

# ThinkPad P51 20HH001S++

**Region**  
EMEA

**Machine Type**  
20HH

**TopSeller**  
TopSeller

**Processor**  
Xeon E3-1535M v6 (4C, 3.1 / 4.2GHz, 8MB)

**vPro**  
vPro

**Graphics**  
NVIDIA Quadro M2200 4GB

**Chipset**  
Intel CM238

**Memory**  
16GBx2 ECC

**Display**  
15.6" 4K (3840x2160) 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**  
Smart Card Reader

**Camera**  
720p

**Keyboard**  
Backlit

**Fingerprint Reader**  
Fingerprint Reader

**NFC**  
None

**Color Calibrator**  
X-Rite

**TPM**  
dTPM 2.0

**Battery**  
6-cell (90Wh)

**Power Adapter**  
170W Slim Tip

**Operating System**  
Windows 10 Pro 64

**Warranty**  
3-year, Onsite

**End of Support**  
Mar 21, 2022

**Ann Date (mm/yy)**  
03/17

## 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



This publication was developed for products and services offered in the United States and E.M.E.A countries. Lenovo may not offer the products, services or features discussed in this document in other countries. Lenovo may withdraw an offering at any time. Information is subject to change without notice. Consult your local representative for information on offerings available in your area. Lenovo reserves the right to change specifications or other product information without notice. Lenovo is not responsible for photographic or typographical errors. Lenovo provides this publication "as is" without warranty of any kind, either express or implied, including the implied warranties of merchantability or fitness for a particular purpose.



<http://psref.lenovo.com>

Visit psref website for the latest version of Product Specifications Reference.

© Lenovo, 2018. All rights reserved.



Lenovo

## ThinkPad P51 Platform Specifications

Product Specifications Reference (PSREF)

Processor	7th Generation Intel® Core™ i7 Processor or Intel Xeon® Processor E3 v6 Family								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									
	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)								Case color Case material									
Chipset	Mobile Intel CM238 Chipset								Smart card reader									
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								<i>Optional:</i> Smart card reader									
Display	<i>Some:</i> 15.6" (396mm) FHD (1920x1080), anti-glare, LED backlight, IPS, 250 nits, 16:9 aspect ratio, 700:1 contrast ratio, 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, 170° viewing angle								ExpressCard Media reader Ports									
Multi-touch ( <i>opt</i> ) Pen ( <i>optional</i> )	Capacitive-type multi-touch, supports 10-finger gesture, 220 nits (FHD only) ThinkPad Pen Pro, active pen for multi-touch display								4-in-1 reader (MMC, SD, SDHC, SDXC), supports UHS-II SD card 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									
Storage	<i>Up to 3 drives (two M.2 SSD and one HDD)</i> <i>Some:</i> HDD / SATA 6.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>Some:</i> M.2 SSD / PCIe NVMe, PCIe 3.0 x 4, 32Gb/s								Camera ( <i>optional</i> ) Audio support									
Optical	None								HD720p resolution, fixed focus HD Audio, Realtek® ALC3268 codec / stereo speakers, 2W x 2 / dual array microphone, combo audio/microphone jack									
Ethernet	<i>Non-vPro model:</i> Intel Ethernet Connection I219-V (Jacksonville) <i>vPro model:</i> Intel Ethernet Connection I219-LM (Jacksonville)								Keyboard UltraNav™									
WLAN	Intel Dual Band Wireless-AC 8265, Wi-Fi 2x2 802.11ac + BT4.1, M.2 card								6-row, spill-resistant, multimedia Fn keys, numeric keypad, optional LED backlight 3-button TrackPoint® pointing device and 3-button Mylar surface multi-touch touchpad									
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								Security Security chip vPro ( <i>optional</i> ) Fingerprint reader									
WWAN ( <i>optional</i> )	<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>								Power-on password, hard disk password, supervisor password, security keyhole Discrete TPM 2.0, TCG Certified Intel vPro Technology Touch style match on chip fingerprint reader on the palm rest									
SIM card ( <i>opt</i> )	Micro-SIM card slot, opt Verizon LTE (US) or Lenovo® Connect (EMEA) SIM card								<i>Optional:</i> Pantone® color calibrator by X-Rite® color calibration sensor in palm rest NFC									
									Battery									
									Lithium Polymer 4-cell (66Wh) or 6-cell (90Wh)									
									Max battery life <sup>10</sup> (MobileMark® 2014)									
									<table><tr><td><i>Model</i></td><td><i>4-cell</i></td><td><i>6-cell</i></td></tr><tr><td><i>Discrete Graphics</i></td><td>4.5 hr</td><td>6.1 hr</td></tr><tr><td><i>Hybrid Graphics</i></td><td>6.5 hr</td><td>8.9 hr</td></tr></table>	<i>Model</i>	<i>4-cell</i>	<i>6-cell</i>	<i>Discrete Graphics</i>	4.5 hr	6.1 hr	<i>Hybrid Graphics</i>	6.5 hr	8.9 hr
<i>Model</i>	<i>4-cell</i>	<i>6-cell</i>																
<i>Discrete Graphics</i>	4.5 hr	6.1 hr																
<i>Hybrid Graphics</i>	6.5 hr	8.9 hr																
									AC adapter									
									170W slim tip AC adapter									
									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; purchase a product key to activate</li></ul>									
									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>									
									Mil-Spec test									
									MIL-STD-810G military certification									
									Environment									
									EPEAT™ Gold (US only); ENERGY STAR® 6.1; RoHS-compliant									

Lenovo  
March 2018

**Lenovo**

# ThinkPad P51

