

ThinkPad P50 20EN004TUS

Region
US

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
16GBx1 non-ECC

Display
15.6" FHD (1920x1080) 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
None

Camera
720p

Keyboard
Backlit

Fingerprint Reader
Fingerprint Reader

Color Calibrator
None

Battery
6-cell (90Wh)

Power Adapter
170W Slim Tip

Operating System
Windows 10 DG Windows 7 Pro 64

Warranty
3-year, Depot

End of Support
Mar 6, 2024

Ann Date (mm/yy)
02/18

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 reader																		
	Processor Number	# of Cores	# of Threads	Base Frequency	Max Turbo Frequency	Cache	Memory Types	Processor Graphics	Optional: Smart card reader	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	Power-on password, hard disk password, supervisor password, security keyhole																	
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								Security chip ThinkEngine	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																	
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								vPro (optional)	Intel vPro Technology																	
Multi-touch (opt)	Capacitive-type multi-touch, supports 10-finger gesture, 220 nits								Fingerprint reader	Touch style fingerprint reader on the palm rest																	
Pen (optional)	ThinkPad Pen Pro, active pen for multi-touch display								Color calibration	Optional: Pantone® color calibrator by X-Rite® color calibration sensor in palm rest																	
Storage	<i>Up to 3 drives (two M.2 SSD and one HDD)</i> <ul style="list-style-type: none">• 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)								Battery	Lithium Polymer 4-cell (66Wh) or 6-cell (90Wh)																	
Optical	None								Max battery life ¹⁰ (MobileMark® 2014)	<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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Discrete Graphics	7.1 hr	9.7 hr																									
Hybrid Graphics	9.6 hr	13.2 hr																									
Ethernet	<i>Non-vPro model:</i> Intel Ethernet Connection I219-V (Jacksonville) <i>vPro model:</i> Intel Ethernet Connection I219-LM (Jacksonville)								AC adapter	170W slim tip AC adapter																	
WLAN ⁴	11ac+BT, Intel Dual Band Wireless-AC 8260, 2x2, M.2 card								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																	
Bluetooth™	Bluetooth 4.1 wireless, integrated in Wi-Fi + Bluetooth combo adapter									<ul style="list-style-type: none">• 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									<ul style="list-style-type: none">• Microsoft® Office preloaded; purchase a product key to activate• McAfee® LiveSafe™ (30-day trial)																	
SIM card	Micro-SIM card slot									<i>For ISV certifications, please visit www.lenovo.com/support/ISV</i>																	
Dimensions ³	<i>WxDxH:</i> 14.86" x 9.93" x 0.96-1.16"; 377.4mm x 252.3mm x 24.5-29.4mm <i>WxDxH(Touch):</i> 14.86" x 9.93" x 1.02-1.21"; 377.4mm x 252.3mm x 25.8-30.7mm								Limited warranty ¹²	<i>One of the following, configurable by model:</i> <ul style="list-style-type: none">• 3-year/1-yr battery depot repair service• 3-year/1-yr battery limited onsite service²⁴• 3-year/1-yr battery limited onsite service, OID (Onsite International Delivery)																	
Weight ²	<table><tr><td>Models</td><td colspan="2">4-cell</td><td colspan="2">6-cell</td></tr><tr><td>Non-touch</td><td colspan="2">5.6 lb / 2.55kg</td><td colspan="2">5.9 lb / 2.67kg</td></tr><tr><td>Multi-touch</td><td colspan="2">6.2 lb / 2.82kg</td><td colspan="2">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		
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																								
Case material	<i>Display cover:</i> Glass-Fiber Reinforced Plastic; <i>Bottom:</i> Magnesium/Aluminum								Environment	EPEAT™ Gold (US only); ENERGY STAR® 6.1; GREENGUARD®; RoHS-compliant																	

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