ThinkPad P51 20HH003U++

Region
EMEA

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 ECC

Display
15.6" FHD (1920x1080) IPS

Multi-touch
None

Pen
None

Storage
256GB 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
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

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: HDD / SATA 6.0Gb/s, 2.5" wide, 7mm high, Active Protection System™
Some: M.2 SSD / PCIe NVMe, PCIe 3.0 x 4, 32Gb/s

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 slim tip 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

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