

# ThinkPad P53 20QN000EGE

**Product**  
ThinkPad P53

**Region**  
WE

**Country/Region**  
Germany

**Machine Type**  
20QN

**TopSeller**  
TopSeller

**Processor**  
Core i7-9750H (6C / 12T, 2.6 / 4.5GHz, 12MB)

**Graphics**  
NVIDIA Quadro T1000 4GB GDDR5

**Chipset**  
Intel CM246

**Memory**  
1x 8GB DIMM DDR4-2666

**Display**  
15.6" FHD (1920x1080) IPS 300nits Anti-glare

**Multi-touch**  
None

**Storage**  
256GB SSD M.2 2280 PCIe NVMe Opal2

**Optane Memory**  
None

**RAID**  
No

**Optical**  
None

**WLAN + Bluetooth**  
Intel AX200 11ax, 2x2 + BT5.0

**WWAN**  
None

**SIM Card**  
None

**Smart Card Reader**  
Smart Card Reader

**Monitor Cable**  
None

**Bundled Accessories**  
None

**Color**  
Black

**Camera**  
720p

**Keyboard**  
Backlit

**Pen**  
None

**Fingerprint Reader**  
Fingerprint Reader

**NFC**  
None

**Color Calibrator**  
None

**TPM**  
Discrete TPM 2.0

**Battery**  
Integrated 90Wh

**Power Adapter**  
170W Slim Tip

**System Management**  
None

**Operating System**  
Windows 10 Pro 64

**Bundled Software**  
None

**Base Warranty**  
3-year, Depot

**Upsell Service Bundles**  
None

**End of Support**  
2025-08-23

**Announce Date**  
2019-07-23

## 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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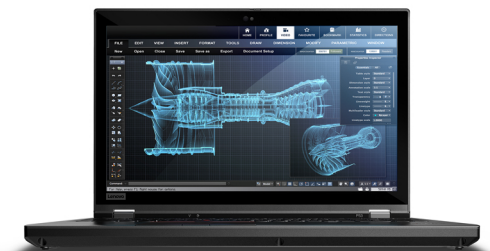
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# ThinkPad P53 Platform Specifications

Product Specifications Reference (PSREF)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                               |              |                |                          |              |                |                         |               |                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                          |                                                                                            |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|--------------|----------------|--------------------------|--------------|----------------|-------------------------|---------------|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Processor         | 9th Generation Intel® Core™ i5 / i7 / i9 Processor or Intel Xeon® E Processor                                                                                                                                                                                                                                                                                                                           |                                                               |              |                |                          |              |                |                         |               |                          | Dimensions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <i>WxDxH (non-touch):</i> 14.86" x 9.93" x 0.96-1.16";<br>377.4mm x 252.3mm x 24.5-29.4mm<br><i>WxDxH (multi-touch):</i> 14.86" x 9.93" x 1.02-1.21";<br>377.4mm x 252.3mm x 25.8-30.7mm |                                                                                            |
|                   | Processor Number                                                                                                                                                                                                                                                                                                                                                                                        | # of Cores                                                    | # of Threads | Base Frequency | Max Turbo Frequency      | Cache        | Memory Types   | Processor Graphics      |               |                          | Weight                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <i>Non-touch model:</i> starting at 5.51 lb / 2.5 kg;<br><i>Multi-touch model:</i> starting at 6.4 lb / 2.9 kg                                                                           |                                                                                            |
|                   | i5-9400H                                                                                                                                                                                                                                                                                                                                                                                                | 4                                                             | 8            | 2.5 GHz        | 4.3 GHz                  | 8MB          | DDR4-2666      | Intel UHD Graphics 630  |               |                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Case color                                                                                                                                                                               | Black                                                                                      |
|                   | i7-9750H                                                                                                                                                                                                                                                                                                                                                                                                | 6                                                             | 12           | 2.6 GHz        | 4.5 GHz                  | 12MB         |                |                         |               |                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Case material                                                                                                                                                                            | <i>Display cover:</i> Glass-Fiber Reinforced Plastic;<br><i>Bottom:</i> Magnesium/Aluminum |
|                   | 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 or P630 in processor and NVIDIA® Quadro® T1000 (4GB GDDR5), T2000 (4GB GDDR5), RTX 3000 (6GB GDDR6, VR ready), RTX 4000 Max-Q (8GB GDDR6, VR ready), or RTX 5000 Max-Q (16GB GDDR6, VR ready); supports external digital monitor via HDMI, Mini DisplayPort, or Thunderbolt™; supports five independent displays; Max resolution: 5K@60Hz (Thunderbolt); 4K@60Hz (USB-C or HDMI) |                                                               |              |                |                          |              |                |                         |               |                          | Smart card reader                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <i>Optional:</i> Smart card reader                                                                                                                                                       |                                                                                            |
| Chipset           | Mobile Intel CM246 Chipset                                                                                                                                                                                                                                                                                                                                                                              |                                                               |              |                |                          |              |                |                         |               |                          | ExpressCard                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | None                                                                                                                                                                                     |                                                                                            |
| Memory            | 128GB max / 2666MHz DDR4 (ECC function supported only on Xeon processor), dual-channel capable, four DDR4 SO-DIMM sockets                                                                                                                                                                                                                                                                               |                                                               |              |                |                          |              |                |                         |               |                          | Media reader                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 4-in-1 reader (MMC, SD, SDHC, SDXC), supports UHS-II SD card                                                                                                                             |                                                                                            |
| Display           | Size                                                                                                                                                                                                                                                                                                                                                                                                    | Resolution                                                    | Type         | Surface        | Brightness               | Aspect Ratio | Contrast Ratio | Color Gamut             | Viewing Angle | Ports                    | Two USB 3.1 Gen 1 (one Always On), one USB 3.1 Type-C Gen 1 (with the function of Power Delivery and DisplayPort), two USB 3.1 Type-C Gen 2 / Thunderbolt 3 (with the function of PD and DP), HDMI 2.0, Ethernet (RJ-45), nano-SIM card slot (WWAN models), headphone / microphone combo jack, optional smart card reader, 4-in-1 reader (MMC, SD, SDHC, SDXC), security keyhole<br><i>* Power Delivery only supports power-out for charging peripherals</i><br><i>* USB-C Dock is not supported in right-side USB-C port</i><br><i>* Depending on many factors, actual data transfer speed may be lower than theoretical speed</i> |                                                                                                                                                                                          |                                                                                            |
|                   | 15.6"                                                                                                                                                                                                                                                                                                                                                                                                   | FHD (1920x1080)                                               | IPS          | Anti-glare     | 300 nits                 | 16:9         | 700:1          | 72%                     | 160°          | Monitor cable (optional) | <i>USB-C to DP:</i> Lenovo USB-C to DisplayPort Adapter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                          |                                                                                            |
|                   | 15.6"                                                                                                                                                                                                                                                                                                                                                                                                   | FHD (1920x1080) HDR 400, Dolby Vision™                        | IPS          | Anti-glare     | 500 nits                 | 16:9         | 1200:1         | 72%                     | 160°          | Bundled Accy             | None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                          |                                                                                            |
|                   | 15.6"                                                                                                                                                                                                                                                                                                                                                                                                   | UHD (3840x2160) HDR 400, Dolby Vision                         | IPS          | Anti-glare     | 500 nits                 | 16:9         | 1200:1         | 100%                    | 170°          | Camera (optional)        | <i>One of the following, configurable by model:</i><br>• HD720p camera with ThinkShutter camera privacy, fixed focus<br>• IR camera and HD720p camera with ThinkShutter camera privacy, fixed focus                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                          |                                                                                            |
|                   | 15.6"                                                                                                                                                                                                                                                                                                                                                                                                   | UHD (3840x2160) HDR 500 True Black, Dolby Vision, Multi-touch | OLED         | AR, AS         | 350 nits (peak 400 nits) | 16:9         | 100000:1       | 100% DCI-P3             | 170°          | Audio support            | HD Audio, Synaptic® CX11880 codec / stereo speakers, 2W x 2 / dual array far-field microphone, headphone / microphone combo jack, Dolby Atmos® sound system                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                          |                                                                                            |
| Multi-touch (opt) | Capacitive-type multi-touch, supports 10-finger gesture (UHD only), anti-reflection (AR), anti-smudge (AS) coating                                                                                                                                                                                                                                                                                      |                                                               |              |                |                          |              |                |                         |               |                          | Keyboard                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 6-row, spill-resistant, multimedia Fn keys, numeric keypad, LED backlight                                                                                                                |                                                                                            |
| Pen               | Supports pen accessory, please see the accessory compatibility for details                                                                                                                                                                                                                                                                                                                              |                                                               |              |                |                          |              |                |                         |               |                          | UltraNav™                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 3-button TrackPoint® pointing device and 3-button Mylar surface multi-touch touchpad                                                                                                     |                                                                                            |
| Storage           | <i>Up to 3 drives</i><br>• HDD / SATA 6.0Gb/s, 2.5" wide, 7mm high, Active Protection System™<br>• M.2 2280 SSD / PCIe NVMe, PCIe 3.0 x 4                                                                                                                                                                                                                                                               |                                                               |              |                |                          |              |                |                         |               |                          | Security                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Power-on password, hard disk password, supervisor password, security keyhole                                                                                                             |                                                                                            |
| Optane™ memory    | <i>Optional:</i> Intel Optane memory, PCIe NVMe, PCIe 3.0 x 2                                                                                                                                                                                                                                                                                                                                           |                                                               |              |                |                          |              |                |                         |               |                          | Security chip vPro (optional)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Discrete TPM 2.0, TCG Certified                                                                                                                                                          |                                                                                            |
| RAID (optional)   | RAID 0/1/5 support                                                                                                                                                                                                                                                                                                                                                                                      |                                                               |              |                |                          |              |                |                         |               |                          | Fingerprint reader                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Intel vPro Technology                                                                                                                                                                    |                                                                                            |
| Optical           | None                                                                                                                                                                                                                                                                                                                                                                                                    |                                                               |              |                |                          |              |                |                         |               |                          | Color calibration                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <i>Optional:</i> X-Rite Pantone factory color calibration (UHD model only)                                                                                                               |                                                                                            |
| Ethernet          | <i>Non-vPro model:</i> Intel Ethernet Connection I219-V (Jacksonville)<br><i>vPro model:</i> Intel Ethernet Connection I219-LM (Jacksonville)                                                                                                                                                                                                                                                           |                                                               |              |                |                          |              |                |                         |               |                          | NFC (optional)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Near Field Communication                                                                                                                                                                 |                                                                                            |
| WLAN (optional)   | Intel Wi-Fi 6 AX200, Wi-Fi 2x2 802.11ax + Bluetooth 5.0                                                                                                                                                                                                                                                                                                                                                 |                                                               |              |                |                          |              |                |                         |               |                          | Battery                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Integrated Li-ion 90Wh battery, supports Rapid Charge (charge up to 80% in 1hr)                                                                                                          |                                                                                            |
| Bluetooth™ (opt)  | Bluetooth 5.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter                                                                                                                                                                                                                                                                                                                                   |                                                               |              |                |                          |              |                |                         |               |                          | Max battery life (MobileMark® 2014)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <i>Discrete mode:</i> 8 hr; <i>Hybrid mode:</i> 13 hr<br><i>* Battery life varies significantly with settings, usage, &amp; other factors</i>                                            |                                                                                            |
| WWAN (optional)   | <i>One of the following, configurable by model:</i><br>• Wireless WAN upgradable<br>• Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card<br><i>* For non-WWAN model, it means the model is NOT WWAN upgradable</i>                                                                                                                                                                         |                                                               |              |                |                          |              |                |                         |               |                          | AC adapter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 170W or 230W slim tip AC adapter                                                                                                                                                         |                                                                                            |
| SIM card (opt)    | Nano-SIM card slot, optional Verizon LTE (US) SIM card                                                                                                                                                                                                                                                                                                                                                  |                                                               |              |                |                          |              |                |                         |               |                          | Preload                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <i>One of the following, configurable by model:</i><br>• Windows® 10 Home 64<br>• Windows 10 Pro 64<br>• Windows 10 Pro 64 for Workstations                                              |                                                                                            |
|                   |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                               |              |                |                          |              |                |                         |               |                          | Limited warranty                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <i>One of the following, configurable by model:</i><br>• 1-year depot repair service<br>• 3-year/1-yr battery depot repair service<br>• 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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