

# ThinkPad P50s Platform Specifications

Product Specifications Reference (PSREF)

Processor	6th Generation Intel® Core™ i5 / i7 Processor								Smart card reader <i>Optional:</i> Smart card reader Media reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Ports Three USB 3.0 (one Always On), MiniDP, HDMI, Ethernet (RJ-45), Dock connector Camera <i>(optional)</i> HD720p resolution, low light sensitive, fixed focus Audio support HD Audio, Realtek® ALC3245 codec / stereo speakers, 1W x 2 / dual array microphone, combo audio/microphone jack Keyboard UltraNav™ TrackPoint® pointing device and buttonless Mylar surface touchpad, multi-touch Security 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 vPro <i>(optional)</i> Intel vPro Technology Fingerprint reader <i>Optional:</i> Swipe style fingerprint reader on the palm rest												
	Processor Number	# of Cores	# of Threads	Base Frequency	Max Turbo Frequency	Cache	Memory Types	Processor Graphics													
	i5-6300U	2	4	2.4 GHz	3 GHz	3MB	DDR3L-1600	Intel HD Graphics 520													
	i7-6500U			2.5 GHz	3.1 GHz	4MB															
Graphics	i7-6600U								2.6 GHz 3.4 GHz 4MB												
	Intel HD Graphics 520 in processor and NVIDIA Quadro® M500M (2GB memory); supports external digital monitor via HDMI or Mini DisplayPort; supports three independent displays; Max resolution: 3840x2160@60Hz (DisplayPort via Mini DisplayPort cable); 4096x2160@24Hz (HDMI)																				
Chipset Memory	Intel SoC (System on Chip) platform 32GB max <sup>7</sup> / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, two DDR3L SO-DIMM sockets								Internal battery <i>Optional:</i> Integrated Li-Polymer 3-cell (44Wh) External battery Li-Ion or Li-Polymer 3-cell (23Wh) or Li-Ion 6-cell (48Wh or 72Wh) Max battery life <sup>10</sup> (MobileMark® 2014) <table border="1"> <tr> <td>Models</td><td>3 + 3-cell</td><td>3 + 6-cell 48Wh</td><td>3 + 6-cell 72Wh</td></tr> <tr> <td>Max battery life</td><td>12.0 hr</td><td>16.3 hr</td><td>20.5 hr</td></tr> </table> AC adapter 65W Slim AC adapter or 65W AC adapter	Models	3 + 3-cell	3 + 6-cell 48Wh	3 + 6-cell 72Wh	Max battery life	12.0 hr	16.3 hr	20.5 hr				
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Display	Some: 15.6" (396mm) FHD (1920x1080), anti-glare, LED backlight, IPS, 250 nits, 16:9 aspect ratio, 400:1 or 500:1 contrast ratio, 160° viewing angle Some: 15.5" (394mm) 3K (2880x1620), anti-glare, LED backlight, IPS, 350 nits, 16:9 aspect ratio, 1000:1 contrast ratio, 160° viewing angle																				
Multi-touch (opt)	In-cell touch, supports 10-finger gesture																				
Storage	Some: SSD / SATA 6.0Gb/s (e.g. xxxG SSD) Some: SSD / PCIe NVMe, PCIe 3.0 x 2, 16Gb/s (e.g. xxxG SSD PCIe NVMe) Some: HDD / SATA 6.0Gb/s, 2.5" wide, 7mm high, Shock Mounted Hard Drive, Active Protection System™ Some: SSHD with 8GB NAND flash memory																				
Optical	None								Windows 7 Professional 64 preinstalled through downgrade rights in Windows 10 Pro 64 • Lenovo Solution Center • Lenovo Companion • Lenovo Setting • Microsoft Office preloaded; purchase a product key to activate • McAfee® LiveSafe™ (30-day trial) For ISV certifications, please visit <a href="http://www.lenovo.com/support/ISV">www.lenovo.com/support/ISV</a>												
Ethernet	Non-vPro model: Intel Ethernet Connection I219-V (Jacksonville) vPro model: Intel Ethernet Connection I219-LM (Jacksonville)																				
WLAN <sup>4</sup>	One of the following, configurable by model: <ul style="list-style-type: none"><li>• 11ac+BT, Broadcom BCM4356, 2x2, M.2 card</li><li>• 11ac+BT, Intel Dual Band Wireless-AC 8260, 2x2, M.2 card</li></ul>																				
Bluetooth™	Bluetooth 4.1 wireless, integrated in Wi-Fi + Bluetooth combo adapter																				
WWAN (optional)	One of the following, configurable by model: <ul style="list-style-type: none"><li>• Wireless WAN upgradable</li><li>• Wireless WAN, Sierra Wireless EM7455, Qualcomm® 4G LTE-Advanced/DC-HSPA+/HSPA+/UMTS/GNSS, M.2 card</li><li>• Wireless WAN, HUAWEI ME906S, HUAWEI 4G LTE/WCDMA/HSPA/GSM/GPRS/EDGE/GNSS, M.2 card (WE only)</li></ul> Micro-SIM card slot, optional Verizon LTE (US) or Lenovo Connect (WE) SIM card								Limited warranty <sup>12</sup> One of the following, configurable by model: <ul style="list-style-type: none"><li>• 3-year/1-yr battery depot repair service</li><li>• 3-year/1-yr battery limited onsite service<sup>24</sup></li><li>• 3-year/1-yr battery limited onsite service, OID (Onsite International Delivery)</li></ul> Mil-Spec test MIL-STD-810G military certification												
SIM card (opt)																					
Dimensions <sup>3</sup>	WxDxH: 14.98" x 10.17" x 0.88"; 380.6mm x 258.2mm x 22.45mm																				
Weight <sup>2</sup>	<table border="1"> <tr> <td>Models</td><td>No + 6-cell</td><td>3-cell + 3-cell</td><td>3-cell + 6-cell</td></tr> <tr> <td>Non-touch</td><td>5.27 lb / 2.39 kg</td><td>4.97 lb / 2.25 kg</td><td>5.44 lb / 2.47 kg</td></tr> <tr> <td>Multi-touch</td><td>-</td><td>5.00 lb / 2.27 kg</td><td>5.42 lb / 2.46 kg</td></tr> </table>									Models	No + 6-cell	3-cell + 3-cell	3-cell + 6-cell	Non-touch	5.27 lb / 2.39 kg	4.97 lb / 2.25 kg	5.44 lb / 2.47 kg	Multi-touch	-	5.00 lb / 2.27 kg	5.42 lb / 2.46 kg
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Case material	Display cover: PPS; Bottom: Glass-Fiber Reinforced Plastic								Environment EPEAT™ Gold (US only); ENERGY STAR® 6.1; GREENGUARD®; RoHS-compliant												