ThinkPad P53 20QN0045US

Product
ThinkPad P53

Region
NA

Country/Region
USA

Machine Type
20QN

TopSeller
TopSeller

Processor
Core i7-9750H (6C / 12T, 2.6 / 4.5GHz, 12MB)

Graphics
NVIDIA Quadro T1000 4GB GDDR5

Chipset
Intel CM246

Memory
1x 16GB DIMM DDR4-2666 non-ECC

Display
15.6" HDR 400 UHD (3840x2160) IPS 500nits Anti-glare

Multi-touch
None

Storage
512GB SSD M.2 2280 PCIe NVMe Opal2

Optane Memory
None

RAID
No

Optical
None

WLAN + Bluetooth
Intel AX200 11ax, 2x2 + BT5.0

WWAN
None

SIM Card
None

Smart Card Reader
None

Monitor Cable
None

Bundled Accessories
None

Color
Black

Camera
720p + IR

Keyboard
Backlit

Pen
None

Fingerprint Reader
Fingerprint Reader

NFC
None

Color Calibrator
None

TPM
Discrete TPM 2.0

Battery
Integrated 90Wh

Power Adapter
170W Slim Tip

System Management
None

Operating System
Windows 10 Pro 64

Bundled Software
None

Base Warranty
3-year, Depot

Upsell Service Bundles
None

End of Support
2025-09-20

Announce Date
2019-08-20

Recommended Services

Good
3Y Premier Support Upgrade from 3Y Depot/CCI (5WS0V07092)

Notes:

Battery life is an estimated maximum. Actual battery life may vary based on many factors, including screen brightness, active applications, features, power management settings, battery age and conditioning, and other customer preferences.

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In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to:
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ThinkPad P53 Platform Specifications

Processor

9th Generation Intel® Core™ i5 / i7 / i9 Processor or Intel Xeon® E Processor

Processor Number	# of Cores	# of Threads	Base Frequency	Max Turbo Frequency	Cache	Memory Types	Processor Graphics
i5-9400H	4	8	2.5 GHz	4.3 GHz	8MB	DDR4-2666	Intel UHD Graphics 630
i7-9750H	6	12	2.6 GHz	4.5 GHz	12MB		
i7-9850H	6	12	2.6 GHz	4.6 GHz	12MB		
i9-9880H	8	16	2.3 GHz	4.8 GHz	16MB		
E-2276M	6	12	2.8 GHz	4.7 GHz	12MB		Intel UHD Graphics P630

Graphics

Intel UHD Graphics 630 or P630 in processor and
NVIDIA® Quadro® T1000 (4GB GDDR5), T2000 (4GB GDDR5),
RTX 3000 (6GB GDDR6, VR ready), RTX 4000 (8GB GDDR6, VR ready), or
RTX 5000 (16GB GDDR6, VR ready);
supports external digital monitor via HDMI, Mini DisplayPort, or Thunderbolt™;
supports five independent displays;
Max resolution: 5K@60Hz (Thunderbolt); 4K@60Hz (USB-C or HDMI)

Chipset

Mobile Intel CM246 Chipset

Memory

128GB max / 2666MHz DDR4 (ECC function supported only on Xeon processor), dual-channel capable, four DDR4 SO-DIMM sockets

Display

Size	Resolution	Type	Surface	Brightness	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle
15.6"	FHD (1920x1080)	IPS	Anti-glare	300 nits	16:9	700:1	72%	160°
15.6"	FHD (1920x1080) HDR 400, Dolby Vision™	IPS	Anti-glare	500 nits	16:9	1200:1	72%	160°
15.6"	UHD (3840x2160) HDR 400, Dolby Vision	IPS	Anti-glare	500 nits	16:9	1200:1	100%	170°
15.6"	UHD (3840x2160) HDR 500 True Black, Dolby Vision, Multi-touch	OLED	AR, AS	350 nits (peak 400 nits)	16:9	100000:1	100% DCI-P3	170°

Multi-touch *(opt)*

Capacitive-type multi-touch, supports 10-finger gesture (UHD only), anti-reflection (AR), anti-smudge (AS) coating

Pen

Supports pen accessory, please see the accessory compatibility for details

Storage

Up to 3 drives
- HDD / SATA 6.0Gb/s, 2.5" wide, 7mm high, Active Protection System™
- M.2 2280 SSD / PCIe NVMe, PCIe 3.0 x 4

Optane™ memory

Optional: Intel Optane memory, PCIe NVMe, PCIe 3.0 x 2

RAID *(optional)*

RAID 0/1/5 support

Optical

None

Ethernet

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

WLAN *(optional)*

Intel Wi-Fi 6 AX200, Wi-Fi 2x2 802.11ax + Bluetooth 5.0

Bluetooth™ *(opt)*

Bluetooth 5.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter

WWAN *(optional)*

One of the following, configurable by model:
- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card

** For non-WWAN model, it means the model is NOT WWAN upgradable*

SIM card *(opt)*

Nano-SIM card slot, optional Verizon LTE (US) SIM card

Dimensions

WxDxH (non-touch): 14.86" x 9.93" x 0.96-1.16"; 377.4mm x 252.3mm x 24.5-29.4mm
WxDxH (multi-touch): 14.86" x 9.93" x 1.02-1.21"; 377.4mm x 252.3mm x 25.8-30.7mm

Weight

Non-touch model: starting at 5.51 lb / 2.5 kg;
Multi-touch model: starting at 6.4 lb / 2.9 kg

Case color

Black

Case material

Display cover: Glass-Fiber Reinforced Plastic;
Bottom: Magnesium/Aluminum

Smart card reader

Optional: Smart card reader

ExpressCard

None

Media reader

4-in-1 reader (MMC, SD, SDHC, SDXC), supports UHS-II SD card

Ports

Two USB 3.1 Gen 1 (one Always On),
one USB 3.1 Type-C Gen 1 (with the function of Power Delivery and DisplayPort),
two USB 3.1 Type-C Gen 2 / Thunderbolt 3 (with the function of PD and DP),
HDMI 2.0, Ethernet (RJ-45), nano-SIM card slot (WWAN models),
headphone / microphone combo jack, optional smart card reader,
4-in-1 reader (MMC, SD, SDHC, SDXC), security keyhole

** Power Delivery only supports power-out for charging peripherals*
** USB-C Dock is not supported in right-side USB-C port*
** Depending on many factors, actual data transfer speed may be lower than theoretical speed*

Monitor cable *(optional)*

HDMI to VGA: Lenovo HDMI to VGA Monitor Adapter
USB-C to VGA: Lenovo USB-C to VGA Adapter
USB-C to DP: Lenovo USB-C to DisplayPort Adapter

Bundled Accy

None

Camera *(optional)*

One of the following, configurable by model:
- HD720p camera with ThinkShutter camera privacy, fixed focus
- IR camera and HD720p camera with ThinkShutter camera privacy, fixed focus

Audio support

HD Audio, Synaptic® CX11880 codec / stereo speakers, 2W x 2 / dual array far-field microphone, headphone / microphone combo jack, Dolby Atmos® sound system

Keyboard

6-row, spill-resistant, multimedia Fn keys, numeric keypad, 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: X-Rite Pantone factory color calibration (UHD model only)

NFC *(optional)*

Near Field Communication

Battery

Integrated Li-ion 90Wh battery, supports Rapid Charge (charge up to 80% in 1hr)

Max battery life (*MobileMark® 2014*)

Discrete mode: 8 hr; *Hybrid mode:* 13 hr
** Battery life varies significantly with settings, usage, & other factors*

AC adapter

170W or 230W slim tip AC adapter

Operating system

One of the following, configurable by model:
- Windows® 10 Home 64
- Windows 10 Pro 64
- Windows 10 Pro 64 for Workstations

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 testing

Environment

EPEAT™ Silver; ENERGY STAR® 7.1; RoHS-compliant

Note: The specifications above may not be available in all regions.

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