ThinkPad P53s Platform Specifications

8th Generation Intel® Core™ i7 Processor

<table>
<thead>
<tr>
<th>Processor Number</th>
<th># of Cores</th>
<th># of 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>i5-8350U</td>
<td>4</td>
<td>8</td>
<td>1.6 GHz</td>
<td>1.6 GHz</td>
<td>6MB</td>
<td>DDR4-2400</td>
<td>Intel UHD Graphics</td>
</tr>
<tr>
<td>i7-8850U</td>
<td>6</td>
<td>12</td>
<td>2.5 GHz</td>
<td>4.1 GHz</td>
<td>6MB</td>
<td>DDR4-2400</td>
<td>Intel UHD Graphics</td>
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<tr>
<td>i9-9880H</td>
<td>8</td>
<td>16</td>
<td>2.2 GHz</td>
<td>4.5 GHz</td>
<td>8MB</td>
<td>DDR4-2400</td>
<td>Intel UHD Graphics</td>
</tr>
</tbody>
</table>

Graphics

- Intel UHD Graphics in processor and NVIDIA Quadro® P520, 2GB GDDR5 memory;
- supports external digital monitor via HDMI or USB Type-C;
- supports 3 independent displays with 2 external monitors plus system LCD screen.
- Max resolution: 3840x2160@60Hz (USB-C); 3840x2160@30Hz (HDMI)

Chipset

- Intel SoC (System on Chip) platform
- 48GB max / 2400MHz DDR4, dual-channel capable,
- 8GB or 16GB memory soldered to systemboard, one DDR4 SO-DIMM socket
- * installed memory is actually 2666MHz but run at 2400MHz due to Intel limitation

Display

- Size: 15.6" FHD (1920x1080)
- Type: WVA
- Surface: Anti-glare
- Brightness: 250 nits
- Aspect Ratio: 16:9
- Contrast Ratio: 700:1
- Color Gamut: 45% sRGB
- Viewing Angle: 170°

- Size: 15.6" UHD (3840x2160)
- Type: Dolby Vision™ HDR
- Surface: Anti-glare
- Brightness: 500 nits
- Aspect Ratio: 16:9
- Contrast Ratio: 1200:1
- Color Gamut: 100% Adobe
- Viewing Angle: 170°

Multi-touch (opt) Pen

- On-cell touch, supports 10-finger gesture (FHD only)

Storage

- Supports single sided M.2 2280 drives only
  - M.2 2280 SSD / SATA 6.0Gb/s
  - M.2 2280 SSD / PCIe NVMe, PCIe 3.0 x 4
  - M.2 2280 SSD / PCIe NVMe, PCIe 3.0 x 2
  - Intel Optane™ Memory H10 with Solid State Storage, M.2 2280, PCIe NVMe 3.0 x 4

Optical

- None

Ethernet

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

WLAN

- Intel Wireless-AC 9560, Wi-Fi 2x2 802.11ac + Bluetooth 5.0

WWAN (optional)

- One of the following, configurable by model:
  - Wireless WAN upgradable (special bid only in EMEA)
  - Integrated Mobile Broadband 4G LTE, Fibocom L830-EB, M.2 card (EMEA only)
  - Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card

SIM card (opt)

- Nano-SIM card slot, optional Verizon LTE (US) SIM card

Processor

- 8th Generation Intel® Core™ i7 Processor
- Base Frequency: 1.6 GHz
- Max Turbo Frequency: 4.1 GHz
- Cache: 6MB

Chipset

- Intel SoC (System on Chip) platform

Memory

- 4GB max / 2400MHz DDR4, dual-channel capable
- 8GB or 16GB memory soldered to systemboard, one DDR4 SO-DIMM socket
- * installed memory is actually 2666MHz but run at 2400MHz due to Intel limitation

Graphics

- Intel UHD Graphics in processor and NVIDIA Quadro® P520, 2GB GDDR5 memory;
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Audio

- Dolby Vision
- ALC225 codec
- Audio: 2W x 2, Dolby Audio

Camera

- 2.0MP camera with ThinkShutter camera privacy, fixed focus
- HD720p camera with ThinkShutter camera privacy, fixed focus
- IR camera and HD720p camera with ThinkShutter camera privacy, fixed focus

Security

- Security chip: Discrete TPM 2.0, TCG Certified
- Security keyhole: Power-on password, hard disk password, supervisor password, security keyhole

Battery

- Integrated Li-Polymer 57Wh battery, supports Rapid Charge (charge up to 80% in 1hr)
- Battery life: 15 hr (FHD model) / 10 hr (UHD model)

Operating system

- Windows® 10 Home 64 or Windows 10 Pro 64

Limited warranty

- One of the following, configurable by model:
  - 1-year depot repair service
  - 3-year/1-yr battery depot repair service
  - 5-year/1-yr 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 September 2020