

ThinkPad P51 20HH003YUS

Region
US

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
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

 www.lenovo.com

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 | | Weight <table border="1"> <thead> <tr> <th>Models</th> <th>4-cell</th> <th>6-cell</th> </tr> </thead> <tbody> <tr> <td><i>Non-touch</i></td> <td>5.6 lb / 2.55kg</td> <td>5.9 lb / 2.67kg</td> </tr> <tr> <td><i>Multi-touch</i></td> <td>6.2 lb / 2.82kg</td> <td>6.4 lb / 2.90kg</td> </tr> </tbody> </table> | Models | 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 |
| | Models | 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 | | | | | | | | | | | | | | | | |
| 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 | | | Intel HD Graphics P630 | | | | | | | | | | | |
| E3-1505M v6 | | | 3.0 GHz | 4.0 GHz | 8MB | | Intel HD Graphics P630 | | | | | | | | | | | |
| 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) | Smart card reader ExpressCard Media reader Ports | <i>Optional:</i> Smart card reader One slot (ExpressCard/34) 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 |
|----------|---|---|--|

| | | | |
|---------|---|-------------------|---|
| Chipset | Mobile Intel CM238 Chipset | Camera (optional) | HD720p resolution, fixed focus |
| Memory | 64GB max ⁷ / 2400MHz DDR4, ECC or non-ECC (ECC function supported only on Xeon processor), dual-channel capable, four DDR4 SO-DIMM sockets | Audio support | HD Audio, Realtek® ALC3268 codec / stereo speakers, 2W x 2 / dual array microphone, combo audio/microphone jack |

| | | | |
|---------|--|-----------------------|---|
| 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 | Keyboard UltraNav™ | 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 |
|---------|--|-----------------------|---|

| | | | |
|-------------------------------------|--|--|--|
| 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 | Security Security chip vPro (optional) | Power-on password, hard disk password, supervisor password, security keyhole Discrete TPM 2.0, TCG Certified Intel vPro Technology |
|-------------------------------------|--|--|--|

| | | | |
|---------|--|--------------------|---|
| Storage | <i>Up to 3 drives (two M.2 SSD and one HDD)</i> <i>Some:</i> M.2 SSD / PCIe NVMe, PCIe 3.0 x 4, 32Gb/s <i>Some:</i> HDD / SATA 6.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ | Fingerprint reader | Touch style match on chip fingerprint reader on the palm rest |
|---------|--|--------------------|---|

| | | | |
|---------|------|--------------------------|---|
| Optical | None | Color calibration NFC | <i>Optional:</i> Pantone® color calibrator by X-Rite® color calibration sensor in palm rest None |
|---------|------|--------------------------|---|

| | | | |
|----------|---|---------|--|
| Ethernet | <i>Non-vPro model:</i> Intel Ethernet Connection I219-V (Jacksonville) <i>vPro model:</i> Intel Ethernet Connection I219-LM (Jacksonville) | Battery | Lithium Polymer 4-cell (66Wh) or 6-cell (90Wh) |
|----------|---|---------|--|

| 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 | Max battery life ¹⁰ (MobileMark® 2014) | <table border="1"> <thead> <tr> <th>Model</th> <th>4-cell</th> <th>6-cell</th> </tr> </thead> <tbody> <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> </tbody> </table> | Model | 4-cell | 6-cell | <i>Discrete Graphics</i> | 4.5 hr | 6.1 hr | <i>Hybrid Graphics</i> | 6.5 hr | 8.9 hr |
|--------------------------|--|--|---|-------|--------|--------|--------------------------|--------|--------|------------------------|--------|--------|
| Model | 4-cell | 6-cell | | | | | | | | | | |
| <i>Discrete Graphics</i> | 4.5 hr | 6.1 hr | | | | | | | | | | |
| <i>Hybrid Graphics</i> | 6.5 hr | 8.9 hr | | | | | | | | | | |

| | | | |
|-----------------|---|------------|-----------------|
| WWAN (optional) | <i>One of the following, configurable by model:</i> • Wireless WAN upgradable • Integrated Mobile Broadband 4G LTE-A, Qualcomm® Snapdragon™ X7 LTE-A (Sierra Wireless EM7455), M.2 card | AC adapter | 170W AC adapter |
|-----------------|---|------------|-----------------|

| | | | |
|----------------|--|---------|---|
| SIM card (opt) | Micro-SIM card slot, opt Verizon LTE (US) or Lenovo® Connect (EMEA) SIM card | Preload | <i>Some:</i> Windows® 10 Home 64 <i>Some:</i> Windows 10 Pro 64 • Lenovo Companion • Lenovo Setting • Microsoft Office preloaded; purchase a product key to activate |
|----------------|--|---------|---|

| | | | |
|--|--|------------------|--|
| | | Limited warranty | <i>One of the following, configurable by model:</i> • 1-year depot repair service • 3-year/1-yr battery depot repair service • 3-year/1-yr battery limited onsite service |
|--|--|------------------|--|

| | | | |
|--|--|---------------|--|
| | | Mil-Spec test | MIL-STD-810G military certification |
| | | Environment | EPPEAT™ Gold (US only); ENERGY STAR® 6.1; RoHS-compliant |



ThinkPad P51

