# ThinkPad P1 (2nd Gen) 20QT005CUS

***Product***
ThinkPad P1 (2nd Gen)

***Region***
NA

***Country/Region***
USA

***Machine Type***
20QT

***TopSeller***
TopSeller

***Processor***
Intel Core i9-9880H (8C / 16T, 2.3 / 4.8GHz, 16MB)

***Graphics***
NVIDIA Quadro T2000 4GB GDDR5

***Chipset***
Intel CM246

***Memory***
1x 32GB SO-DIMM DDR4-2666 non-ECC

***Storage***
1TB SSD M.2 2280 PCIe NVMe Opal2

***RAID***
No

***Display***
15.6" UHD (3840x2160) IPS 500nits Anti-glare, 100% Adobe Gamut, Dolby Vision HDR

***Touchscreen***
None

***Pen***
None

***Media Reader***
SD Card Reader

***Ethernet***
100/1000M via Optional Adapter

***Optical***
None

***WLAN + Bluetooth***
Intel AX200 11ax, 2x2 + BT5.1

***WWAN***
None

***SIM Card***
None

***Smart Card Reader***
None

***Monitor Cable***
None

***Case Material***
CFRP/GFRP (Top), Aluminum (Bottom)

***Bundled Accessories***
None

***Camera***
720p + IR with ThinkShutter

***Microphone***
2x, Array

***Color***
Black, Weave

***Keyboard***
Backlit, English

***Fingerprint Reader***
Touch Style, Match-on-Chip

***NFC***
None

***Color Calibrator***
None

***TPM***
Discrete TPM 2.0

***Battery***
Integrated 80Wh

***Power Adapter***
135W Slim Tip

***System Management***
Intel vPro

***Operating System***
Windows 10 Pro 64, English

***Bundled Software***
None

***Base Warranty***
3-year, Depot

***Bundled Service***
None

***EAN / UPC / JAN***
194552377601

***End of Support***
2025-10-17

***Announce Date***
2019-09-17

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***Recommended Services***

***Best***
3Y Lenovo Protect (Premier Support + Keep Your Drive + Accidental Damage Protection + Sealed Battery) (5PS0N73216)

***Better***
3Y Lenovo Support (Premier Support + Keep Your Drive + Sealed Battery) (5PS0N73159)

***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.

**California Electronic Waste Recycling Fee**
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: **https://www.calrecycle.ca.gov/Electronics/Consumer**

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# ThinkPad P1 (2nd Gen) Platform Specifications

*Product Specifications Reference (PSREF)*

**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, 4GB GDDR5 memory;
supports external digital monitor via HDMI or Thunderbolt™;
supports four independent displays;
Max resolution: 5K@60Hz (Thunderbolt); 4K@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) Dolby Vision™ HDR | IPS | Anti-glare | 500 nits | 16:9 | 1200:1 | 72% NTSC | 170° |
| 15.6" | UHD (3840x2160) Dolby Vision HDR | IPS | Anti-glare | 500 nits | 16:9 | 1200:1 | 100% Adobe | 170° |
| 15.6" | UHD (3840x2160) Dolby Vision HDR, Multi-touch | OLED | Anti-reflection / Anti-smudge | 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), AR (anti-reflection) / AS (anti-smudge) coating

**Pen *(optional)***

Lenovo Pen Pro (special bid only)

**Storage**

*Up to two M.2 SSD, supports single sided M.2 2280 drives only*
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 *(optional)***

Intel Wi-Fi 6 AX200, Wi-Fi 2x2 802.11ax + Bluetooth 5.1

**Bluetooth™ *(opt)***

Bluetooth 5.1 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 /
optional 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

**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
- 1-year depot with 2-year system board 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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