

# ThinkPad P53 20QN004BUS

**Product**

ThinkPad P53

**Region**

NA

**Country/Region**

USA

**Machine Type**

20QN

**TopSeller**

TopSeller

**Processor**

Core i7-9850H (6C / 12T, 2.6 / 4.6GHz, 12MB)

**Graphics**

NVIDIA Quadro T2000 4GB GDDR5

**Chipset**

Intel CM246

**Memory**

1x 16GB DIMM DDR4-2666 non-ECC

**Display**

15.6" HDR 400 UHD (3840x2160) IPS 500nits Anti-glare

**Multi-touch**

None

**Storage**

512GB 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**

None

**Monitor Cable**

None

**Bundled Accessories**

None

**Color**

Black

**Camera**

720p + IR

**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**

Intel vPro

**Operating System**

Windows 10 Pro 64

**Bundled Software**

None

**Base Warranty**

3-year, Depot

**Upsell Service Bundles**

None

**End of Support**

2025-09-20

**Announce Date**

2019-08-20

**Recommended Services****Good**

3Y Premier Support Upgrade from 3Y Depot/CCI (5WS0V07092)

**Notes:**

**Battery life** is an estimated maximum. Actual battery life may vary based on many factors, including screen brightness, active applications, features, power management settings, battery age and conditioning, and other customer preferences.

**California Electronic Waste Recycling Fee**

In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to:

<https://www.calrecycle.ca.gov/Electronics/Consumer>

**L** [WWW.LENОВО.COM](http://WWW.LENОВО.COM)

Lenovo may not offer the products, services or features discussed in this document in other countries. Lenovo may withdraw an offering at any time. Information is subject to change without notice. Consult your local representative for information on offerings available in your area.

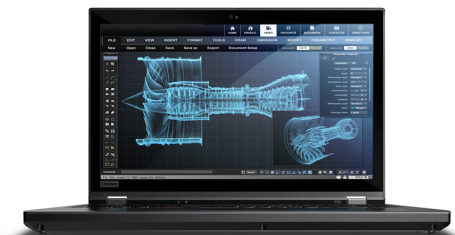
Lenovo reserves the right to change specifications or other product information without notice. Lenovo is not responsible for photographic or typographical errors.

Lenovo provides this publication "as is" without warranty of any kind, either express or implied, including the implied warranties of merchantability or fitness for a particular purpose.

**PSREF** <https://psref.lenovo.com>

Visit psref website for the latest version of Product Specifications Reference.

© Lenovo, 2019. All rights reserved.



Lenovo™

# ThinkPad P53 Platform Specifications

Product Specifications Reference (PSREF)

|                   |                                                                                                                                                                                                                                                                                                                                                                                             |                                                               |              |                |                          |              |                |                         |               |                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                             |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|--------------|----------------|--------------------------|--------------|----------------|-------------------------|---------------|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Processor         | 9th Generation Intel® Core™ i5 / i7 / i9 Processor or Intel Xeon® E Processor                                                                                                                                                                                                                                                                                                               |                                                               |              |                |                          |              |                |                         |               |                          | Dimensions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | WxDxH (non-touch): 14.86" x 9.93" x 0.96-1.16";<br>377.4mm x 252.3mm x 24.5-29.4mm<br>WxDxH (multi-touch): 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                   | Non-touch model: starting at 5.51 lb / 2.5 kg;<br>Multi-touch model: 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            | Display cover: Glass-Fiber Reinforced Plastic;<br>Bottom: 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 (8GB GDDR6, VR ready), or RTX 5000 (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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Optional: 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>* Power Delivery only supports power-out for charging peripherals<br>* USB-C Dock is not supported in right-side USB-C port<br>* Depending on many factors, actual data transfer speed may be lower than theoretical speed |                                                                                                                                                                             |
|                   | 15.6"                                                                                                                                                                                                                                                                                                                                                                                       | FHD (1920x1080)                                               | IPS          | Anti-glare     | 300 nits                 | 16:9         | 700:1          | 72%                     | 160°          | Monitor cable (optional) | HDMI to VGA: Lenovo HDMI to VGA Monitor Adapter<br>USB-C to VGA: Lenovo USB-C to VGA Adapter<br>USB-C to DP: 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)        | One of the following, configurable by model:<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           | Up to 3 drives<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    | Optional: Intel Optane memory, PCIe NVMe, PCIe 3.0 x 2                                                                                                                                                                                                                                                                                                                                      |                                                               |              |                |                          |              |                |                         |               |                          | Security chip                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Discrete TPM 2.0, TCG Certified                                                                                                                                             |
| RAID (optional)   | RAID 0/1/5 support                                                                                                                                                                                                                                                                                                                                                                          |                                                               |              |                |                          |              |                |                         |               |                          | vPro (optional)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Intel vPro Technology                                                                                                                                                       |
| Optical           | None                                                                                                                                                                                                                                                                                                                                                                                        |                                                               |              |                |                          |              |                |                         |               |                          | Fingerprint reader                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Touch style match on chip fingerprint reader on the palm rest                                                                                                               |
| Ethernet          | Non-vPro model: Intel Ethernet Connection I219-V (Jacksonville)<br>vPro model: Intel Ethernet Connection I219-LM (Jacksonville)                                                                                                                                                                                                                                                             |                                                               |              |                |                          |              |                |                         |               |                          | Color calibration                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Optional: X-Rite Pantone factory color calibration (UHD model only)                                                                                                         |
| WLAN (optional)   | Intel Wi-Fi 6 AX200, Wi-Fi 2x2 802.11ax + Bluetooth 5.0                                                                                                                                                                                                                                                                                                                                     |                                                               |              |                |                          |              |                |                         |               |                          | NFC (optional)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Near Field Communication                                                                                                                                                    |
| Bluetooth™ (opt)  | Bluetooth 5.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter                                                                                                                                                                                                                                                                                                                       |                                                               |              |                |                          |              |                |                         |               |                          | Battery                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Integrated Li-ion 90Wh battery, supports Rapid Charge (charge up to 80% in 1hr)                                                                                             |
| WWAN (optional)   | One of the following, configurable by model:<br>• Wireless WAN upgradable<br>• Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card<br>* For non-WWAN model, it means the model is NOT WWAN upgradable                                                                                                                                                                           |                                                               |              |                |                          |              |                |                         |               |                          | Max battery life                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Discrete mode: 8 hr; Hybrid mode: 13 hr<br>(MobileMark® 2014) * Battery life varies significantly with settings, usage, & other factors                                     |
| SIM card (opt)    | Nano-SIM card slot, optional Verizon LTE (US) SIM card                                                                                                                                                                                                                                                                                                                                      |                                                               |              |                |                          |              |                |                         |               |                          | AC adapter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 170W or 230W slim tip AC adapter                                                                                                                                            |
|                   |                                                                                                                                                                                                                                                                                                                                                                                             |                                                               |              |                |                          |              |                |                         |               |                          | Operating system                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | One of the following, configurable by model:<br>• Windows® 10 Home 64<br>• Windows 10 Pro 64<br>• Windows 10 Pro 64 for Workstations                                        |
|                   |                                                                                                                                                                                                                                                                                                                                                                                             |                                                               |              |                |                          |              |                |                         |               |                          | Limited warranty                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | One of the following, configurable by model:<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.

Lenovo  
August 2019

Lenovo

# ThinkPad P53

