

ThinkPad P50 Platform Specifications

Product Specifications Reference (PSREF)

Processor	6th Generation Intel® Core™ i7 Processor or Intel Xeon® Processor E3 v5 Family								Smart card reader ExpressCard Media reader Ports	Optional: Smart card reader One slot (ExpressCard/34) 4-in-1 reader (MMC, SD, SDHC, SDXC), supports UHS-II SD card Four USB 3.0 (one Always On), USB Type-C / Thunderbolt 3, Mini DisplayPort, HDMI, Ethernet (RJ-45), Dock connector											
	Processor Number	# of Cores	# of Threads	Base Frequency	Max Turbo Frequency	Cache	Memory Types	Processor Graphics		Camera (optional) Audio support	HD720p resolution, low light sensitive, fixed focus HD Audio, Realtek® ALC3268 codec / stereo speakers, 1.5W x 2 / dual array microphone, combo audio/microphone jack										
	i7-6700HQ	4	8	2.6 GHz	3.5 GHz	6MB	DDR4-2133	Intel HD Graphics 530													
	i7-6820HQ			2.7 GHz	3.6 GHz	8MB		Intel HD Graphics P530													
	E3-1505M v5			2.8 GHz	3.7 GHz	8MB															
E3-1535M v5	2.9 GHz			3.8 GHz	8MB																
Graphics	Intel HD Graphics 530 or P530 in processor and NVIDIA Quadro® M1000M (2GB or 4GB memory) or M2000M (4GB memory); supports external digital monitor via HDMI, Mini DisplayPort, or Thunderbolt™; supports four independent displays; Max resolution: 3840x2160@60Hz (DisplayPort via Mini DisplayPort cable); 3840x2160@60Hz (Thunderbolt); 3840x2160@30Hz (HDMI)								Keyboard UltraNav™	6-row, spill-resistant, multimedia Fn keys, numeric keypad, optional LED backlight 3-button TrackPoint® pointing device and 3-button crystal silk surface multi-touch touchpad											
Chipset	Mobile Intel CM236 Chipset (Intel GL82CM236 PCH)								Security Security chip ThinkEngine	Power-on password, hard disk password, supervisor password, security keyhole Discrete TPM 1.2 TCG Certified and Firmware TPM 2.0 integrated in chipset Delivers improved thermal and power efficiency, up to 30 day standby, faster resume time, enhanced security, as well as anti-tampering measures											
Memory	64GB max ⁷ / 2133MHz DDR4, ECC or non-ECC (ECC function supported only on Xeon processor), dual-channel capable, four DDR4 SO-DIMM sockets								vPro (optional) Fingerprint reader Color calibration	Intel vPro Technology Touch style fingerprint reader on the palm rest Optional: Pantone® color calibrator by X-Rite® color calibration sensor in palm rest											
Display	<i>Some:</i> 15.6" (396mm) FHD (1920x1080), anti-glare, LED backlight, IPS, 250 nits, 16:9 aspect ratio, 600:1 contrast ratio, 45% gamut, 160° viewing angle <i>Some:</i> 15.6" (396mm) 4K (3840x2160), anti-glare, LED backlight, IPS, 300 nits, 16:9 aspect ratio, 1000:1 contrast ratio, 100% gamut, 178° viewing angle								Battery Max battery life ¹⁰ (MobileMark® 2014)	Lithium Polymer 4-cell (66Wh) or 6-cell (90Wh) <table><tr><td>Model</td><td>4-cell</td><td>6-cell</td></tr><tr><td>Discrete Graphics</td><td>7.1 hr</td><td>9.7 hr</td></tr><tr><td>Hybrid Graphics</td><td>9.6 hr</td><td>13.2 hr</td></tr></table>			Model	4-cell	6-cell	Discrete Graphics	7.1 hr	9.7 hr	Hybrid Graphics	9.6 hr	13.2 hr
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Multi-touch (opt) Pen (optional)	Capacitive-type multi-touch, supports 10-finger gesture, 220 nits ThinkPad Pen Pro, active pen for multi-touch display								AC adapter	170W AC adapter											
Storage	Up to 3 drives (two M.2 SSD and one HDD) <i>Some:</i> M.2 SSD / SATA 6.0Gb/s (e.g. xxxG SSD) <i>Some:</i> M.2 SSD / PCIe NVMe, PCIe 3.0 x 4, 32Gb/s (e.g. xxxG SSD PCIe NVMe) <i>Some:</i> HDD / SATA 6.0Gb/s, 2.5" wide, 7mm high, Shock Mounted Hard Drive, Active Protection System™								Preload	<i>Some:</i> Genuine Windows® 7 Professional 64 <i>Some:</i> Windows 7 Professional 64 preinstalled through downgrade rights in Windows 10 Pro 64 • Lenovo Solution Center • Lenovo SHAREit • ThinkVantage Product Recovery • Rescue and Recovery™ • ThinkVantage System Update • Adobe® Reader® • Microsoft® Office preloaded; purchase a product key to activate • McAfee® LiveSafe™ (30-day trial) • Lenovo Solution Center • Lenovo SHAREit • Microsoft Office preloaded; purchase a product key to activate • McAfee® LiveSafe™ (30-day trial) For ISV certifications, please visit www.lenovo.com/support/ISV											
Optical	None																				
Ethernet	<i>Non-vPro model:</i> Intel Ethernet Connection I219-V (Jacksonville) <i>vPro model:</i> Intel Ethernet Connection I219-LM (Jacksonville)																				
WLAN ⁴	11ac+BT, Intel Dual Band Wireless-AC 8260, 2x2, M.2 card																				
Bluetooth™	Bluetooth 4.1 wireless, integrated in Wi-Fi + Bluetooth combo adapter																				
WWAN (optional)	Wireless WAN, Sierra Wireless EM7455, Qualcomm® 4G LTE-Advanced/DC-HSPA+/HSPA+/HSPA/UMTS/GNSS, M.2 card																				
SIM card	Micro-SIM card slot																				
Dimensions ³	WxDxH: 14.86" x 9.93" x 0.96-1.16"; 377.4mm x 252.3mm x 24.5-29.4mm WxDxH(Touch): 14.86" x 9.93" x 1.02-1.21"; 377.4mm x 252.3mm x 25.8-30.7mm								Limited warranty ¹²	One of the following, configurable by model: • 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)											
Weight ²	<table><tr><td>Models</td><td>4-cell</td><td>6-cell</td></tr><tr><td>Non-touch</td><td>5.6 lb / 2.55kg</td><td>5.9 lb / 2.67kg</td></tr><tr><td>Multi-touch</td><td>6.2 lb / 2.82kg</td><td>6.4 lb / 2.90kg</td></tr></table>								Models	4-cell	6-cell	Non-touch	5.6 lb / 2.55kg	5.9 lb / 2.67kg	Multi-touch	6.2 lb / 2.82kg	6.4 lb / 2.90kg	Mil-Spec test	MIL-STD-810G military certification		
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Case material	Display cover: Glass-Fiber Reinforced Plastic; Bottom: Magnesium/Aluminum								Environment	EPEAT™ Gold (US only); ENERGY STAR® 6.1; GREENGUARD®; RoHS-compliant											

Model	20EN004Dxx
Product	ThinkPad P50
Region	EAST
Machine Type	20EN
TopSeller	TopSeller
Processor	Core i7-6820HQ (4C, 2.7 / 3.6GHz, 8MB)
vPro	vPro
Graphics	NVIDIA Quadro M2000M 4GB
Chipset	Intel CM236
Memory	8GBx2 non-ECC
Display	15.6" FHD (1920x1080) IPS
Multi-touch	None
Pen	None
Storage	512GB SSD M.2 Opal2
RAID	No
Optical	None
WLAN + Bluetooth	Intel 8260 ac, 2x2 + BT4.1
WWAN	WWAN Upgradable
SIM Card	None
Smart Card Reader	Smart Card Reader
Camera	720p
Keyboard	Backlit
Fingerprint Reader	Fingerprint Reader
Color Calibrator	X-Rite
Battery	6-cell (90Wh)
Power Adapter	170W
Operating System	Windows 10 DG Windows 7 Pro 64
Warranty	3-year, Onsite
Global	No
Ann Date (mm/yy)	02/17







