



Lenovo® ThinkPad T430s



Lenovo ThinkPad T430s



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



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



Lenovo ThinkPad T430s



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

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

• A depot repair service 3-year limited warranty

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> <b>Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000,</b> DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology <b>Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000,</b> DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology	<b>Preloaded operating system</b> <sup>20</sup> Genuine Windows® 7 Professional 64  <b>Ready to install applications</b> <sup>14</sup> (only some listed) <ul style="list-style-type: none"><li>• Rescue and Recovery™</li><li>• Password Manager</li></ul> <b>Preloaded applications</b> <sup>14</sup> (only some listed) <ul style="list-style-type: none"><li>• Lenovo® Solution Center</li><li>• Lenovo Message Center Plus</li><li>• ThinkVantage Product Recovery</li><li>• Access Connections™</li><li>• Fingerprint Software (fingerprint models)</li><li>• ThinkVantage System Update</li><li>• ThinkVantage Power Manager</li><li>• Lenovo Cloud Storage by SugarSync</li><li>• Lenovo SimpleTap</li><li>• Microsoft® Office preloaded; purchase a product key to activate</li><li>• Norton™ Internet Security 2012 (30 days of virus definitions)</li><li>• Adobe® Reader®</li><li>• Skype™ for Windows</li><li>• Evernote®</li><li>• Intel Small Business Advantage</li><li>• RapidBoot HDD Accelerator</li><li>• Symantec™ VIP</li><li>• Windows Live™ Essentials</li><li>• Corel® WinDVD® (DVD±RW)</li><li>• Corel Burn.Now™ Lenovo Edition (DVD±RW)</li><li>• Corel DVD MovieFactory® Lenovo Edition (DVD±RW)</li></ul>
Memory	16GB max <sup>7</sup> / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller	
Optical Bay battery	DVD burner, 9.5mm Ultrabay slim, removable <i>Some:</i> ThinkPad Battery 43 (3-cell, bay) (0A36310), used in Option Bay	
Ultrabay SATA disk	One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™	
mSATA™ SSD	<i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive <i>None</i>	
Widescreen display	<i>Some:</i> <b>14.0"</b> (355mm) <b>HD (1366x768) color</b> , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> <b>14.0"</b> (355mm) <b>HD+ (1600x900) color</b> , 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	<b>Intel HD Graphics 4000</b> 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 <sup>13</sup> , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions <sup>3</sup>	<b>14.0W" (WxDxH):</b> 13.5" x 9.05" x 0.83–1.02"; 343mm x 230mm x 21.2–26.0mm	
Weight <sup>2</sup>	<b>6-cell:</b> 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 <sup>10</sup>	<b>6-cell (43.2Whr):</b> up to 7.6 hr; <i>6-cell plus 3-cell Bay battery (31.3Whr):</i> up to 13.2 hr	
Chipset	<b>Mobile Intel QM77 Express Chipset</b>	
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 <sup>4</sup>	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2	
PCIe WWAN	Wireless WAN upgradable	
SIM card	None	
Modem	None	
IEEE 1394	None	
Bluetooth™	Bluetooth 4.0 wireless	
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1	
Intel AMT	Intel Active Management Technology (iAMT)	
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	Trusted Platform Module, TCG 1.2-compliant	
Fingerprint reader	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery - depot repair service / service upgrades</b> <sup>22</sup> 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<sup>17</sup> 24 hour x 7 day<sup>18</sup> toll-free support during the warranty period<sup>12</sup> | |

See footnotes for more detailed information

# ThinkPad T430s 2355 (Windows 8)

Product Specifications Reference (PSREF)

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

• A depot repair service 3-year limited warranty

Positioning Processor	Premiere performance and ultraportability; two spindles <b>Intel® Core™ i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000,</b> DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		<b>Preloaded operating system</b> <sup>20</sup> - Windows® 8 Pro 64-bit  <b>Preloaded applications</b> <sup>5</sup> (only some listed)  - <b>Windows 7 models</b> <ul style="list-style-type: none"><li>• Lenovo® Message Center Plus</li><li>• ThinkVantage Product Recovery</li><li>• Access Connections™</li><li>• ThinkVantage Power Manager</li><li>• Lenovo SimpleTap</li><li>• Adobe® Reader®</li><li>• Windows Live™ Essentials</li><li>• Corel® WinDVD® (DVD±RW)</li><li>• Corel Burn.Now™ Lenovo Edition (DVD±RW)</li><li>• Corel DVD MovieFactory® Lenovo Edition (DVD±RW)</li></ul> - <b>Windows 8 models</b> <ul style="list-style-type: none"><li>• Lenovo Support</li><li>• Lenovo Companion</li><li>• Lenovo QuickLaunch</li><li>• AccuWeather</li><li>• PC Device Stage</li><li>• Cyberlink Power2Go (DVD±RW)</li><li>• Cyberlink PowerProducer (DVD±RW)</li></ul> - <b>All models</b> <ul style="list-style-type: none"><li>• Lenovo Solution Center</li><li>• Password Manager</li><li>• ThinkVantage System Update</li><li>• Fingerprint Software (fingerprint models)</li><li>• Lenovo Cloud Storage by SugarSync</li><li>• Microsoft® Office preloaded; purchase a product key to activate</li><li>• Norton™ Internet Security (30 days of virus definitions)</li></ul>
Memory	16GB max <sup>7</sup> / 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> <b>14.0"</b> (355mm) <b>HD (1366x768) color</b> , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> <b>14.0"</b> (355mm) <b>HD+ (1600x900) color</b> , 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	<b>Intel HD Graphics 4000</b> 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 <sup>13</sup> , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material Battery - type Battery - life <sup>10</sup>	<b>14.0W" (WxDxH):</b> 13.5" x 9.05" x 0.83–1.02"; 343mm x 230mm x 21.2–26.0mm <b>6-cell:</b> 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 <b>6-cell (43.2Whr):</b> up to 7.6 hr; <b>6-cell plus 3-cell Bay battery (31.3Whr, 0A36310):</b> up to 13.2 hr		
Chipset ExpressCard Smart Card Read Multicard Reader Ports	<b>Mobile Intel QM77 Express Chipset</b> 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 <sup>4</sup> PCIe WWAN SIM card Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® 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 <sup>12</sup>	<b>3-years/1-yr battery</b> - depot repair service / service upgrades <sup>22</sup> 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 <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup>

See footnotes for more detailed information

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# ThinkPad T430s 2355 (Optimus)

Product Specifications Reference (PSREF)

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

• A depot repair service 3-year limited warranty

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> <b>Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000.</b> DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology	<b>Preloaded operating system</b> <sup>20</sup> Genuine Windows® 7 Professional 64  <b>Ready to install applications</b> <sup>14</sup> (only some listed) • Rescue and Recovery™ • Password Manager  <b>Preloaded applications</b> <sup>14</sup> (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • RapidBoot HDD Accelerator • Symantec™ VIP • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	16GB max <sup>7</sup> / 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> <b>14.0"</b> (355mm) <b>HD (1366x768) color</b> , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> <b>14.0"</b> (355mm) <b>HD+ (1600x900) color</b> , 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, <b>Intel HD Graphics 4000</b> in processor, and <b>NVIDIA NVS™ 5200M</b> , PCI Express® x16, <b>1GB</b> 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 <sup>13</sup> , 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 <sup>3</sup>	<b>14.0W" (WxDxH):</b> 13.5" x 9.05" x 0.83–1.02"; 343mm x 230mm x 21.2–26.0mm	
Weight <sup>2</sup>	<b>6-cell:</b> 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 <sup>10</sup>	<b>6-cell (43.2Whr):</b> up to 7.6 hr; <b>6-cell plus 3-cell Bay battery (31.3Whr):</b> up to 13.2 hr	
Chipset	<b>Mobile Intel QM77 Express Chipset</b>	
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	
PCle Mini Card	Two PCI Express Mini Card slots	
PCle WLAN <sup>4</sup>	11a/b/g/n, PCle Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2	
PCle WWAN	Wireless WAN upgradable	
SIM card	None	
Modem	None	
IEEE 1394	None	
Bluetooth™	Bluetooth 4.0 wireless	
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCle 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 <sup>12</sup>	<b>3-years/1-yr battery</b> - depot repair service / service upgrades <sup>22</sup> 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<sup>17</sup> 24 hour x 7 day<sup>18</sup> toll-free support during the warranty period<sup>12</sup> | |

See footnotes for more detailed information

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(G-SN4-2) November 2012

# ThinkPad T430s 2355 (Optimus) - Windows 8

Product Specifications Reference (PSREF)

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

• A depot repair service 3-year limited warranty

Positioning Processor	Premiere performance and ultraportability; two spindles <b>Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000,</b> DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology		<b>Preloaded operating system</b> <sup>20</sup> - Windows® 8 Pro 64-bit  <b>Preloaded applications</b> <sup>5</sup> (only some listed)  - <b>Windows 7 models</b> <ul style="list-style-type: none"><li>• Lenovo® Message Center Plus</li><li>• ThinkVantage Product Recovery</li><li>• Access Connections™</li><li>• ThinkVantage Power Manager</li><li>• Lenovo SimpleTap</li><li>• Adobe® Reader®</li><li>• Windows Live™ Essentials</li><li>• Corel® WinDVD® (DVD±RW)</li><li>• Corel Burn.Now™ Lenovo Edition (DVD±RW)</li><li>• Corel DVD MovieFactory® Lenovo Edition (DVD±RW)</li></ul> - <b>Windows 8 models</b> <ul style="list-style-type: none"><li>• Lenovo Support</li><li>• Lenovo Companion</li><li>• Lenovo QuickLaunch</li><li>• AccuWeather</li><li>• PC Device Stage</li><li>• Cyberlink Power2Go (DVD±RW)</li><li>• Cyberlink PowerProducer (DVD±RW)</li></ul> - <b>All models</b> <ul style="list-style-type: none"><li>• Lenovo Solution Center</li><li>• Password Manager</li><li>• ThinkVantage System Update</li><li>• Fingerprint Software (fingerprint models)</li><li>• Lenovo Cloud Storage by SugarSync</li><li>• Microsoft® Office preloaded; purchase a product key to activate</li><li>• Norton™ Internet Security (30 days of virus definitions)</li></ul>
Memory	16GB max <sup>7</sup> / PC3-12800 1600MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1333MHz DDR3 memory controller		
Optical	DVD burner, 9.5mm Ultrabay slim, removable		
Bay battery	None		
Ultrabay	One modular bay for interchangeable devices (right side), 9.5mm high, bottom access		
SATA disk	<i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive		
mSATA™ SSD	None		
Widescreen display	<i>Some:</i> <b>14.0"</b> (355mm) <b>HD (1366x768) color</b> , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> <b>14.0"</b> (355mm) <b>HD+ (1600x900) color</b> , 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, <b>Intel HD Graphics 4000</b> in processor, and <b>NVIDIA NVS™ 5200M</b> , PCI Express® x16, <b>1GB</b> 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 <sup>13</sup> , 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 <sup>3</sup>	<b>14.0W" (WxDxH):</b> 13.5" x 9.05" x 0.83–1.02"; 343mm x 230mm x 21.2–26.0mm		
Weight <sup>2</sup>	<b>6-cell:</b> 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 <sup>10</sup>	<b>6-cell (43.2Whr):</b> up to 7.6 hr; <b>6-cell plus 3-cell Bay battery (31.3Whr, 0A36310):</b> up to 13.2 hr		
Chipset	<b>Mobile Intel QM77 Express Chipset</b>		
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 <sup>4</sup>	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2		
PCIe WWAN	Wireless WAN upgradable		
SIM card	None		
Modem	None		
IEEE 1394	None		
Bluetooth™	Bluetooth 4.0 wireless		
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1		
Intel AMT	Intel Active Management Technology (iAMT)		
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, TCG 1.2-compliant		
Fingerprint reader	AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery</b> - depot repair service / service upgrades <sup>22</sup> 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<sup>17</sup> 24 hour x 7 day<sup>18</sup> toll-free support during the warranty period<sup>12</sup> | | |

See footnotes for more detailed information

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# ThinkPad T430s 2356 (Onsite)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB <sup>8</sup> rpm	Optical or battery	Backlit key-board	PCIe Mini Card WWAN/ mSATA	SIM card	Smart Card Reader	Finger print reader	Power Adapter (watt)	Global (G) Intel vPro	GMP (P)	Preload (mm/yy)	Ann Date
2356-HCG	i7-3520M	4GBx1	14.0" HD	720p	500G 7200	DVD±RW	None	upg	None	None	Finger	65W	vPro	G P	Pro 64	06/12
2356-HBG	i7-3520M	4GBx1	14.0" HD+	720p	320G 7200	DVD±RW	None	upg	None	None	Finger	65W	vPro	G P	Pro 64	06/12
2356-HAG	i7-3520M	4GBx2	14.0" HD+	720p	180G SSD	DVD±RW	None	upg	None	None	Finger	65W	vPro	G P	Pro 64	06/12
2356-GUG	i7-3520M	4GBx1	14.0" HD+	720p	320G 7200	DVD±RW	None	upg	None	None	None	65W	vPro	G P	Pro 64	06/12
2356-GTG	i5-3320M	4GBx1	14.0" HD+	No	320G 7200	DVD±RW	None	upg	None	None	Finger	65W	vPro	G P	Pro 64	06/12
2356-GRG	i5-3320M	4GBx1	14.0" HD+	720p	128G SSD	DVD±RW	None	upg	None	None	Finger	65W	vPro	G P	Pro 64	06/12
2356-GPG	i5-3320M	4GBx1	14.0" HD+	720p	320G 7200	DVD±RW	None	upg	None	None	None	65W	vPro	G P	Pro 64	06/12
2356-GJG	i5-3320M	4GBx1	14.0" HD+	720p	128G SSD	DVD±RW	None	upg	None	None	None	65W	vPro	G P	Pro 64	06/12
2356-GDG	i5-3320M	4GBx1	14.0" HD+	720p	500G 7200	DVD±RW	Backlit	Ericsson	selectable	None	Finger	65W	vPro		Pro 64	06/12
2356-GCG	i7-3520M	4GBx1	14.0" HD+	720p	180G SSD	DVD±RW	Backlit	Ericsson	selectable	None	Finger	90W	vPro		Pro 64	06/12
2356-GBG	i5-3320M	4GBx1	14.0" HD+	720p	180G SSD	Blank bezel	None	Ericsson	selectable	Smart	Finger	65W	vPro		Pro 64	06/12
2356-G3G	i7-3520M	4GBx1	14.0" HD+	720p	500G 7200	DVD±RW	None	upg	None	None	Finger	65W	vPro	G P	Pro 64	06/12
2356-G2G	i5-3320M	4GBx1	14.0" HD+	720p	320G 7200	DVD±RW	None	upg	None	None	Finger	65W	vPro	G P	Pro 64	06/12
2356-L3G	i5-3320M	4GBx1	14.0" HD+	720p	180G SSD	DVD±RW	Backlit	Ericsson	selectable	None	Finger	65W	vPro		Pro 64	07/12
2356-L2G	i5-3320M	4GBx1	14.0" HD+	720p	128G SSD	DVD±RW	None	Ericsson	selectable	Smart	Finger	65W	vPro		Pro 64	07/12
Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> <b>Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000</b> , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology <b>Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000</b> , DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology										<b>Preloaded operating system<sup>20</sup></b> Genuine Windows® 7 Professional 64  <b>Ready to install applications<sup>14</sup></b> (only some listed) • Rescue and Recovery™ • Password Manager  <b>Preloaded applications<sup>14</sup></b> (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)					
Memory	16GB max <sup>7</sup> / 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	<i>Some:</i> DVD burner, 9.5mm Ultrabay slim, removable <i>None</i>															
Ultrabay	One modular bay for interchangeable devices (right side), 9.5mm high, bottom access															
SATA disk	<i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive															
mSATA™ SSD	<i>None</i>															
Widescreen display	<i>Some:</i> <b>14.0"</b> (355mm) <b>HD (1366x768) color</b> , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> <b>14.0"</b> (355mm) <b>HD+ (1600x900) color</b> , 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	<b>Intel HD Graphics 4000</b> 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 <sup>13</sup> , 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 <sup>3</sup>	<b>14.0W" (WxDxH):</b> 13.5" x 9.05" x 0.83–1.02"; 343mm x 230mm x 21.2–26.0mm															
Weight <sup>2</sup>	<b>6-cell:</b> 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 <sup>10</sup>	<b>6-cell (43.2Whr):</b> up to 7.6 hr; <b>6-cell plus 3-cell Bay battery (31.3Whr):</b> up to 13.2 hr															
Chipset	<b>Mobile Intel QM77 Express Chipset</b>															
ExpressCard	One slot (ExpressCard/34)															
Smart Card Read	<i>Some:</i> Smart Card reader															
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 <sup>4</sup>	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2															
PCIe WWAN	<i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS															
SIM card	<i>Some:</i> User selectable, contract required with service provider															
Modem	None															
IEEE 1394	None															
Bluetooth™	Bluetooth 4.0 wireless															
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1															
Intel AMT	Intel Active Management Technology (iAMT)															
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack															
Security	Power-on password, hard disk password, supervisor password, security keyhole															
Security chip	Trusted Platform Module, TCG 1.2-compliant															
Fingerprint reader	<i>Some:</i> AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip															
Limited warranty <sup>12</sup>	<b>3-years/1-year battery, limited onsite service<sup>24</sup></b> , 8 am - 5 pm, Mon - Fri coverage excluding public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available										Supports ThinkVantage® technologies  65-watt or 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup>					

See footnotes for more detailed information



# ThinkPad T430s 2356 (Onsite) - Windows 8

Product Specifications Reference (PSREF)

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

• Some models are part of the Global Models Plus program with limited onsite service<sup>24</sup> 3-year limited warranty

Positioning Processor	Premiere performance and ultraportability; two spindles <b>Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000,</b> DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology <b>Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000,</b> DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology	<b>Preloaded operating system<sup>20</sup></b> - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit
Memory	16GB max <sup>7</sup> / 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	<b>Preloaded applications<sup>5</sup></b> (only some listed)
Optical Bay battery	DVD burner, 9.5mm Ultrabay slim, removable	<b>- Windows 7 models</b> <ul style="list-style-type: none"> <li>• Lenovo® Message Center Plus</li> <li>• ThinkVantage Product Recovery</li> <li>• Access Connections™</li> <li>• ThinkVantage Power Manager</li> <li>• Lenovo SimpleTap</li> <li>• Adobe® Reader®</li> <li>• Windows Live™ Essentials</li> <li>• Corel® WinDVD® (DVD±RW)</li> <li>• Corel Burn.Now™ Lenovo Edition (DVD±RW)</li> <li>• Corel DVD MovieFactory® Lenovo Edition (DVD±RW)</li> </ul> <b>- Windows 8 models</b> <ul style="list-style-type: none"> <li>• Lenovo Support</li> <li>• Lenovo Companion</li> <li>• Lenovo QuickLaunch</li> <li>• AccuWeather</li> <li>• PC Device Stage</li> <li>• Cyberlink Power2Go (DVD±RW)</li> <li>• Cyberlink PowerProducer (DVD±RW)</li> </ul> <b>- All models</b> <ul style="list-style-type: none"> <li>• Lenovo Solution Center</li> <li>• Password Manager</li> <li>• ThinkVantage System Update</li> <li>• Fingerprint Software (fingerprint models)</li> <li>• Lenovo Cloud Storage by SugarSync</li> <li>• Microsoft® Office preloaded; purchase a product key to activate</li> <li>• Norton™ Internet Security (30 days of virus definitions)</li> </ul>
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: <b>14.0"</b> (355mm) <b>HD (1366x768) color</b> , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio Some: <b>14.0"</b> (355mm) <b>HD+ (1600x900) color</b> , 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	<b>Intel HD Graphics 4000</b> 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 <sup>13</sup> , 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 <sup>3</sup>	<b>14.0W" (WxDxH):</b> 13.5" x 9.05" x 0.83–1.02"; 343mm x 230mm x 21.2–26.0mm	<b>Supports ThinkVantage® technologies</b>  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 <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup>
Weight <sup>2</sup>	<b>6-cell:</b> 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 <sup>10</sup>	<b>6-cell (43.2Whr):</b> up to 7.6 hr; <b>6-cell plus 3-cell Bay battery (31.3Whr, 0A36310):</b> up to 13.2 hr	
Chipset	<b>Mobile Intel QM77 Express Chipset</b>	
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 <sup>4</sup>	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2	
PCIe WWAN	Some: Wireless WAN upgradable Some: Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS	
SIM card	Some: User selectable, contract required with service provider	
Modem	None	
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 <sup>12</sup>	<b>3-years/1-year battery, limited onsite service<sup>24</sup>, 8 am - 5 pm, Mon - Fri</b> coverage excluding public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available	

See footnotes for more detailed information

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# ThinkPad T430s 2356 (Optimus) - Onsite

Product Specifications Reference (PSREF)

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

• Some models are part of the Global Models Plus program with limited onsite service<sup>24</sup> 3-year limited warranty

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> <b>Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000,</b> DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology		<b>Preloaded operating system</b> <sup>20</sup> Genuine Windows® 7 Professional 64  <b>Ready to install applications</b> <sup>14</sup> (only some listed) • Rescue and Recovery™ • Password Manager  <b>Preloaded applications</b> <sup>14</sup> (only some listed) • Lenovo® Solution Center • Lenovo Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • Lenovo Cloud Storage by SugarSync • Lenovo SimpleTap • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security 2012 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Evernote® • Intel Small Business Advantage • RapidBoot HDD Accelerator • Symantec™ VIP • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	16GB max <sup>7</sup> / 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> <b>14.0"</b> (355mm) <b>HD (1366x768) color</b> , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> <b>14.0"</b> (355mm) <b>HD+ (1600x900) color</b> , 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, <b>Intel HD Graphics 4000</b> in processor, and <b>NVIDIA NVS™ 5200M</b> , PCI Express® x16, <b>1GB</b> 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 <sup>13</sup> , magnifying glass		
ThinkLight™	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions <sup>3</sup>	<b>14.0W" (WxDxH):</b> 13.5" x 9.05" x 0.83–1.02"; 343mm x 230mm x 21.2–26.0mm		
Weight <sup>2</sup>	<b>6-cell:</b> 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 <sup>10</sup>	<b>6-cell (43.2Whr):</b> up to 7.6 hr; <i>6-cell plus 3-cell Bay battery (31.3Whr):</i> up to 13.2 hr		
Chipset	<b>Mobile Intel QM77 Express Chipset</b>		
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 <sup>4</sup>	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2		
PCIe WWAN	<i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS		
SIM card	<i>Some:</i> User selectable, contract required with service provider		
Modem	None		
IEEE 1394	None		
Bluetooth™	Bluetooth 4.0 wireless		
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1		
Intel AMT	Intel Active Management Technology (iAMT)		
Audio support	HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack		
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 <sup>12</sup>	<b>3-years/1-year battery, limited onsite service</b> <sup>24</sup> , 8 am - 5 pm, Mon - Fri coverage excluding public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available		
Supports ThinkVantage® technologies			
90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup>			

See footnotes for more detailed information

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

Product Specifications Reference (PSREF)

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

• Some models are part of the Global Models Plus program with limited onsite service<sup>24</sup> 3-year limited warranty

Positioning Processor	Premiere performance and ultraportability; two spindles <b>Intel® Core™ i5-3320M processor (2 cores, 2.60GHz, 3MB cache), Intel HD Graphics 4000,</b> DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology <b>Intel Core i7-3520M processor (2 cores, 2.90GHz, 4MB cache), Intel HD Graphics 4000,</b> DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology		<b>Preloaded operating system</b> <sup>20</sup> - Some: Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit - Some: Windows 8 Pro 64-bit <b>Preloaded applications</b> <sup>5</sup> (only some listed)  - <b>Windows 7 models</b> • Lenovo® Message Center Plus • ThinkVantage Product Recovery • Access Connections™ • ThinkVantage Power Manager • Lenovo SimpleTap • Adobe® Reader® • Windows Live™ Essentials • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)  - <b>Windows 8 models</b> • Lenovo Support • Lenovo Companion • Lenovo QuickLaunch • AccuWeather • PC Device Stage • Cyberlink Power2Go (DVD±RW) • Cyberlink PowerProducer (DVD±RW)  - <b>All models</b> • Lenovo Solution Center • Password Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo Cloud Storage by SugarSync • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions)
Memory	16GB max <sup>7</sup> / 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: <b>14.0"</b> (355mm) <b>HD (1366x768) color</b> , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio Some: <b>14.0"</b> (355mm) <b>HD+ (1600x900) color</b> , 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, <b>Intel HD Graphics 4000</b> in processor, and <b>NVIDIA NVS™ 5200M</b> , PCI Express® x16, <b>1GB</b> memory, supports external analog monitor via VGA DB-15 and digital monitor via Mini DisplayPort or Thunderbolt (i7 integrated models); supports three independent displays; Maximum external resolution: 2560x1600@60Hz (DisplayPort via optional Mini DP cable); 1920x1200@60Hz (single-link DVI-I via optional Mini DP cable); 2048x1536@85Hz (VGA)		
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, 84-key, ThinkVantage button, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling, multi-touch Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material	14.0W" (WxDxH): 13.5" x 9.05" x 0.83–1.02"; 343mm x 230mm x 21.2–26.0mm 6-cell: from 3.96 lb (1.79kg) Display cover: Hybrid Carbon-fiber reinforced plastic; Bottom: Magnesium alloy		
Battery - type Battery - life <sup>10</sup>	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	<b>Mobile Intel QM77 Express Chipset</b> 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 <sup>4</sup> PCIe WWAN	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Some: Wireless WAN upgradable Some: Wireless WAN, Ericsson® H5321gw Mobile Broadband Module, PCIe Half Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS		
SIM card Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Some: User selectable, contract required with service provider None None Bluetooth 4.0 wireless Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Realtek® ALC3202 codec, Dolby® Home Theater® v4 / stereo speakers, 1W x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack		
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant AuthenTec fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip		
Limited warranty <sup>12</sup>	<b>3-years/1-year battery, limited onsite service</b> <sup>24</sup> , 8 am - 5 pm, Mon - Fri coverage excluding public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available		Supports ThinkVantage® technologies  90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup>

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