

# ThinkPad P51 20HH0049US

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  
8GBx1 non-ECC

Display  
15.6" FHD (1920x1080) IPS

Multi-touch  
None

Pen  
None

Storage  
1TB 5400rpm

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                                                                                                                                                                                                                                                            |            |              |                |                     |       |              |                        | Dimensions                                                                                                                                  | WxDxH: 14.86" x 9.93" x 0.96-1.16"; 377.4mm x 252.3mm x 24.5-29.4mm       |                                                                            |                 |                 |
|                                | Processor Number                                                                                                                                                                                                                                                                                                                          | # of Cores | # of Threads | Base Frequency | Max Turbo Frequency | Cache | Memory Types | Processor Graphics     |                                                                                                                                             | Weight                                                                    | WxDxH(Touch): 14.86" x 9.93" x 1.02-1.21"; 377.4mm x 252.3mm x 25.8-30.7mm |                 |                 |
|                                | i7-7700HQ                                                                                                                                                                                                                                                                                                                                 | 4          | 8            | 2.8 GHz        | 3.8 GHz             | 6MB   | DDR4-2400    | Intel HD Graphics 630  |                                                                                                                                             |                                                                           | Models                                                                     | 4-cell          | 6-cell          |
|                                | i7-7820HQ                                                                                                                                                                                                                                                                                                                                 |            |              | 2.9 GHz        | 3.9 GHz             | 8MB   |              | Intel HD Graphics P630 |                                                                                                                                             |                                                                           | Non-touch                                                                  | 5.6 lb / 2.55kg | 5.9 lb / 2.67kg |
|                                | E3-1505M v6                                                                                                                                                                                                                                                                                                                               |            |              | 3.0 GHz        | 4.0 GHz             |       |              |                        |                                                                                                                                             |                                                                           | Multi-touch                                                                | 6.2 lb / 2.82kg | 6.4 lb / 2.90kg |
| 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                                                                                                                                  | Black                                                                     |                                                                            |                 |                 |
|                                |                                                                                                                                                                                                                                                                                                                                           |            |              |                |                     |       |              |                        | Case material                                                                                                                               | Display cover: Glass-Fiber Reinforced Plastic; Bottom: Magnesium/Aluminum |                                                                            |                 |                 |
| Smart card reader              |                                                                                                                                                                                                                                                                                                                                           |            |              |                |                     |       |              |                        | Optional: Smart card reader                                                                                                                 |                                                                           |                                                                            |                 |                 |
| ExpressCard                    |                                                                                                                                                                                                                                                                                                                                           |            |              |                |                     |       |              |                        | One slot (ExpressCard/34)                                                                                                                   |                                                                           |                                                                            |                 |                 |
| Media reader                   |                                                                                                                                                                                                                                                                                                                                           |            |              |                |                     |       |              |                        | 4-in-1 reader (MMC, SD, SDHC, SDXC), supports UHS-II SD card                                                                                |                                                                           |                                                                            |                 |                 |
| 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 |                                                                           |                                                                            |                 |                 |
| Camera (optional)              |                                                                                                                                                                                                                                                                                                                                           |            |              |                |                     |       |              |                        | HD720p resolution, fixed focus                                                                                                              |                                                                           |                                                                            |                 |                 |
| Audio support                  |                                                                                                                                                                                                                                                                                                                                           |            |              |                |                     |       |              |                        | HD Audio, Realtek® ALC3268 codec / stereo speakers, 2W x 2 / dual array microphone, combo audio/microphone jack                             |                                                                           |                                                                            |                 |                 |
| Keyboard                       |                                                                                                                                                                                                                                                                                                                                           |            |              |                |                     |       |              |                        | 6-row, spill-resistant, multimedia Fn keys, numeric keypad, optional LED backlight                                                          |                                                                           |                                                                            |                 |                 |
| UltraNav™                      |                                                                                                                                                                                                                                                                                                                                           |            |              |                |                     |       |              |                        | 3-button TrackPoint® pointing device and 3-button Mylar surface multi-touch touchpad                                                        |                                                                           |                                                                            |                 |                 |
| Security                       |                                                                                                                                                                                                                                                                                                                                           |            |              |                |                     |       |              |                        | Power-on password, hard disk password, supervisor password, security keyhole                                                                |                                                                           |                                                                            |                 |                 |
| Security chip                  |                                                                                                                                                                                                                                                                                                                                           |            |              |                |                     |       |              |                        | Discrete TPM 2.0, TCG Certified                                                                                                             |                                                                           |                                                                            |                 |                 |
| 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> |                                                                                                                                                                                                                                                                                                                                           |            |              |                |                     |       |              |                        | Model                                                                                                                                       | 4-cell                                                                    | 6-cell                                                                     |                 |                 |
| (MobileMark® 2014)             |                                                                                                                                                                                                                                                                                                                                           |            |              |                |                     |       |              |                        | Discrete Graphics                                                                                                                           | 4.5 hr                                                                    | 6.1 hr                                                                     |                 |                 |
|                                |                                                                                                                                                                                                                                                                                                                                           |            |              |                |                     |       |              |                        | Hybrid Graphics                                                                                                                             | 6.5 hr                                                                    | 8.9 hr                                                                     |                 |                 |
| AC adapter                     |                                                                                                                                                                                                                                                                                                                                           |            |              |                |                     |       |              |                        | 170W AC adapter                                                                                                                             |                                                                           |                                                                            |                 |                 |
| Preload                        |                                                                                                                                                                                                                                                                                                                                           |            |              |                |                     |       |              |                        | Some: Windows® 10 Home 64<br>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:                                                                                                |                                                                           |                                                                            |                 |                 |
|                                |                                                                                                                                                                                                                                                                                                                                           |            |              |                |                     |       |              |                        | • 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                    |                                                                                                                                                                                                                                                                                                                                           |            |              |                |                     |       |              |                        | EPEAT™ Gold (US only); ENERGY STAR® 6.1; RoHS-compliant                                                                                     |                                                                           |                                                                            |                 |                 |

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