

# ThinkPad P17 Gen 1 Platform Specifications

Product Specifications Reference (PSREF)

|                    |  |  |              |                |                     |            |                    |                    |             |               |
|--------------------|--|--|--------------|----------------|---------------------|------------|--------------------|--------------------|-------------|---------------|
| Processor          | Supports one 10th Xeon W, Core i9, i7, or i5 processor as following:   |  |              |                |                     |            |                    |                    |             |               |
|                    | Processor Number   | # of Cores                               | # of Threads | Base Frequency | Max Turbo Frequency | Cache      | Memory Types       | Processor Graphics |             |               |
|                    | Xeon W-10885M  | 8  | 16           | 2.4GHz         | 5.3GHz              | 16MB       | DDR4-2933          | Intel UHD Graphics |             |               |
|                    | Xeon W-10855M  | 6  | 12           | 2.8GHz         | 5.1GHz              | 12MB       | DDR4-2933          | Intel UHD Graphics |             |               |
|                    | Core i9-10980HK  | 8  | 16           | 2.4GHz         | 5.3GHz              | 16MB       | DDR4-2933          | Intel UHD Graphics |             |               |
|                    | Core i9-10885H   | 8  | 16           | 2.4GHz         | 5.3GHz              | 16MB       | DDR4-2933          | Intel UHD Graphics |             |               |
|                    | Core i7-10875H   | 8  | 16           | 2.3GHz         | 5.1GHz              | 16MB       | DDR4-2933          | Intel UHD Graphics |             |               |
|                    | Core i7-10850H   | 6  | 12           | 2.7GHz         | 5.1GHz              | 12MB       | DDR4-2933          | Intel UHD Graphics |             |               |
|                    | Core i7-10750H   | 6  | 12           | 2.6GHz         | 5.0GHz              | 12MB       | DDR4-2933          | Intel UHD Graphics |             |               |
| Core i5-10400H     | 4  | 8  | 2.6GHz       | 4.6GHz         | 8MB                 | DDR4-2933  | Intel UHD Graphics |                    |             |               |
| Chipset            | Intel WM490 Chipset  |  |              |                |                     |            |                    |                    |             |               |
| 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  |  |              |                |                     |            |                    |                    |             |               |
| Memory Sockets     | 4 DIMM sockets   |  |              |                |                     |            |                    |                    |             |               |
| Memory Protection  | ECC on models with ECC DIMMs and Xeon processor  |  |              |                |                     |            |                    |                    |             |               |
| Max Memory         | 128GB  |  |              |                |                     |            |                    |                    |             |               |
| Graphics           | Support one of the following discrete graphics:  |  |              |                |                     |            |                    |                    |             |               |
|                    | <ul style="list-style-type: none"> <li>• NVIDIA Quadro T1000, 4GB GDDR6 memory</li> <li>• NVIDIA Quadro T2000, 4GB GDDR6 memory</li> <li>• NVIDIA Quadro RTX 3000, 6GB GDDR6 memory</li> <li>• NVIDIA Quadro RTX 4000 with Max-Q Design, 8GB GDDR6 memory</li> <li>• NVIDIA Quadro RTX 5000 with Max-Q Design, 16GB GDDR6 memory</li> </ul>                                |  |              |                |                     |            |                    |                    |             |               |
| Display            | Size   | Resolution                               | Type         | Surface        | Touch               | Brightness | Aspect Ratio       | Contrast Ratio     | Color Gamut | Viewing Angle |
|                    | 17.3"  | FHD (1920x1080)                          | WVA          | Anti-glare     | -                   | 300 nits   | 16:9               | 700:1              | 72% NTSC    | 160°          |
|                    | 17.3"  | UHD (3840x2160)<br>Dolby Vision, HDR 400 | WVA          | Anti-glare     | -                   | 500 nits   | 16:9               | 1500:1             | 100% Adobe  | 178°          |
| Color Calibration  | Factory Color Calibration on UHD panels  |  |              |                |                     |            |                    |                    |             |               |
| Touchscreen        | None   |  |              |                |                     |            |                    |                    |             |               |
| Pen                | None   |  |              |                |                     |            |                    |                    |             |               |
| Storage            | Up to two M.2 2280 SSD, PCIe NVMe, 256GB / 512GB / 1TB / 2TB each  |  |              |                |                     |            |                    |                    |             |               |
| RAID               | RAID 0 / 1 support   |  |              |                |                     |            |                    |                    |             |               |
| Optical            | None   |  |              |                |                     |            |                    |                    |             |               |
| Ethernet           | One onboard GbE port via integrated gigabit ethernet, Intel i219LM for vPro models or i219V for non-vPro models  |  |              |                |                     |            |                    |                    |             |               |
| NFC                | None   |  |              |                |                     |            |                    |                    |             |               |
| 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)   |  |              |                |                     |            |                    |                    |             |               |
| WWAN               | One of the following, configurable by model:   |  |              |                |                     |            |                    |                    |             |               |
|                    | <ul style="list-style-type: none"> <li>• No WWAN card and non upgradable</li> <li>• Integrated Mobile Broadband Upgradable, No WWAN Card, WWAN Antenna Only</li> <li>• Integrated Mobile Broadband 4G LTE-A, Fibocom L860-GL, MIMO 4x4, M.2 card</li> </ul>  |  |              |                |                     |            |                    |                    |             |               |
| SIM card           | Optional Nano-SIM card slot  |  |              |                |                     |            |                    |                    |             |               |
| 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)  |  |              |                |                     |            |                    |                    |             |               |
| Weight             | Starting at 3.5 kg (7.7 lb, FHD)   |  |              |                |                     |            |                    |                    |             |               |
| Case color         | Black  |  |              |                |                     |            |                    |                    |             |               |
| Case material      | Display cover: GFRP 50% (PPS695 + GF 50%).<br>Bottom: PPS + GF   |  |              |                |                     |            |                    |                    |             |               |
| Media reader       | SD card reader   |  |              |                |                     |            |                    |                    |             |               |
| 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   |  |              |                |                     |            |                    |                    |             |               |
| Optional Ports     | One optional smart card reader on right, one optional Nano-SIM card slot on left   |  |              |                |                     |            |                    |                    |             |               |
| 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   |  |              |                |                     |            |                    |                    |             |               |
| Monitor cable      | Optional HDMI to VGA, USB-C to DP, or USB-C to VGA adapters  |  |              |                |                     |            |                    |                    |             |               |
| Bundled Accy       | None   |  |              |                |                     |            |                    |                    |             |               |
| Camera             | Optional Hybrid IR camera with ThinkShutter camera privacy, fixed focus  |  |              |                |                     |            |                    |                    |             |               |
| Audio chip         | Realtek ALC3286 codec  |  |              |                |                     |            |                    |                    |             |               |
| Speaker            | Stereo speakers, Dolby Atmos sound system  |  |              |                |                     |            |                    |                    |             |               |
| Microphone         | Optional dual array far-field microphone   |  |              |                |                     |            |                    |                    |             |               |
| Keyboard           | 6-row, spill-resistant, LED backlight, numeric keypad, multimedia Fn keys with Unified Communications controls   |  |              |                |                     |            |                    |                    |             |               |
| UltraNav           | 3-button TrackPoint pointing device and 2-button Mylar surface multi-touch touchpad  |  |              |                |                     |            |                    |                    |             |               |
| Password           | Power-on password, hard disk password, supervisor password   |  |              |                |                     |            |                    |                    |             |               |
| Security chip      | Discrete TPM 2.0, TCG Certified, may be disabled in some regions   |  |              |                |                     |            |                    |                    |             |               |
| System mgmt        | Optional Intel vPro Technology supported on vPro enable models   |  |              |                |                     |            |                    |                    |             |               |
| Security locks     | Security keyhole for optional Kensington lock  |  |              |                |                     |            |                    |                    |             |               |
| Smart card reader  | Optional   |  |              |                |                     |            |                    |                    |             |               |
| Fingerprint reader | Touch style match on chip fingerprint reader on the palm rest  |  |              |                |                     |            |                    |                    |             |               |
| Battery            | Integrated Li-Polymer 94Wh battery. Supports Rapid Charge (charge up to 80% in 1hr) with 230W AC adapter   |  |              |                |                     |            |                    |                    |             |               |
| Max battery life   | MobileMark 2014: 14.6 hr.<br>MobileMark 2018: 9.75 hr.<br><i>* Battery life varies significantly with hardware configurations, settings, usage, &amp; other factors</i>  |  |              |                |                     |            |                    |                    |             |               |
| Power Adapter      | One of the following:<br>• 230W slim AC adapter<br>• 170W slim AC adapter  |  |              |                |                     |            |                    |                    |             |               |
| Operating system   | Supports one optional preloaded operating system as following:   |  |              |                |                     |            |                    |                    |             |               |
|                    | <ul style="list-style-type: none"> <li>• Windows 10 Home 64</li> <li>• Windows 10 Pro 64</li> <li>• Windows 10 Pro 64 for Workstations</li> <li>• Ubuntu Linux LTS</li> </ul>  |  |              |                |                     |            |                    |                    |             |               |
| Base Warranty      | Optional warranty plans as following:  |  |              |                |                     |            |                    |                    |             |               |
|                    | <ul style="list-style-type: none"> <li>• 1-year depot repair service</li> <li>• 3-year depot repair service</li> <li>• 1-year + 2-year depot repair service</li> <li>• 1-year limited onsite service</li> <li>• 3-year limited onsite service</li> <li>• 1-year + 2-year limited onsite service</li> <li>• 1-year depot with 2-year system board repair service</li> </ul> |  |              |                |                     |            |                    |                    |             |               |
| Mil-Spec test      | MIL-STD-810G military testing  |  |              |                |                     |            |                    |                    |             |               |
| Environment        | EPEAT Gold. ENERGY STAR 8.0. RoHS-compliant  |  |              |                |                     |            |                    |                    |             |               |
| ISV certifications | Please visit <a href="http://www.thinkworkstations.com/isv-certifications/">www.thinkworkstations.com/isv-certifications/</a>  |  |              |                |                     |            |                    |                    |             |               |