

# ThinkPad P51 20HH003XUS

Region	US
Machine Type	20HH
TopSeller	TopSeller
Processor	Xeon E3-1505M v6 (4C, 3.0 / 4.0GHz, 8MB)
vPro	vPro
Graphics	NVIDIA Quadro M2200 4GB
Chipset	Intel CM238
Memory	8GBx2 non-ECC
Display	15.6" FHD (1920x1080) IPS
Multi-touch	None
Pen	None
Storage	1TB SSD M.2 PCIe NVMe Opal2
RAID	No
Optical	None
WLAN + Bluetooth	Intel 8265 ac, 2x2 + BT4.1
WWAN	WWAN Upgradable
SIM Card	None
Smart Card Reader	None

Camera	720p
Keyboard	Backlit
Fingerprint Reader	Fingerprint Reader
NFC	None
Color Calibrator	None
TPM	dTPM 2.0
Battery	6-cell (90Wh)
Power Adapter	170W
Operating System	Windows 10 Pro 64
Warranty	3-year, Depot
End of Support	Feb 9, 2024
Ann Date (mm/yy)	01/18

## 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 P51 Platform Specifications

Product Specifications Reference (PSREF)

Processor	7th Generation Intel® Core™ i7 Processor or Intel Xeon® Processor E3 v6 Family								<p>Dimensions <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</p> <p>Weight <i>Models</i> 4-cell 6-cell  <i>Non-touch</i> 5.6 lb / 2.55kg 5.9 lb / 2.67kg  <i>Multi-touch</i> 6.2 lb / 2.82kg 6.4 lb / 2.90kg</p> <p>Case color Black  Case material <i>Display cover:</i> Glass-Fiber Reinforced Plastic;  <i>Bottom:</i> Magnesium/Aluminum</p>						
	Processor Number	# of Cores	# of Threads	Base Frequency	Max Turbo Frequency	Cache	Memory Types	Processor Graphics							
	i7-7700HQ	4	8	2.8 GHz	3.8 GHz	6MB	DDR4-2400	Intel HD Graphics 630							
	i7-7820HQ			2.9 GHz	3.9 GHz	8MB		Intel HD Graphics P630							
	E3-1505M v6			3.0 GHz	4.0 GHz										
	E3-1535M v6			3.1 GHz	4.2 GHz										
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)								<p>Smart card reader <i>Optional:</i> Smart card reader</p> <p>ExpressCard One slot (ExpressCard/34)</p> <p>Media reader 4-in-1 reader (MMC, SD, SDHC, SDXC), supports UHS-II SD card</p> <p>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</p> <p>Camera (optional) HD720p resolution, fixed focus</p> <p>Audio support HD Audio, Realtek® ALC3268 codec / stereo speakers, 2W x 2 / dual array microphone, combo audio/microphone jack</p> <p>Keyboard 6-row, spill-resistant, multimedia Fn keys, numeric keypad, optional LED backlight</p> <p>UltraNav™ 3-button TrackPoint® pointing device and 3-button Mylar surface multi-touch touchpad</p> <p>Security Power-on password, hard disk password, supervisor password, security keyhole</p> <p>Security chip Discrete TPM 2.0, TCG Certified</p> <p>vPro (optional) Intel vPro Technology</p> <p>Fingerprint reader Touch style match on chip fingerprint reader on the palm rest</p> <p>Color calibration <i>Optional:</i> Pantone® color calibrator by X-Rite® color calibration sensor in palm rest</p> <p>NFC None</p> <p>Battery Lithium Polymer 4-cell (66Wh) or 6-cell (90Wh)</p> <p>Max battery life<sup>10</sup> (MobileMark® 2014) <i>Model</i> 4-cell 6-cell  <i>Discrete Graphics</i> 4.5 hr 6.1 hr  <i>Hybrid Graphics</i> 6.5 hr 8.9 hr</p> <p>AC adapter 170W AC adapter</p> <p>Preload <i>Some:</i> Windows® 10 Home 64  <i>Some:</i> Windows 10 Pro 64  <ul style="list-style-type: none"> <li>Lenovo Companion</li> <li>Lenovo Setting</li> <li>Microsoft Office preloaded;</li> <li>purchase a product key to activate</li> </ul> </p> <p>Limited warranty <i>One of the following, configurable by model:</i> <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> </p> <p>Mil-Spec test MIL-STD-810G military certification</p> <p>Environment EPEAT™ Gold (US only); ENERGY STAR® 6.1; RoHS-compliant</p>						
Chipset	Mobile Intel CM238 Chipset														
Memory	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														
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														
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														
Storage	Up to 3 drives (two M.2 SSD and one HDD) Some: M.2 SSD / PCIe NVMe, PCIe 3.0 x 4, 32Gb/s Some: HDD / SATA 6.0Gb/s, 2.5" wide, 7mm high, Active Protection System™								<p>Optical</p> <p>Ethernet <i>Non-vPro model:</i> Intel Ethernet Connection I219-V (Jacksonville)  <i>vPro model:</i> Intel Ethernet Connection I219-LM (Jacksonville)</p> <p>WLAN Intel Dual Band Wireless-AC 8265, Wi-Fi 2x2 802.11ac + BT4.1, M.2 card</p> <p>Bluetooth™ 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</p> <p>WWAN (optional) <i>One of the following, configurable by model:</i> <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> </p> <p>SIM card (opt) Micro-SIM card slot, opt Verizon LTE (US) or Lenovo® Connect (EMEA) SIM card</p>						

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