

# ThinkPad P17 Gen 1 **20SN0048GE**

**Product**

ThinkPad P17 Gen 1

**Region**

WE

**Country/Region**

Germany

**Machine Type**

20SN

**TopSeller**

TopSeller

**Processor**

Intel Core i7-10750H (6C / 12T, 2.6 / 5.0GHz, 12MB)

**Graphics**

NVIDIA Quadro RTX 3000 6GB GDDR6

**Chipset**

Intel WM490

**Memory**

2x 16GB SO-DIMM DDR4-3200 Non-ECC

**Storage**

512GB SSD M.2 2280 PCIe NVMe Opal2

**Display**

17.3" FHD (1920x1080) IPS 300nits Anti-glare, 72% Gamut

**Touchscreen**

None

**Media Reader**

SD Reader

**Ethernet**

100/1000M

**Optical**

None

**WLAN + Bluetooth**

Intel AX201 11ax, 2x2 + BT5.1

**WWAN**

WWAN Upgradable

**SIM Card**

None

**Smart Card Reader**

Smart Card Reader

**Monitor Cable**

None

**Case Material**

Top: GFRP 50% (PPS695 + GF 50%) Bottom: PPS + GF

**Bundled Accessories**

None

**Camera**

720p + IR with ThinkShutter

**Microphone**

2x, Array

**Color**

Black

**Keyboard**

Backlit, German

**Fingerprint Reader**

Touch Style, Match-on-Chip

**NFC**

None

**TPM**

Discrete TPM 2.0

**Battery**

Integrated 94Wh

**Power Adapter**

230W Slim Tip

**System Management**

None

**Operating System**

Windows 10 Pro 64, German

**Bundled Software**

None

**Base Warranty**

3-year, Depot

**Bundled Service**

None

**EAN / UPC / JAN**

0195235981856

**End of Support**

2027-02-28

**Announce Date**

2020-08-11

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**Recommended Services****Best**

5Y Premier Support Upgrade from 3Y Depot/CCI (5WS0V07061)

**Better**

4Y Premier Support Upgrade from 3Y Depot/CCI (5WS0V07067)

**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.

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# ThinkPad P17 Gen 1 Platform Specifications

Product Specifications Reference (PSREF)

|                   |                                                                                                                                                                                                                                                                                                                      |                                       |              |                |                     |            |              |                    |                 |                                                                                                                                                                                                                                                            |                    |                                                                                                                                                                             |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|--------------|----------------|---------------------|------------|--------------|--------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Processor         | Supports one 10th Xeon W, Core i9, i7, or i5 processor as following:                                                                                                                                                                                                                                                 |                                       |              |                |                     |            |              |                    |                 |                                                                                                                                                                                                                                                            | Dimensions         | Width: 415.44 mm (16.36 in). Depth: 280.81 mm (11.06 in). Thickness: 25.11~ 33.25 mm (0.99 ~ 1.31 in)                                                                       |
|                   | Processor Number                                                                                                                                                                                                                                                                                                     | # of Cores                            | # of Threads | Base Frequency | Max Turbo Frequency | Cache      | Memory Types | Processor Graphics | Weight          | Starting at 3.5 kg (7.7 lb, FHD)                                                                                                                                                                                                                           |                    |                                                                                                                                                                             |
|                   | Xeon W-10885M                                                                                                                                                                                                                                                                                                        | 8                                     | 16           | 2.4GHz         | 5.3GHz              | 16MB       | DDR4-2933    | Intel UHD Graphics | Case color      | Black                                                                                                                                                                                                                                                      |                    |                                                                                                                                                                             |
|                   | Xeon W-10855M                                                                                                                                                                                                                                                                                                        | 6                                     | 12           | 2.8GHz         | 5.1GHz              | 12MB       | DDR4-2933    | Intel UHD Graphics | Case material   | Display cover: GFRP 50% (PPS695 + GF 50%). Bottom: PPS + GF                                                                                                                                                                                                |                    |                                                                                                                                                                             |
|                   | Core i9-10980HK                                                                                                                                                                                                                                                                                                      | 8                                     | 16           | 2.4GHz         | 5.3GHz              | 16MB       | DDR4-2933    | Intel UHD Graphics | Media reader    | SD card reader                                                                                                                                                                                                                                             |                    |                                                                                                                                                                             |
|                   | Core i9-10885H                                                                                                                                                                                                                                                                                                       | 8                                     | 16           | 2.4GHz         | 5.3GHz              | 16MB       | DDR4-2933    | Intel UHD Graphics | Standard Ports  | 1x USB-C (USB 3.2 Gen 1, PD, DP), 2x Thunderbolt (USB-C form, Thunderbolt 3, USB 3.2 Gen 2, PD, DP), 3x USB-A 3.2 Gen 1 (one Always-on), 1x HDMI 2.0, 1x headphone / microphone combo jack, 1x SD card reader, 1x security keyhole, 1x RJ-45               |                    |                                                                                                                                                                             |
|                   | Core i7-10875H                                                                                                                                                                                                                                                                                                       | 8                                     | 16           | 2.3GHz         | 5.1GHz              | 16MB       | DDR4-2933    | Intel UHD Graphics | Optional Ports  | One optional smart card reader on right, one optional Nano-SIM card slot on left                                                                                                                                                                           |                    |                                                                                                                                                                             |
|                   | Core i7-10850H                                                                                                                                                                                                                                                                                                       | 6                                     | 12           | 2.7GHz         | 5.1GHz              | 12MB       | DDR4-2933    | Intel UHD Graphics | Monitor support | Up to 5 displays with 4 external monitors plus system LCD screen. External monitors supported via 1x USB-C, 2x Thunderbolt, and 1x HDMI. USB-C and HDMI support up to 4K@60Hz. With Thunderbolt, one supports up to 5K@60Hz and one supports up to 4K@60Hz |                    |                                                                                                                                                                             |
|                   | Core i7-10750H                                                                                                                                                                                                                                                                                                       | 6                                     | 12           | 2.6GHz         | 5.0GHz              | 12MB       | DDR4-2933    | Intel UHD Graphics | Monitor cable   | Optional HDMI to VGA, USB-C to DP, or USB-C to VGA adapters                                                                                                                                                                                                |                    |                                                                                                                                                                             |
|                   | Core i5-10400H                                                                                                                                                                                                                                                                                                       | 4                                     | 8            | 2.6GHz         | 4.6GHz              | 8MB        | DDR4-2933    | Intel UHD Graphics | Bundled Accy    | None                                                                                                                                                                                                                                                       |                    |                                                                                                                                                                             |
| Chipset           | Intel WM490 Chipset                                                                                                                                                                                                                                                                                                  |                                       |              |                |                     |            |              |                    |                 |                                                                                                                                                                                                                                                            | Camera             | Optional Hybrid IR camera with ThinkShutter camera privacy, fixed focus                                                                                                     |
| Memory Type       | SO-DIMM. DDR4-3200 for non-ECC, DDR4-2933 for ECC. ECC and non-ECC operate at DDR4-2933. 8GB/16GB/32GB available for both ECC and non-ECC                                                                                                                                                                            |                                       |              |                |                     |            |              |                    |                 |                                                                                                                                                                                                                                                            | Audio chip         | Realtek ALC3286 codec                                                                                                                                                       |
| Memory Sockets    | 4 DIMM sockets                                                                                                                                                                                                                                                                                                       |                                       |              |                |                     |            |              |                    |                 |                                                                                                                                                                                                                                                            | Speaker            | Stereo speakers, Dolby Atmos sound system                                                                                                                                   |
| Memory Protection | ECC on models with ECC DIMMs and Xeon processor                                                                                                                                                                                                                                                                      |                                       |              |                |                     |            |              |                    |                 |                                                                                                                                                                                                                                                            | Microphone         | Optional dual array far-field microphone                                                                                                                                    |
| Max Memory        | 128GB                                                                                                                                                                                                                                                                                                                |                                       |              |                |                     |            |              |                    |                 |                                                                                                                                                                                                                                                            | Keyboard           | 6-row, spill-resistant, LED backlight, numeric keypad, multimedia Fn keys with Unified Communications controls                                                              |
| Graphics          | Support one of the following discrete graphics:<br>• NVIDIA Quadro T1000, 4GB GDDR6 memory<br>• NVIDIA Quadro T2000, 4GB GDDR6 memory<br>• NVIDIA Quadro RTX 3000, 6GB GDDR6 memory<br>• NVIDIA Quadro RTX 4000 with Max-Q Design, 8GB GDDR6 memory<br>• NVIDIA Quadro RTX 5000 with Max-Q Design, 16GB GDDR6 memory |                                       |              |                |                     |            |              |                    |                 |                                                                                                                                                                                                                                                            | UltraNav           | 3-button TrackPoint pointing device and 2-button Mylar surface multi-touch touchpad                                                                                         |
|                   | Size                                                                                                                                                                                                                                                                                                                 | Resolution                            | Type         | Surface        | Touch               | Brightness | Aspect Ratio | Contrast Ratio     | Color Gamut     | Viewing Angle                                                                                                                                                                                                                                              | Password           | Power-on password, hard disk password, supervisor password                                                                                                                  |
| Display           | 17.3"                                                                                                                                                                                                                                                                                                                | FHD (1920x1080)                       | WVA          | Anti-glare     | -                   | 300 nits   | 16:9         | 700:1              | 72% NTSC        | 160°                                                                                                                                                                                                                                                       | Security chip      | Discrete TPM 2.0, TCG Certified, may be disabled in some regions                                                                                                            |
|                   | 17.3"                                                                                                                                                                                                                                                                                                                | UHD (3840x2160) Dolby Vision, HDR 400 | WVA          | Anti-glare     | -                   | 500 nits   | 16:9         | 1500:1             | 100% Adobe      | 178°                                                                                                                                                                                                                                                       | System mgmt        | Optional Intel vPro Technology supported on vPro enable models                                                                                                              |
| Color Calibration | Factory Color Calibration on UHD panels                                                                                                                                                                                                                                                                              |                                       |              |                |                     |            |              |                    |                 |                                                                                                                                                                                                                                                            | Security locks     | Security keyhole for optional Kensington lock                                                                                                                               |
| Touchscreen       | None                                                                                                                                                                                                                                                                                                                 |                                       |              |                |                     |            |              |                    |                 |                                                                                                                                                                                                                                                            | Smart card reader  | Optional                                                                                                                                                                    |
| Pen               | None                                                                                                                                                                                                                                                                                                                 |                                       |              |                |                     |            |              |                    |                 |                                                                                                                                                                                                                                                            | Fingerprint reader | Touch style match on chip fingerprint reader on the palm rest                                                                                                               |
| Storage           | Up to two M.2 2280 SSD, PCIe NVMe, 256GB / 512GB / 1TB / 2TB each                                                                                                                                                                                                                                                    |                                       |              |                |                     |            |              |                    |                 |                                                                                                                                                                                                                                                            | Battery            | Integrated Li-Polymer 94Wh battery. Supports Rapid Charge (charge up to 80% in 1hr) with 230W AC adapter                                                                    |
| RAID              | RAID 0 / 1 support                                                                                                                                                                                                                                                                                                   |                                       |              |                |                     |            |              |                    |                 |                                                                                                                                                                                                                                                            | Max battery life   | MobileMark 2014: 14.6 hr. MobileMark 2018: 9.75 hr. * Battery life varies significantly with hardware configurations, settings, usage, & other factors                      |
| Optical           | None                                                                                                                                                                                                                                                                                                                 |                                       |              |                |                     |            |              |                    |                 |                                                                                                                                                                                                                                                            | Power Adapter      | One of the following:<br>• 230W slim AC adapter<br>• 170W slim AC adapter                                                                                                   |
| Ethernet          | One onboard GbE port via integrated gigabit ethernet, Intel i219LM for vPro models or i219V for non-vPro models                                                                                                                                                                                                      |                                       |              |                |                     |            |              |                    |                 |                                                                                                                                                                                                                                                            | Operating system   | Supports one optional preloaded operating system as following:<br>• Windows 10 Home 64<br>• Windows 10 Pro 64<br>• Windows 10 Pro 64 for Workstations<br>• Ubuntu Linux LTS |
| NFC               | None                                                                                                                                                                                                                                                                                                                 |                                       |              |                |                     |            |              |                    |                 |                                                                                                                                                                                                                                                            |                    | Base Warranty                                                                                                                                                               |
| WLAN + Bluetooth  | Optional Intel Wi-Fi 6 AX201 on most models, Wi-Fi 2x2 802.11ax + Bluetooth 5.1. Bluetooth 5.1 requires the latest version of Windows 10 (version 2004 or above)                                                                                                                                                     |                                       |              |                |                     |            |              |                    |                 |                                                                                                                                                                                                                                                            | Mil-Spec test      |                                                                                                                                                                             |
| WWAN              | One of the following, configurable by model:<br>• No WWAN card and non upgradable<br>• Integrated Mobile Broadband Upgradable, No WWAN Card, WWAN Antenna Only<br>• Integrated Mobile Broadband 4G LTE-A, Fibocom L860-GL, MIMO 4x4, M.2 card                                                                        |                                       |              |                |                     |            |              |                    |                 |                                                                                                                                                                                                                                                            | Environment        | EPEAT Gold. ENERGY STAR 8.0. RoHS-compliant                                                                                                                                 |
|                   | Optional Nano-SIM card slot                                                                                                                                                                                                                                                                                          |                                       |              |                |                     |            |              |                    |                 |                                                                                                                                                                                                                                                            | ISV certifications | Please visit <a href="http://www.thinkworkstations.com/isv-certifications/">www.thinkworkstations.com/isv-certifications/</a>                                               |

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