ThinkPad P51 20HH0046US

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
512GB 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 specifcations 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 ftness for a particular purpose.

http://psref.lenovo.com
Visit psref website for the latest version of Product Specifcations Reference.

© Lenovo, 2018. All rights reserved.



ThinkPad P51 Platform Specifications

Processor

7th Generation Intel® Core™ i7 Processor or Intel Xeon® Processor E3 v6 Family

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		
E3-1505M v6			3.0 GHz	4.0 GHz			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)

Chipset

Mobile Intel CM238 Chipset

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

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)*

Capacitive-type multi-touch, supports 10-finger gesture, 220 nits (FHD only)

Pen *(optional)*

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™

Optical

None

Ethernet

Non-vPro model: Intel Ethernet Connection I219-V (Jacksonville)
vPro model: Intel Ethernet Connection I219-LM (Jacksonville)

WLAN

Intel Dual Band Wireless-AC 8265, Wi-Fi 2x2 802.11ac + BT4.1, M.2 card

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*

WWAN *(optional)*

One of the following, configurable by model:
- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE-A, Qualcomm® Snapdragon™ X7 LTE-A (Sierra Wireless EM7455), M.2 card

SIM card *(opt)*

Micro-SIM card slot, opt Verizon LTE (US) or Lenovo® Connect (EMEA) SIM card

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

Weight

Models	*4-cell*	*6-cell*
Non-touch	5.6 lb / 2.55kg	5.9 lb / 2.67kg
Multi-touch	6.2 lb / 2.82kg	6.4 lb / 2.90kg

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[10] (*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 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:
- 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

ThinkPad P51











