

ThinkPad T450s Platform Specifications

Product Specifications Reference (PSREF)

Processor	5th Generation Intel® Core™ i5 / i7 Processor								Smart card reader Media reader Ports	Optional: Smart card reader 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)												
	Processor Number	# of Cores	# of Threads	Base Frequency	Max Turbo Frequency	Cache	Memory Speed	Processor Graphics														
	i5-5200U	2	4	2.2 GHz	2.7 GHz	3MB	DDR3L-1600	Intel HD Graphics 5500														
	i5-5300U			2.3 GHz	2.9 GHz	3MB																
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 UltraNav™	6-row, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device and buttonless glass surface touchpad, multi-touch												
Chipset	Intel SoC (System on Chip) platform								Security chip	Power-on password, hard disk password, supervisor password, security keyhole												
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 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												
Display	Some: 14.0" (355mm) HD+ (1600x900), anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 400:1 contrast ratio Some: 14.0" (355mm) FHD (1920x1080), anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 700:1 contrast ratio, IPS								vPro (optional)	Intel vPro Technology												
Multi-touch (opt)	Capacitive-type multi-touch, supports 10-finger gesture, 264 nits								Fingerprint reader	Optional: Fingerprint reader on the keyboard bezel, swipe sensor												
Storage	Some: SSD / SATA 6.0Gb/s, 2.5" wide, 7mm high, removable, upgradable Some: HDD / SATA 6.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™ Some: SSHD with 8GB NAND flash memory								Internal battery	Optional: Integrated Li-Ion or Li-Polymer 3-cell (23Wh)												
M.2 SSD (opt)	Single-sided M.2 SSD, via M.2 card slot								External battery	Li-Ion 3-cell (23Wh) or 6-cell (48Wh or 72Wh)												
Optical	None								Max battery life ¹⁰	<table><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><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></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
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																			
Ethernet	Non-vPro model: Intel Ethernet Connection I218-V (Clarkville) vPro model: Intel Ethernet Connection I218-LM (Clarkville)								AC adapter	45W AC adapter, 65W Slim AC adapter, or 65W AC adapter												
Bluetooth™	Bluetooth 4.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter								Preload	Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8.1 Pro 64-bit or Windows 10 Pro 64 • Lenovo Solution Center • Lenovo SHAREit • ThinkVantage Product Recovery • Rescue and Recovery™ • ThinkVantage System Update • PC Device Stage • Adobe® Reader® • Microsoft® Office preloaded; purchase a product key to activate • Norton™ Internet Security (30 days of virus definitions)												
WLAN ⁴	One of the following, configurable by model: • 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									Some: Windows 8.1 64-bit Some: Windows 8.1 Pro 64-bit Some: Windows 10 Pro 64 • Lenovo Solution Center • Lenovo SHAREit • Lenovo REACHit • Lenovo Companion • Microsoft Office preloaded; purchase a product key to activate • Norton Internet Security (30 days of virus definitions, Win8 w/o i5/i7 model) • McAfee® LiveSafe™ (30-day trial, Win8 i5/i7 and Win10 model)												
WWAN (optional)	One of the following, configurable by model: • 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	One of the following, configurable by model: • 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, OID (Onsite International Delivery)												
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																					
Weight ²	Models		No + 3-cell		3-cell + 3-cell		3-cell + 6-cell															
	Integrated Non-touch		3.26 lb / 1.48 kg		3.49 lb / 1.59 kg		3.90 lb / 1.77 kg															
	Integrated Multi-touch		3.79 lb / 1.72 kg		4.02 lb / 1.82 kg		4.42 lb / 2.01 kg															
	Discrete Non-touch		3.27 lb / 1.48 kg		3.51 lb / 1.59 kg		3.91 lb / 1.77 kg															
	Discrete Multi-touch		3.80 lb / 1.72 kg		4.03 lb / 1.83 kg		4.43 lb / 2.01 kg															
Case material	Display cover: Carbon-Fiber Reinforced Plastic; Bottom: Magnesium/Aluminum																					

Model	20BW0003++
Product	T450s
Region	WE
Machine Type	20BW
TopSeller	No
Processor	i5-5300U (2C, 2.3 / 2.9GHz, 3MB, 1600MHz)
vPro	vPro
Graphics	Intel HD Graphics 5500
Memory (soldered+DIMM)	4+4GB
Display	14" FHD (1920x1080) IPS
Multi-touch	None
Storage	500GB 7200rpm
M.2 SSD	16GB SSD
Optical	None
WLAN &Bluetooth	Intel 7265 ac + BT4.0
WWAN	WWAN upgradable
SIM Card	None
Smart Card Reader	None
Camera	720p
Backlit Keyboard	Backlit Keyboard
Fingerprint Reader	Fingerprint Reader
Battery Cells (internal + external)	3-cell (23Wh) + 3-cell (23Wh)
Power Adapter (watt)	45W
Preload	Windows 8.1 DG Windows 7 Pro 64
Base Warranty	3-year onsite, Onsite International Delivery
Global	Yes
Ann Date (mm/yy)	01/15



