### ThinkPad P50 Platform Specifications

**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>7-6700HQ</td>
<td>4</td>
<td>8</td>
<td>2.6 GHz</td>
<td>3.5 GHz</td>
<td>6MB</td>
<td>DDR4-2133</td>
<td>Intel HD Graphics 530</td>
</tr>
<tr>
<td>7-6820HQ</td>
<td>4</td>
<td>8</td>
<td>2.7 GHz</td>
<td>3.6 GHz</td>
<td>8MB</td>
<td>DDR4-2133</td>
<td>Intel HD Graphics 530</td>
</tr>
<tr>
<td>E3-1505M v5</td>
<td>2</td>
<td>4</td>
<td>2.8 GHz</td>
<td>3.7 GHz</td>
<td>8MB</td>
<td>DDR4-2133</td>
<td>Intel HD Graphics 530</td>
</tr>
<tr>
<td>E3-1535M v5</td>
<td>2</td>
<td>4</td>
<td>2.9 GHz</td>
<td>3.8 GHz</td>
<td>8MB</td>
<td>DDR4-2133</td>
<td>Intel HD Graphics 530</td>
</tr>
</tbody>
</table>

**Graphics**

- Intel HD Graphics 530 or P530 in processor and NVIDIA Quadro M1000M (2GB or 4GB memory) or M2000M (4GB memory); supports external digital monitor via HDMI, Mini DisplayPort, or Thunderbolt®; supports four independent displays; Max resolution: 3840x2160@60Hz (DisplayPort via Mini DisplayPort cable); 3840x2160@60Hz (Thunderbolt); 3840x2160@30Hz (HDMI)

**Chipset**

- Mobile Intel CM236 Chipset (Intel GL82CM236 PCH)

**Display**

- Some: 15.6" (396mm) FHD (1920x1080), anti-glare, LED backlight, IPS, 250 nits, 16:9 aspect ratio, 1000:1 contrast ratio, 100% gamut, 178° viewing angle
- Some: 15.6" (396mm) 4K (3840x2160), anti-glare, LED backlight, IPS, 300 nits, 16:9 aspect ratio, 1000:1 contrast ratio, 100% gamut, 178° viewing angle

**Storage**

- Up to 3 drives (two M.2 SSD and one HDD)
- Shock Mounted Hard Drive, Active Protection System™
- M.2 SSD / SATA 6.0Gb/s (e.g. xxxGB SSD M.2)
- M.2 SSD / PCIe NVMe, PCIe 3.0 x 4, 32Gb/s (e.g. xxxGB SSD M.2 PCIe NVMe)

**Optical**

- None

**Ethernet**

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

**WLAN®**

- 11ac+BT, Intel Dual Band Wireless-AC 8260, 2x2, M.2 card
- Bluetooth 4.1 wireless, integrated in Wi-Fi + Bluetooth combo adapter

**WWAN**

- Wireless WAN, Sierra Wireless EM7455, Qualcomm® 4G LTE Advanced/DC-HSPA+/HSPA+/HSPA/UMTS/GNSS, M.2 card
- SIM card: Micro-SIM card slot

**Dimensions**

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

**Weight**

<table>
<thead>
<tr>
<th>Models</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-touch</td>
<td>5.6 lb / 2.55kg</td>
</tr>
<tr>
<td>Multi-touch</td>
<td>6.2 lb / 2.82kg</td>
</tr>
</tbody>
</table>

**Case material**

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

**Smart card reader**

- Optional: Smart card reader

**Media reader**

- 4-in-1 reader (MMC, SD, SDHC, SDXC), supports UHS-II SD card

**Ports**

- Four USB 3.0 (one Always On), USB Type-C / Thunderbolt 3, Mini DisplayPort, HDMI, Ethernet (RJ-45), Dock connector

**Camera**

- (optional) HD720p resolution, low light sensitive, fixed focus

**Audio support**

- HD Audio, Realtek® ALC3268 codec / stereo speakers, 1.5W x 2 / dual array microphone, combo audio/microphone jack

**Keyboard**

- UltraNav™ 6-row, spill-resistant, multimedia Fn keys, numeric keypad, optional LED backlight
- Keyboard: 3-button TrackPoint® pointing device and 3-button crystal silicon surface multi-touch touchpad

**Security chip**

- Discrete TPM 1.2 TCG Certified and Firmware TPM 2.0 integrated in chipset

**Security**

- Intel vPro Technology
- Delivers improved thermal and power efficiency, up to 30 day standby, faster resume time, enhanced security, as well as anti-tampering measures

**ThinkEngine**

- Intel Active Protection System
- Delivers improved thermal and power efficiency, up to 30 day standby

**Limited warranty**

- 3-year/1-yr battery depot repair service
- 3-year/1-yr battery limited onsite service
- 3-year/1-yr battery limited onsite service, OID (Onsite International Delivery)

**Mil-Spec test**

- MIL-STD-810G military certification

**Environment**

- EPEAT Gold (US only); ENERGY STAR® 6.1; GREENGUARD®; RoHS-compliant

**170W slim tip AC adapter**

- 170W slim tip AC adapter

**Battery**

- Lithium Polymer 4-cell (66Wh) or 6-cell (90Wh)

**Preload**

- Some: Genuine Windows® 7 Professional 64-bit / Windows 10 Pro 64-bit
- Windows 10 Pro 64-bit
- Lenovo Solution Center
- Lenovo SHAREit
- ThinkVantage Product Recovery
- Lenovo Companion
- Lenovo Setting
- Microsoft Office preloaded; purchase a product key to activate
- McAfee® LiveSafe® (30-day trial)