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		
i7-8750H			2.2 GHz	4.1 GHz	9MB	DDR4-2400	Intel UHD Graphics 630
i7-8850H	6	12	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	SD Card reader (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

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