMM sockets</p> <p>* System clocks down for processors with 1066MHz or 1333MHz DDR3 memory controller</p>													
Optical SATA disk	<p>None (use optional USB-based optical drive)</p> <p>Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm, upgradable</p> <p>Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm, upgradable, Active Protection System™</p>													
mSATA™ SSD	None													
Widescreen display	<p>11.6" (295mm) HD (1366x768) TFT color, anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio</p>													
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus													
Graphics	<p>AMD Radeon HD 6310, 7310, or 7340 graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI™ (supporting HDCP to output protected content); supports dual independent display;</p> <p><i>Maximum external resolution: 1920x1080 (VGA or HDMI)</i></p>													
Keyboard	6-row, spill-resistant, multimedia Fn keys													
TrackPoint®	TrackPoint pointing device, Internet Scroll Bar ¹³													
Touch pad	UltraNav™, buttonless touchpad below keyboard, multi-touch													
ThinkLight™	None													
Dimensions ³	<p>11.6W" (WxDxH): 11.6" x 8.5" x 1.27"; 293.4mm x 216mm x 32.3mm</p>													
Weight ²	6-cell: from 3.92 lb (1.78kg)													
Case color	Midnight black or Heatwave red (top); black bottom													
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic													
Battery - type	Lithium Ion 6-cell, HW Authentication													
Battery - life ¹⁰	6-cell (62.4Whr): up to 8.5 hr													
Chipset	AMD A68M FCH Chipset													
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)													
ExpressCard	None													
Ports	Two USB 3.0, one powered USB 2.0, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)													
PCle Mini Card	Two PCI Express Mini Card slots													
PCle WLAN ⁴	<p>Some: 11b/g/n, PCle Half Mini Card, ThinkPad 11b/g/n, 1x1, Wi-Fi + Bluetooth combo adapter</p> <p>Some: 11a/b/g/n, PCle Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + BT combo adapter</p>													
PCle WWAN	<p>Some: Wireless WAN upgradable</p> <p>Some: Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCle Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS</p>													
Carrier	Some: User selectable, AT&T®, Verizon®, or Sprint®, contract required with service provider													
Modem	None													
Bluetooth™	Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter													
Ethernet	Realtek® RTL8111F Gigabit Network Connection													
Audio support	HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 2 watt x 2 / monaural digital microphone, combo audio/mic jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	None													
Fingerprint reader	None													
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available									<p>Supports ThinkVantage® technologies</p> <p>65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified ROHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹²</p> <p>For compatible accessories, please go to O-X131-E sheet;</p> <p>For Lenovo service²² upgrade options, please go to S-TA sheet</p>				

See footnotes for more detailed information

US model(s) announced October 23, 2012, February 5, 2013, or April 2, 2013

⚡ US model(s) withdrawn effective October 2012 or March 2013

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Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	Carrier	Top color	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Ann Date (mm/yy)
3371-2HU	E-300	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Prem 64	07/12
3371-2JU	E-300	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	07/12
3371-2KU	E-300	2GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	07/12
3371-2LU	E2-1800	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Prem 64	07/12
3371-2MU	E2-1800	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	07/12
3371-2NU	E2-1800	2GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	07/12
3371-2PU	E2-1800	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Pro 64	07/12
3371-2RU	E2-1800	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Pro 64	10/12

• Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Entry ultraportable for excellent usability and reliability; one spindle AMD Accelerated Processor E-300 (2 cores, 1.30GHz, 1MB L2 cache) , integrated AMD Radeon™ HD 6310 Graphics, integrated DDR3 memory controller (up to 1066MHz) AMD Accelerated Processor E2-1800 (2 cores, 1.70GHz, 1MB L2 cache) , integrated AMD Radeon HD 7340 Graphics, integrated DDR3 memory controller (up to 1333MHz)		Preloaded operating system ²⁰ Some: Genuine Windows® 7 Home Premium 64 Some: Genuine Windows 7 Professional 64 Ready to install applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo® Solution Center• Lenovo Message Center Plus• ThinkVantage Product Recovery• Access Connections™• ThinkVantage System Update• ThinkVantage Power Manager• Lenovo Cloud Storage by SugarSync• Lenovo SimpleTap• Norton™ Internet Security 2012 (30 days of virus definitions)• Adobe® Reader®• Skype™ for Windows• Evernote™• Symantec™ VIP• Windows Live™ Essentials• Microsoft® Office 2010 preloaded; purchase product key to activate
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, two 204-pin SO-DIMM sockets * System clocks down for processors with 1066MHz or 1333MHz DDR3 memory controller		
Optical SATA disk	None (use optional USB-based optical drive) Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm, upgradable Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm, upgradable, Active Protection System™		
mSATA™ SSD	None		
Widescreen display	11.6" (295mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	AMD Radeon HD 6310 or 7340 graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI™ (supporting HDCP to output protected content); supports dual independent display; <i>Maximum external resolution: 1920x1080 (VGA or HDMI)</i>		
Keyboard	6-row, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint pointing device, Internet Scroll Bar ¹³		
Touch pad	UltraNav™, buttonless touchpad below keyboard, multi-touch		
ThinkLight™	None		
Dimensions ³	11.6W" (WxDxH): 11.6" x 8.5" x 1.27"; 293.4mm x 216mm x 32.3mm		
Weight ²	6-cell: from 3.92 lb (1.78kg)		
Case color	Midnight black or Heatwave red (top); black bottom		
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic		
Battery - type	Lithium Ion 6-cell, HW Authentication		
Battery - life ¹⁰	6-cell (62.4Whr): up to 8.5 hr		
Chipset	AMD A68M FCH Chipset		
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)		
ExpressCard	None		
Ports	Two USB 3.0, one powered USB 2.0, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	Some: 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1, Wi-Fi + Bluetooth combo adapter Some: 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + BT combo adapter		
PCIe WWAN	Some: Wireless WAN upgradable Some: Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS		
Carrier	Some: User selectable, AT&T®, Verizon®, or Sprint®, contract required with service provider		
Modem	None		
Bluetooth™	Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter		
Ethernet	Realtek® RTL8111F Gigabit Network Connection		
Audio support	HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 2 watt x 2 / monaural digital microphone, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	None		
Fingerprint reader	None		
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available		

Supports ThinkVantage® technologies
65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
For compatible accessories, please go to O-X131-E sheet;
For Lenovo service ²² upgrade options, please go to S-TA sheet

See footnotes for more detailed information
US model(s) announced July 31 or October 23, 2012
✗ US model(s) withdrawn effective March 2013

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Supports ThinkVantage® technologies

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

For compatible accessories, please go to O-X131-E sheet;

For Lenovo service²² upgrade options, please go to S-TA sheet

ThinkPad® X131e 3371 (AMD) - Windows 8

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	Carrier	Top color	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Ann Date (mm/yy)
✖ 3371-7RU	E-300	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Win7 Pro64	10/12
✖ 3371-7QU	E-300	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Win7 Pro64	10/12
✖ 3371-7PU	E2-1800	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Win7 Pro64	10/12
✖ 3371-7NU	E2-1800	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	Gobi 3000	select	Black	None	BT	6	Win7 Pro64	10/12
3371-7MU	E2-1800	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	10/12
3371-7LU	E2-1800	4GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	10/12
✖ 3371-7KU	E-300	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	10/12
✖ 3371-7JU	E-300	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	10/12
✖ 3371-8AU	E-300	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Win8 64	12/12
✖ 3371-89U	E-300	2GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	12/12
3371-88U	E2-1800	2GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	12/12
3371-87U	E2-1800	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	12/12
3371-86U	E2-1800	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Win8 64	12/12
3371-8EU	E1-1200	4GBx1	11.6" HD	720p	128G SSD	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	02/13
3371-8DU	E1-1200	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Win8 64	02/13
3371-8CU	E1-1200	2GBx1	11.6" HD	720p	320G 7200	TP 11a/b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	02/13
3371-8BU	E1-1200	2GBx1	11.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	None	Black	None	BT	6	Win7 Pro64	02/13

Positioning Processor	<p><i>Entry ultraportable for excellent usability and reliability; one spindle</i></p> <p>AMD Accelerated Processor E-300 (2 cores, 1.30GHz, 1MB L2 cache), integrated AMD Radeon™ HD 6310 Graphics, integrated DDR3 memory controller (up to 1066MHz)</p> <p>AMD Accelerated Processor E1-1200 (2 cores, 1.40GHz, 1MB L2 cache), integrated AMD Radeon HD 7310 Graphics, integrated DDR3 memory controller (up to 1066MHz)</p> <p>AMD Accelerated Processor E2-1800 (2 cores, 1.70GHz, 1MB L2 cache), integrated AMD Radeon HD 7340 Graphics, integrated DDR3 memory controller (up to 1333MHz)</p>									<p>Preloaded operating system²⁰</p> <ul style="list-style-type: none"> - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 64-bit <p>Preloaded applications⁵ (only some listed)</p> <ul style="list-style-type: none"> - Windows 7 models <ul style="list-style-type: none"> • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Microsoft® Office 2010 preloaded; purchase product key to activate - Windows 8 models <ul style="list-style-type: none"> • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded; purchase product key to activate - All models <ul style="list-style-type: none"> • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Skype™ 				
Memory	8GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, two 204-pin SO-DIMM sockets													
Optical SATA disk	<p>None (use optional USB-based optical drive)</p> <p>Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm, upgradable</p> <p>Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm, upgradable, Active Protection System™</p>													
mSATA™ SSD	None													
Widescreen display	11.6" (295mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio													
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus													
Graphics	<p>AMD Radeon HD 6310, 7310, or 7340 graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI™ (supporting HDCP to output protected content); supports dual independent display;</p> <p><i>Maximum external resolution: 1920x1080 (VGA or HDMI)</i></p>													
Keyboard	6-row, spill-resistant, multimedia Fn keys													
TrackPoint®	TrackPoint pointing device, Internet Scroll Bar ¹³													
Touch pad	UltraNav™, buttonless touchpad below keyboard, multi-touch													
ThinkLight™	None													
Dimensions ³	11.6W" (WxDxH): 11.6" x 8.5" x 1.27"; 293.4mm x 216mm x 32.3mm													
Weight ²	6-cell: from 3.92 lb (1.78kg)													
Case color	Midnight black or Heatwave red (top); black bottom													
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic													
Battery - type	Lithium Ion 6-cell, HW Authentication													
Battery - life ¹⁰	6-cell (62.4Whr): up to 8.5 hr													
Chipset	AMD A68M FCH Chipset													
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)													
ExpressCard	None													
Ports	Two USB 3.0, one powered USB 2.0, external monitor (VGA DB-15, HDMI), ethernet (RJ-45)													
PCIe Mini Card	Two PCI Express Mini Card slots													
PCIe WLAN ⁴	<p>Some: 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1, Wi-Fi + Bluetooth combo adapter</p> <p>Some: 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + BT combo adapter</p> <p>Some: Wireless WAN upgradable</p> <p>Some: Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS</p>													
PCIe WWAN	<p>Some: User selectable, AT&T®, Verizon®, or Sprint®, contract required with service provider</p> <p>None</p>													
Carrier	None													
Modem	None													
Bluetooth™	Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter													
Ethernet	Realtek® RTL8111F Gigabit Network Connection													
Audio support	HD Audio, Realtek ALC3202 codec, Dolby® Advanced Audio™ v2 / stereo speakers, 2 watt x 2 / monaural digital microphone, combo audio/mic jack													
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 October 23 or December 4, 2012, or February 5, 2013

✖ US model(s) withdrawn effective October 2012 or March 2013

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Supports ThinkVantage® technologies

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

For compatible accessories, please go to O-X131-E sheet;
For Lenovo service²² upgrade options, please go to S-TA sheet

Memory

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

Storage and removable storage

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

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

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

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

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

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

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

Multimedia

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

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

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

Batteries

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

⁴⁴ Requires the ThinkPad 90W AC Adapter 40Y7659 or the adapter provided with the system.More information at www.lenovo.com/alldaycomputing

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

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

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

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

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

Up to 12.5" widescreen models:

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

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

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

ThinkVision L1900p 19" (VGA, DVI-D)	4431HE1	ann	11/11/08
ThinkVision L2250p Wide 22" (VGA, DVI-D)	2572HB6	ann	10/20/09
ThinkVision L2251x Wide 22" (VGA, DP)	2578HB6	ann	10/20/09
ThinkVision LT2252p Wide 22" (VGA, DP, DVI-D) ⁶⁹	2572MB6	ann	09/13/11
ThinkVision LT2452p Wide 24" (VGA, DP, DVI-D) ⁶⁹	4420MB2	ann	09/13/11

⁶⁹ DisplayPort cable is not included.

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

More information at www.lenovo.com/support/monitors**Monitor Accessories⁴⁶**

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

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

For more information on accessories:

www.lenovo.com/accessories

Purchase Lenovo accessories

www.lenovo.com/support/accessories

Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide

Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com

An Options Compatibility Configurator for Lenovo systems

ThinkPad®



Lenovo® ThinkPad X230



Lenovo® ThinkPad X230



Lenovo ThinkPad X230



Lenovo ThinkPad X230



Lenovo ThinkPad X230



Lenovo ThinkPad X230

ThinkPad® X230 (2320) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Disk SATA GB ³ rpm	Optical in UltraBase Series 3	ThinkPad Ultrabase Series 3	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Finger-print reader	Bat-tery cells	Intel AMT	Intel vPro	Preload (mm/yy)	Ann date
2320-8VU	i5-3210M	4GBx1	12.5" HD	128G SSD	Optional	Opt	None	Intel 2200 ²⁸	WWAN upg	Fing	6	No	No	Pro 64	06/12
2320-33U	i5-3210M	4GBx1	12.5" HD	180G SSD	Optional	Opt	None	Intel 2200	WWAN upg	Fing	6	No	No	Pro 64	06/12
2320-32U	i5-3210M	4GBx1	12.5" HD	500G 7200	Optional	Opt	None	Intel 2200	WWAN upg	Fing	6	No	No	Pro 64	06/12
2320-2ZU	i5-3210M	4GBx1	12.5" HD	320G 7200	Optional	Opt	None	Intel 2200	WWAN upg	Fing	6	No	No	Pro 64	06/12
2320-A9U	i7-3520M	4GBx1	12.5" HD	180G SSD	DVD±RW	UltraB	Backlit	Intel 6205 ²⁸	WWAN upg	Fing	6	iAMT	vPro	Pro 64	07/12
2320-A7U	i5-3320M	4GBx1	12.5" HD	500G 7200	DVD±RW	UltraB	Backlit	Intel 6205	WWAN upg	Fing	6	iAMT	vPro	Pro 64	07/12
2320-A5U	i5-3320M	4GBx1	12.5" HD	500G 7200	Optional	Opt	Backlit	Intel 6205	WWAN upg	Fing	6	iAMT	vPro	Pro 64	07/12
2320-A3U	i5-3210M	4GBx1	12.5" HD	500G 7200	Optional	Opt	Backlit	Intel 2200	WWAN upg	Fing	6	No	No	Pro 64	07/12

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

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5-3210M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications ¹⁴ (only some listed) • Access Connections™ • ThinkVantage Power Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • Microsoft Office 2010 preloaded; purchase product key to activate
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
Optical Ultrabay SATA disk	<i>Some:</i> DVD burner, removable from ThinkPad Ultrabase Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 (0A33932) <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3		
mSATA™ SSD	None		
Widescreen display Camera	12.5" (317.5mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		Supports ThinkVantage® technologies
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, buttonless touchpad below keyboard, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material Standard Battery External Battery Battery - life ¹⁰	<i>without UltraBase; 4/6-cell:</i> 12.0" x 8.13" x 0.75-1.05"; 305mm x 206.5mm x 19.0-26.6mm <i>4-cell:</i> from 2.96 lb (1.34kg); <i>6-cell:</i> from 3.31 lb (1.50kg); <i>9-cell:</i> from 3.67 lb (1.67kg) <i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy Li-Ion 4-cell, 6-cell, or 9-cell, HW Authentication; optional external battery as 2nd battery None <i>4-cell (28.8Whr):</i> up to 4.6 hr; <i>6-cell (62.4Whr):</i> up to 10.3 hr; <i>9-cell (93.6Whr):</i> up to 15.5 hr; <i>external battery (64Whr, 0A36280):</i> up to 10.6 hr; <i>9-cell plus external battery:</i> up to 26.1 hr		ThinkPad Ultrabase Series 3 • Provides desktop expansion and cable management for X230 and X230 Tablet • Easily connects to the bottom of the X230 or X230 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 Disks supported (some): • 128GB SSD 6.0Gb/s 0A65629 • 180GB SSD 6.0Gb/s 0A65630 • 500GB Disk 7200 rpm 0A65632 Other features: • Power button (front) • Security key lock, security keyhole • Analog VGA DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet (RJ-45) port • Microphone in and headphone out • Requires 65W or 90W AC adapter • 1.39 lb; 630g
Chipset Ultrabase Multicard reader ExpressCard Smart Card Read Ports	Mobile Intel QM77 Express Chipset <i>Some:</i> ThinkPad Ultrabase Series 3 (see right side) 4-in-1 reader (SD, SDHC, SDXC, MMC) One slot (ExpressCard/34, ExpressCard/54) None Two USB 3.0, one powered USB 2.0 external monitor (VGA DB-15, Mini DisplayPort), ethernet (RJ-45)		
PCIe Mini Card PCIe WLAN ⁴	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2		
PCIe WWAN Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	Wireless WAN upgradable None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>Some:</i> Intel Active Management Technology (iAMT) High Definition (HD) Audio, Realtek® ALC3202 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array microphone, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for more detailed information
US model(s) announced June 5 or July 31, 2012
⚡ US model(s) withdrawn effective March 2013

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(DSH2-1) August 2012

ThinkPad® X230 (2320) - TopSeller - II

Personal Systems Reference (PSREF)

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

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

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5-3320M processor (dual-core, 2.60GHz, 3MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (dual-core, 2.90GHz, 4MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications ¹⁴ (only some listed) • Access Connections™ • ThinkVantage Power Manager • ThinkVantage Tools • Fingerprint Software (fingerprint models) • ThinkVantage System Update • Microsoft Office 2010 preloaded; purchase product key to activate
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
Optical Ultrabay SATA disk	<i>Some:</i> DVD burner, removable from ThinkPad Ultrabase Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 (0A33932) <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3		
mSATA™ SSD	None		
Widescreen display	12.5" (317.5mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		Supports ThinkVantage® technologies ThinkPad Ultrabase Series 3 • Provides desktop expansion and cable management for X230 and X230 Tablet • Easily connects to the bottom of the X230 or X230 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 Disks supported (some): • 128GB SSD 6.0Gb/s 0A65629 • 180GB SSD 6.0Gb/s 0A65630 • 500GB Disk 7200 rpm 0A65632 Other features: • Power button (front) • Security key lock, security keyhole • Analog VGA DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet (RJ-45) port • Microphone in and headphone out • Requires 65W or 90W AC adapter • 1.39 lb; 630g 65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Camera			
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, buttonless touchpad below keyboard, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material Standard Battery External Battery Battery - life ¹⁰	<i>without UltraBase;</i> 4/6-cell: 12.0" x 8.13" x 0.75-1.05"; 305mm x 206.5mm x 19.0-26.6mm 4-cell: from 2.96 lb (1.34kg); 6-cell: from 3.31 lb (1.50kg); 9-cell: from 3.67 lb (1.67kg) <i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy Li-Ion 4-cell, 6-cell, or 9-cell, HW Authentication; optional external battery as 2nd battery None 4-cell (28.8Whr): up to 4.6 hr; 6-cell (62.4Whr): up to 10.3 hr; 9-cell (93.6Whr): up to 15.5 hr; external battery (64Whr, 0A36280): up to 10.6 hr; 9-cell plus external battery: up to 26.1 hr		
Chipset Ultrabase Multicard reader ExpressCard Smart Card Read Ports	Mobile Intel QM77 Express Chipset <i>Some:</i> ThinkPad Ultrabase Series 3 (see right side) 4-in-1 reader (SD, SDHC, SDXC, MMC) One slot (ExpressCard/34, ExpressCard/54) None Two USB 3.0, one powered USB 2.0 external monitor (VGA DB-15, Mini DisplayPort), ethernet (RJ-45)		
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS <i>Some:</i> User selectable, AT&T®, Verizon®, or Sprint®, contract required with service provider		
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Realtek® ALC3202 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array microphone, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Security Security chip Fingerprint reader			
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for more detailed information
US model(s) announced June 5, 2012

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(DSH2-2) July 2012

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

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Disk SATA GB ¹ rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	Battery cells	Intel AMT	Intel vPro	Preload	Ann date (mm/yy)
2320-HQU	i7-3520M	4GBx1	12.5" HD	180G SSD	DVD±RW	UltraB	Backlit	Intel 6205 ²⁸	WWAN upg	6	iAMT	vPro	Win7 Pro64	10/12
2320-HPU	i5-3320M	4GBx1	12.5" HD	500G 7200	DVD±RW	UltraB	Backlit	Intel 6205	WWAN upg	6	iAMT	vPro	Win7 Pro64	10/12
2320-HNU	i5-3320M	4GBx1	12.5" HD	500G 7200	Optional	Opt	Backlit	Intel 6205	WWAN upg	6	iAMT	vPro	Win7 Pro64	10/12
2320-HMU	i5-3210M	4GBx1	12.5" HD	500G 7200	Optional	Opt	Backlit	Intel 2200	WWAN upg	6	No	No	Win7 Pro64	10/12
2320-AAU	i7-3520M	4GBx1	12.5" HD	180G SSD	DVD±RW	UltraB	Backlit	Intel 6205	WWAN upg	6	iAMT	vPro	Win8 Pro64	10/12
2320-A8U	i5-3320M	4GBx1	12.5" HD	500G 7200	DVD±RW	UltraB	Backlit	Intel 6205	WWAN upg	6	iAMT	vPro	Win8 Pro64	10/12
2320-A6U	i5-3320M	4GBx1	12.5" HD	500G 7200	Optional	Opt	Backlit	Intel 6205	WWAN upg	6	iAMT	vPro	Win8 Pro64	10/12
2320-A4U	i5-3210M	4GBx1	12.5" HD	500G 7200	Optional	Opt	Backlit	Intel 2200	WWAN upg	6	No	No	Win8 Pro64	10/12
2320-JCU	i7-3520M	4GBx1	12.5" HD Prem	180G SSD	DVD±RW	UltraB	Backlit	Intel 6205	WWAN upg	6	iAMT	vPro	Win7 Pro64	10/12
2320-JBU	i5-3320M	4GBx1	12.5" HD Prem	500G 7200	DVD±RW	UltraB	Backlit	Intel 6205	WWAN upg	6	iAMT	vPro	Win7 Pro64	10/12
2320-JAU	i5-3320M	4GBx1	12.5" HD Prem	500G 7200	Optional	Opt	Backlit	Intel 6205	WWAN upg	6	iAMT	vPro	Win7 Pro64	10/12
2320-J9U	i5-3210M	4GBx1	12.5" HD Prem	500G 7200	Optional	Opt	Backlit	Intel 2200	WWAN upg	6	No	No	Win7 Pro64	10/12

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

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5-3210M processor (2 cores, 2.50GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology										Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit			
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Preloaded applications⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • ThinkVantage Power Manager • Lenovo SimpleTap • Microsoft® Office 2010 preloaded; purchase product key to activate - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft Office 2013 preloaded; purchase product key to activate - All models • Lenovo Solution Center • Password Manager			
Optical Ultrabay SATA disk	Some: DVD burner, removable from ThinkPad Ultrabase Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 (0A33932) Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ All: removable, upgradable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3										Supports ThinkVantage® technologies			
mSATA™ SSD	None										ThinkPad Ultrabase Series 3 • Provides desktop expansion and cable management for X230 and X230 Tablet • Easily connects to the bottom of the X230 or X230 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 Disks supported (some): • 128GB SSD 6.0Gb/s 0A65629 • 180GB SSD 6.0Gb/s 0A65630 • 500GB Disk 7200 rpm 0A65632			
Widescreen display	Some: 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio Some: (Premium) 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, WideView (170° viewing)										Other features: • Power button (front) • Security key lock, security keyhole • Analog VGA DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet (RJ-45) port • Microphone in and headphone out • Requires 65W or 90W AC adapter • 1.39 lb; 630g			
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus										65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²			
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)													
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, buttonless touchpad below keyboard, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case material Standard Battery External Battery Battery - life ¹⁰	<i>without UltraBase; 4/6-cell:</i> 12.0" x 8.13" x 0.75-1.05"; 305mm x 206.5mm x 19.0-26.6mm <i>4-cell:</i> from 2.96 lb (1.34kg); <i>6-cell:</i> from 3.31 lb (1.50kg); <i>9-cell:</i> from 3.67 lb (1.67kg) <i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy Li-Ion 4-cell, 6-cell, or 9-cell, HW Authentication; optional external battery as 2nd battery None <i>4-cell (28.8Whr):</i> up to 4.6 hr; <i>6-cell (62.4Whr):</i> up to 10.3 hr; <i>9-cell (93.6Whr):</i> up to 15.5 hr; <i>external battery (64Whr, 0A36280):</i> up to 10.6 hr; <i>9-cell plus external battery:</i> up to 26.1 hr													
Chipset Ultrabase Multicard reader ExpressCard Smart Card Read Ports	Mobile Intel QM77 Express Chipset Some: ThinkPad Ultrabase Series 3 (see right side) 4-in-1 reader (SD, SDHC, SDXC, MMC) One slot (ExpressCard/34, ExpressCard/54) None Two USB 3.0, one powered USB 2.0 external monitor (VGA DB-15, Mini DisplayPort), ethernet (RJ-45)													
PCIe Mini Card PCIe WLAN ⁴	Two PCI Express Mini Card slots Some: 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 Some: 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2													
PCIe WWAN Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	Wireless WAN upgradable None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Some: Intel Active Management Technology (iAMT) High Definition (HD) Audio, Realtek® ALC3202 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array microphone, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip													
Security Security chip Fingerprint reader														
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available													

See footnotes for more detailed information
US model(s) announced October 23 or October 30, 2012
✗ US model(s) withdrawn effective March 2013

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(DSH2-7) November 2012

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

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Disk SATA GB ⁵ rpm	Optical in UltraBase Series 3	ThinkPad Ultrabase Series 3	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	Battery cells	Intel AMT	Intel vPro	Preload	Ann date (mm/yy)
2320-JPU	i5-3230M	4GBx1	12.5" HD	500G 7200	Optional	Opt	Backlit	Intel 2200	WWAN upg	6	None	No	Win7 Pro64	02/13
2320-KMU	i5-3360M	4GBx1	12.5" HD	240G FDE SSD	Optional	Opt	Backlit	Intel 6205 ²⁸	WWAN upg	6	iAMT	vPro	Win8 Pro64	02/13
2320-KLU	i5-3320M	4GBx1	12.5" HD	180G SSD	Optional	Opt	Backlit	Intel 6205	WWAN upg	6	iAMT	vPro	Win8 Pro64	02/13
2320-KKU	i5-3230M	4GBx1	12.5" HD	180G SSD	Optional	Opt	Backlit	Intel 2200	WWAN upg	6	None	No	Win7 Pro64	02/13
2320-KJU	i5-3230M	4GBx1	12.5" HD	180G SSD	Optional	Opt	Backlit	Intel 2200	WWAN upg	6	None	No	Win8 Pro64	02/13
2320-KHU	i5-3230M	4GBx1	12.5" HD	500G 7200	Optional	Opt	Backlit	Intel 2200	WWAN upg	6	None	No	Win8 Pro64	02/13
2320-L9U	i7-3520M	4GBx1	12.5" HD	320G 7200 OPAL	Optional	Opt	Backlit	Intel 6205	WWAN upg	6	iAMT	vPro	Win7 Pro64	04/13
2320-L8U	i7-3520M	4GBx1	12.5" HD	256G SSD	Optional	Opt	Backlit	Intel 6205	WWAN upg	6	iAMT	vPro	Win7 Pro64	04/13
2320-L7U	i5-3320M	4GBx1	12.5" HD	256G SSD	Optional	Opt	Backlit	Intel 6205	WWAN upg	6	iAMT	vPro	Win7 Pro64	04/13
2320-L6U	i5-3320M	4GBx1	12.5" HD	320G 7200 OPAL	Optional	Opt	Backlit	Intel 6205	WWAN upg	6	iAMT	vPro	Win7 Pro64	04/13

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

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5-3230M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000. DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000. DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i5-3360M processor (2 cores, 2.80GHz, 3MB cache), Intel HD Graphics 4000. DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology Intel Core i7-3520M processor (dual-core, 2.90GHz, 4MB Cache), Intel HD Graphics 4000. DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology										Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit Preloaded applications⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • ThinkVantage Power Manager • Lenovo SimpleTap • Microsoft® Office 2010 preloaded; purchase product key to activate - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft Office 2013 preloaded; purchase product key to activate - All models • Lenovo Solution Center • Password Manager Supports ThinkVantage® technologies			
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets													
Optical Ultrabay SATA disk	Option for ThinkPad Ultrabase Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 (0A33932) Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ All: removable, upgradable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3													
mSATA™ SSD	None													
Widescreen display	12.5" (317.5mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio													
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus													
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; Maximum external resolution: 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)													
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, buttonless touchpad below keyboard, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case material Standard Battery External Battery Battery - life ¹⁰	without UltraBase: 4/6-cell: 12.0" x 8.13" x 0.75-1.05"; 305mm x 206.5mm x 19.0-26.6mm 4-cell: from 2.96 lb (1.34kg); 6-cell: from 3.31 lb (1.50kg); 9-cell: from 3.67 lb (1.67kg) Display cover: Magnesium + PCABS; Bottom: Magnesium alloy Li-Ion 4-cell, 6-cell, or 9-cell, HW Authentication; optional external battery as 2nd battery 4-cell (28.8Whr): up to 4.6 hr; 6-cell (62.4Whr): up to 10.3 hr; 9-cell (93.6Whr): up to 15.5 hr; external battery (64Whr, 0A36280): up to 10.6 hr; 9-cell plus external battery: up to 26.1 hr													
Chipset Ultrabase Multicard reader ExpressCard Smart Card Read Ports	Mobile Intel QM77 Express Chipset Option: ThinkPad Ultrabase Series 3 (see right side) 4-in-1 reader (SD, SDHC, SDXC, MMC) One slot (ExpressCard/34, ExpressCard/54) None Two USB 3.0, one powered USB 2.0 external monitor (VGA DB-15, Mini DisplayPort), ethernet (RJ-45)													
PCIe Mini Card PCIe WLAN ⁴	Two PCI Express Mini Card slots Some: 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 Some: 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2 Wireless WAN upgradable													
PCIe WWAN Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Some: Intel Active Management Technology (iAMT) High Definition (HD) Audio, Realtek® ALC3202 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array microphone, combo audio/mic jack													
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available													

See footnotes for more detailed information

US model(s) announced February 5 or April 2, 2013

⚡ US model(s) withdrawn effective March 2013

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(DSH2-10) April 2013

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

ThinkPad® X230 (2324)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Disk SATA GB ⁵ rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Finger print reader	Blue- tery Intel vPro	Global (G) GMP (P)	Pre-load	Ann date (mm/yy)
2324-4TU	i5-3320M	4GBx1	12.5" HD	180G SSD	Optional	Opt	None	Intel 6205 ²⁸	upg	Fing	BT	6 vPro	Pro 64	06/12
2324-3YU	i7-3520M	4GBx1	12.5" HD Prem	180G SSD	Optional	Opt	None	Intel 6205	upg	Fing	BT	9 vPro	Pro 64	06/12
2324-3XU	i7-3520M	4GBx1	12.5" HD	500G 7200	Optional	Opt	None	Intel 6205	upg	Fing	BT	9 vPro	Pro 64	06/12
2324-3WU	i5-3320M	4GBx1	12.5" HD Prem	500G 7200	Optional	Opt	None	Intel 6205	upg	Fing	BT	6 vPro	G Pro 64	06/12
2324-3VU	i5-3320M	4GBx1	12.5" HD Prem	500G 7200	DVD±RW	UltraB	None	Intel 6205	upg	Fing	BT	6 vPro	G Pro 64	06/12
2324-3UU	i7-3520M	4GBx1	12.5" HD Prem	320G 7200	Optional	Opt	None	Intel 6205	upg	Fing	BT	9 vPro	Pro 64	06/12
2324-3TU	i5-3360M	4GBx1	12.5" HD	320G 7200	Optional	Opt	None	Intel 6205	upg	Fing	BT	9 vPro	Pro 64	06/12
2324-3SU	i5-3360M	4GBx1	12.5" HD	320G 7200	Optional	Opt	None	Intel 6205	upg	No	No	6 vPro	Pro 64	06/12
2324-3RU	i5-3360M	4GBx1	12.5" HD Prem	320G 7200	Optional	Opt	None	Intel 6205	upg	Fing	BT	9 vPro	Pro 64	06/12
2324-3QU	i5-3320M	4GBx1	12.5" HD Prem	320G 7200	Optional	Opt	None	Intel 6205	upg	Fing	BT	6 vPro	G Pro 64	06/12
2324-3PU	i5-3320M	4GBx1	12.5" HD	320G 7200	DVD±RW	UltraB	None	Intel 6205	upg	Fing	BT	6 vPro	G Pro 64	06/12
2324-5XU	i7-3520M	4GBx1	12.5" HD	500G 7200	DVD±RW	UltraB	Backlit	Intel 6205	upg	Fing	BT	6 vPro	Pro 64	07/12
2324-5VU	i5-3320M	4GBx1	12.5" HD	180G SSD	DVD±RW	UltraB	Backlit	Intel 6205	upg	Fing	BT	6 vPro	Pro 64	07/12
• A depot repair service 3-year limited warranty • Microsoft® Office 2010 Product Key Ready (O10PKR)														
Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5-3320M processor (dual-core, 2.60GHz, 3MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i5-3360M processor (dual-core, 2.80GHz, 3MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology Intel Core i7-3520M processor (dual-core, 2.90GHz, 4MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology										Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications ¹⁴ (only some listed) • Norton™ Internet Security 2012 (30 days of virus definitions) • Access Connections™ • ThinkVantage Power Manager • ThinkVantage Tools • Fingerprint Software (fingerprint models) • ThinkVantage System Update • Adobe® Reader® • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate			
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Supports ThinkVantage® technologies ThinkPad Ultrabase Series 3 • Provides desktop expansion and cable management for X230 and X230 Tablet • Easily connects to the bottom of the X230 or X230 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 Disks supported (some): • 128GB SSD 6.0Gb/s 0A65629 • 180GB SSD 6.0Gb/s 0A65630 • 500GB Disk 7200 rpm 0A65632 Other features: • Power button (front) • Security key lock, security keyhole • Analog VGA DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet (RJ-45) port • Microphone in and headphone out • Requires 65W or 90W AC adapter • 1.39 lb; 630g 65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²			
Optical Ultrabay SATA disk	Some: DVD burner, removable from ThinkPad Ultrabase Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 (0A33932) Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ All: removable, upgradable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3													
mSATA™ SSD	None													
Widescreen display	Some: 12.5" (317.5mm) HD (1366x768) TFT color, anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio Some: (Premium) 12.5" (317.5mm) HD (1366x768) TFT color, anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, WideView (170° viewing)													
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus													
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; Maximum external resolution: 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)													
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, buttonless touchpad below keyboard, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ²	without UltraBase; 4/6-cell: 12.0" x 8.13" x 0.75-1.05"; 305mm x 206.5mm x 19.0-26.6mm 4-cell: from 2.96 lb (1.34kg); 6-cell: from 3.31 lb (1.50kg); 9-cell: from 3.67 lb (1.67kg)													
Case material	Display cover: Magnesium + PCABS; Bottom: Magnesium alloy													
Standard Battery	Li-Ion 4-cell, 6-cell, or 9-cell, HW Authentication; optional external battery as 2nd battery													
External Battery	None													
Battery - life ¹⁰	4-cell (28.8Whr): up to 4.6 hr; 6-cell (62.4Whr): up to 10.3 hr; 9-cell (93.6Whr): up to 15.5 hr; external battery (64Whr, 0A36280): up to 10.6 hr; 9-cell plus external battery: up to 26.1 hr													
Chipset	Mobile Intel QM77 Express Chipset													
Ultrabase	Some: ThinkPad Ultrabase Series 3 (see right side)													
Multicard reader	4-in-1 reader (SD, SDHC, SDXC, MMC)													
ExpressCard	One slot (ExpressCard/34, ExpressCard/54)													
Smart Card Read Ports	None													
PCIe Mini Card	Two USB 3.0, one powered USB 2.0													
PCIe WLAN ⁴	external monitor (VGA DB-15, Mini DisplayPort), ethernet (RJ-45)													
PCIe WWAN	Two PCI Express Mini Card slots													
Carrier	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2													
Modem	Wireless WAN upgradable													
Bluetooth™	None													
Ethernet	None													
Intel AMT	Some: Bluetooth 4.0 wireless													
Audio support	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Realtek® ALC3202 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array microphone, combo audio/mic jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module, TCG 1.2-compliant													
Fingerprint reader	Some: AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available													

See footnotes for more detailed information

US model(s) announced June 5 or July 31, 2012

≈ US model(s) withdrawn effective March 2013

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(DSH2-3) August 2012

ThinkPad® X230 (2324) - II

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ³ rpm	Optical in Ultrabay	ThinkPad Backlit in Ultrabase Series 3	PCle key-board	Mini Card WLAN	PCle Mini Card WWAN	Finger print reader	Bat- tery cells	Global (G) Intel vPro (P)	Ann date (mm/yy)
2324-3NU	i5-3320M	4GBx1	12.5" HD	720p	320G 7200	Optional	Opt	None	Intel 6205 ²⁸	Gobi select	Fing	BT	6 vPro	Pro 64 06/12
2324-3MU	i5-3320M	4GBx1	12.5" HD	No	320G 7200	Optional	Opt	None	Intel 6205	upg None	No	No	6 vPro	Pro 64 06/12
2324-2LU	i5-3320M	4GBx1	12.5" HD	720p	320G 7200	Optional	Opt	None	Intel 6205	upg None	Fing	BT	6 vPro	Pro 64 06/12
2324-25U	i5-3360M	4GBx1	12.5" HD Prem	720p	320G 7200	Optional	Opt	None	Intel 6205	upg None	Fing	BT	6 vPro	Pro 64 06/12
2324-23U	i7-3520M	4GBx1	12.5" HD Prem	No	180G SSD	Optional	Opt	None	Intel 6300 ²⁸	upg None	Fing	BT	9 vPro	Pro 64 06/12
2324-22U	i5-3360M	4GBx1	12.5" HD	720p	320G 7200	Optional	Opt	None	Intel 6205	upg None	No	No	6 vPro	Pro 64 06/12
2324-5SU	i5-3320M	4GBx1	12.5" HD Prem	720p	320G 7200	Optional	Opt	None	Intel 6205	upg None	Fing	BT	6 vPro	Pro 64 07/12
2324-5RU	i5-3320M	4GBx1	12.5" HD	720p	500G 7200	DVD±RW	UltraB	None	Intel 6205	upg None	Fing	BT	6 vPro	Pro 64 07/12
2324-5QU	i5-3320M	4GBx1	12.5" HD	720p	180G SSD	Optional	Opt	None	Intel 6205	upg None	Fing	BT	6 vPro	Pro 64 07/12
2324-5NU	i5-3320M	4GBx1	12.5" HD	720p	320G 7200	Optional	Opt	None	Intel 6205	upg None	No	BT	6 vPro	Pro 64 07/12
2324-5PU	i5-3320M	4GBx1	12.5" HD	720p	320G 7200	DVD±RW	UltraB	None	Intel 6205	upg None	Fing	BT	6 vPro	Pro 64 07/12

- A depot repair service 3-year limited warranty
- Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5-3320M processor (dual-core, 2.60GHz, 3MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i5-3360M processor (dual-core, 2.80GHz, 3MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology Intel Core i7-3520M processor (dual-core, 2.90GHz, 4MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications ¹⁴ (only some listed) • Norton™ Internet Security 2012 (30 days of virus definitions) • Access Connections™ • ThinkVantage Power Manager • ThinkVantage Tools • Fingerprint Software (fingerprint models) • ThinkVantage System Update • Adobe® Reader® • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
Optical Ultrabay SATA disk	<i>Some:</i> DVD burner, removable from ThinkPad Ultrabase Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 (0A33932) <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3		
mSATA™ SSD	None		
Widescreen display	<i>Some:</i> 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> (Premium) 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, WideView (170° viewing) <i>Some:</i> HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Camera	<i>Some:</i> HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		Supports ThinkVantage® technologies ThinkPad Ultrabase Series 3 • Provides desktop expansion and cable management for X230 and X230 Tablet • Easily connects to the bottom of the X230 or X230 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 Disks supported (some): • 128GB SSD 6.0Gb/s 0A65629 • 180GB SSD 6.0Gb/s 0A65630 • 500GB Disk 7200 rpm 0A65632 Other features: • Power button (front) • Security key lock, security keyhole • Analog VGA DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet (RJ-45) port • Microphone in and headphone out • Requires 65W or 90W AC adapter • 1.39 lb; 630g 65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, buttonless touchpad below keyboard, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³ Weight ² Case material Standard Battery External Battery Battery - life ¹⁰	<i>without UltraBase; 4/6-cell:</i> 12.0" x 8.13" x 0.75-1.05"; 305mm x 206.5mm x 19.0-26.6mm <i>4-cell:</i> from 2.96 lb (1.34kg); <i>6-cell:</i> from 3.31 lb (1.50kg); <i>9-cell:</i> from 3.67 lb (1.67kg) <i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy Li-Ion 4-cell, 6-cell, or 9-cell, HW Authentication; optional external battery as 2nd battery None <i>4-cell (28.8Whr):</i> up to 4.6 hr; <i>6-cell (62.4Whr):</i> up to 10.3 hr; <i>9-cell (93.6Whr):</i> up to 15.5 hr; <i>external battery (64Whr, 0A36280):</i> up to 10.6 hr; <i>9-cell plus external battery:</i> up to 26.1 hr		
Chipset Ultrabase Multicard reader ExpressCard Smart Card Read Ports	Mobile Intel QM77 Express Chipset <i>Some:</i> ThinkPad Ultrabase Series 3 (see right side) 4-in-1 reader (SD, SDHC, SDXC, MMC) One slot (ExpressCard/34, ExpressCard/54) <i>2324-5PU model:</i> Gemplus Smart Card Reader in ExpressCard slot Two USB 3.0, one powered USB 2.0 external monitor (VGA DB-15, Mini DisplayPort), ethernet (RJ-45)		
PCle Mini Card PCle WLAN ⁴ PCle WWAN	Two PCI Express Mini Card slots <i>Some:</i> 11a/b/g/n, PCle Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 <i>Some:</i> 11a/b/g/n, PCle Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCle Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS <i>Some:</i> User selectable, AT&T®, Verizon®, or Sprint®, contract required with service provider		
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCle x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Realtek® ALC3202 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array microphone, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Security Security chip Fingerprint reader	Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for more detailed information
US model(s) announced June 5 or July 3, 2012
✗ US model(s) withdrawn effective March 2013

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(DSH2-4) August 2012

ThinkPad® X230 (2324) - Windows 8

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ³ rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	key-board	PCIe Mini Card WLAN	Finger print reader	Bat-tery Blue-tooth	Global (G) Intel AMT vPro (P)	Intel GMP (P)	Preload	Ann date (mm/yy)
2324-67U	i5-3320M	4GBx1	12.5" HD	No	320G 7200	Optional	Opt	None	Intel 2200	No	No	6 No	No	G Win8 Pro64	10/12
2324-66U	i7-3520M	4GBx1	12.5" HD	720p	180G SSD	Optional	Opt	None	Intel 6205 ²⁸	Fing	BT	6 iAMT vPro	G Win8 Pro64	10/12	
2324-65U	i7-3520M	4GBx1	12.5" HD	720p	500G 7200	Optional	Opt	None	Intel 6205	Fing	BT	6 iAMT vPro	G Win8 Pro64	10/12	
2324-64U	i5-3320M	4GBx1	12.5" HD	720p	180G SSD	Optional	Opt	None	Intel 6205	Fing	BT	6 iAMT vPro	G Win8 Pro64	10/12	
2324-63U	i5-3320M	4GBx1	12.5" HD	720p	500G 7200	Optional	Opt	None	Intel 6205	Fing	BT	6 iAMT vPro	G Win8 Pro64	10/12	
2324-62U	i5-3320M	4GBx1	12.5" HD	720p	320G 7200	Optional	Opt	None	Intel 6205	Fing	BT	6 iAMT vPro	G Win8 Pro64	10/12	
2324-5YU	i7-3520M	4GBx1	12.5" HD	720p	500G 7200	DVD±RW	UltraB	Backlit	Intel 6205	Fing	BT	6 iAMT vPro	Win8 Pro64	10/12	
2324-5WU	i5-3320M	4GBx1	12.5" HD	720p	180G SSD	DVD±RW	UltraB	Backlit	Intel 6205	Fing	BT	6 iAMT vPro	Win8 Pro64	10/12	
2324-8AU	i7-3520M	4GBx1	12.5" HD Prem	720p	256G SSD	Optional	Opt	Backlit	Intel 6205	Fing	BT	6 iAMT vPro	Win7 Pro64	12/12	
2324-89U	i7-3520M	4GBx1	12.5" HD Prem	720p	240G FDE SSD	Optional	Opt	Backlit	Intel 6205	Fing	BT	6 iAMT vPro	Win7 Pro64	12/12	
2324-88U	i5-3320M	4GBx1	12.5" HD	720p	180G SSD	Optional	Opt	Backlit	Intel 6205	Fing	BT	6 iAMT vPro	Win7 Pro64	12/12	
2324-87U	i5-3320M	4GBx1	12.5" HD	720p	256G SSD	Optional	Opt	Backlit	Intel 6205	Fing	BT	6 iAMT vPro	Win7 Pro64	12/12	
2324-86U	i5-3320M	4GBx1	12.5" HD	720p	128G SSD	Optional	Opt	Backlit	Intel 6205	Fing	BT	6 iAMT vPro	Win7 Pro64	12/12	
2324-85U	i5-3320M	4GBx1	12.5" HD	720p	500G 7200	Optional	Opt	Backlit	Intel 6205	Fing	BT	6 iAMT vPro	Win7 Pro64	12/12	
2324-84U	i5-3320M	4GBx1	12.5" HD	720p	320G 7200	Optional	Opt	Backlit	Intel 6205	Fing	BT	6 iAMT vPro	Win7 Pro64	12/12	
2324-93U	i5-3320M	4GBx1	12.5" HD	720p	240G FDE SSD	Optional	Opt	Backlit	Intel 6205	Fing	BT	6 iAMT vPro	Win8 Pro64	02/13	
Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5-3320M processor (dual-core, 2.60GHz, 3MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (dual-core, 2.90GHz, 4MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology											Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit			
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets											Preloaded applications⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • ThinkVantage Power Manager • Microsoft® Office 2010 preloaded; purchase product key to activate - Windows 8 models • Lenovo Support • Lenovo Companion • Microsoft Office 2013 preloaded; purchase product key to activate - All models • Lenovo Solution Center • Password Manager			
Optical Ultrabay SATA disk	Some: DVD burner, removable from ThinkPad Ultrabase Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 (0A33932) Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ All: removable, upgradable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3											Supports ThinkVantage® technologies			
mSATA™ SSD	None														
Widescreen display	Some: 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio Some: (Premium) 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, WideView (170° viewing) Some: HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus														
Camera	Some: HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus														
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; Maximum external resolution: 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)														
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, buttonless touchpad below keyboard, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ² Case material Standard Battery External Battery Battery - life ¹⁰	without UltraBase; 4/6-cell: 12.0" x 8.13" x 0.75-1.05"; 305mm x 206.5mm x 19.0-26.6mm 4-cell: from 2.96 lb (1.34kg); 6-cell: from 3.31 lb (1.50kg); 9-cell: from 3.67 lb (1.67kg) Display cover: Magnesium + PCABS; Bottom: Magnesium alloy Li-Ion 4-cell, 6-cell, or 9-cell, HW Authentication; optional external battery as 2nd battery None 4-cell (28.8Whr): up to 4.6 hr; 6-cell (62.4Whr): up to 10.3 hr; 9-cell (93.6Whr): up to 15.5 hr; external battery (64Whr, 0A36280): up to 10.6 hr; 9-cell plus external battery: up to 26.1 hr														
Chipset Ultrabase Multicard reader ExpressCard Smart Card Read Ports	Mobile Intel QM77 Express Chipset Some: ThinkPad Ultrabase Series 3 (see right side) 4-in-1 reader (SD, SDHC, SDXC, MMC) One slot (ExpressCard/34, ExpressCard/54) None Two USB 3.0, one powered USB 2.0 external monitor (VGA DB-15, Mini DisplayPort), ethernet (RJ-45)														
PCIe Mini Card PCIe WLAN ⁴	Two PCI Express Mini Card slots Some: 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 Some: 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2														
PCIe WWAN Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	Wireless WAN upgradable None None Some: Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Some: Intel Active Management Technology (iAMT) High Definition (HD) Audio, Realtek® ALC3202 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array microphone, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant Some: AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip														
Security Security chip Fingerprint reader	Power On Authentication, supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available														

See footnotes for more detailed information
US model(s) announced October 23 or December 4, 2012, or February 5, 2013

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(DSH2-8) February 2013

ThinkPad® X230 (2324) - Windows 8 - II

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Disk SATA GB ⁶ rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	Finger print reader	Bat-tery Intel vPro	Preload	Ann date (mm/yy)
2324-9CU	i7-3520M	4GBx1	12.5" HD	320G 7200 OPAL	Optional	Optional	Backlit	Intel 6205 ²⁸	WWAN upg	Finger	6 vPro	Win7 Pro64	04/13
2324-9BU	i7-3520M	4GBx1	12.5" HD	256G SSD	Optional	Optional	Backlit	Intel 6205	WWAN upg	Finger	6 vPro	Win7 Pro64	04/13
2324-9AU	i5-3320M	4GBx1	12.5" HD	320G 7200 OPAL	Optional	Optional	Backlit	Intel 6205	WWAN upg	Finger	6 vPro	Win7 Pro64	04/13

• A depot repair service 3-year limited warranty

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5-3320M processor (dual-core, 2.60GHz, 3MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (dual-core, 2.90GHz, 4MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system ²⁰ - Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Power Manager • Microsoft® Office 2010 preloaded; purchase product key to activate - Windows 8 models • Lenovo Support • Microsoft Office 2013 preloaded; purchase product key to activate - All models • Lenovo Solution Center • Password Manager Supports ThinkVantage® technologies ThinkPad Ultrabase Series 3 • Provides desktop expansion and cable management for X230 and X230 Tablet • Easily connects to the bottom of the X230 or X230 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 Disks supported (some): • 128GB SSD 6.0Gb/s 0A65629 • 180GB SSD 6.0Gb/s 0A65630 • 500GB Disk 7200 rpm 0A65632 Other features: • Power button (front) • Security key lock, security keyhole • Analog VGA DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet (RJ-45) port • Microphone in and headphone out • Requires 65W or 90W AC adapter • 1.39 lb; 630g 65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
Optical Ultrabay SATA disk	Option for ThinkPad Ultrabase Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 (0A33932) <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3		
mSATA™ SSD	None		
Widescreen display	12.5" (317.5mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, buttonless touchpad below keyboard, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	<i>without UltraBase; 4/6-cell:</i> 12.0" x 8.13" x 0.75-1.05"; 305mm x 206.5mm x 19.0-26.6mm		
Weight ²	<i>4-cell:</i> from 2.96 lb (1.34kg); <i>6-cell:</i> from 3.31 lb (1.50kg); <i>9-cell:</i> from 3.67 lb (1.67kg)		
Case material	<i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy		
Standard Battery	Li-Ion 4-cell, 6-cell, or 9-cell, HW Authentication; optional external battery as 2nd battery		
External Battery	None		
Battery - life ¹⁰	<i>4-cell (28.8Whr):</i> up to 4.6 hr; <i>6-cell (62.4Whr):</i> up to 10.3 hr; <i>9-cell (93.6Whr):</i> up to 15.5 hr; <i>external battery (64Whr, 0A36280):</i> up to 10.6 hr; <i>9-cell plus external battery:</i> up to 26.1 hr		
Chipset	Mobile Intel QM77 Express Chipset		
Ultrabase	<i>Option:</i> ThinkPad Ultrabase Series 3 (see right side)		
Multicard reader	4-in-1 reader (SD, SDHC, SDXC, MMC)		
ExpressCard	One slot (ExpressCard/34, ExpressCard/54)		
Smart Card Read	None		
Ports	Two USB 3.0, one powered USB 2.0 external monitor (VGA DB-15, Mini DisplayPort), ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2		
PCIe WWAN	Wireless WAN upgradable		
Carrier	None		
Modem	None		
Bluetooth™	Bluetooth 4.0 wireless		
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1		
Intel AMT	Intel Active Management Technology (iAMT)		
Audio support	High Definition (HD) Audio, Realtek® ALC3202 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array microphone, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

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

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(DSH2-11) April 2013

ThinkPad® X230 (2325) - Onsite

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ⁵ rpm	Optical in Ultrabase Series 3	ThinkPad Backlit key-board	PCle Mini Card WLAN	PCle Mini Card WWAN	Smart Card Reader	Finger print reader	Blue-tooth	Bat-tery cells vPro	Global (G) Intel GMP (P) (mm/yy)	Ann Date
2325-5JU	i7-3520M	4GBx1	12.5" HD	720p	128G SSD	Optional	Opt	None	6205 ²⁸	upg	None	None	Fing BT	6 vPro	06/12
2325-2VU	i7-3520M	4GBx1	12.5" HD Prem	720p	180G SSD	Optional	Opt	None	6205	upg	None	None	Fing BT	9 vPro	06/12
2325-2UU	i5-3320M	4GBx1	12.5" HD	720p	180G SSD	Optional	Opt	None	6205	upg	None	None	Fing BT	6 vPro	G P 06/12
2325-2TU	i7-3520M	4GBx1	12.5" HD Prem	720p	500G 7200	Optional	Opt	None	6205	upg	None	None	Fing BT	9 vPro	06/12
2325-2SU	i5-3320M	4GBx1	12.5" HD	720p	500G 7200	DVD±RW	UltraB	None	6205	upg	None	None	Fing BT	6 vPro	G P 06/12
2325-2RU	i5-3360M	4GBx1	12.5" HD Prem	720p	320G 7200	Optional	Opt	None	6205	upg	None	None	Fing BT	9 vPro	06/12
2325-2QU	i5-3320M	4GBx1	12.5" HD Prem	720p	320G 7200	Optional	Opt	None	6205	upg	None	None	Fing BT	6 vPro	G P 06/12
2325-2PU	i5-3320M	4GBx1	12.5" HD	720p	320G 7200	Optional	Opt	None	6205	Gobi select	None	None	Fing BT	6 vPro	06/12
2325-2NU	i5-3320M	4GBx1	12.5" HD	No	320G 7200	Optional	Opt	None	6205	upg	None	None	No	6 vPro	06/12
2325-23U	i7-3520M	4GBx1	12.5" HD Prem	No	180G SSD	Optional	Opt	None	6300 ²⁸	upg	None	None	Fing BT	9 vPro	G P 06/12
2325-22U	i5-3360M	4GBx1	12.5" HD	720p	320G 7200	Optional	Opt	None	6205	upg	None	None	No	6 vPro	G P 06/12
2325-5PU	i5-3320M	4GBx1	12.5" HD	720p	320G 7200	DVD±RW	UltraB	None	6205	upg	None	Gemplus	Fing BT	6 vPro	G P 07/12
2325-5NU	i5-3320M	4GBx1	12.5" HD	720p	320G 7200	Optional	Opt	None	6205	upg	None	None	No	6 vPro	G P 07/12
Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5-3320M processor (dual-core, 2.60GHz, 3MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i5-3360M processor (dual-core, 2.80GHz, 3MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology Intel Core i7-3520M processor (dual-core, 2.90GHz, 4MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology										Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager				
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Preloaded applications ¹⁴ (only some listed) • Norton™ Internet Security 2012 (30 days of virus definitions) • Access Connections™ • ThinkVantage Power Manager • ThinkVantage Tools • Fingerprint Software (fingerprint models)				
Optical Ultrabay SATA disk	Some: DVD burner, removable from ThinkPad Ultrabase Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 (0A33932) Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ All: removable, upgradable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3										• ThinkVantage System Update • Adobe® Reader® • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate				
mSATA™ SSD	None										Supports ThinkVantage® technologies				
Widescreen display	Some: 12.5" (317.5mm) HD (1366x768) TFT color, anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio Some: (Premium) 12.5" (317.5mm) HD (1366x768) TFT color, anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, WideView (170° viewing)										ThinkPad Ultrabase Series 3 • Provides desktop expansion and cable management for X230 and X230 Tablet • Easily connects to the bottom of the X230 or X230 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 Disks supported (some): • 128GB SSD 6.0Gb/s 0A65629 • 180GB SSD 6.0Gb/s 0A65630 • 500GB Disk 7200 rpm 0A65632				
Camera	Some: HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus										Other features: • Power button (front) • Security key lock, security keyhole • Analog VGA DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet (RJ-45) port • Microphone in and headphone out • Requires 65W or 90W AC adapter • 1.39 lb; 630g				
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; Maximum external resolution: 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)										65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, buttonless touchpad below keyboard, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ² Case material Standard Battery External Battery Battery - life ¹⁰	without UltraBase; 4/6-cell: 12.0" x 8.13" x 0.75-1.05"; 305mm x 206.5mm x 19.0-26.6mm 4-cell: from 2.96 lb (1.34kg); 6-cell: from 3.31 lb (1.50kg); 9-cell: from 3.67 lb (1.67kg) Display cover: Magnesium + PCABS; Bottom: Magnesium alloy Li-Ion 4-cell, 6-cell, or 9-cell, HW Authentication; optional external battery as 2nd battery None 4-cell (28.8Whr): up to 4.6 hr; 6-cell (62.4Whr): up to 10.3 hr; 9-cell (93.6Whr): up to 15.5 hr; external battery (64Whr, 0A36280): up to 10.6 hr; 9-cell plus external battery: up to 26.1 hr														
Chipset Ultrabase Multicard reader ExpressCard Smart Card Read Ports	Mobile Intel QM77 Express Chipset Some: ThinkPad Ultrabase Series 3 (see right side) 4-in-1 reader (SD, SDHC, SDXC, MMC) One slot (ExpressCard/34, ExpressCard/54) Some: Gemplus Smart Card Reader in ExpressCard slot Two USB 3.0, one powered USB 2.0, external monitor (VGA DB-15, Mini DisplayPort), ethernet (RJ-45)														
PCle Mini Card PCle WLAN ⁴	Two PCI Express Mini Card slots Some: 11a/b/g/n, PCle Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Some: 11a/b/g/n, PCle Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3														
PCle WWAN	Some: Wireless WAN upgradable Some: Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCle Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS														
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	Some: User selectable, AT&T®, Verizon®, or Sprint®, contract required with service provider None Some: Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCle x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Realtek® ALC3202 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array microphone, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant Some: AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip														
Security Security chip Fingerprint reader															
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available														

See footnotes for more detailed information
US model(s) announced June 5 or July 3, 2012
⌘ US model(s) withdrawn effective March 2013

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ThinkPad® X230 (2325) - Onsite - II

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ^a rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Finger print reader	Bat-tery cells	Global (G) Intel vPro	GMP (P)	Pre-load	Ann Date (mm/yy)
2325-5TU	i5-3320M	4GBx1	12.5" HD Prem	720p	320G 7200	DVD±RW	UltraB	None	Intel 6205 ²⁸	upg	Finger	6	vPro	G P	Pro 64	07/12
2325-3QU	i5-3320M	4GBx1	12.5" HD Prem	720p	320G 7200	Optional	Opt	None	Intel 6205	upg	Finger	6	vPro	G P	Pro 64	07/12
2325-5SU	i5-3320M	4GBx1	12.5" HD Prem	720p	500G 7200	DVD±RW	UltraB	None	Intel 6205	upg	Finger	6	vPro	G P	Pro 64	07/12
2325-5RU	i5-3320M	4GBx1	12.5" HD Prem	720p	500G 7200	Optional	Opt	None	Intel 6205	upg	Finger	6	vPro	G P	Pro 64	07/12

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

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5-3320M processor (dual-core, 2.60GHz, 3MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology		Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64	
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager	
Optical Ultrabay SATA disk	<i>Some:</i> DVD burner, removable from ThinkPad Ultrabase Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 (0A33932) <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3		Preloaded applications¹⁴ (only some listed) • Access Connections™ • ThinkVantage Power Manager • ThinkVantage Tools • Fingerprint Software (fingerprint models) • ThinkVantage System Update • Adobe® Reader® • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate	
mSATA™ SSD	None		Supports ThinkVantage® technologies	
Widescreen display	(Premium) 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, WideView (170° viewing)			
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		ThinkPad Ultrabase Series 3 • Provides desktop expansion and cable management for X230 and X230 Tablet • Easily connects to the bottom of the X230 or X230 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 Disks supported (some): • 128GB SSD 6.0Gb/s 0A65629 • 180GB SSD 6.0Gb/s 0A65630 • 500GB Disk 7200 rpm 0A65632 Other features: • Power button (front) • Security key lock, security keyhole • Analog VGA DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet (RJ-45) port • Microphone in and headphone out • Requires 65W or 90W AC adapter • 1.39 lb; 630g 65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²	
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)			
Keyboard	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight			
TrackPoint®	TrackPoint pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass			
Touchpad	UltraNav™, buttonless touchpad below keyboard, multi-touch			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions			
Dimensions ³	<i>without UltraBase; 4/6-cell:</i> 12.0" x 8.13" x 0.75-1.05"; 305mm x 206.5mm x 19.0-26.6mm			
Weight ²	<i>4-cell:</i> from 2.96 lb (1.34kg); <i>6-cell:</i> from 3.31 lb (1.50kg); <i>9-cell:</i> from 3.67 lb (1.67kg)			
Case material	Display cover: Magnesium + PCABS; Bottom: Magnesium alloy			
Standard Battery	Li-Ion 4-cell, 6-cell, or 9-cell, HW Authentication; optional external battery as 2nd battery			
External Battery	None			
Battery - life ¹⁰	<i>4-cell (28.8Whr):</i> up to 4.6 hr; <i>6-cell (62.4Whr):</i> up to 10.3 hr; <i>9-cell (93.6Whr):</i> up to 15.5 hr; <i>external battery (64Whr, 0A36280):</i> up to 10.6 hr; <i>9-cell plus external battery:</i> up to 26.1 hr			
Chipset	Mobile Intel QM77 Express Chipset			
Ultrabase	<i>Some:</i> ThinkPad Ultrabase Series 3 (see right side)			
Multicard reader	4-in-1 reader (SD, SDHC, SDXC, MMC)			
ExpressCard	One slot (ExpressCard/34, ExpressCard/54)			
Smart Card Read Ports	None			
Ports	Two USB 3.0, one powered USB 2.0, external monitor (VGA DB-15, Mini DisplayPort), ethernet (RJ-45)			
PCIe Mini Card	Two PCI Express Mini Card slots			
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2			
PCIe WWAN	Wireless WAN upgradable			
Carrier	None			
Modem	None			
Bluetooth™	Bluetooth 4.0 wireless			
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1			
Intel AMT	Intel Active Management Technology (iAMT)			
Audio support	High Definition (HD) Audio, Realtek® ALC3202 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array microphone, combo audio/mic jack			
Security	Power-on password, hard disk password, supervisor password, security keyhole			
Security chip	Trusted Platform Module, TCG 1.2-compliant			
Fingerprint reader	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip			
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available			

See footnotes for more detailed information
US model(s) announced July 3, 2012

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(DSH2-6) August 2012

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

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ⁵ rpm	Optical in UltraBase	ThinkPad Series	Backlit key-board	PCIe Mini Card WLAN	Finger print reader	Blue-tooth	Bat-tery Intel	Global (G) Intel vPro	GMP (P)	Preload	Ann Date (mm/yy)
2325-67U	i5-3320M	4GBx1	12.5" HD	No	320G 7200	Optional	Opt	None	Intel 2200	None	No	6 No	No	G P	Win8 Pro64	10/12
2325-66U	i7-3520M	4GBx1	12.5" HD	720p	180G SSD	Optional	Opt	None	Intel 6205 ²⁸	Finger BT	6	iAMT vPro	G P	Win8 Pro64	10/12	
2325-65U	i7-3520M	4GBx1	12.5" HD	720p	500G 7200	Optional	Opt	None	Intel 6205	Finger BT	6	iAMT vPro	G P	Win8 Pro64	10/12	
2325-64U	i5-3320M	4GBx1	12.5" HD	720p	180G SSD	Optional	Opt	None	Intel 6205	Finger BT	6	iAMT vPro	G P	Win8 Pro64	10/12	
2325-63U	i5-3320M	4GBx1	12.5" HD	720p	500G 7200	Optional	Opt	None	Intel 6205	Finger BT	6	iAMT vPro	G P	Win8 Pro64	10/12	
2325-62U	i5-3320M	4GBx1	12.5" HD	720p	320G 7200	Optional	Opt	None	Intel 6205	Finger BT	6	iAMT vPro	G P	Win8 Pro64	10/12	
2325-8AU	i5-3320M	4GBx1	12.5" HD	720p	500G 7200	Optional	Opt	Backlit	Intel 6205	Finger BT	6	iAMT vPro		Win7 Pro64	12/12	
2325-89U	i7-3520M	4GBx1	12.5" HD	720p	256G SSD	Optional	Opt	Backlit	Intel 6205	Finger BT	6	iAMT vPro		Win7 Pro64	12/12	
2325-88U	i7-3520M	4GBx1	12.5" HD Prem	720p	240G FDE SSD	Optional	Opt	Backlit	Intel 6205	Finger BT	6	iAMT vPro		Win7 Pro64	12/12	
2325-87U	i5-3320M	4GBx1	12.5" HD	720p	180G SSD	Optional	Opt	Backlit	Intel 6205	Finger BT	6	iAMT vPro		Win7 Pro64	12/12	
2325-86U	i5-3320M	4GBx1	12.5" HD	720p	128G SSD	Optional	Opt	Backlit	Intel 6205	Finger BT	6	iAMT vPro		Win7 Pro64	12/12	
2325-85U	i5-3320M	4GBx1	12.5" HD	720p	320G 7200	Optional	Opt	Backlit	Intel 6205	Finger BT	6	iAMT vPro		Win7 Pro64	12/12	
2325-AAU	i5-3320M	4GBx1	12.5" HD	720p	180G SSD	Optional	Opt	Backlit	Intel 6205	Finger BT	6	iAMT vPro		Win8 Pro64	02/13	
2325-A7U	i5-3320M	4GBx1	12.5" HD	720p	240G FDE SSD	Optional	Opt	Backlit	Intel 6205	Finger BT	6	iAMT vPro		Win8 Pro64	02/13	

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

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5-3320M processor (dual-core, 2.60GHz, 3MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (dual-core, 2.90GHz, 4MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology										Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit					
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Preloaded applications⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • ThinkVantage Power Manager • Microsoft® Office 2010 preloaded; purchase product key to activate - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft Office 2013 preloaded; purchase product key to activate - All models • Lenovo Solution Center • Password Manager					
Optical Ultrabay SATA disk	Option for ThinkPad Ultrabase Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 (0A33932) Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ All: removable, upgradable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3										Supports ThinkVantage® technologies ThinkPad Ultrabase Series 3 • Provides desktop expansion and cable management for X230 and X230 Tablet • Easily connects to the bottom of the X230 or X230 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 Disks supported (some): • 128GB SSD 6.0Gb/s 0A65629 • 180GB SSD 6.0Gb/s 0A65630 • 500GB Disk 7200 rpm 0A65632					
mSATA™ SSD	None										Other features: • Power button (front) • Security key lock, security keyhole • Analog VGA DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet (RJ-45) port • Microphone in and headphone out • Requires 65W or 90W AC adapter • 1.39 lb; 630g					
Widescreen display	Some: 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio Some: (Premium) 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, WideView (170° viewing)										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					
Camera	Some: HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus															
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort; supports dual independent display; Maximum external resolution: 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@75Hz (VGA)															
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, buttonless touchpad below keyboard, multi-touch Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³ Weight ² Case material Standard Battery External Battery Battery - life ¹⁰	without UltraBase; 4/6-cell: 12.0" x 8.13" x 0.75-1.05"; 305mm x 206.5mm x 19.0-26.6mm 4-cell: from 2.96 lb (1.34kg); 6-cell: from 3.31 lb (1.50kg); 9-cell: from 3.67 lb (1.67kg) Display cover: Magnesium + PCABS; Bottom: Magnesium alloy Li-Ion 4-cell, 6-cell, or 9-cell, HW Authentication; optional external battery as 2nd battery None 4-cell (28.8Whr): up to 4.6 hr; 6-cell (62.4Whr): up to 10.3 hr; 9-cell (93.6Whr): up to 15.5 hr; external battery (64Whr, 0A36280): up to 10.6 hr; 9-cell plus external battery: up to 26.1 hr															
Chipset Ultrabase Multicard reader ExpressCard Smart Card Read Ports	Mobile Intel QM77 Express Chipset Option: ThinkPad Ultrabase Series 3 (see right side) 4-in-1 reader (SD, SDHC, SDXC, MMC) One slot (ExpressCard/34, ExpressCard/54) None Two USB 3.0, one powered USB 2.0, external monitor (VGA DB-15, Mini DisplayPort), ethernet (RJ-45)															
PCIe Mini Card PCIe WLAN ⁴	Two PCI Express Mini Card slots Some: 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2200, 2x2 Some: 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2															
PCIe WWAN Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	Wireless WAN upgradable None None Some: Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Some: Intel Active Management Technology (iAMT) High Definition (HD) Audio, Realtek® ALC3202 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array microphone, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant Some: AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip															
Security Security chip Fingerprint reader																
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time/ service upgrades ²² available															

See footnotes for more detailed information

US model(s) announced October 23 or December 4, 2012, or February 5, 2013

⚡ US model(s) withdrawn effective February 2013

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Memory

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

Ultrabay Slim 9.5mm

<i>Most Ultrabay Slim accessories supported in ThinkPad Ultrabase Series 3</i>			
Serial ATA Hard Drive 9.5mm Bay Adapter III	43N3412	ann	06/23/09
DVD ROM Ultrabay Slim Drive III	0A65628	ann	06/05/12
DVD Burner Ultrabay Slim Drive III	0A65626	ann	06/05/12

Storage and removable storage

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

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

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

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

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

ThinkPad Expansion

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

Keyboard

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

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

Mouse

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

Multimedia

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

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

Batteries

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

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

More information at www.lenovo.com/alldaycomputing

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

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

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

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

More information at www.lenovopowertips.com

Carrying Cases

Up to 12.5" widescreen models:

ThinkPad 12W Case Sleeve	51J0476	ann	08/18/09
ThinkPad 12.5" Ultrabook Topload ⁷²	0B47416	ann	12/04/12

⁷² Not compatible when using ThinkPad Battery 44++ (9-cell) 0A36307

Up to 15.6" widescreen models:

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

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

Lenovo luxury cases at www.lenovoluxurycases.com

Monitors

ThinkVision L1900p 19" (VGA, DVI-D)	4431HE1	ann	11/11/08
ThinkVision LT1952p Wide 19" (VGA, DP, DVI-D) ⁶⁹	2448MB6	ann	09/13/11
ThinkVision L2250p Wide 22" (VGA, DVI-D)	2572HB6	ann	10/20/09
ThinkVision L2251x Wide 22" (VGA, DP)	2578HB6	ann	10/20/09
ThinkVision LT2252p Wide 22" (VGA, DP, DVI-D) ⁶⁹	2572MB6	ann	09/13/11
ThinkVision LT2452p Wide 24" (VGA, DP, DVI-D) ⁶⁹	4420MB2	ann	09/13/11

⁶⁹ DisplayPort cable is not included.

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

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

Monitor Accessories⁴⁶

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

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

For more information on accessories:

www.lenovo.com/accessories

Purchase Lenovo accessories

www.lenovo.com/support/accessories

Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide

Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com

An Options Compatibility Configurator for Lenovo systems

ThinkPad®



Lenovo® ThinkPad X230 Tablet



Lenovo ThinkPad X230 Tablet



Lenovo ThinkPad X230 Tablet



Lenovo ThinkPad X230 Tablet



Lenovo ThinkPad X230 Tablet

ThinkPad® X230 Tablet (3435) - TopSeller

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ⁹ rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Bat-Blue-tery Intel vPro	Pre-load	Ann date (mm/yy)
3435-2YU	i5-3320M	4GBx1	12.5" HD Multi	720p	320G 7200	Optional	Opt	None	Intel 6205 ²⁸	Gobi	select BT 6	vPro Pro 64	06/12
3435-2XU	i7-3520M	4GBx1	12.5" HD Multi	720p	320G 7200	Optional	Opt	None	Intel 6205	Gobi	select BT 6	vPro Pro 64	06/12
3435-2WU	i7-3520M	4GBx2	12.5" HD Multi	720p	180G SSD	Optional	Opt	None	Intel 6205	upg	None BT 6	vPro Pro 64	06/12
3435-2VU	i7-3520M	4GBx1	12.5" HD Multi	720p	128G SSD	DVD±RW	UltraB	None	Intel 6205	upg	None BT 6	vPro Pro 64	06/12
3435-2UU	i7-3520M	4GBx1	12.5" HD Multi	720p	320G 7200	DVD±RW	UltraB	None	Intel 6205	upg	None BT 6	vPro Pro 64	06/12
3435-2TU	i7-3520M	4GBx1	12.5" HD Multi	720p	500G 7200	DVD±RW	UltraB	None	Intel 6205	upg	None BT 6	vPro Pro 64	06/12
3435-2SU	i7-3520M	4GBx1	12.5" HD Multi	720p	320G 7200	Optional	Opt	None	Intel 6205	upg	None BT 6	vPro Pro 64	06/12
3435-2RU	i5-3320M	4GBx1	12.5" HD Multi	720p	128G SSD	DVD±RW	UltraB	None	Intel 6205	upg	None BT 6	vPro Pro 64	06/12
3435-2KU	i5-3320M	4GBx1	12.5" HD Multi	720p	320G 7200	DVD±RW	UltraB	None	Intel 6205	upg	None BT 6	vPro Pro 64	06/12
• Small and medium business (SMB) model(s), part of the US TopSeller™ Program • A depot repair service 3-year limited warranty													
Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ i5-3320M processor (dual-core, 2.60GHz, 3MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (dual-core, 2.90GHz, 4MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64		
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager		
Optical Ultrabay SATA disk	Some: DVD burner, removable from ThinkPad Ultrabase Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 (0A33932) Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ All: removable, upgradeable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3										Preloaded applications¹⁴ (only some listed) • Norton™ Internet Security 2012 (30 days of virus definitions) • Access Connections™ • ThinkVantage Power Manager • ThinkVantage Tools • Fingerprint Software (fingerprint models) • ThinkVantage System Update • Adobe® Reader® • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate		
mSATA™ SSD	None												
Widescreen display	Outdoor: 12.5" (317.5mm) HD (1366x768) TFT color, anti-glare display with scratch resistant Corning® Gorilla® Glass, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, IPS MultiTouch: 12.5" (317.5mm) HD (1366x768) TFT color, anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, MultiTouch screen supports pen & five-finger gesture All: WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen, pen holder in side base (right), rotate and swivel hinge, power, reset, and rotation buttons on display bottom												
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus												
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via DisplayPort; supports dual independent display; Maximum external resolution: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)												
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, buttonless touchpad below keyboard, Tap Zones, multi-touch None										Supports ThinkVantage® technologies		
Dimensions ³ Weight ²	without UltraBase; 3-cell: 12.0" x 9.0" x 1.1-1.23"; 305mm x 228.7mm x 27-31.3mm 3-cell: from 3.67 lb (1.66kg); 6-cell: from 3.97 lb (1.80kg)										ThinkPad Ultrabase Series 3 • Provides desktop expansion and cable management for X230 and X230 Tablet • Easily connects to the bottom of the X230 or X230 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 Disks supported (some): • 128GB SSD 6.0Gb/s 0A65629 • 180GB SSD 6.0Gb/s 0A65630 • 500GB Disk 7200 rpm 0A65632		
Case material	Display cover: Magnesium + PCABS; Bottom: Magnesium alloy												
Battery - type	Li-Polymer 3-cell or Li-Ion 6-cell, HW Authentication; optional external battery as 2nd battery												
Extended Battery	None												
Battery - life ¹⁰	3-cell (30Whr): up to 4.7 hr; 6-cell (66Whr): up to 9.9 hr; external battery (64Whr, 0A36280): up to 10.2 hr; 6-cell plus external battery: up to 20.1 hr												
Chipset Ultrabase	Mobile Intel QM77 Express Chipset												
Multicard Reader	Some: ThinkPad Ultrabase Series 3 (see right side)												
ExpressCard	4-in-1 reader (SD, SDHC, SDXC, MMC)												
Smart Card Read	One slot (ExpressCard/34, ExpressCard/54)												
Ports	None												
PCIe Mini Card	Two USB 3.0, one powered USB 2.0, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)												
PCIe WLAN ⁴	Two PCI Express Mini Card slots												
PCIe WWAN	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2												
Carrier	Some: Wireless WAN upgradeable												
Modem	Some: Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS												
Bluetooth™	Some: User selectable, AT&T®, Verizon®, or Sprint®, contract required with service provider												
Ethernet	None												
Intel AMT	Bluetooth 4.0 wireless												
Audio support	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1												
Security	Intel Active Management Technology (iAMT)												
Security chip	High Definition (HD) Audio, Realtek® ALC3202 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array microphone, combo audio/mic jack												
Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole												
Limited warranty ¹²	Trusted Platform Module, TCG 1.2-compliant												
	AuthenTec fingerprint reader (right base of display), used in tablet/notebook mode, LED indicator, Power On Authentication, supports the security chip												
	3-years/1-yr battery - depot repair service / service upgrades ²² available										65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²		

See footnotes for more detailed information
US model(s) announced June 5, 2012

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ThinkPad® X230 Tablet (3435) - TopSeller - II

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ¹ rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Finger-print reader	Bat-tery cells	Intel vPro	Preload	Ann date (mm/yy)
3435-2JU	i5-3320M	4GBx1	12.5" HD Multi	720p	320G 7200	Optional	Opt	None	Intel 6205 ²⁸	WWAN upg	Fing	6	vPro	Pro 64	06/12
3435-2HU	i5-3320M	4GBx1	12.5" HD Multi	720p	500G 7200	DVD±RW	UltraB	None	Intel 6205	WWAN upg	Fing	6	vPro	Pro 64	06/12
3435-24U	i7-3520M	4GBx1	12.5" HD Multi	720p	500G 7200	Optional	Opt	None	Intel 6205	WWAN upg	Fing	6	vPro	Pro 64	06/12
3435-22U	i5-3320M	4GBx1	12.5" HD Multi	720p	500G 7200	Optional	Opt	None	Intel 6205	WWAN upg	Fing	6	vPro	Pro 64	06/12
3435-5HU	i5-3320M	4GBx1	12.5" HD Multi	720p	500G 7200	DVD±RW	UltraB	Backlit	Intel 6205	WWAN upg	Fing	6	vPro	Pro 64	07/12
3435-5GU	i5-3320M	4GBx1	12.5" HD Multi	720p	500G 7200	Optional	Opt	Backlit	Intel 6205	WWAN upg	Fing	6	vPro	Pro 64	07/12
3435-5AU	i5-3320M	4GBx1	12.5" HD Multi	720p	180G SSD	Optional	Opt	Backlit	Intel 6205	WWAN upg	Fing	6	vPro	Pro 64	07/12
3435-59U	i7-3520M	4GBx1	12.5" HD Multi	720p	500G 7200	DVD±RW	UltraB	Backlit	Intel 6205	WWAN upg	Fing	6	vPro	Pro 64	07/12

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

Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ i5-3320M processor (dual-core, 2.60GHz, 3MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (dual-core, 2.90GHz, 4MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications ¹⁴ (only some listed) • Norton™ Internet Security 2012 (30 days of virus definitions) • Access Connections™ • ThinkVantage Power Manager • ThinkVantage Tools • Fingerprint Software (fingerprint models) • ThinkVantage System Update • Adobe® Reader® • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
Optical Ultrabay SATA disk	<i>Some:</i> DVD burner, removable from ThinkPad Ultrabase Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 (0A33932) <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3		
mSATA™ SSD	None		
Widescreen display	<i>Outdoor:</i> 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare display with scratch resistant Corning® Gorilla® Glass, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, IPS <i>MultiTouch:</i> 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, MultiTouch screen supports pen & five-finger gesture <i>All:</i> WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in side base (right), rotate and swivel hinge , power, reset, and rotation buttons on display bottom		Supports ThinkVantage® technologies ThinkPad Ultrabase Series 3 • Provides desktop expansion and cable management for X230 and X230 Tablet • Easily connects to the bottom of the X230 or X230 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 Disks supported (some): • 128GB SSD 6.0Gb/s 0A65629 • 180GB SSD 6.0Gb/s 0A65630 • 500GB Disk 7200 rpm 0A65632 Other features: • Power button (front) • Security key lock, security keyhole • Analog VGA DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet (RJ-45) port • Microphone in and headphone out • Requires 65W or 90W AC adapter • 1.39 lb; 630g 65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, buttonless touchpad below keyboard, Tap Zones, multi-touch None		
Dimensions ³ Weight ² Case material Battery - type Extended Battery Battery - life ¹⁰	<i>without UltraBase; 3-cell:</i> 12.0" x 9.0" x 1.1-1.23"; 305mm x 228.7mm x 27-31.3mm <i>3-cell:</i> from 3.67 lb (1.66kg); <i>6-cell:</i> from 3.97 lb (1.80kg) <i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy Li-Polymer 3-cell or Li-Ion 6-cell, HW Authentication; optional external battery as 2nd battery None <i>3-cell (30Whr):</i> up to 4.7 hr; <i>6-cell (66Whr):</i> up to 9.9 hr; <i>external battery (64Whr, 0A36280):</i> up to 10.2 hr; <i>6-cell plus external battery:</i> up to 20.1 hr		
Chipset Ultrabase Multicard Reader ExpressCard Smart Card Read Ports	Mobile Intel QM77 Express Chipset <i>Some:</i> ThinkPad Ultrabase Series 3 (see right side) 4-in-1 reader (SD, SDHC, SDXC, MMC) One slot (ExpressCard/34, ExpressCard/54) None Two USB 3.0, one powered USB 2.0, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)		
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Realtek® ALC3202 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array microphone, combo audio/mic jack		
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant AuthenTec fingerprint reader (right base of display), used in tablet/notebook mode, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for more detailed information
US model(s) announced June 5 or July 31, 2012

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ThinkPad® X230 Tablet (3437)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ² rpm	Optical in UltraBase	ThinkPad Backlit Series 3	key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Carrier	Blue- tery	Bat- tery Intel vPro	Global (G) Pre- load	Ann date (mm/yy)	
3437-3LU	i5-3320M	4GBx1	12.5" HD Multi	720p	320G 7200	Optional	Opt	None	6205 ²⁸	upg	None	BT	6	vPro	G	Pro 64 06/12
3437-32U	i7-3520M	4GBx2	12.5" HD Out	720p	180G SSD	Optional	Opt	None	6205	upg	None	BT	6	vPro	G	Pro 64 06/12
3437-2YU	i7-3520M	4GBx1	12.5" HD Multi	720p	500G 7200	Optional	Opt	None	6205	upg	None	BT	6	vPro	G	Pro 64 06/12
3437-2XU	i5-3320M	4GBx1	12.5" HD Out	720p	500G 7200	Optional	Opt	None	6205	upg	None	BT	6	vPro	G	Pro 64 06/12
3437-2WU	i5-3320M	4GBx1	12.5" HD Multi	720p	500G 7200	Optional	Opt	None	6205	upg	None	BT	6	vPro	G	Pro 64 06/12
3437-2VU	i5-3320M	4GBx1	12.5" HD Mul	720p	500G 7200	DVD±RW	UltraB	None	6205	upg	None	BT	6	vPro	G	Pro 64 06/12
3437-2UU	i7-3520M	4GBx1	12.5" HD Multi	720p	320G 7200	Optional	Opt	None	6205	upg	None	BT	6	vPro	G	Pro 64 06/12
3437-2TU	i5-3320M	4GBx1	12.5" HD Out	720p	320G 7200	Optional	Opt	None	6205	upg	None	BT	6	vPro	G	Pro 64 06/12
3437-2SU	i5-3320M	4GBx1	12.5" HD Multi	720p	320G 7200	DVD±RW	UltraB	None	6205	upg	None	BT	6	vPro	G	Pro 64 06/12
3437-2RU	i5-3320M	4GBx1	12.5" HD Multi	720p	320G 7200	Optional	Opt	None	6205	Gobi select	BT	6	vPro	G	Pro 64 06/12	
3437-3KU	i7-3520M	4GBx1	12.5" HD Multi	720p	128G SSD	Optional	Opt	None	6205	upg	None	BT	6	vPro	G	Pro 64 07/12
3437-2ZU	i5-3320M	4GBx1	12.5" HD Out	720p	128G SSD	Optional	Opt	None	6205	upg	None	BT	6	vPro	G	Pro 64 07/12
Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ i5-3320M processor (dual-core, 2.60GHz, 3MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (dual-core, 2.90GHz, 4MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology											Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager				
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets											Preloaded applications¹⁴ (only some listed) • Norton™ Internet Security 2012 (30 days of virus definitions) • Access Connections™ • ThinkVantage Power Manager • ThinkVantage Tools • Fingerprint Software (fingerprint models) • ThinkVantage System Update • Adobe® Reader® • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate				
Optical Ultrabay SATA disk	Some: DVD burner, removable from ThinkPad Ultrabase Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 (0A33932) Some: Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ All: removable, upgradable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3															
mSATA™ SSD	None															
Widescreen display	Outdoor: 12.5" (317.5mm) HD (1366x768) TFT color, anti-glare display with scratch resistant Corning® Gorilla® Glass, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, IPS MultiTouch: 12.5" (317.5mm) HD (1366x768) TFT color, anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, MultiTouch screen supports pen & five-finger gesture All: WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen, pen holder in side base (right), rotate and swivel hinge, power, reset, and rotation buttons on display bottom															
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus															
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via DisplayPort; supports dual independent display; Maximum external resolution: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)															
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, buttonless touchpad below keyboard, Tap Zones, multi-touch None											Supports ThinkVantage® technologies ThinkPad Ultrabase Series 3 • Provides desktop expansion and cable management for X230 and X230 Tablet • Easily connects to the bottom of the X230 or X230 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 Disks supported (some): • 128GB SSD 6.0Gb/s 0A65629 • 180GB SSD 6.0Gb/s 0A65630 • 500GB Disk 7200 rpm 0A65632 Other features: • Power button (front) • Security key lock, security keyhole • Analog VGA DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet (RJ-45) port • Microphone in and headphone out • Requires 65W or 90W AC adapter • 1.39 lb; 630g				
Dimensions ³ Weight ²	without UltraBase; 3-cell: 12.0" x 9.0" x 1.1-1.23"; 305mm x 228.7mm x 27-31.3mm 3-cell: from 3.67 lb (1.66kg); 6-cell: from 3.97 lb (1.80kg)															
Case material	Display cover: Magnesium + PCABS; Bottom: Magnesium alloy															
Battery - type	Li-Polymer 3-cell or Li-Ion 6-cell, HW Authentication; optional external battery as 2nd battery															
Extended Battery	None															
Battery - life ¹⁰	3-cell (30Whr): up to 4.7 hr; 6-cell (66Whr): up to 9.9 hr; external battery (64Whr, 0A36280): up to 10.2 hr; 6-cell plus external battery: up to 20.1 hr															
Chipset	Mobile Intel QM77 Express Chipset															
Ultrabase	Some: ThinkPad Ultrabase Series 3 (see right side)															
Multicard Reader	4-in-1 reader (SD, SDHC, SDXC, MMC)															
ExpressCard	One slot (ExpressCard/34, ExpressCard/54)															
Smart Card Read	None															
Ports	Two USB 3.0, one powered USB 2.0, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)															
PCIe Mini Card	Two PCI Express Mini Card slots															
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2															
PCIe WWAN	Some: Wireless WAN upgradable Some: Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS															
Carrier	Some: User selectable, AT&T®, Verizon®, or Sprint®, contract required with service provider															
Modem	None															
Bluetooth™	Bluetooth 4.0 wireless															
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1															
Intel AMT	Intel Active Management Technology (iAMT)															
Audio support	High Definition (HD) Audio, Realtek® ALC3202 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array microphone, combo audio/mic jack											65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				
Security	Power-on password, hard disk password, supervisor password, security keyhole															
Security chip	Trusted Platform Module, TCG 1.2-compliant															
Fingerprint reader	AuthenTec fingerprint reader (right base of display), used in tablet/notebook mode, LED indicator, Power On Authentication, supports the security chip															
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available															

See footnotes for more detailed information
US model(s) announced June 5 or July 3, 2012

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ThinkPad® X230 Tablet (3437) - II

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ⁸	rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	Backlit key-board	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery cells vPro	Global Intel (G) Pre-load	Ann date (mm/yy)	
3437-2QU	i5-3320M	4GBx1	12.5" HD <i>Multi</i>	None	320G	7200	Optional	Opt	None	6205 ²⁸	upg	None	None	6	vPro	Pro 64	06/12
3437-2AU	i5-3320M	4GBx1	12.5" HD <i>Multi</i>	720p	320G	7200	Optional	Opt	None	6205	upg	Fing	BT	6	vPro	G Pro 64	06/12
3437-27U	i5-3320M	4GBx1	12.5" HD <i>Multi</i>	720p	128G	SSD	Optional	Opt	None	6205	upg	Fing	BT	6	vPro	Pro 64	06/12
3437-24U	i7-3520M	4GBx1	12.5" HD <i>Multi</i>	720p	320G	7200	DVD±RW	UltraB	None	6205	upg	Fing	BT	6	vPro	Pro 64	06/12
3437-23U	i7-3520M	4GBx1	12.5" HD <i>Multi</i>	720p	180G	SSD	DVD±RW	UltraB	None	6205	upg	Fing	BT	6	vPro	G Pro 64	06/12
3437-22U	i5-3320M	4GBx1	12.5" HD <i>Out</i>	720p	320G	7200	DVD±RW	UltraB	None	6205	upg	Fing	BT	6	vPro	G Pro 64	06/12

- A depot repair service 3-year limited warranty
- Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ i5-3320M processor (dual-core, 2.60GHz, 3MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (dual-core, 2.90GHz, 4MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications ¹⁴ (only some listed) • Norton™ Internet Security 2012 (30 days of virus definitions) • Access Connections™ • ThinkVantage Power Manager • ThinkVantage Tools • Fingerprint Software (fingerprint models) • ThinkVantage System Update • Adobe® Reader® • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
Optical Ultrabay SATA disk	<i>Some:</i> DVD burner, removable from ThinkPad Ultrabase Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 (0A33932) <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3		
mSATA™ SSD	None		
Widescreen display	<i>Outdoor:</i> 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare display with scratch resistant Corning® Gorilla® Glass, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, IPS <i>MultiTouch:</i> 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, MultiTouch screen supports pen & five-finger gesture <i>All:</i> WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in side base (right), rotate and swivel hinge , power, reset, and rotation buttons on display bottom		
Camera	<i>Some:</i> HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)		Supports ThinkVantage® technologies
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, buttonless touchpad below keyboard, Tap Zones, multi-touch None		ThinkPad Ultrabase Series 3 • Provides desktop expansion and cable management for X230 and X230 Tablet • Easily connects to the bottom of the X230 or X230 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 Disks supported (some): • 128GB SSD 6.0Gb/s 0A65629 • 180GB SSD 6.0Gb/s 0A65630 • 500GB Disk 7200 rpm 0A65632
Dimensions ³	<i>without UltraBase; 3-cell:</i> 12.0" x 9.0" x 1.1-1.23"; 305mm x 228.7mm x 27-31.3mm		Other features: • Power button (front) • Security key lock, security keyhole • Analog VGA DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet (RJ-45) port • Microphone in and headphone out • Requires 65W or 90W AC adapter • 1.39 lb; 630g
Weight ²	<i>3-cell:</i> from 3.67 lb (1.66kg); <i>6-cell:</i> from 3.97 lb (1.80kg)		
Case material	<i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy		
Battery - type	Li-Polymer 3-cell or Li-Ion 6-cell, HW Authentication; optional external battery as 2nd battery		
Extended Battery	None		
Battery - life ¹⁰	<i>3-cell (30Whr):</i> up to 4.7 hr; <i>6-cell (66Whr):</i> up to 9.9 hr; <i>external battery (64Whr, 0A36280):</i> up to 10.2 hr; <i>6-cell plus external battery:</i> up to 20.1 hr		
Chipset	Mobile Intel QM77 Express Chipset		
Ultrabase	<i>Some:</i> ThinkPad Ultrabase Series 3 (see right side)		
Multicard Reader	4-in-1 reader (SD, SDHC, SDXC, MMC)		
ExpressCard	One slot (ExpressCard/34, ExpressCard/54)		
Smart Card Read Ports	None Two USB 3.0, one powered USB 2.0, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)		
PCle Mini Card	Two PCI Express Mini Card slots		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
PCle WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2		
PCle WWAN	Wireless WAN upgradable		
Carrier	None		
Modem	None		
Bluetooth™	<i>Some:</i> Bluetooth 4.0 wireless		
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1		
Intel AMT	Intel Active Management Technology (iAMT)		
Audio support	High Definition (HD) Audio, Realtek® ALC3202 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array microphone, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	<i>Some:</i> AuthenTec fingerprint reader (right base of display), used in tablet/notebook mode, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for more detailed information
US model(s) announced June 5, 2012

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ThinkPad® X230 Tablet (3438) - Onsite

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ⁸ rpm	Optical in UltraBase Series 3	ThinkPad Backlit key-board	PCle Mini Card WLAN	PCle Mini Card WWAN	Finger-print reader	Bat-tery Blue-toothcells	Global (G) Intel vPro	Ann date (mm/yy)	
3438-3UU	i5-3320M	4GBx1	12.5" HD <i>Multi</i>	720p	320G 7200	DVD±RW	UltraB	None	Intel 6205 ²⁸	upg	None	Fing BT	6 vPro G P 06/12	
3438-3TU	i5-3320M	4GBx1	12.5" HD <i>Multi</i>	720p	320G 7200	Optional	Opt	None	Intel 6205	upg	None	Fing BT	6 vPro G P 06/12	
3438-2UU	i7-3520M	4GBx2	12.5" HD <i>Out</i>	720p	180G SSD	Optional	Opt	None	Intel 6205	upg	None	Fing BT	6 vPro 06/12	
3438-2TU	i5-3320M	4GBx1	12.5" HD <i>Out</i>	720p	128G SSD	Optional	Opt	None	Intel 6205	upg	None	Fing BT	6 vPro 06/12	
3438-2SU	i5-3320M	4GBx1	12.5" HD <i>Multi</i>	720p	128G SSD	Optional	Opt	None	Intel 6205	upg	None	Fing BT	6 vPro 06/12	
3438-2QU	i5-3320M	4GBx1	12.5" HD <i>Multi</i>	720p	320G 7200	Optional	Opt	None	Intel 6205	Gobi select	Fing BT	6 vPro 06/12		
3438-2PU	i5-3320M	4GBx1	12.5" HD <i>Multi</i>	No	320G 7200	Optional	Opt	None	Intel 6205	upg	None	No No	6 vPro 06/12	
3438-2JU	i5-3320M	4GBx1	12.5" HD <i>Out</i>	720p	500G 7200	Optional	Opt	None	Intel 6205	upg	None	Fing BT	6 vPro 06/12	
3438-27U	i5-3320M	4GBx1	12.5" HD <i>Out</i>	720p	320G 7200	Optional	Opt	None	Intel 6205	upg	None	Fing BT	6 vPro G P 06/12	
3438-26U	i5-3320M	4GBx1	12.5" HD <i>Multi</i>	720p	320G 7200	Optional	Opt	None	Intel 6205	upg	None	Fing BT	6 vPro G P 06/12	
Positioning Processor	<i>Convertible tablet ultraportable; one spindle</i> Intel® Core™ i5-3320M processor (dual-core, 2.60GHz, 3MB Cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (dual-core, 2.90GHz, 4MB Cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64			
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager			
Optical Ultrabay SATA disk	<i>Some:</i> DVD burner, removable from ThinkPad Ultrabase Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 (0A33932) <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3										Preloaded applications¹⁴ (only some listed) • Norton™ Internet Security 2012 (30 days of virus definitions) • Access Connections™ • ThinkVantage Power Manager • ThinkVantage Tools • Fingerprint Software (fingerprint models) • ThinkVantage System Update • Adobe® Reader® • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate			
mSATA™ SSD	None													
Widescreen display	<i>Outdoor:</i> 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare display with scratch resistant Corning® Gorilla® Glass, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, IPS <i>MultiTouch:</i> 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, MultiTouch screen supports pen & five-finger gesture <i>All:</i> WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in side base (right), rotate and swivel hinge , power, reset, and rotation buttons on display bottom													
Camera	<i>Some:</i> HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus													
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, buttonless touchpad below keyboard, Tap Zones, multi-touch None										Supports ThinkVantage® technologies			
Dimensions ³ Weight ²	<i>without UltraBase; 3-cell:</i> 12.0" x 9.0" x 1.1-1.23"; 305mm x 228.7mm x 27-31.3mm <i>3-cell:</i> from 3.67 lb (1.66kg); <i>6-cell:</i> from 3.97 lb (1.80kg)										ThinkPad Ultrabase Series 3 • Provides desktop expansion and cable management for X230 and X230 Tablet • Easily connects to the bottom of the X230 or X230 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 Disks supported (some): • 128GB SSD 6.0Gb/s 0A65629 • 180GB SSD 6.0Gb/s 0A65630 • 500GB Disk 7200 rpm 0A65632			
Case material	<i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy													
Battery - type	Li-Polymer 3-cell or Li-Ion 6-cell, HW Authentication; optional external battery as 2nd battery													
Extended Battery	None													
Battery - life ¹⁰	<i>3-cell (30Whr):</i> up to 4.7 hr; <i>6-cell (66Whr):</i> up to 9.9 hr; <i>external battery (64Whr, 0A36280):</i> up to 10.2 hr; <i>6-cell plus external battery:</i> up to 20.1 hr													
Chipset	Mobile Intel QM77 Express Chipset													
Ultrabase	<i>Some:</i> ThinkPad Ultrabase Series 3 (see right side)													
Multicard Reader	4-in-1 reader (SD, SDHC, SDXC, MMC)													
ExpressCard	One slot (ExpressCard/34, ExpressCard/54)													
Smart Card Read	None													
Ports	Two USB 3.0, one powered USB 2.0, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)													
PCle Mini Card	Two PCI Express Mini Card slots													
PCle WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2													
PCle WWAN	<i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS													
Carrier	<i>Some:</i> User selectable, AT&T®, Verizon®, or Sprint®, contract required with service provider													
Modem	None													
Bluetooth™	<i>Some:</i> Bluetooth 4.0 wireless													
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1													
Intel AMT	Intel Active Management Technology (iAMT)													
Audio support	High Definition (HD) Audio, Realtek® ALC3202 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array microphone, combo audio/mic jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module, TCG 1.2-compliant													
Fingerprint reader	<i>Some:</i> AuthenTec fingerprint reader (right base of display), used in tablet/notebook mode, LED indicator, Power On Authentication, supports the security chip													
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available										65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²			

See footnotes for more detailed information
US model(s) announced June 5, 2012

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ThinkPad® X230 Tablet (3438) - Onsite - II

Personal Systems Reference (PSREF)

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

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

Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ i5-3320M processor (dual-core, 2.60GHz, 3MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-3520M processor (dual-core, 2.90GHz, 4MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications ¹⁴ (only some listed) • Norton™ Internet Security 2012 (30 days of virus definitions) • Access Connections™ • ThinkVantage Power Manager • ThinkVantage Tools • Fingerprint Software (fingerprint models) • ThinkVantage System Update • Adobe® Reader® • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate
Memory	16GB max ⁷ / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets		
Optical Ultrabay SATA disk	<i>Some:</i> DVD burner, removable from ThinkPad Ultrabase Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 (0A33932) <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3		
mSATA™ SSD	None		
Widescreen display	<i>Outdoor:</i> 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare display with scratch resistant Corning® Gorilla® Glass, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, IPS <i>MultiTouch:</i> 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, MultiTouch screen supports pen & five-finger gesture <i>All:</i> WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in side base (right), rotate and swivel hinge , power, reset, and rotation buttons on display bottom		Supports ThinkVantage® technologies
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, supports external analog monitor via VGA DB-15 and digital monitor via DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA) @75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, buttonless touchpad below keyboard, Tap Zones, multi-touch None		
Dimensions ³ Weight ²	<i>without UltraBase; 3-cell:</i> 12.0" x 9.0" x 1.1-1.23"; 305mm x 228.7mm x 27-31.3mm <i>3-cell:</i> from 3.67 lb (1.66kg); <i>6-cell:</i> from 3.97 lb (1.80kg)		ThinkPad Ultrabase Series 3 • Provides desktop expansion and cable management for X230 and X230 Tablet • Easily connects to the bottom of the X230 or X230 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 Disks supported (some): • 128GB SSD 6.0Gb/s 0A65629 • 180GB SSD 6.0Gb/s 0A65630 • 500GB Disk 7200 rpm 0A65632 Other features: • Power button (front) • Security key lock, security keyhole • Analog VGA DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet (RJ-45) port • Microphone in and headphone out • Requires 65W or 90W AC adapter • 1.39 lb; 630g 65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Case material	<i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy		
Battery - type	Li-Polymer 3-cell or Li-Ion 6-cell, HW Authentication; optional external battery as 2nd battery		
Extended Battery	None		
Battery - life ¹⁰	<i>3-cell (30Whr):</i> up to 4.7 hr; <i>6-cell (66Whr):</i> up to 9.9 hr; <i>external battery (64Whr, 0A36280):</i> up to 10.2 hr; <i>6-cell plus external battery:</i> up to 20.1 hr		
Chipset Ultrabase	Mobile Intel QM77 Express Chipset <i>Some:</i> ThinkPad Ultrabase Series 3 (see right side)		
Multicard Reader	4-in-1 reader (SD, SDHC, SDXC, MMC)		
ExpressCard	One slot (ExpressCard/34, ExpressCard/54)		
Smart Card Read	None		
Ports	Two USB 3.0, one powered USB 2.0, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2		
PCIe WWAN	Wireless WAN upgradable		
Carrier	None		
Modem	None		
Bluetooth™	Bluetooth 4.0 wireless		
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1		
Intel AMT	Intel Active Management Technology (iAMT)		
Audio support	High Definition (HD) Audio, Realtek® ALC3202 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array microphone, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	AuthenTec fingerprint reader (right base of display), used in tablet/notebook mode, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available		

See footnotes for more detailed information
 US model(s) announced June 5 or July 3, 2012

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 (CMT2-6) July 2012

ThinkPad® X230 Tablet Accessories

Personal Systems Reference (PSREF)

Memory

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

Ultrabay Slim 9.5mm

<i>Most Ultrabay Slim accessories supported in ThinkPad Ultrabase Series 3</i>			
Serial ATA Hard Drive 9.5mm Bay Adapter III	43N3412	ann	06/23/09
DVD ROM Ultrabay Slim Drive III	0A65628	ann	06/05/12
DVD Burner Ultrabay Slim Drive III	0A65626	ann	06/05/12

Storage and removable storage

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

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

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

Wireless WAN (Mini PCI Express)

<i>Only WWAN upgradable models:</i>			
ThinkPad Gobi™ Mobile Broadband Option	0A36185	ann	04/12/11

ThinkPad Expansion

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

Keyboard

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

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

Mouse

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

Multimedia

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

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

Tablet

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

Batteries

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

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

More information at www.lenovo.com/alldaycomputing

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

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

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

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

More information at www.lenovopowertips.com

Carrying Cases

<i>Up to 12" widescreen models:</i>			
ThinkPad 12W Case Sleeve ⁷¹	51J0476	ann	08/18/09
⁷¹ Not compatible when using ThinkPad Battery 67+ (6-cell) 0A36317			
ThinkPad X220 Tablet Sleeve	0A33883	ann	03/22/11
ThinkPad 12.5" Ultrabook Topload	0B47416	ann	12/04/12

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

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

Monitors

ThinkVision L1900p 19" (VGA, DVI-D)	4431HE1	ann	11/11/08
ThinkVision LT1952p Wide 19" (VGA, DP, DVI-D) ⁶⁹	2448MB6	ann	09/13/11
ThinkVision L2250p Wide 22" (VGA, DVI-D)	2572HB6	ann	10/20/09
ThinkVision L2251x Wide 22" (VGA, DP)	2578HB6	ann	10/20/09
ThinkVision LT2252p Wide 22" (VGA, DP, DVI-D) ⁶⁹	2572MB6	ann	09/13/11
ThinkVision LT2452p Wide 24" (VGA, DP, DVI-D) ⁶⁹	4420MB2	ann	09/13/11

⁶⁹ DisplayPort cable is not included.

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

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

Monitor Accessories⁴⁶

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

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

For more information on accessories:

www.lenovo.com/accessories

Purchase Lenovo accessories

www.lenovo.com/support/accessories

Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide

Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com

An Options Compatibility Configurator for Lenovo systems



Lenovo® ThinkPad X1 Carbon



Lenovo ThinkPad X1 Carbon



Lenovo USB 2.0 Ethernet Adapter
0A36322



ThinkPad 90W AC Adapter for X1 Carbon
0B46994



Lenovo ThinkPad X1 Carbon



Lenovo ThinkPad X1 Carbon

ThinkPad® X1 Carbon (3444) - 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	Carrier	Finger print reader	Blue-tooth	Intel AMT	Intel vPro	Preload (mm/yy)	Ann Date
3444-54U	i5-3427U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S ²⁸	Ericsson	AT&T	Finger	BT	iAMT	vPro	Pro 64	08/12
3444-53U	i5-3427U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	iAMT	vPro	Pro 64	08/12
3444-52U	i5-3317U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	None	None	Pro 64	08/12
3444-4ZU	i5-3317U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	None	None	Pro 64	08/12
3444-2KU	i7-3667U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	iAMT	vPro	Pro 64	08/12
3444-2HU	i5-3317U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	None	None	Pro 64	08/12
3444-2GU	i5-3427U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Pro 64	08/12
3444-2DU	i5-3427U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Pro 64	08/12
3444-28U	i7-3667U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Pro 64	08/12
3444-25U	i7-3667U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Pro 64	08/12
3444-BFU	i5-3427U	8GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Pro 64	10/12
3444-BEU	i5-3427U	8GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Pro 64	10/12

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

Positioning Processor	Ultralight, durable, secure, and stylish Ultrabook™; one spindle Intel® Core™ i5-3317U processor (2 cores, 1.70GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.60GHz), HT technology Intel Core i5-3427U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.80GHz), HT technology Intel Core i7-3667U processor (2 cores, 2.0GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology		Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo® Solution Center• Lenovo Message Center Plus• ThinkVantage Product Recovery• Access Connections™• Fingerprint Software (fingerprint models)• ThinkVantage System Update• ThinkVantage Power Manager• Lenovo Cloud Storage by SugarSync• Lenovo SimpleTap• Norton™ Internet Security 2012 (30 days of virus definitions)• Adobe® Reader®• Skype™ for Windows• Evernote®• Symantec™ VIP• Windows Live™ Essentials• Microsoft® Office 2010 preloaded; purchase product key to activate
Memory	4GB or 8GB / PC3-10600 1333MHz DDR3L / soldered to systemboard, no sockets		
Optical	None		
SATA disk	Solid State Drive (SSD) / SATA 6.0Gb/s, Small Form Factor		
mSATA™ SSD	None		
Widescreen display	14.0" (355mm) HD+ (1600x900) TFT color , anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 400:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via Mini DisplayPort (supports VGA analog monitor via Mini DisplayPort to VGA Monitor Cable 0A36536); supports dual independent display; <i>Max external resolution: 2560x1600 (Mini-DisplayPort)@60Hz</i>		
Keyboard	6-row, ThinkVantage button, LED backlit, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint™ pointing device, "Press-to-Select," Internet Scroll Bar ¹³		
Touchpad	UltraNav™, buttonless glass surface touchpad below keyboard, multi-touch		
ThinkLight™	None		
Dimensions ³	14.0W" (WxDxH): 13.0" x 8.9" x 0.31-0.74"; 331mm x 226mm x 8.0-18.8mm		
Weight ²	<i>Integrated battery:</i> from 3.0 lb (1.36kg)		
Case material	<i>Display cover:</i> Carbon Fiber; <i>Bottom:</i> Magnesium/Aluminum		
Battery - type	Integrated Lithium Polymer 4-cell RapidCharge battery		
Battery - life ¹⁰	<i>Integrated battery (45.8Whr):</i> up to 8.2 hr		
Chipset	Mobile Intel QS77 Express Chipset		
Multicard reader	4-in-1 reader (SD, SDHC, SDXC, MMC)		
ExpressCard	None		
Ports	One USB 3.0, one powered USB 2.0, external monitor (Mini DisplayPort)		
Monitor Cable	None		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	11a/b/g/n, PCIe Small Form Factor Mini Card, Intel Centrino® Advanced-N 6205S, 2x2		
PCIe WWAN	<i>Some:</i> Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS		
Carrier	<i>Some:</i> AT&T®, contract required with service provider		
Modem	None		
Bluetooth™	Bluetooth 4.0 wireless		
Ethernet	None		
Intel AMT	<i>Some:</i> Intel Active Management Technology (iAMT)		
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 2 watt x 2 / volume up, down, mute buttons / dual array microphone, mic mute button, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole, reset switch		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		
Supports ThinkVantage® technologies			
90-watt AC Adapter (RapidCharge) ThinkPad Roll Cage (bottom cover) EPEAT™ Gold rating ENERGY STAR® 5.2-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²			
For compatible accessories, please go to O-X1-C sheet;			
For Lenovo service ²² upgrade options, please go to S-TA sheet			

See footnotes for more detailed information

US model(s) announced August 14 or October 26, 2012

3444 US model(s) withdrawn effective December 2012 or March 2013

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(GS1-1) November 2012

ThinkPad® X1 Carbon (3444) - TopSeller (Windows 8)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ¹ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Carrier	Finger print reader	Blue-tooth	Intel AMT	Intel vPro	Preload	Ann Date (mm/yy)
3444-BDU	i5-3427U	8GBx1	14.0" HD+	720p	256G SSD	Intel 6205S ²⁸	None	None	Finger	BT	iAMT	vPro	Win7 Pro64	10/12
3444-BCU	i5-3427U	8GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Win7 Pro64	10/12
3444-B9U	i5-3427U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Win7 Pro64	10/12
3444-B8U	i5-3427U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Win7 Pro64	10/12
⚡ 3444-B7U	i7-3667U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Win7 Pro64	10/12
⚡ 3444-AZU	i5-3317U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	None	None	Win7 Pro64	10/12
3444-59U	i5-3427U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Win8 Pro64	10/12
⚡ 3444-55U	i5-3317U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	None	None	Win8 Pro64	10/12
3444-FGU	i7-3667U	8GBx1	14.0" HD+	720p	240G FDE SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Win8 Pro64	10/12
3444-FFU	i7-3667U	8GBx1	14.0" HD+	720p	180G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Win8 Pro64	10/12
3444-FEU	i7-3667U	8GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Win8 Pro64	10/12
3444-FDU	i7-3667U	8GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Win8 Pro64	10/12
3444-FCU	i7-3667U	8GBx1	14.0" HD+	720p	240G FDE SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	iAMT	vPro	Win8 Pro64	10/12
3444-FBU	i7-3667U	8GBx1	14.0" HD+	720p	180G SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	iAMT	vPro	Win8 Pro64	10/12
3444-FAU	i7-3667U	8GBx1	14.0" HD+	720p	240G FDE SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Win7 Pro64	10/12
3444-F9U	i7-3667U	8GBx1	14.0" HD+	720p	180G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Win7 Pro64	10/12
3444-F8U	i7-3667U	8GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Win7 Pro64	10/12
3444-F7U	i7-3667U	8GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Win7 Pro64	10/12
3444-BBU	i5-3427U	8GBx1	14.0" HD+	720p	240G FDE SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Win7 Pro64	10/12
3444-BAU	i5-3427U	8GBx1	14.0" HD+	720p	180G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Win7 Pro64	10/12
⚡ 3444-AWU	i5-3317U	4GBx1	14.0" HD	720p	120G SSD	Intel 6205S	None	None	Finger	BT	None	None	Win7 Pro64	10/12
⚡ 3444-5AU	i7-3667U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Win8 Pro64	10/12
3444-56U	i5-3427U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	iAMT	vPro	Win8 Pro64	10/12
Positioning Processor	Ultralight, durable, secure, and stylish Ultrabook™; one spindle Intel® Core™ i5-3317U processor (2 cores, 1.70GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.60GHz), HT technology Intel Core i5-3427U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.80GHz), HT technology Intel Core i7-3667U processor (2 cores, 2.0GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology										Preloaded operating system ²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit			
Memory	4GB or 8GB / PC3-10600 1333MHz DDR3L / soldered to systemboard, no sockets										Preloaded applications ⁵ (only some listed)			
Optical	None										- Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Microsoft® Office 2010 preloaded; purchase product key to activate - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded; purchase product key to activate - All models • Lenovo Solution Center • Password Manager • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync			
SATA disk	Solid State Drive (SSD) / SATA 6.0Gb/s, Small Form Factor													
mSATA™ SSD	None													
Widescreen display	Some: 14.0" (355mm) HD (1366x768) TFT color, anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 400:1 contrast ratio Some: 14.0" (355mm) HD+ (1600x900) TFT color, anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 400:1 contrast ratio													
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus													
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via Mini DisplayPort (supports VGA analog monitor via Mini DisplayPort to VGA Monitor Cable 0A36536); supports dual independent display; Max external resolution: 2560x1600 (Mini-DisplayPort)@60Hz													
Keyboard	6-row, ThinkVantage button, LED backlit, spill-resistant, multimedia Fn keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³													
Touchpad	UltraNav™, buttonless glass surface touchpad below keyboard, multi-touch													
ThinkLight™	None													
Dimensions ³	14.0W" (WxDxH): 13.0" x 8.9" x 0.31-0.74"; 331mm x 226mm x 8.0-18.8mm										Supports ThinkVantage® technologies 90-watt AC Adapter (RapidCharge) ThinkPad Roll Cage (bottom cover) EPEAT™ Gold rating ENERGY STAR® 5.2-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²			
Weight ²	Integrated battery: from 3.0 lb (1.36kg)													
Case material	Display cover: Carbon Fiber; Bottom: Magnesium/Aluminum													
Battery - type	Integrated Lithium Polymer 4-cell RapidCharge battery													
Battery - life ¹⁰	Integrated battery (45.8Whr): up to 8.2 hr													
Chipset	Mobile Intel QS77 Express Chipset													
Multicard reader	4-in-1 reader (SD, SDHC, SDXC, MMC)													
ExpressCard	None													
Ports	One USB 3.0, one powered USB 2.0, external monitor (Mini DisplayPort)													
Monitor Cable	None													
PCIe Mini Card	Two PCI Express Mini Card slots													
PCIe WLAN ⁴	11a/b/g/n, PCIe Small Form Factor Mini Card, Intel Centrino® Advanced-N 6205S, 2x2													
PCIe WWAN	Some: Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS													
Carrier	Some: AT&T®, contract required with service provider													
Modem	None													
Bluetooth™	Bluetooth 4.0 wireless													
Ethernet	None													
Intel AMT	Some: Intel Active Management Technology (iAMT)													
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 2 watt x 2 / volume up, down, mute buttons / dual array microphone, mic mute button, combo audio/mic jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole, reset switch													
Security chip	Trusted Platform Module, TCG 1.2-compliant										For compatible accessories, please go to O-X1-C sheet;			
Fingerprint reader	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip													
Limited warranty ¹² 3-years/1-yr battery - depot repair service / service upgrades ²² available														

See footnotes for more detailed information
 US model(s) announced October 23, October 26, or October 30, 2012
 ⚡ US model(s) withdrawn effective December 2012 or March 2013

ThinkPad® X1 Carbon (3444) - TopSeller (Windows 8) - II

Personal Systems Reference (PSREF)

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

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

Positioning Processor	<i>Ultralight, durable, secure, and stylish Ultrabook™; one spindle</i> Intel® Core™ i5-3337U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.70GHz), HT technology Intel Core i5-3427U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.80GHz), HT technology Intel Core i7-3667U processor (2 cores, 2.0GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology		Preloaded operating system ²⁰ - <i>Some:</i> Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - <i>Some:</i> Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Microsoft® Office 2010 preloaded; purchase product key to activate - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded; purchase product key to activate - All models • Lenovo Solution Center • Password Manager • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync
Memory	4GB or 8GB / PC3-10600 1333MHz DDR3L / soldered to systemboard, no sockets		
Optical	None		
SATA disk	Solid State Drive (SSD) / SATA 6.0Gb/s, Small Form Factor		
mSATA™ SSD	None		
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 400:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) TFT color , anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 400:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via Mini DisplayPort (supports VGA analog monitor via Mini DisplayPort to VGA Monitor Cable 0A36536); supports dual independent display; <i>Max external resolution: 2560x1600 (Mini-DisplayPort)@60Hz</i>		
Keyboard	6-row, ThinkVantage button, LED backlit, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³		
Touchpad	UltraNav™, buttonless glass surface touchpad below keyboard, multi-touch		
ThinkLight™	None		
Dimensions ³	<i>14.0W" (WxDxH):</i> 13.0" x 8.9" x 0.31-0.74"; 331mm x 226mm x 8.0-18.8mm		
Weight ²	<i>Integrated battery:</i> from 3.0 lb (1.36kg)		
Case material	<i>Display cover:</i> Carbon Fiber; <i>Bottom:</i> Magnesium/Aluminum		
Battery - type	Integrated Lithium Polymer 4-cell RapidCharge battery		
Battery - life ¹⁰	<i>Integrated battery (45.8Whr):</i> up to 8.2 hr		
Chipset	Mobile Intel QS77 Express Chipset		
Multicard reader	4-in-1 reader (SD, SDHC, SDXC, MMC)		
ExpressCard	None		
Ports	One USB 3.0, one powered USB 2.0, external monitor (Mini DisplayPort)		
Monitor Cable	None		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	11a/b/g/n, PCIe Small Form Factor Mini Card, Intel Centrino® Advanced-N 6205S, 2x2		
PCIe WWAN	<i>Some:</i> Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS		
Carrier	<i>Some:</i> User selectable, contract required with service provider		
Modem	None		
Bluetooth™	Bluetooth 4.0 wireless		
Ethernet	None		
Intel AMT	<i>Some:</i> Intel Active Management Technology (iAMT)		
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 2 watt x 2 / volume up, down, mute buttons / dual array microphone, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole, reset switch		
Security	Trusted Platform Module, TCG 1.2-compliant		
Security chip	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator,		
Fingerprint reader	Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

			Supports ThinkVantage® technologies
			90-watt AC Adapter (RapidCharge) ThinkPad Roll Cage (bottom cover) EPEAT™ Gold rating ENERGY STAR® 5.2-compliant ROHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹²
			For compatible accessories, please go to O-X1-C sheet; For Lenovo service²² upgrade options, please go to S-TA sheet

See footnotes for more detailed information
US model(s) announced February 5 or April 2, 2013

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(GS1-10) April 2013

ThinkPad® X1 Carbon (3444) - TopSeller (Windows 8) - MultiTouch

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Carrier	Finger print reader	Blue-tooth	Intel vPro	Preload	Ann Date (mm/yy)
3444-CYU	i7-3667U	8GBx1	14.0" HD+ Multi	720p	240G FDE SSD	Intel 6205S ²⁸	Ericsson	AT&T	Finger	BT	vPro	Win8 Pro64	12/12
3444-CXU	i5-3427U	4GBx1	14.0" HD+ Multi	720p	180G SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	vPro	Win8 Pro64	12/12
3444-CWU	i5-3427U	4GBx1	14.0" HD+ Multi	720p	180G SSD	Intel 6205S	None	None	Finger	BT	vPro	Win8 Pro64	12/12
3444-CUU	i7-3667U	8GBx1	14.0" HD+ Multi	720p	240G FDE SSD	Intel 6205S	None	None	Finger	BT	vPro	Win8 Pro64	12/12
3444-H2U	i5-3427U	4GBx1	14.0" HD+ Multi	720p	180G SSD	Intel 6205S	Ericsson	selectable	Finger	BT	vPro	Win7 Pro64	04/13
3444-GZU	i7-3667U	8GBx1	14.0" HD+ Multi	720p	240G FDE SSD	Intel 6205S	Ericsson	selectable	Finger	BT	vPro	Win7 Pro64	04/13

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

Positioning Processor	Ultralight, durable, secure, and stylish Ultrabook™: one spindle Intel® Core™ i5-3427U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.80GHz), HT technology Intel Core i7-3667U processor (2 cores, 2.0GHz, 4MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology		Preloaded operating system ²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • ThinkVantage Power Manager • Lenovo SimpleTap - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch - All models • Lenovo Solution Center • Password Manager • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Norton™ Internet Security (30 days of virus definitions) • Microsoft® Office 2013 preloaded; purchase product key to activate
Memory	4GB or 8GB / PC3-10600 1333MHz DDR3L / soldered to systemboard, no sockets		
Optical	None		
SATA disk	Solid State Drive (SSD) / SATA 6.0Gb/s, Small Form Factor		
mSATA™ SSD	None		
Widescreen display	14.0" (355mm) HD+ (1600x900) TFT color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 400:1 contrast ratio, MultiTouch screen supports ten-finger gesture		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via Mini DisplayPort (supports VGA analog monitor via Mini DisplayPort to VGA Monitor Cable 0A36536); supports dual independent display; <i>Max external resolution: 2560x1600 (Mini-DisplayPort)@60Hz</i>		
Keyboard	6-row, ThinkVantage button, LED backlit, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³		
Touchpad	UltraNav™, buttonless glass surface touchpad below keyboard, multi-touch		
ThinkLight™	None		
Dimensions ³	14.0W" (WxDxH): 13.0" x 8.9" x 0.39-0.82"; 331mm x 226mm x 10.0-20.8mm		
Weight ²	Integrated battery: from 3.4 lb (1.54kg)		
Case material	Display cover: Carbon Fiber; Bottom: Magnesium/Aluminum		
Battery - type	Integrated Lithium Polymer 4-cell RapidCharge battery		
Battery - life ¹⁰	Integrated battery (45.8Whr): up to 8.2 hr		
Chipset	Mobile Intel QS77 Express Chipset		
Multicard reader	4-in-1 reader (SD, SDHC, SDXC, MMC)		
ExpressCard	None		
Ports	One USB 3.0, one powered USB 2.0, external monitor (Mini DisplayPort)		
Monitor Cable	None		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	11a/b/g/n, PCIe Small Form Factor Mini Card, Intel Centrino® Advanced-N 6205S, 2x2		
PCIe WWAN	<i>Some:</i> Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS		
Carrier	<i>Some:</i> AT&T®, contract required with service provider <i>Some:</i> User selectable, contract required with service provider		
Modem	None		
Bluetooth™	Bluetooth 4.0 wireless		
Ethernet	None		
Intel AMT	Intel Active Management Technology (iAMT)		
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 2 watt x 2 / volume up, down, mute buttons / dual array microphone, mic mute button, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole, reset switch		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

Supports ThinkVantage® technologies
90-watt AC Adapter (RapidCharge) ThinkPad Roll Cage (bottom cover) EPEAT™ Gold rating ENERGY STAR® 5.2-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
For compatible accessories, please go to O-X1-C sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet

See footnotes for more detailed information
US model(s) announced December 11, 2012 or April 2, 2013

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(GS1-7) April 2013

ThinkPad® X1 Carbon (3448)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ² rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Carrier	Mini DP to VGA Cable	USB 2.0 Ethernet Adapter	Global (G) Intel vPro (P) Preload	Ann Date (mm/yy)
3448-3AU	i5-3427U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S ²⁸	Ericsson	AT&T	None	None	vPro	Pro 64 08/12
3448-39U	i7-3667U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	Ericsson	AT&T	mDP-VGA	Ethernet	vPro	Pro 64 08/12
3448-34U	i5-3427U	8GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	None	None	vPro	G Pro 64 08/12
3448-2MU	i7-3667U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	Ericsson	AT&T	None	None	vPro	Pro 64 08/12
3448-35U	i5-3427U	8GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	None	None	vPro	G Pro 64 08/12
3448-25U	i7-3667U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	None	None	vPro	G Pro 64 08/12
3448-24U	i7-3667U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	None	None	vPro	G Pro 64 08/12
3448-23U	i5-3427U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	None	None	vPro	G Pro 64 08/12
3448-22U	i5-3427U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	None	None	vPro	G Pro 64 08/12

- A depot repair service 3-year limited warranty
- Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Ultralight, durable, secure, and stylish Ultrabook™; one spindle Intel® Core™ i5-3427U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.80GHz), HT technology Intel Core i7-3667U processor (2 cores, 2.0GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology		Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Rescue and Recovery™• Password Manager Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none">• Lenovo® Solution Center• Lenovo Message Center Plus• ThinkVantage Product Recovery• Access Connections™• Fingerprint Software (fingerprint models)• ThinkVantage System Update• ThinkVantage Power Manager• Lenovo Cloud Storage by SugarSync• Lenovo SimpleTap• Norton™ Internet Security 2012 (30 days of virus definitions)• Adobe® Reader®• Skype™ for Windows• Evernote®• Symantec™ VIP• Windows Live™ Essentials• Microsoft® Office 2010 preloaded; purchase product key to activate
Memory	4GB or 8GB / PC3-10600 1333MHz DDR3L / soldered to systemboard, no sockets		
Optical	None		
SATA disk	Solid State Drive (SSD) / SATA 6.0Gb/s, Small Form Factor		
mSATA™ SSD	None		
Widescreen display	14.0" (355mm) HD+ (1600x900) TFT color , anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 400:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via Mini DisplayPort (supports VGA analog monitor via Mini DisplayPort to VGA Monitor Cable 0A36536); supports dual independent display; <i>Max external resolution: 2560x1600 (Mini-DisplayPort) @60Hz</i>		
Keyboard	6-row, ThinkVantage button, LED backlit, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³		
Touchpad	UltraNav™, buttonless glass surface touchpad below keyboard, multi-touch		
ThinkLight™	None		
Dimensions ³	14.0W" (WxDxH): 13.0" x 8.9" x 0.31-0.74"; 331mm x 226mm x 8.0-18.8mm		
Weight ²	Integrated battery: from 3.0 lb (1.36kg)		
Case material	Display cover: Carbon Fiber; Bottom: Magnesium/Aluminum		
Battery - type	Integrated Lithium Polymer 4-cell RapidCharge battery		
Battery - life ¹⁰	Integrated battery (45.8Whr): up to 8.2 hr		
Chipset	Mobile Intel QS77 Express Chipset		
Multicard reader	4-in-1 reader (SD, SDHC, SDXC, MMC)		
ExpressCard	None		
Ports	One USB 3.0, one powered USB 2.0, external monitor (Mini DisplayPort)		
Monitor Cable	Some: Mini DisplayPort to VGA Monitor Cable (0A36536)		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	11a/b/g/n, PCIe Small Form Factor Mini Card, Intel Centrino® Advanced-N 6205S, 2x2		
PCIe WWAN	Some: Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS		
Carrier	Some: AT&T®, contract required with service provider		
Modem	None		
Bluetooth™	Bluetooth 4.0 wireless		
Ethernet	Some: Lenovo USB 2.0 Ethernet Adapter		
Intel AMT	Intel Active Management Technology (iAMT)		
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 2 watt x 2 / volume up, down, mute buttons / dual array microphone, mic mute button, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole, reset switch		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

Supports ThinkVantage® technologies
90-watt AC Adapter (RapidCharge) ThinkPad Roll Cage (bottom cover) EPEAT™ Gold rating ENERGY STAR® 5.2-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
For compatible accessories, please go to O-X1-C sheet;
For Lenovo service ²² upgrade options, please go to S-TA sheet

See footnotes for more detailed information

US model(s) announced August 14, 2012

≠ US model(s) withdrawn effective December 2012

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(GS1-2) October 2012

ThinkPad® X1 Carbon (3448) - Windows 8

Personal Systems Reference (PSREF)

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

• A depot repair service 3-year limited warranty

Positioning Processor	Ultralight, durable, secure, and stylish Ultrabook™; one spindle Intel® Core™ i5-3427U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.80GHz), HT technology Intel Core i7-3667U processor (2 cores, 2.0GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology		Preloaded operating system ²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Microsoft® Office 2010 preloaded; purchase product key to activate - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded; purchase product key to activate - All models • Lenovo Solution Center • Password Manager • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync
Memory	4GB or 8GB / PC3-10600 1333MHz DDR3L / soldered to systemboard, no sockets		
Optical	None		
SATA disk	Solid State Drive (SSD) / SATA 6.0Gb/s, Small Form Factor		
mSATA™ SSD	None		
Widescreen display	14.0" (355mm) HD+ (1600x900) TFT color , anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 400:1 contrast ratio		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via Mini DisplayPort (supports VGA analog monitor via Mini DisplayPort to VGA Monitor Cable 0A36536); supports dual independent display; <i>Max external resolution: 2560x1600 (Mini-DisplayPort)@60Hz</i>		
Keyboard	6-row, ThinkVantage button, LED backlit, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³		
Touchpad	UltraNav™, buttonless glass surface touchpad below keyboard, multi-touch		
ThinkLight™	None		
Dimensions ³	<i>14.0W" (WxDxH):</i> 13.0" x 8.9" x 0.31-0.74"; 331mm x 226mm x 8.0-18.8mm		
Weight ²	<i>Integrated battery:</i> from 3.0 lb (1.36kg)		
Case material	<i>Display cover:</i> Carbon Fiber; <i>Bottom:</i> Magnesium/Aluminum		
Battery - type	Integrated Lithium Polymer 4-cell RapidCharge battery		
Battery - life ¹⁰	<i>Integrated battery (45.8Whr):</i> up to 8.2 hr		
Chipset	Mobile Intel QS77 Express Chipset		
Multicard reader	4-in-1 reader (SD, SDHC, SDXC, MMC)		
ExpressCard	None		
Ports	One USB 3.0, one powered USB 2.0, external monitor (Mini DisplayPort)		
Monitor Cable	None		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	11a/b/g/n, PCIe Small Form Factor Mini Card, Intel Centrino® Advanced-N 6205S, 2x2		
PCIe WWAN	<i>Some:</i> Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS		
Carrier	<i>Some:</i> AT&T®, contract required with service provider		
Modem	None		
Bluetooth™	Bluetooth 4.0 wireless		
Ethernet	None		
Intel AMT	Intel Active Management Technology (iAMT)		
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 2 watt x 2 / volume up, down, mute buttons / dual array microphone, mic mute button, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole, reset switch		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

Supports ThinkVantage® technologies		
90-watt AC Adapter (RapidCharge) ThinkPad Roll Cage (bottom cover) EPEAT™ Gold rating ENERGY STAR® 5.2-compliant ROHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹²		
For compatible accessories, please go to O-X1-C sheet;		
For Lenovo service²² upgrade options, please go to S-TA sheet		

See footnotes for more detailed information

US model(s) announced October 23, October 30, or December 4, 2012, or February 5, 2013

≠ US model(s) withdrawn effective December 2012

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(GS1-5) February 2013

ThinkPad® X1 Carbon (3448) - Windows 8 (MultiTouch)

Personal Systems Reference (PSREF)

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

• A depot repair service 3-year limited warranty

Positioning Processor	<i>Ultralight, durable, secure, and stylish Ultrabook™; one spindle</i> Intel® Core™ i5-3427U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.80GHz), HT technology Intel Core i7-3667U processor (2 cores, 2.0GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology		Preloaded operating system ²⁰ - Windows® 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • ThinkVantage Power Manager • Lenovo SimpleTap - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch - All models • Lenovo Solution Center • Password Manager • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Norton™ Internet Security (30 days of virus definitions) • Microsoft® Office 2013 preloaded; purchase product key to activate
Memory	4GB or 8GB / PC3-10600 1333MHz DDR3L / soldered to systemboard, no sockets		
Optical	None		
SATA disk	Solid State Drive (SSD) / SATA 6.0Gb/s, Small Form Factor		
mSATA™ SSD	None		
Widescreen display	14.0" (355mm) HD+ (1600x900) TFT color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 400:1 contrast ratio, MultiTouch screen supports ten-finger gesture		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via Mini DisplayPort (supports VGA analog monitor via Mini DisplayPort to VGA Monitor Cable 0A36536); supports dual independent display; <i>Max external resolution: 2560x1600 (Mini-DisplayPort)@60Hz</i>		
Keyboard	6-row, ThinkVantage button, LED backlit, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³		
Touchpad	UltraNav™, buttonless glass surface touchpad below keyboard, multi-touch		
ThinkLight™	None		
Dimensions ³	14.0W" (WxDxH): 13.0" x 8.9" x 0.39-0.82"; 331mm x 226mm x 10.0-20.8mm		
Weight ²	<i>Integrated battery:</i> from 3.4 lb (1.54kg)		
Case material	<i>Display cover:</i> Carbon Fiber; <i>Bottom:</i> Magnesium/Aluminum		
Battery - type	Integrated Lithium Polymer 4-cell RapidCharge battery		
Battery - life ¹⁰	<i>Integrated battery (45.8Whr):</i> up to 8.2 hr		
Chipset	Mobile Intel QS77 Express Chipset		
Multicard reader	4-in-1 reader (SD, SDHC, SDXC, MMC)		
ExpressCard	None		
Ports	One USB 3.0, one powered USB 2.0, external monitor (Mini DisplayPort)		
Monitor Cable	None		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	11a/b/g/n, PCIe Small Form Factor Mini Card, Intel Centrino® Advanced-N 6205S, 2x2		
PCIe WWAN	<i>Some:</i> Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS		
Carrier	<i>Some:</i> AT&T®, contract required with service provider		
Modem	None		
Bluetooth™	Bluetooth 4.0 wireless		
Ethernet	None		
Intel AMT	Intel Active Management Technology (iAMT)		
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 2 watt x 2 / volume up, down, mute buttons / dual array microphone, mic mute button, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole, reset switch		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available		

Supports ThinkVantage® technologies		
90-watt AC Adapter (RapidCharge) ThinkPad Roll Cage (bottom cover) EPEAT™ Gold rating ENERGY STAR® 5.2-compliant ROHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹²		
For compatible accessories, please go to O-X1-C sheet; For Lenovo service²² upgrade options, please go to S-TA sheet		

See footnotes for more detailed information

US model(s) announced December 11, 2012 or February 5, 2013

≠ US model(s) withdrawn effective January 2013

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(GS1-8) February 2013

ThinkPad® X1 Carbon (3460) - Onsite

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

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

Positioning Processor	Ultralight, durable, secure, and stylish Ultrabook™; one spindle Intel® Core™ i5-3427U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.80GHz), HT technology Intel Core i7-3667U processor (2 cores, 2.0GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology										Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Password Manager Preloaded applications ¹⁴ (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Symantec™ VIP • Windows Live™ Essentials • Microsoft® Office 2010 preloaded; purchase product key to activate			
Memory	4GB or 8GB / PC3-10600 1333MHz DDR3L / soldered to systemboard, no sockets													
Optical	None													
SATA disk	Solid State Drive (SSD) / SATA 6.0Gb/s, Small Form Factor													
mSATA™ SSD	None													
Widescreen display	14.0" (355mm) HD+ (1600x900) TFT color , anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 400:1 contrast ratio													
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus													
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via Mini DisplayPort (supports VGA analog monitor via Mini DisplayPort to VGA Monitor Cable 0A36536); supports dual independent display; <i>Max external resolution: 2560x1600 (Mini-DisplayPort) @60Hz</i>													
Keyboard	6-row, ThinkVantage button, LED backlit, spill-resistant, multimedia Fn keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³													
Touchpad	UltraNav™, buttonless glass surface touchpad below keyboard, multi-touch													
ThinkLight™	None													
Dimensions ³	14.0W" (WxDxH): 13.0" x 8.9" x 0.31-0.74"; 331mm x 226mm x 8.0-18.8mm													
Weight ²	Integrated battery: from 3.0 lb (1.36kg)													
Case material	Display cover: Carbon Fiber; Bottom: Magnesium/Aluminum													
Battery - type	Integrated Lithium Polymer 4-cell RapidCharge battery													
Battery - life ¹⁰	Integrated battery (45.8Whr): up to 8.2 hr													
Chipset	Mobile Intel QS77 Express Chipset													
Multicard reader	4-in-1 reader (SD, SDHC, SDXC, MMC)													
ExpressCard	None													
Ports	One USB 3.0, one powered USB 2.0, external monitor (Mini DisplayPort)													
Monitor Cable	None													
PCIe Mini Card	Two PCI Express Mini Card slots													
PCIe WLAN ⁴	11a/b/g/n, PCIe Small Form Factor Mini Card, Intel Centrino® Advanced-N 6205S, 2x2													
PCIe WWAN	Some: Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS													
Carrier	Some: AT&T®, contract required with service provider													
Modem	None													
Bluetooth™	Bluetooth 4.0 wireless													
Ethernet	None													
Intel AMT	Intel Active Management Technology (iAMT)													
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 2 watt x 2 / volume up, down, mute buttons / dual array microphone, mic mute button, combo audio/mic jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole, reset switch													
Security chip	Trusted Platform Module, TCG 1.2-compliant													
Fingerprint reader	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip													
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available													

See footnotes for more detailed information

US model(s) announced August 14, 2012

≈ US model(s) withdrawn effective December 2012

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(GS1-3) October 2012

ThinkPad® X1 Carbon (3460) - Onsite (Windows 8)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ² rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Carrier	Finger print reader	Blue-tooth	Intel vPro	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
3460-5CU	i7-3667U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S ²⁸	None	None	Finger	BT	vPro	G P	Win8 Pro64	10/12
3460-5DU	i7-3667U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	vPro	G P	Win8 Pro64	10/12
3460-5BU	i5-3427U	8GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	vPro	G P	Win8 Pro64	10/12
3460-5AU	i5-3427U	8GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	vPro	G P	Win8 Pro64	10/12
3460-59U	i5-3427U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	vPro	G P	Win8 Pro64	10/12
3460-58U	i5-3427U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	vPro	G P	Win8 Pro64	10/12
3460-B2U	i7-3667U	8GBx1	14.0" HD+	720p	240G FDE SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	vPro		Win8 Pro64	10/12
3460-AZU	i7-3667U	8GBx1	14.0" HD+	720p	180G SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	vPro		Win8 Pro64	10/12
3460-AYU	i7-3667U	8GBx1	14.0" HD+	720p	240G FDE SSD	Intel 6205S	None	None	Finger	BT	vPro	G P	Win8 Pro64	10/12
3460-AXU	i7-3667U	8GBx1	14.0" HD+	720p	180G SSD	Intel 6205S	None	None	Finger	BT	vPro	G P	Win8 Pro64	10/12
3460-AWU	i7-3667U	8GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	vPro	G P	Win8 Pro64	10/12
3460-AVU	i7-3667U	8GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	vPro	G P	Win8 Pro64	10/12
3460-BQU	i7-3667U	8GBx1	14.0" HD+	720p	240G FDE SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	vPro		Win7 Pro64	12/12
3460-BPU	i7-3667U	8GBx1	14.0" HD+	720p	180G SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	vPro		Win7 Pro64	12/12
3460-BNU	i5-3427U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	vPro		Win7 Pro64	12/12
3460-BGU	i5-3427U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	vPro		Win7 Pro64	12/12
3460-BFU	i7-3667U	8GBx1	14.0" HD+	720p	240G FDE SSD	Intel 6205S	None	None	Finger	BT	vPro		Win7 Pro64	12/12
3460-BEU	i7-3667U	8GBx1	14.0" HD+	720p	180G SSD	Intel 6205S	None	None	Finger	BT	vPro		Win7 Pro64	12/12
3460-BDU	i5-3427U	4GBx1	14.0" HD+	720p	256G SSD	Intel 6205S	None	None	Finger	BT	vPro		Win7 Pro64	12/12
3460-BRU	i5-3427U	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205S	None	None	Finger	BT	vPro		Win7 Pro64	01/13
3460-CHU	i5-3427U	4GBx1	14.0" HD+	720p	180G SSD	Intel 6205S	None	None	Finger	BT	vPro		Win7 Pro64	02/13
3460-CFU	i5-3427U	4GBx1	14.0" HD+	720p	180G SSD	Intel 6205S	None	None	Finger	BT	vPro		Win8 Pro64	02/13
3460-CBU	i5-3427U	4GBx1	14.0" HD+	720p	240G FDE SSD	Intel 6205S	None	None	Finger	BT	vPro	G P	Win8 Pro64	02/13
3460-CAU	i5-3427U	4GBx1	14.0" HD+	720p	240G FDE SSD	Intel 6205S	None	None	Finger	BT	vPro		Win7 Pro64	02/13

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

Positioning Processor	Ultralight, durable, secure, and stylish Ultrabook™; one spindle Intel® Core™ i5-3427U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.80GHz), HT technology Intel Core i7-3667U processor (2 cores, 2.0GHz, 4MB cache), Intel HD Graphics 4000 , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology	Preloaded operating system²⁰ - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit
Memory	4GB or 8GB / PC3-10600 1333MHz DDR3L / soldered to systemboard, no sockets	Preloaded applications⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Microsoft® Office 2010 preloaded; purchase product key to activate - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • Microsoft® Office 2013 preloaded; purchase product key to activate - All models • Lenovo Solution Center • Password Manager • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync
Optical	None	
SATA disk	Solid State Drive (SSD) / SATA 6.0Gb/s, Small Form Factor	
mSATA™ SSD	None	
Widescreen display	14.0" (355mm) HD+ (1600x900) TFT color , anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 400:1 contrast ratio	
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus	
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via Mini DisplayPort (supports VGA analog monitor via Mini DisplayPort to VGA Monitor Cable 0A36536); supports dual independent display; <i>Max external resolution: 2560x1600 (Mini-DisplayPort)@60Hz</i>	
Keyboard	6-row, ThinkVantage button, LED backlit, spill-resistant, multimedia Fn keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³	
Touchpad	UltraNav™, buttonless glass surface touchpad below keyboard, multi-touch	
ThinkLight™	None	
Dimensions ³	<i>14.0W" (WxDxH):</i> 13.0" x 8.9" x 0.31-0.74"; 331mm x 226mm x 8.0-18.8mm	
Weight ²	<i>Integrated battery:</i> from 3.0 lb (1.36kg)	
Case material	<i>Display cover:</i> Carbon Fiber; <i>Bottom:</i> Magnesium/Aluminum	
Battery - type	Integrated Lithium Polymer 4-cell RapidCharge battery	
Battery - life ¹⁰	<i>Integrated battery (45.8Whr):</i> up to 8.2 hr	
Chipset	Mobile Intel QS77 Express Chipset	
Multicard reader	4-in-1 reader (SD, SDHC, SDXC, MMC)	
ExpressCard	None	
Ports	One USB 3.0, one powered USB 2.0, external monitor (Mini DisplayPort)	
Monitor Cable	None	
PCIe Mini Card	Two PCI Express Mini Card slots	
PCIe WLAN ⁴	11a/b/g/n, PCIe Small Form Factor Mini Card, Intel Centrino® Advanced-N 6205S, 2x2	
PCIe WWAN	<i>Some:</i> Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS	Supports ThinkVantage® technologies
Carrier	<i>Some:</i> AT&T®, contract required with service provider	
Modem	None	
Bluetooth™	Bluetooth 4.0 wireless	
Ethernet	None	
Intel AMT	Intel Active Management Technology (iAMT)	
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 2 watt x 2 / volume up, down, mute buttons / dual array microphone, mic mute button, combo audio/mic jack	90-watt AC Adapter (RapidCharge) ThinkPad Roll Cage (bottom cover) EPEAT™ Gold rating ENERGY STAR® 5.2-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Security	Power-on password, hard disk password, supervisor password, security keyhole, reset switch	
Security chip	Trusted Platform Module, TCG 1.2-compliant	
Fingerprint reader	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	For compatible accessories, please go to O-X1-C sheet;
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available	For Lenovo service ²² upgrade options, please go to S-TA sheet

See footnotes for more detailed information

US model(s) announced October 23, October 30, or December 4, 2012, or January 1 or February 5, 2013

3460-5CU model(s) withdrawn effective December 2012

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(GS1-6) February 2013

ThinkPad® X1 Carbon (3460) - Onsite (Windows 8) - MultiTouch

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Carrier	Finger print reader	Blue-tooth	Intel vPro	Global (G) GMP (P)	Preload	Ann Date (mm/yy)
3460-AMU	i5-3427U	4GBx1	14.0" HD+ Multi	720p	180G SSD	Intel 6205S ²⁸	None	None	Finger	BT	vPro	G P	Win8 Pro64	12/12
3460-ALU	i5-3427U	4GBx1	14.0" HD+ Multi	720p	240G FDE SSD	Intel 6205S	None	None	Finger	BT	vPro	G P	Win8 Pro64	12/12
3460-9WU	i7-3667U	8GBx1	14.0" HD+ Multi	720p	240G FDE SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	vPro		Win8 Pro64	12/12
3460-9VU	i7-3667U	8GBx1	14.0" HD+ Multi	720p	180G SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	vPro		Win8 Pro64	12/12
3460-9UU	i5-3427U	4GBx1	14.0" HD+ Multi	720p	180G SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	vPro		Win8 Pro64	12/12
3460-9TU	i5-3427U	4GBx1	14.0" HD+ Multi	720p	240G FDE SSD	Intel 6205S	Ericsson	AT&T	Finger	BT	vPro		Win8 Pro64	12/12
3460-9SU	i5-3427U	4GBx1	14.0" HD+ Multi	720p	240G FDE SSD	Intel 6205S	None	None	Finger	BT	vPro	G P	Win8 Pro64	12/12
3460-9RU	i5-3427U	4GBx1	14.0" HD+ Multi	720p	180G SSD	Intel 6205S	None	None	Finger	BT	vPro	G P	Win8 Pro64	12/12
3460-CGU	i7-3667U	8GBx1	14.0" HD+ Multi	720p	256G SSD	Intel 6205S	None	None	Finger	BT	vPro	G P	Win8 Pro64	02/13
3460-CEU	i7-3667U	8GBx1	14.0" HD+ Multi	720p	240G FDE SSD	Intel 6205S	None	None	Finger	BT	vPro	G P	Win8 Pro64	02/13
3460-CDU	i7-3667U	8GBx1	14.0" HD+ Multi	720p	180G SSD	Intel 6205S	None	None	Finger	BT	vPro	G P	Win8 Pro64	02/13
3460-CCU	i7-3667U	8GBx1	14.0" HD+ Multi	720p	128G SSD	Intel 6205S	None	None	Finger	BT	vPro	G P	Win8 Pro64	02/13

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

Positioning Processor	Ultralight, durable, secure, and stylish Ultrabook™; one spindle Intel® Core™ i5-3427U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.80GHz), HT technology Intel Core i7-3667U processor (2 cores, 2.0GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology		Preloaded operating system ²⁰ - Windows® 8 Pro 64-bit Preloaded applications ⁵ (only some listed) - Windows 7 models • Lenovo® Message Center Plus • ThinkVantage Product Recovery • ThinkVantage Power Manager • Lenovo SimpleTap - Windows 8 models • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch - All models • Lenovo Solution Center • Password Manager • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Norton™ Internet Security (30 days of virus definitions) • Microsoft® Office 2013 preloaded; purchase product key to activate
Memory	4GB or 8GB / PC3-10600 1333MHz DDR3L / soldered to systemboard, no sockets		
Optical	None		
SATA disk	Solid State Drive (SSD) / SATA 6.0Gb/s, Small Form Factor		
mSATA™ SSD	None		
Widescreen display	14.0" (355mm) HD+ (1600x900) TFT color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 400:1 contrast ratio, MultiTouch screen supports ten-finger gesture		
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus		
Graphics	Intel HD Graphics 4000 in processor, external digital monitor support via Mini DisplayPort (supports VGA analog monitor via Mini DisplayPort to VGA Monitor Cable 0A36536); supports dual independent display; <i>Max external resolution: 2560x1600 (Mini-DisplayPort)@60Hz</i>		
Keyboard	6-row, ThinkVantage button, LED backlit, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³		
Touchpad	UltraNav™, buttonless glass surface touchpad below keyboard, multi-touch		
ThinkLight™	None		
Dimensions ³	14.0W" (WxDxH): 13.0" x 8.9" x 0.39-0.82"; 331mm x 226mm x 10.0-20.8mm		
Weight ²	<i>Integrated battery:</i> from 3.4 lb (1.54kg)		
Case material	<i>Display cover:</i> Carbon Fiber; <i>Bottom:</i> Magnesium/Aluminum		
Battery - type	Integrated Lithium Polymer 4-cell RapidCharge battery		
Battery - life ¹⁰	<i>Integrated battery (45.8Whr):</i> up to 8.2 hr		
Chipset	Mobile Intel QS77 Express Chipset		
Multicard reader	4-in-1 reader (SD, SDHC, SDXC, MMC)		
ExpressCard	None		
Ports	One USB 3.0, one powered USB 2.0, external monitor (Mini DisplayPort)		
Monitor Cable	None		
PCIe Mini Card	Two PCI Express Mini Card slots		
PCIe WLAN ⁴	11a/b/g/n, PCIe Small Form Factor Mini Card, Intel Centrino® Advanced-N 6205S, 2x2		
PCIe WWAN	<i>Some:</i> Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS		
Carrier	<i>Some:</i> AT&T®, contract required with service provider		
Modem	None		
Bluetooth™	Bluetooth 4.0 wireless		
Ethernet	None		
Intel AMT	Intel Active Management Technology (iAMT)		
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 2 watt x 2 / volume up, down, mute buttons / dual array microphone, mic mute button, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole, reset switch		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available		
			Supports ThinkVantage® technologies
			90-watt AC Adapter (RapidCharge) ThinkPad Roll Cage (bottom cover) EPEAT™ Gold rating ENERGY STAR® 5.2-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
			For compatible accessories, please go to O-X1-C sheet;
			For Lenovo service ²² upgrade options, please go to S-TA sheet

See footnotes for more detailed information
US model(s) announced December 11, 2012 or February 5, 2013

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(GS1-9) February 2013

ThinkPad® X1 Carbon Accessories

Personal Systems Reference (PSREF)

Storage and removable storage

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

ThinkPad Expansion

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

Keyboard

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

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

Mouse

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

Multimedia

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

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

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

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

⁷⁴ Only compatible with ThinkPad X1 Carbon MultiTouch models.

Power Adapters

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

⁷⁰ Requires the *Lenovo Slim Power Tip* 0B47048

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

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

•Lenovo Slim Power Tip 0B47048 ann 08/14/12

More information at www.lenovopowertips.com

Carrying Cases

Up to 14" widescreen models:

ThinkPad 14W Case Sleeve	57Y4294	ann 03/16/10
14W Ultrabook Topload & Small Sleeve Set - Black	0B95758	ann 08/07/12
14W Ultrabook Topload & Small Sleeve Set - Brown	0B95757	ann 08/07/12
14W Ultrabook Topload & Standard Sleeve Set - Black	0B95750	ann 08/07/12
14W Ultrabook Topload & Standard Sleeve Set - Brown	0B95751	ann 08/07/12

Up to 15.6" widescreen models:

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

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

Lenovo luxury cases at www.lenovoluxurycases.com

Monitors⁶⁴

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

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

Monitor Accessories⁴⁶

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

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

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

For more information on accessories:

www.lenovo.com/accessories

Purchase Lenovo accessories

www.lenovo.com/support/accessories

Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide

Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com

An Options Compatibility Configurator for Lenovo systems

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 L/T/W/X Series

ThinkPad X130e/X131e notebook with 1-year Depot warranty

3 YEAR Depot Warranty	04W9345
3 YEAR Depot Warranty & ThinkPad Protection	04W9347
3 YEAR Onsite Warranty	04W9346
3 YEAR Onsite Warranty & ThinkPad Protection	04W9348

ThinkPad X1 and T430u notebook with 1-year Depot warranty

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

ThinkPad X1, X1 Carbon, and T430u notebook with 3-year Depot warranty

3 YEAR Depot Warranty with Battery Replacement	04W8780
3 YEAR Depot Warranty with Battery Replacement & ThinkPad Protection	04W8778
3 YEAR Onsite Warranty with Battery Replacement	04W8777
3 YEAR Onsite Warranty with Battery Replacement & ThinkPad Protection	04W8779

ThinkPad X Series Tablet with 1-year Depot warranty

3 YEAR Depot Warranty & ThinkPad Protection	04W8781
3 YEAR Onsite Warranty & ThinkPad Protection	04W8782

ThinkPad Helix with 1-year Depot warranty

3 YEAR Depot Warranty	04W8692
3 YEAR Onsite Warranty	04W8693

ThinkPad Helix with 3-year Depot warranty

3 YEAR Onsite Warranty	04W8699
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ThinkPad X Series Tablet with 3-year Depot warranty

3 YEAR Depot Warranty & ThinkPad Protection	04W8700
3 YEAR Onsite Warranty	04W8699
3 YEAR Onsite Warranty & ThinkPad Protection	04W8701

ThinkPad L/T/W & X Series (except above) with 1-year Depot warranty

3 YEAR Depot Warranty	04W8692
3 YEAR Depot Warranty & ThinkPad Protection	04W8694
3 YEAR Onsite Warranty	04W8693
3 YEAR Onsite Warranty & ThinkPad Protection	04W8695

ThinkPad L/T/W & X Series (except above) with 3-year Depot warranty

3 YEAR Depot Warranty & ThinkPad Protection	04W8697
3 YEAR Onsite Warranty	04W8696
3 YEAR Onsite Warranty & ThinkPad Protection	04W8698

TopSeller Priority Support

- 24x7 support with priority routing and advanced level technicians

ThinkPad L/T/W/X Series (except X131e & X1 Carbon) notebook with 1-year or 3-year Depot warranty

Add to 1-year or 3-year warranty coverage - 3-year Priority Support*	04W8720
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* Covered machine must have concurrent warranty coverage.

Partial list of Lenovo Services²² for ThinkPad notebooks

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

Lenovo service upgrade options for ThinkPad L/T/W/X Series		ThinkPad W/X series and T430u notebook with 1-year Depot warranty	
ThinkPad T/L series (except T430u/T431s) with 1-year Depot warranty		2 YEAR Depot Warranty	41C9169
2 YEAR Depot Warranty	45K5971	3 YEAR Depot Warranty	41C9170
3 YEAR Depot Warranty	45K5972	4 YEAR Depot Warranty	41C9172
4 YEAR Depot Warranty	45K5974	5 YEAR Depot Warranty	41C9174
5 YEAR Depot Warranty	45K5976	1 YEAR Onsite Warranty	41C9166
1 YEAR Onsite Warranty	45K5968	2 YEAR Onsite Warranty	41C9167
2 YEAR Onsite Warranty	45K5969	3 YEAR Onsite Warranty	41C9168
3 YEAR Onsite Warranty	45K5970	4 YEAR Onsite Warranty	41C9171
4 YEAR Onsite Warranty	45K5973	5 YEAR Onsite Warranty	41C9173
5 YEAR Onsite Warranty	45K5975	ThinkPad W/X series and T430u notebook with 3-year Depot warranty	
ThinkPad T/L series (except T430u/T431s) with 3-year Depot warranty		4 YEAR Depot Warranty	41C9178
4 YEAR Depot Warranty	45K6023	5 YEAR Depot Warranty	41C9180
5 YEAR Depot Warranty	45K6025	3 YEAR Onsite Warranty	41C9176
3 YEAR Onsite Warranty	45K6021	4 YEAR Onsite Warranty	41C9177
4 YEAR Onsite Warranty	45K6022	5 YEAR Onsite Warranty	41C9179
5 YEAR Onsite Warranty	45K6024	ThinkPad W/X series and T430u notebook with 3-year Onsite warranty	
ThinkPad T/L series (except T430u/T431s) with 3-year Onsite warranty		4 YEAR Onsite Warranty	12X5630
4 YEAR Onsite Warranty	45K6038	5 YEAR Onsite Warranty	43R2162
5 YEAR Onsite Warranty	43R2162	Lenovo service upgrade options for ThinkPad Helix	
ThinkPad T431s notebook with 1-year Depot warranty		ThinkPad Helix with 1-year Depot warranty	
2 YEAR Depot Warranty	5WS0A14073	2 YEAR Depot Warranty	41C9169
3 YEAR Depot Warranty	5WS0A14081	3 YEAR Depot Warranty	41C9170
4 YEAR Depot Warranty	5WS0A14096	4 YEAR Depot Warranty	41C9172
5 YEAR Depot Warranty	5WS0A14108	1 YEAR Onsite Warranty	41C9166
1 YEAR Onsite Warranty	5WS0A14072	2 YEAR Onsite Warranty	41C9167
2 YEAR Onsite Warranty	5WS0A14078	3 YEAR Onsite Warranty	41C9168
3 YEAR Onsite Warranty	5WS0A14086	4 YEAR Onsite Warranty	41C9171
4 YEAR Onsite Warranty	5WS0A14093	ThinkPad Helix with 3-year Depot warranty	
5 YEAR Onsite Warranty	5WS0A14083	4 YEAR Depot Warranty	41C9178
ThinkPad T431s notebook with 3-year Depot warranty		3 YEAR Onsite Warranty	41C9176
4 YEAR Depot Warranty	5WS0A23259	4 YEAR Onsite Warranty	41C9177
5 YEAR Depot Warranty	5WS0A23002	ThinkPad Helix with 3-year Onsite warranty	
3 YEAR Onsite Warranty	5WS0A23006	4 YEAR Onsite Warranty	12X5630
4 YEAR Onsite Warranty	5WS0A22852	Lenovo Priority Support for enterprise customers	
5 YEAR Onsite Warranty	5WS0A23078	• 24x7 support with priority routing and advanced level technicians	
ThinkPad T431s notebook with 3-year Onsite warranty		ThinkPad notebook with 1-year Depot warranty	
4 YEAR Onsite Warranty	5WS0A23136	Add to 3-year warranty coverage - 3-year Priority Support*	45J9094
5 YEAR Onsite Warranty	5WS0A22893	ThinkPad notebook with 3-year Depot warranty	
ThinkPad X130e/X131e notebook with 1-year Depot warranty		Add to 3-year warranty coverage - 3-year Priority Support*	45J9095
2 YEAR Depot Warranty	04W9142	Add to 4-year warranty coverage - 4-year Priority Support*	45J9096
3 YEAR Depot Warranty	04W9146	Add to 5-year warranty coverage - 5-year Priority Support*	45J9097
1 YEAR Onsite Warranty	04W9140	ThinkPad notebook with 3-year Onsite (GMP) warranty	
2 YEAR Onsite Warranty	04W9144	Add to 3-year warranty coverage - 3-year Priority Support*	45J9098
3 YEAR Onsite Warranty	04W9148	Add to 4-year warranty coverage - 4-year Priority Support*	45J9099
4 YEAR Onsite Warranty	04W9151	Add to 5-year warranty coverage - 5-year Priority Support*	45J9100
ThinkPad X1 and X1 Carbon notebook with 3-year Depot warranty		ThinkPad Workstation notebook with 1-year Depot warranty	
3 YEAR Depot Warranty with Battery Replacement	04W7783	Add to 3-year warranty coverage - 3-year Priority Support*	45J9107
3 YEAR Depot Warranty with Battery Replacement & ThinkPad Protection	04W7785	ThinkPad Workstation notebook with 3-year Depot warranty	
3 YEAR Onsite Warranty with Battery Replacement	04W8259	Add to 3-year warranty coverage - 3-year Priority Support*	45J9108
3 YEAR Onsite Warranty with Battery Replacement & ThinkPad Protection	04W8261	Add to 4-year warranty coverage - 4-year Priority Support*	45J9109
ThinkPad X1 and X1 Carbon notebook with 3-year Onsite warranty		Add to 5-year warranty coverage - 5-year Priority Support*	45J9110
3 YEAR Onsite Warranty with Battery Replacement	04W7787	ThinkPad Workstation notebook with 3-year Onsite (GMP) warranty	
3 YEAR Onsite Warranty with Battery Replacement & ThinkPad Protection	04W7789	Add to 3-year warranty coverage - 3-year Priority Support*	45J9111
		Add to 4-year warranty coverage - 4-year Priority Support*	45J9112
		Add to 5-year warranty coverage - 5-year Priority Support*	45J9113

* Covered machine must have concurrent warranty coverage.

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

Warranty: For a copy of applicable product warranties, go to http://support.lenovo.com/en_US/product-service/warranty-status/WarrantyPolicies.page. Lenovo makes no representation or warranty regarding third party products or services.

Footnotes:

- ¹ Power management, including Intel® SpeedStep® Technology, reduces processor speed when in battery mode.
- ² **Weight** includes battery and standard optical drive; weight may vary due to vendor components, manufacturing process and options.
- ³ **Thinness** may vary at certain points on the system.
- ⁴ **Wireless capability:** Requires compatible wireless-enabled options sold separately.
- ⁵ **TAA:** ThinkPad notebook is compliant with the U.S. Federal Government's country-of-origin requirements prescribed in 48 C.F.R. Subpart 25.4; Trade Act Agreement (TAA) model.
- ⁶ **Public network download modem speeds** are limited to 53Kbps. Upload speeds are limited to 48Kbps for V.92 modems. Actual speeds depend on many factors and are often less than the maximum possible. V.92 functions and speeds require compatible phone line and server equipment. Check with your telephone and ISP service providers for availability.
- ⁷ **Maximum memory capacity** may require the replacement of standard component with largest supported component available. On ThinkPad systems, even though it is possible to physically install 4GB of memory, the actual amount of memory addressable by a 32-bit operating system will be limited to 3GB. This limitation does not exist with 64-bit operating systems.
- ⁸ **Hard drive:** GB = billion bytes, TB = trillion bytes. Accessible capacity is less; up to 4GB is service partition.
- ⁹ **CD/DVD drive speeds** list maximum rates; rates are variable and are often less than the maximum.
- ¹⁰ **Battery:** These model numbers achieved the battery life based on MobileMark® 2007 during testing. For the ThinkPad X300, battery life is based on Business Winstone Battery Mark 2002. Battery life (and recharge times) will vary based on many factors including screen brightness, applications, features, power management, battery conditioning, and other customer preferences.
- ¹¹ **External monitor:** This system supports a maximum of two external monitors. The integrated display(s) must be disabled to support two external monitors.
- ¹² **Limited warranty:** Support unrelated to a warranty issue may be subject to additional charges.
- ¹³ **Internet access not included.**
- ¹⁴ **Included software** may differ from its retail version (if available), and may not include user manuals or all program functionality. Software license agreements may apply.
- ¹⁶ **Activating Verizon Wireless Service:** Lenovo customers will be contacted after purchase to activate service; requires separate agreement with Verizon Wireless and is subject to the Customer Agreement, Calling Plan, and credit approval. Service, airtime, and early termination charges may apply. Verizon Wireless, not Lenovo, is solely responsible for service. Service not available in all areas; purchaser is responsible for verifying that service is available for the intended location before purchasing a computer equipped with WAN card. Network details, coverage limitations, and maps at www.verizonwireless.com.
- ¹⁷ **International Warranty Service** is available in any country in which this product is sold and serviced. Service delivery methods and parts availability vary by country, may be different from that in the country of purchase, and are subject to change without notice. Fees and restrictions may apply in some countries.
- ¹⁸ **Telephone support** may be subject to additional charges, even during the limited warranty period. Response times may vary. May exclude some holidays. If a machine is listed as having "On-site service for select repairs", this means that onsite service is available only for the replacement of select parts. For all other warranty repairs, Lenovo will provide the customer a replacement part for customer installation. The parts for which onsite service is available varies by machine, but may include the processor, power supply, heat sink, system board, or base cover. For ThinkPad notebooks with Depot or Courier service, Lenovo will attempt to diagnose and resolve the problem remotely before sending a courier.
- ¹⁹ **Depot repair service:** The customer may be asked certain diagnostic questions before a courier is sent. Your ThinkPad purchase includes this depot repair service, available in the U.S. during the limited warranty period.
- ²⁰ **Operating System:** Level of support varies by operating system. Operating systems not preloaded on the system may not provide full feature functionality. Refer to lenovo.com/pc/support and enter your machine type and model number for more information.
- ²¹ **For combination drives,** maximum possible speeds only are given in the following order: CD write, CD rewrite, CD read, DVD read.

²² **Lenovo Services:** These services are available for machines normally used for business, professional, or trade purposes, rather than personal, family, or household purposes. Not all machine types and models are covered. Service period begins with the equipment date of purchase. Service must be purchased during the original limited product warranty period. Service levels are response time objectives and are not guarantees. If the machine problem turns out to be a Customer Replaceable Unit (CRU), a part will be express shipped to you for quick replacement. Onsite 24x7x2-hour service is not available in all locations. For ThinkPad notebooks requiring LCD or other component replacement, Lenovo may choose to perform service at the depot repair center. Calls must be received by 5 pm local time in order to qualify for Next Business Day service. P&L means parts and labor. P/U means pick-up. See Lenovo Warranty Services terms and conditions for complete details and restrictions.

²³ **Activating AT&T Wireless Service:** Requires separate agreement with AT&T, subject to service agreement, rate plan and coverage maps. AT&T, not Lenovo, is solely responsible for service. Coverage not available in all areas; AT&T BroadbandConnect available in select metropolitan markets. Special credit and tenure restrictions and additional charges may apply to international roaming. A network connection, third-party software, additional hardware, and/or subscription to a third-party service may be required for certain solutions/applications. Additional restrictions apply, including early termination fee; see www.wireless.att.com for details. To activate call Lenovo Wireless Activation Hot Line at 1-877-299-4710.

²⁴ **Limited onsite service systems** are designed to be repaired during the applicable warranty period primarily with customer-replaceable parts provided by Lenovo. Lenovo will only send a technician onsite to perform a repair if (a) remote telephone diagnosis and/or customer part replacement are unable to resolve the problem, or (b) the part is one of the few designated by Lenovo for onsite replacement. For a list of onsite replaceable parts, contact Lenovo. Support unrelated to a warranty issue may be subject to additional charges. Lenovo onsite repair (LOR), 8 am to 5 pm, Monday through Friday coverage excluding holidays, next business day (NBD) response time.

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

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

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

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

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

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

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