ThinkPad P1 20MD000N++

Region
EMEA

Machine Type
20MD

TopSeller
TopSeller

Processor
Core i7-8850H (6C, 2.6 / 4.3GHz, 9MB)

vPro
vPro

Graphics
NVIDIA Quadro P2000 4GB

Chipset
Intel CM246

Memory
16GBx1 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 9560 ac, 2x2 + BT5.0

WWAN
None

SIM Card
None

Smart Card Reader
Smart Card Reader

Monitor Cable
None

Adapter
ThinkPad Ethernet Extension Cable

Camera
720p

Keyboard
Backlit

Fingerprint Reader
Fingerprint Reader

NFC
None

TPM
dTPM 2.0

Battery
80Wh

Power Adapter
135W Slim Tip

Operating System
Windows 10 Pro 64

Warranty
3-year, Onsite

End of Support
Sep 28, 2024

Ann Date (mm/yy)
08/18

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 P1 Platform Specifications

Processor

8th Generation Intel® Core™ i5 / i7 Processor or Intel Xeon® E Processor

Processor Number	# of Cores	# of Threads	Base Frequency	Max Turbo Frequency	Cache	Memory Types	Processor Graphics
i5-8400H	4	8	2.5 GHz	4.2 GHz	8MB	DDR4-2400	Intel UHD Graphics 630
i7-8750H	6	12	2.2 GHz	4.1 GHz	9MB		
i7-8850H			2.6 GHz	4.3 GHz	9MB		
E-2176M			2.7 GHz	4.4 GHz	12MB		

Graphics

Intel UHD Graphics 630 in processor and
NVIDIA® Quadro® P1000 (4GB memory) or P2000 (4GB memory);
supports external digital monitor via HDMI or Thunderbolt™;
supports four independent displays;
Max resolution: 5120X2880@30Hz (Thunderbolt); 4096x2160@60Hz (HDMI)

Chipset

Mobile Intel CM246 Chipset

Memory

64GB non-ECC or 32GB ECC max / 2400MHz DDR4 (ECC function supported only on Xeon processor), dual-channel capable, two DDR4 SO-DIMM sockets
* *Installed DIMMs are actually 2666MHz but run at 2400MHz due to Intel limitation*

Display

Some: 15.6" (396mm) FHD (1920x1080), anti-glare, LED backlight, IPS, 300 nits, 16:9 aspect ratio, 700:1 contrast ratio, 72% gamut, 170° viewing angle
Some: 15.6" (396mm) 4K (3840x2160), anti-glare, LED backlight, IPS, 400 nits, 16:9 aspect ratio, 1200:1 contrast ratio, 100% gamut, 170° viewing angle, multi-touch, anti-reflection (AR)

Multi-touch *(opt)*

Capacitive-type multi-touch, supports 10-finger gesture (4K only)

Pen

Supports pen accessory, please see the accessory compatibility for details

Storage

Up to 2 drives (two M.2 SSD)
M.2 SSD / PCIe NVMe, PCIe 3.0 x 4, 32Gb/s

RAID *(optional)*

RAID 0/1 support

Optical

None

Ethernet

Native Intel Ethernet Connection I219-V (*Non-vPro*) or I219-LM (*vPro*))
via optional ThinkPad Ethernet Extension Cable

WLAN

Intel Wireless-AC 9560, Wi-Fi 2x2 802.11ac + Bluetooth 5.0, M.2 card

Bluetooth™

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

WWAN

None

SIM card

None

Dimensions

WxDxH (non-touch): 14.24" x 9.67" x 0.72"; 361.8mm x 245.7mm x 18.4mm
WxDxH (multi-ouch): 14.24" x 9.67" x 0.74"; 361.8mm x 245.7mm x 18.7mm

Weight

Non-touch model: starting at 3.76 lb (1.7 kg);
Multi-touch model: starting at 4.06 lb (1.8 kg)

Case color

Black

Case material

Display cover: CFRP/GFRP hybrid;
Bottom: Aluminum alloy

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), two USB Type-C / Thunderbolt 3, HDMI 2.0, Ethernet extension connector, headphone / microphone combo jack, optional smart card reader, 4-in-1 reader (MMC, SD, SDHC, SDXC), security keyhole

Monitor cable *(optional)*

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

Camera *(optional)*

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

Audio support

HD Audio, Realtek® ALC3286 codec,
stereo speakers, 2W x 2, Dolby® Audio™ Premium, headphone / microphone combo jack, Dolby Atmos® headphone, dual array microphone

Keyboard

6-row, spill-resistant, multimedia Fn keys, LED backlight

UltraNav™

TrackPoint® pointing device and buttonless glass 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 keyboard bezel

Color calibration

None

NFC

None

Battery

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

Max battery life (*MobileMark® 2014*)

Discrete mode: 7.36 hr; *Hybrid mode:* 13.87 hr
* Battery life varies significantly with settings, usage, & other factors

AC adapter

135W slim tip AC adapter

Preload

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 certification

Environment

EPEAT™ Gold; ENERGY STAR® 6.1; RoHS-compliant

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