

ThinkPad T450s Platform Specifications

Product Specifications Reference (PSREF)

Processor	5th Generation Intel® Core™ i5 / i7 Processor							Smart card reader	<i>Optional:</i> Smart card reader																						
	Processor Number	# of Cores	# of Threads	Base Frequency	Max Turbo Frequency	Cache	Memory Speed	Processor Graphics	Media reader Ports	4-in-1 reader (MMC, SD, SDHC, SDXC) Three USB 3.0 (one Always On), VGA, Mini DisplayPort, Ethernet (RJ-45), Dock connector (integrated models only)																					
	i5-5200U	2	4	2.2 GHz	2.7 GHz	3MB	DDR3L-1600	Intel HD Graphics 5500	Camera	HD720p resolution, low light sensitive, fixed focus																					
	i5-5300U			2.3 GHz	2.9 GHz	3MB		HD Audio, Realtek® ALC3232 codec / stereo speakers, 2W x 2 / dual array microphone, combo audio/microphone jack																							
	i7-5600U			2.6 GHz	3.2 GHz	4MB																									
Graphics	Intel HD Graphics 5500 in processor only, or Intel HD Graphics 5500 in processor and NVIDIA GeForce® 940M, 1GB memory (discrete models are only available in Western Europe); supports external analog monitor via VGA and digital monitor via Mini DisplayPort; supports three independent displays; Max resolution: 3840x2160@60Hz (DP via mDP cable); 1920x1200@60Hz (VGA)							Keyboard	6-row, spill-resistant, multimedia Fn keys, optional LED backlight																						
Chipset	Intel SoC (System on Chip) platform							UltraNav™	TrackPoint® pointing device and buttonless glass surface touchpad, multi-touch																						
Memory	12GB max ⁷ / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, 4GB memory soldered to systemboard, one 204-pin SO-DIMM socket							Security chip	Power-on password, hard disk password, supervisor password, security keyhole																						
Display	<i>Some:</i> 14.0" (355mm) HD+ (1600x900), anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 400:1 contrast ratio <i>Some:</i> 14.0" (355mm) FHD (1920x1080), anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 700:1 contrast ratio, IPS							ThinkEngine	Trusted Platform Module, TCG 1.2-compliant Delivers improved thermal and power efficiency, up to 30 day standby, faster resume time, enhanced security, as well as anti-tampering measures																						
Multi-touch (opt)	Capacitive-type multi-touch, supports 10-finger gesture, 264 nits							vPro (optional)	Intel vPro Technology																						
Storage	<i>Some:</i> SSD / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable <i>Some:</i> HDD / SATA 6.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™ <i>Some:</i> SSHD with 8GB NAND flash memory							Fingerprint reader	<i>Optional:</i> Fingerprint reader on the keyboard bezel, swipe sensor																						
M.2 SSD (opt)	Single-sided M.2 SSD, via M.2 card slot							Internal battery	<i>Optional:</i> Integrated Li-Ion or Li-Polymer 3-cell (23Wh)																						
Optical	None							External battery	Li-Ion 3-cell (23Wh) or 6-cell (48Wh or 72Wh)																						
Ethernet	<i>Non-vPro model:</i> Intel Ethernet Connection I218-V (Clarkville) <i>vPro model:</i> Intel Ethernet Connection I218-LM (Clarkville)							Max battery life ¹⁰	<table border="1"> <thead> <tr> <th>Models</th> <th>3-cell + 3-cell</th> <th>3-cell + 6-cell 48Wh</th> <th>3-cell + 6-cell 72Wh</th> </tr> </thead> <tbody> <tr> <td>Integrated</td> <td>10.16 hr</td> <td>14.9 hr</td> <td>19.9 hr</td> </tr> <tr> <td>Discrete</td> <td>10.5 hr</td> <td>15.4 hr</td> <td>20.6 hr</td> </tr> </tbody> </table>			Models	3-cell + 3-cell	3-cell + 6-cell 48Wh	3-cell + 6-cell 72Wh	Integrated	10.16 hr	14.9 hr	19.9 hr	Discrete	10.5 hr	15.4 hr	20.6 hr								
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Bluetooth™	Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter							AC adapter	45W AC adapter, 65W Slim AC adapter, or 65W AC adapter																						
WLAN ⁴	<i>One of the following, configurable by model:</i> • 11b/g/n, ThinkPad 11b/g/n, 2x2, Wi-Fi + Bluetooth combo adapter, M.2 card • 11b/g/n, Intel Wireless-N 7265, 2x2, Wi-Fi + BT, M.2 card (WE only) • 11a/b/g/n, Intel Dual Band Wireless-N 7265, 2x2, Wi-Fi + BT, M.2 card (WE only) • 11ac, Intel Dual Band Wireless-AC 7265, 2x2, Wi-Fi + BT adapter, M.2 card							Preload	<table border="0"> <tr> <td>Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8.1 Pro 64-bit</td> <td><i>Some:</i> Windows 8.1 64-bit</td> </tr> <tr> <td>• Lenovo Solution Center</td> <td><i>Some:</i> Windows 8.1 Pro 64-bit</td> </tr> <tr> <td>• Lenovo SHAREit</td> <td>• Lenovo Solution Center</td> </tr> <tr> <td>• ThinkVantage Product Recovery</td> <td>• Lenovo SHAREit</td> </tr> <tr> <td>• Rescue and Recovery™</td> <td>• Lenovo Companion</td> </tr> <tr> <td>• ThinkVantage System Update</td> <td>• ThinkVantage System Update</td> </tr> <tr> <td>• PC Device Stage</td> <td>• PC Device Stage</td> </tr> <tr> <td>• Adobe® Reader®</td> <td>• Norton Studio</td> </tr> <tr> <td>• Microsoft® Office preloaded; purchase a product key to activate</td> <td>• Microsoft Office preloaded; purchase a product key to activate</td> </tr> <tr> <td>• Norton™ Internet Security (30 days of virus definitions)</td> <td>• Norton Internet Security (30 days of virus definitions)</td> </tr> </table>			Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8.1 Pro 64-bit	<i>Some:</i> Windows 8.1 64-bit	• Lenovo Solution Center	<i>Some:</i> Windows 8.1 Pro 64-bit	• Lenovo SHAREit	• Lenovo Solution Center	• ThinkVantage Product Recovery	• Lenovo SHAREit	• Rescue and Recovery™	• Lenovo Companion	• ThinkVantage System Update	• ThinkVantage System Update	• PC Device Stage	• PC Device Stage	• Adobe® Reader®	• Norton Studio	• Microsoft® Office preloaded; purchase a product key to activate	• Microsoft Office preloaded; purchase a product key to activate	• Norton™ Internet Security (30 days of virus definitions)	• Norton Internet Security (30 days of virus definitions)
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WWAN (optional)	<i>One of the following, configurable by model:</i> • Wireless WAN upgradable • Wireless WAN, Ericsson® N5321, HSPA+ 21Mbps/GSM/GPRS/EDGE, GPS, M.2 card (WE only) • Wireless WAN, Sierra Wireless EM7345, Intel 4G LTE/HSPA/GSM/GPRS/EDGE, GPS, M.2 card							Limited warranty ¹²	<i>One of the following, configurable by model:</i> • 1-year depot repair service • 3-year/1-yr battery depot repair service • 3-year/1-yr battery limited onsite service ²⁴ • 3-year/1-yr battery limited onsite service, IWS (International Warranty Service ¹⁷)																						
SIM card (opt)	AT&T® or Verizon® LTE (4G), contract required with service provider							Environment	EPEAT™ Gold (US) or EPEAT Silver (WE); ENERGY STAR® 6.1; GREENGUARD®; RoHS-compliant																						
Dimensions ³	14.0" (WxDxH): 13.03" x 8.90" x 0.81"; 331mm x 226mm x 20.65mm 14.0" Touch (WxDxH): 13.03" x 8.90" x 0.90"; 331mm x 226mm x 22.94mm																														
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Case material	<i>Display cover:</i> Carbon-Fiber Reinforced Plastic; <i>Bottom:</i> Magnesium/Aluminum																														