

ThinkPad P50 20EN004P++

Region
EMEA

Machine Type
20EN

TopSeller
TopSeller

Processor
Xeon E3-1505M v5 (4C, 2.8 / 3.7GHz, 8MB)

vPro
vPro

Graphics
NVIDIA Quadro M2000M 4GB

Chipset
Intel CM236

Memory
8GBx2 ECC

Display
15.6" 4K (3840x2160) IPS

Multi-touch
None

Pen
None

Storage
512GB SSD M.2 PCIe NVMe

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

End of Support
Oct 24, 2022

Ann Date (mm/yy)
10/17

Note:

Country Code "US" is for United States, "++" is for EMEA countries (e.g. AD - Saudi, Arabia, AT - Austria, BM - Bulgaria, etc.), "xx" is for EAST countries (e.g. BM - Bulgaria, CX - Hungary, CY - Cyprus, etc.), and "***" is for MEA countries (e.g. AD - Saudi, Arabia, ED - Egypt, EQ - Sweden, etc.). Please be aware that the EMEA/ EAST/MEA models listed above might not be available in all countries



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ThinkPad P50 Platform Specifications

Product Specifications Reference (PSREF)

Processor	6th Generation Intel® Core™ i7 Processor or Intel Xeon® Processor E3 v5 Family								Smart card readerOptional: Smart card reader											
	Processor Number	# of Cores	# of Threads	Base Frequency	Max Turbo Frequency	Cache	Memory Types	Processor Graphics	ExpressCard	One slot (ExpressCard/34)										
	i7-6700HQ	4	8	2.6 GHz	3.5 GHz	6MB	DDR4-2133	Intel HD Graphics 530	Media reader	4-in-1 reader (MMC, SD, SDHC, SDXC), supports UHS-II SD card										
	i7-6820HQ			2.7 GHz	3.6 GHz	8MB		Ports	Four USB 3.0 (one Always On), USB Type-C / Thunderbolt 3, Mini DisplayPort, HDMI, Ethernet (RJ-45), Dock connector											
	E3-1505M v5			2.8 GHz	3.7 GHz	8MB		Intel HD Graphics P530	Camera (optional)	HD720p resolution, low light sensitive, fixed focus										
E3-1535M v5	2.9 GHz			3.8 GHz	8MB	Audio support		HD Audio, Realtek® ALC3268 codec / stereo speakers, 1.5W x 2 / dual array microphone, combo audio/microphone jack												
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	Intel vPro Technology Touch style fingerprint reader on the palm rest										
Display	Some: 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 Some: 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								Color calibration	Optional: Pantone® color calibrator by X-Rite® color calibration sensor in palm rest										
Multi-touch (opt) Pen (optional)	Capacitive-type multi-touch, supports 10-finger gesture, 220 nits ThinkPad Pen Pro, active pen for multi-touch display								Battery Max battery life ¹⁰ (MobileMark® 2014)	Lithium Polymer 4-cell (66Wh) or 6-cell (90Wh)										
Storage	Up to 3 drives (two M.2 SSD and one HDD) • HDD / SATA 6.0Gb/s, 2.5" wide, 7mm high, Shock Mounted Hard Drive, Active Protection System™ • M.2 SSD / SATA 6.0Gb/s (e.g. xxxGB SSD M.2) • M.2 SSD / PCIe NVMe, PCIe 3.0 x 4, 32Gb/s (e.g. xxxGB SSD M.2 PCIe NVMe)								<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
Model	4-cell	6-cell																		
Discrete Graphics	7.1 hr	9.7 hr																		
Hybrid Graphics	9.6 hr	13.2 hr																		
Optical	None								AC adapter	170W AC adapter										
Ethernet	Non-vPro model: Intel Ethernet Connection I219-V (Jacksonville) vPro model: Intel Ethernet Connection I219-LM (Jacksonville)								Preload	Some: Genuine Windows® 7 Professional 64 Some: Windows 7 Professional 64 preinstalled through downgrade rights in Windows 10 Pro 64										
WLAN ⁴ Bluetooth™	11ac+BT, Intel Dual Band Wireless-AC 8260, 2x2, M.2 card Bluetooth 4.1 wireless, integrated in Wi-Fi + Bluetooth combo adapter								• 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)											
WWAN (optional)	Wireless WAN, Sierra Wireless EM7455, Qualcomm® 4G LTE-Advanced/DC-HSPA+/HSPA+/HSPA/UMTS/GNSS, M.2 card Micro-SIM card slot								• Microsoft Office preloaded; purchase a product key to activate • McAfee® LiveSafe™ (30-day trial) For ISV certifications, please visit www.lenovo.com/support/ISV											
SIM card																				
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:											
Weight ²	Models	4-cell			6-cell			• 3-year/1-yr battery depot repair service												
	Non-touch	5.6 lb / 2.55kg			5.9 lb / 2.67kg			• 3-year/1-yr battery limited onsite service ²⁴												
	Multi-touch	6.2 lb / 2.82kg			6.4 lb / 2.90kg			• 3-year/1-yr battery limited onsite service, OID (Onsite International Delivery)												
Case material	Display cover: Glass-Fiber Reinforced Plastic; Bottom: Magnesium/Aluminum								Mil-Spec test	MIL-STD-810G military certification										
									Environment	EPEAT™ Gold (US only); ENERGY STAR® 6.1; GREENGUARD®; RoHS-compliant										

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