ThinkPad P1 (2nd Gen) 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 in processor only or
Intel UHD Graphics 630 or P630 in processor and
NVIDIA® Quadro® T1000 or T2000 Max-Q, 4GB GDDR5 memory;
supports external digital monitor via HDMI or Thunderbolt™;
supports four independent displays;
Max resolution: 4096x2160@60Hz (Thunderbolt); 4096x2160@60Hz (HDMI)

Chipset

Mobile Intel CM246 Chipset

Memory

64GB max / 2666MHz DDR4, ECC or non-ECC (ECC function supported only on Xeon processor), dual-channel capable, two 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% NTSC	170°
15.6"	FHD (1920x1080) HDR 400, Dolby Vision™	IPS	Anti-glare	500 nits	16:9	1200:1	72% NTSC	170°
15.6"	UHD (3840x2160) HDR 400, Dolby Vision	IPS	Anti-glare	500 nits	16:9	1200:1	100% Adobe	170°
15.6"	UHD (3840x2160) HDR 500 True Black, Dolby Vision, Multi-touch	OLED	AR, AS	SDR 400nit HDR 500nit (Peak)	16:9	100000:1	100% DCI-P3	170°

Multi-touch *(opt)*

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

Pen

Supports pen accessory, please see the accessory compatibility for details

Storage

Up to two M.2 SSD
M.2 2280 SSD / PCIe NVMe 3.0 x 4

RAID *(optional)*

RAID 0/1 support

Optical

None

Ethernet

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

WLAN

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

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-touch): 14.24" x 9.67" x 0.74"; 361.8mm x 245.7mm x 18.7mm

Weight

Non-touch model: starting at 3.75 lb (1.7 kg);
Multi-touch model: starting at 4.0 lb (1.81 kg)

Case color

Black paint (FHD model) or black weave (UHD model)

Case material

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

Smart card reader

Optional: Smart card reader

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 3.1 Type-C Gen 2 / Thunderbolt 3 (with the function of Power Delivery and DisplayPort),
HDMI 2.0, Ethernet extension connector, headphone / microphone combo jack, optional smart card reader, SD card reader, security keyhole
** Power Delivery only supports power-out for charging peripherals*
** 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

Optional: ThinkPad Ethernet Extension Cable

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, Dolby® Audio™ Premium /
dual array far-field microphone, headphone / microphone combo jack,
Dolby Atmos® sound system

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

System Mgt *(opt)*

Intel vPro Technology

Fingerprint reader

Touch style match on chip fingerprint reader on the keyboard bezel

Color calibration

Optional: X-Rite Pantone factory color calibration (UHD model only)

NFC

None

Battery

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

Max battery life

MobileMark® 2014: 13.8 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 testing

Environment

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

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