## ThinkPad P53 Platform Specifications

**Product Specifications Reference (PSREF)**

### Processor

<table>
<thead>
<tr>
<th>Processor Number</th>
<th>Cores</th>
<th>Threads</th>
<th>Base Frequency</th>
<th>Max Turbo Frequency</th>
<th>Cache</th>
<th>Memory Types</th>
<th>Processor Graphics</th>
</tr>
</thead>
<tbody>
<tr>
<td>i5-9400H</td>
<td>4</td>
<td>8</td>
<td>2.90 GHz</td>
<td>4.60 GHz</td>
<td>8 MB</td>
<td>DDR4-2666</td>
<td>Intel UHD Graphics 630</td>
</tr>
<tr>
<td>i7-9750H</td>
<td>6</td>
<td>12</td>
<td>2.60 GHz</td>
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<td>Intel UHD Graphics 630</td>
</tr>
<tr>
<td>i9-9900H</td>
<td>8</td>
<td>16</td>
<td>3.10 GHz</td>
<td>4.80 GHz</td>
<td>16 MB</td>
<td>DDR4-2666</td>
<td>Intel UHD Graphics 630</td>
</tr>
<tr>
<td>E-2276M</td>
<td>6</td>
<td>12</td>
<td>2.70 GHz</td>
<td>4.70 GHz</td>
<td>12 MB</td>
<td>DDR4-2666</td>
<td>Intel UHD Graphics P630</td>
</tr>
</tbody>
</table>

### 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 or Thunderbolt; Up to 5 displays with 4 external monitors plus system LCD screen.
- Max resolution: 5K@60Hz (Thunderbolt), 4K@60Hz (USB-C or HDMI)
- Mobile Intel CM246 Chipset
- 128GB max / 2666MHz DDR4 (ECC function supported only on Xeon processor), dual-channel capable, four DDR4 SO-DIMM sockets

### Display

- FHD (1920x1080)
- WVA
- Anti-glare
- Multi-touch
- Capacitive-type multi-touch, supports 10-finger gesture (UHD only), anti-reflection (AR), anti-smudge (AS) coating

### Chipset

- Mobile Intel CM246 Chipset
- DDR4-2666
- 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 or Thunderbolt; Up to 5 displays with 4 external monitors plus system LCD screen.
- Max resolution: 5K@60Hz (Thunderbolt), 4K@60Hz (USB-C or HDMI)
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### Storage

- Up to 3 drives (3x M.2 SSD or 1x HDD + 2x M.2 SSD), supports single sided M.2 2280 drives only
- • HDD / SATA 6.0Gb/s, 2.5" wide, 7mm high, Active Protection System
- • M.2 2280 SSD / PCIe NVMe, PCIe 3.0 x 4
- RAID 0/1/5 support

### Optane™ memory

- Optional: Intel Optane memory, PCIe NVMe, PCIe 3.0 x 2
- RAID 0/1/5 support
- RAID 0/1/5 support

### Ethernet

- Non-vPro model: Intel Ethernet Connection I219-V (Jacksonville)
- vPro model: Intel Ethernet Connection I219-LM (Jacksonville)

### WLAN (optional) & Bluetooth (optional)

- Intel Wi-Fi 6 AX200, Wi-Fi 2x2 802.11ax + Bluetooth 5.1
- Bluetooth 5.1 wireless, integrated in Wi-Fi + Bluetooth combo adapter

### WWAN (optional)

- One of the following, configurable by model:
  - Wireless WAN upgradable (special bid only in EMEA)
  - Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card
- * For non-WWAN model, it means the model is NOT WWAN upgradable
- NANO-SIM card slot, optional Verizon LTE (US) SIM card

### Dimensions

- WxDxH (non-touch):
  - 14.86" x 9.93" x 0.96-1.16"; 377.4mm x 252.3mm x 24.5-29.4mm
- WxDxH (multi-touch):
  - 14.86" x 9.93" x 1.02-1.21"; 377.4mm x 252.3mm x 25.8-30.7mm

### Weight

- Non-touch model: starting at 5.51 lb / 2.5 kg
- Multi-touch model: starting at 6.4 lb / 2.9 kg

### Case color

- Black

### Case material

- Display cover: Glass-Fiber Reinforced Plastic
- Bottom: Magnesium/Aluminum

### Smart card reader

- Optional: Smart card reader

### ExpressCard

- None

### Media reader

- 4-in-1 reader (MMC, SD, SDHC, SDXC), supports UHS-II SD card
- 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
- * Power Delivery only supports power-out for charging peripherals
- * USB-C Dock is not supported in right-side USB-C port
- * Depending on many factors, actual data transfer speed may be lower than theoretical speed

### Monitor cable (optional)

- HDMI to VGA: Lenovo HDMI to VGA Monitor Adapter
- USB-C to DP: Lenovo USB-C to DisplayPort Adapter

### Bundled Accy (optional)

- None

### Camera (optional)

- One of the following, configurable by model:
  - HD720p camera with ThinkShutter camera privacy, fixed focus
  - IR camera and HD720p camera with ThinkShutter camera privacy, fixed focus
- HD Audio, Synchronous CX11880 codec / stereo speakers, 2W x 2 / optional dual array far-field microphone, headphone / microphone combo jack, Dolby Atmos sound system

### Audio support

- One of the following, configurable by model:
  - HD720p camera with ThinkShutter camera privacy, fixed focus
  - IR camera and HD720p camera with ThinkShutter camera privacy, fixed focus
- HD Audio, Synchronous CX11880 codec / stereo speakers, 2W x 2 / optional dual array far-field microphone, headphone / microphone combo jack, Dolby Atmos sound system

### Battery

- Max battery life (MobileMark 2014):
  - Hybrid mode: 13 hr

### Security

- Power-on password, hard disk password, supervisor password, security keyhole
- Discrete TPM 2.0, TCG Certified
- Fingerprint reader
- Touch style match-in-chip fingerprint reader on the palm rest
- Color calibration:
  - Optional: X-Rite Pantone factory color calibration (UHD model only)
- NFC (optional): Near Field Communication

### Keyboard

- Integrated Li-Polymer 90Wh battery, supports Rapid Charge (charge up to 80% in 8 hr); Hybrid mode: 13 hr
- Battery life varies significantly with hardware configurations, settings, usage, & other factors

### Operating system

- One of the following, configurable by model:
  - Windows 10 Home 64
  - Windows 10 Pro 64
  - Windows 10 Pro for Workstations

### Limited warranty

- One of the following, configurable by model:
  - 1-year depot repair service
  - 3-year battery depot repair service
  - 3-year battery limited onsite service

### MIL-Spec test

- MIL-STD-810G military testing

### Environment

- EPEAT™ Gold; ENERGY STAR® 8.0; RoHS-compliant

Note: The specifications above may not be available in all regions.

Lenovo
November 2019