

# ThinkPad P51 20HH001S++

Region	Camera
EMEA	720p
Machine Type	Keyboard
20HH	Backlit
TopSeller	Fingerprint Reader
TopSeller	Fingerprint Reader
Processor	NFC
Xeon E3-1535M v6 (4C, 3.1 / 4.2GHz, 8MB)	None
vPro	Color Calibrator
vPro	X-Rite
Graphics	TPM
NVIDIA Quadro M2200 4GB	dTPM 2.0
Chipset	Battery
Intel CM238	6-cell (90Wh)
Memory	Power Adapter
16GBx2 ECC	170W Slim Tip
Display	Operating System
15.6" 4K (3840x2160) IPS	Windows 10 Pro 64
Multi-touch	Warranty
None	3-year, Onsite
Pen	End of Support
None	Mar 21, 2022
Storage	Ann Date (mm/yy)
1TB SSD M.2 PCIe NVMe Opal2	03/17
RAID	
No	
Optical	
None	
WLAN + Bluetooth	
Intel 8265 ac, 2x2 + BT4.1	
WWAN	
WWAN Upgradable	
SIM Card	
None	
Smart Card Reader	
Smart Card Reader	

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## 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 P51 Platform Specifications

Product Specifications Reference (PSREF)

Processor	7th Generation Intel® Core™ i7 Processor or Intel Xeon® Processor E3 v6 Family								Dimensions	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						
	Processor Number	# of Cores	# of Threads	Base Frequency	Max Turbo Frequency	Cache	Memory Types	Processor Graphics	Weight	Models	4-cell	6-cell				
	i7-7700HQ	4	8	2.8 GHz	3.8 GHz	6MB	DDR4-2400	Intel HD Graphics 630 Intel HD Graphics P630	Case color Case material	Non-touch	5.6 lb / 2.55kg	5.9 lb / 2.67kg				
	i7-7820HQ			2.9 GHz	3.9 GHz	8MB				Multi-touch	6.2 lb / 2.82kg	6.4 lb / 2.90kg				
	E3-1505M v6			3.0 GHz	4.0 GHz					Black	Display cover: Glass-Fiber Reinforced Plastic; Bottom: Magnesium/Aluminum					
	E3-1535M v6			3.1 GHz	4.2 GHz					Smart card reader	Optional: Smart card reader					
Graphics	Intel HD Graphics 630 or P630 in processor and NVIDIA Quadro® M1200 or M2200, 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); 4096x2160@24Hz (HDMI)								ExpressCard	One slot (ExpressCard/34)						
Chipset Memory	Mobile Intel CM238 Chipset 64GB max <sup>7</sup> / 2400MHz DDR4, ECC or non-ECC (ECC function supported only on Xeon processor), dual-channel capable, four DDR4 SO-DIMM sockets								Media reader	4-in-1 reader (MMC, SD, SDHC, SDXC), supports UHS-II SD card						
Display	Some: 15.6" (396mm) FHD (1920x1080), anti-glare, LED backlight, IPS, 250 nits, 16:9 aspect ratio, 700:1 contrast ratio, 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, 170° viewing angle								Ports	Four USB 3.1 Gen 1 (USB 3.0, one Always On), USB Type-C / Thunderbolt 3, Mini DisplayPort 1.2a, HDMI 1.4b, Ethernet (RJ-45), Dock connector						
Multi-touch (opt) Pen (optional)	Capacitive-type multi-touch, supports 10-finger gesture, 220 nits (FHD only) ThinkPad Pen Pro, active pen for multi-touch display								Camera (optional)	HD720p resolution, fixed focus						
Storage	Up to 3 drives (two M.2 SSD and one HDD) Some: HDD / SATA 6.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ Some: M.2 SSD / PCIe NVMe, PCIe 3.0 x 4, 32Gb/s								Audio support	HD Audio, Realtek® ALC3268 codec / stereo speakers, 2W x 2 / dual array microphone, combo audio/microphone jack						
Optical	None								Keyboard	6-row, spill-resistant, multimedia Fn keys, numeric keypad, optional LED backlight						
Ethernet	Non-vPro model: Intel Ethernet Connection I219-V (Jacksonville) vPro model: Intel Ethernet Connection I219-LM (Jacksonville)								UltraNav™	3-button TrackPoint® pointing device and 3-button Mylar surface multi-touch touchpad						
WLAN Bluetooth™	Intel Dual Band Wireless-AC 8265, Wi-Fi 2x2 802.11ac + BT4.1, M.2 card Bluetooth 4.1 wireless, integrated in Wi-Fi + Bluetooth combo adapter * Intel 8265ac card support BT4.2 but is limited to BT4.1 by Windows OS								Security	Power-on password, hard disk password, supervisor password, security keyhole						
WWAN (optional)	One of the following, configurable by model: <ul style="list-style-type: none"><li>Wireless WAN upgradable</li><li>Integrated Mobile Broadband 4G LTE-A, Qualcomm® Snapdragon™ X7 LTE-A (Sierra Wireless EM7455), M.2 card</li></ul>								Security chip	Discrete TPM 2.0, TCG Certified						
SIM card (opt)	Micro-SIM card slot, opt Verizon LTE (US) or Lenovo® Connect (EMEA) SIM card								vPro (optional)	Intel vPro Technology						
									Fingerprint reader	Touch style match on chip fingerprint reader on the palm rest						
									Color calibration	Optional: Pantone® color calibrator by X-Rite® color calibration sensor in palm rest						
									NFC	None						
									Battery	Lithium Polymer 4-cell (66Wh) or 6-cell (90Wh)						
									Max battery life <sup>10</sup> (MobileMark® 2014)	Model	4-cell	6-cell				
									Discrete Graphics	4.5 hr	6.1 hr					
									Hybrid Graphics	6.5 hr	8.9 hr					
									AC adapter	170W slim tip AC adapter						
									Preload	Some: Windows® 10 Home 64 Some: Windows 10 Pro 64						
										• Lenovo Companion • Lenovo Setting • Microsoft Office preloaded; purchase a product key to activate						
									Limited warranty	One of the following, configurable by model: <ul style="list-style-type: none"><li>1-year depot repair service</li><li>3-year/1-yr battery depot repair service</li><li>3-year/1-yr battery limited onsite service</li></ul>						
									Mil-Spec test	MIL-STD-810G military certification						
									Environment	EPEAT™ Gold (US only); ENERGY STAR® 6.1; RoHS-compliant						

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