

ThinkPad P1 20MD000H++

Region
EMEA

Machine Type
20MD

TopSeller
TopSeller

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

vPro
vPro

Graphics
NVIDIA Quadro P1000 4GB

Chipset
Intel CM246

Memory
16GBx1 non-ECC

Display
15.6" 4K (3840x2160) IPS AR

Multi-touch
10-point Multi-touch

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
IR &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

Product Specifications Reference (PSREF)

Processor	8th Generation Intel® Core™ i5 / i7 Processor or Intel Xeon® E Processor								Smart card reader ExpressCard Media reader Ports	Optional: Smart card reader None 4-in-1 reader (MMC, SD, SDHC, SDXC), supports UHS-II SD card 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
	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)								Camera (optional)	One of the following, configurable by model: • HD720p camera with ThinkShutter camera privacy, fixed focus • IR camera and HD720p camera, fixed focus
Chipset	Mobile Intel CM246 Chipset								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
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)								Keyboard	6-row, spill-resistant, multimedia Fn keys, LED backlight
Multi-touch (opt)	Capacitive-type multi-touch, supports 10-finger gesture (4K only)								UltraNav™	TrackPoint® pointing device and buttonless glass surface multi-touch touchpad
Pen	Supports pen accessory, please see the accessory compatibility for details								Security	Power-on password, hard disk password, supervisor password, security keyhole
Storage	Up to 2 drives (two M.2 SSD) M.2 SSD / PCIe NVMe, PCIe 3.0 x 4, 32Gb/s								Security chip	Discrete TPM 2.0, TCG Certified
RAID (optional)	RAID 0/1 support								vPro (optional)	Intel vPro Technology
Optical	None								Fingerprint reader	Touch style match on chip fingerprint reader on the keyboard bezel
Ethernet	Native Intel Ethernet Connection I219-V (Non-vPro) or I219-LM (vPro)) via optional ThinkPad Ethernet Extension Cable								Color calibration	None
WLAN	Intel Wireless-AC 9560, Wi-Fi 2x2 802.11ac + Bluetooth 5.0, M.2 card								NFC	None
Bluetooth™	Bluetooth 5.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter								Battery	Integrated Li-Ion 80Wh battery, supports Rapid Charge (charge up to 80% in 1hr)
WWAN	None								Max battery life	Discrete mode: 7.36 hr; Hybrid mode: 13.87 hr
SIM card	None								(MobileMark® 2014)	* Battery life varies significantly with settings, usage, & other factors
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								AC adapter	135W slim tip AC adapter
Weight	Non-touch model: starting at 3.76 lb (1.7 kg); Multi-touch model: starting at 4.06 lb (1.8 kg)								Preload	One of the following, configurable by model: • Windows® 10 Home 64 • Windows 10 Pro 64 • Windows 10 Pro 64 for Workstations
Case color	Black								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
Case material	Display cover: CFRP/GFRP hybrid; Bottom: Aluminum alloy								Mil-Spec test	MIL-STD-810G military certification
									Environment	PEAT™ Gold; ENERGY STAR® 6.1; RoHS-compliant

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