### OVERVIEW

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SD card reader</td>
</tr>
<tr>
<td>2</td>
<td>2x USB 3.2 Gen 1</td>
</tr>
<tr>
<td>3</td>
<td>Kensington Security Slot</td>
</tr>
<tr>
<td>4</td>
<td>HDMI 2.0</td>
</tr>
<tr>
<td>5</td>
<td>USB 3.2 Gen 1</td>
</tr>
<tr>
<td>6</td>
<td>Nano-SIM card slot *</td>
</tr>
<tr>
<td>7</td>
<td>Headphone / microphone combo jack (3.5mm)</td>
</tr>
<tr>
<td>8</td>
<td>Ethernet (RJ-45)</td>
</tr>
<tr>
<td>9</td>
<td>USB-C 3.2 Gen 1</td>
</tr>
<tr>
<td>10</td>
<td>2x USB-C 3.2 Gen 2 / Thunderbolt 3</td>
</tr>
<tr>
<td>11</td>
<td>Power connector</td>
</tr>
</tbody>
</table>

**Notes:**
- Ports with * are only available on selected models.
PERFORMANCE

Processor
Processor Family
10th Generation Intel® Core™ i5 / i7 / i9 or Intel Xeon® Processor

<table>
<thead>
<tr>
<th>Processor Name</th>
<th>Cores</th>
<th>Threads</th>
<th>Base Frequency</th>
<th>Max Frequency</th>
<th>Cache</th>
<th>Memory Support</th>
<th>Processor Graphics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core i5-10400H</td>
<td>4</td>
<td>8</td>
<td>2.6GHz</td>
<td>4.6GHz</td>
<td>8MB</td>
<td>DDR4-2933</td>
<td>Intel UHD Graphics</td>
</tr>
<tr>
<td>Core i7-10750H</td>
<td>6</td>
<td>12</td>
<td>2.6GHz</td>
<td>5.0GHz</td>
<td>12MB</td>
<td>DDR4-2933</td>
<td>Intel UHD Graphics</td>
</tr>
<tr>
<td>Core i7-10850H</td>
<td>6</td>
<td>12</td>
<td>2.7GHz</td>
<td>5.1GHz</td>
<td>12MB</td>
<td>DDR4-2933</td>
<td>Intel UHD Graphics</td>
</tr>
<tr>
<td>Core i7-10875H</td>
<td>8</td>
<td>16</td>
<td>2.3GHz</td>
<td>5.1GHz</td>
<td>16MB</td>
<td>DDR4-3200</td>
<td>Intel UHD Graphics</td>
</tr>
<tr>
<td>Core i9-10850H</td>
<td>8</td>
<td>16</td>
<td>2.4GHz</td>
<td>5.3GHz</td>
<td>16MB</td>
<td>DDR4-2933</td>
<td>Intel UHD Graphics</td>
</tr>
<tr>
<td>Core i9-10980HK</td>
<td>8</td>
<td>16</td>
<td>2.4GHz</td>
<td>5.3GHz</td>
<td>16MB</td>
<td>DDR4-3200</td>
<td>Intel UHD Graphics</td>
</tr>
<tr>
<td>Xeon W-10855M</td>
<td>6</td>
<td>12</td>
<td>2.8GHz</td>
<td>5.1GHz</td>
<td>12MB</td>
<td>DDR4-2933</td>
<td>Intel UHD Graphics</td>
</tr>
<tr>
<td>Xeon W-10885M</td>
<td>8</td>
<td>16</td>
<td>2.4GHz</td>
<td>5.3GHz</td>
<td>16MB</td>
<td>DDR4-2933</td>
<td>Intel UHD Graphics</td>
</tr>
</tbody>
</table>

Operating System
Operating System**
- Windows® 10 Pro 64
- Windows 10 Pro 64 for Workstations
- Windows 10 Home 64
- Ubuntu Linux LTS
- Red Hat Enterprise Linux (certified only)
- No operating system

Graphics
Graphics**

<table>
<thead>
<tr>
<th>Graphics</th>
<th>Type</th>
<th>Memory</th>
<th>Key Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>NVIDIA® Quadro® T1000</td>
<td>Discrete</td>
<td>4GB GDDR6</td>
<td>DirectX® 12</td>
</tr>
<tr>
<td>NVIDIA Quadro T2000</td>
<td>Discrete</td>
<td>4GB GDDR5</td>
<td>DirectX 12</td>
</tr>
<tr>
<td>NVIDIA Quadro RTX 3000</td>
<td>Discrete</td>
<td>6GB GDDR6</td>
<td>DirectX 12</td>
</tr>
<tr>
<td>NVIDIA Quadro RTX 4000 with Max-Q Design</td>
<td>Discrete</td>
<td>8GB GDDR6</td>
<td>DirectX 12</td>
</tr>
<tr>
<td>NVIDIA Quadro RTX 5000 with Max-Q Design</td>
<td>Discrete</td>
<td>16GB GDDR6</td>
<td>DirectX 12</td>
</tr>
</tbody>
</table>

Monitor Support
Monitor Support
Supports up to 5 independent displays (native display and 4 external monitors via HDMI®, USB-C and Thunderbolt™)
- HDMI supports up to 4K@60Hz
- USB-C supports up to 4K@60Hz
- Thunderbolt supports up to 4K@60Hz / 5K@60Hz

Chipset
Chipset
Intel WM490 chipset

Memory
Max Memory*(1)
Up to 128GB DDR4-2933

Memory Slots
Four DDR4 SO-DIMM slots, dual-channel capable

Memory Type**[2]
• DDR4-2933 ECC
• DDR4-2933 non-ECC

Memory Protection
ECC on models with ECC DIMMs and Xeon processor

Notes:
1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.
2. Non-ECC memory is actually DDR4-3200 but may run at DDR4-2933 due to processor limitation

Storage
Storage Support
Up to two drives, 2x M.2 SSD
• M.2 2280 SSD up to 2TB

Storage Type

<table>
<thead>
<tr>
<th>Disk Type</th>
<th>Interface</th>
<th>RPM</th>
<th>Security</th>
</tr>
</thead>
<tbody>
<tr>
<td>M.2 2280 SSD</td>
<td>PCIe® NVMe®, PCIe 3.0 x4</td>
<td>-</td>
<td>Opal2</td>
</tr>
</tbody>
</table>

RAID
RAID 0/1 support

Removable Storage
Optical
None

Card Reader
SD card reader

Multi-Media
Audio Chip
High Definition (HD) Audio, Realtek® ALC3286 codec

Speakers
Stereo speakers, Dolby® Atmos®

Microphone
• Dual array microphone, far-field
• No microphone

Camera
• IR & 720p hybrid, with ThinkShutter, fixed focus
• No camera

Battery
Battery
Integrated Li-Polymer 94Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 230W AC adapter

Max Battery Life
MobileMark® 2014: 14.6 hr
MobileMark 2018: 9.75 hr
JEITA 2.0: 16.6 hr

Notes:
1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter
Power Adapter
• 170W slim tip (2-pin) AC adapter, 100-240V, 50-60Hz
ThinkPad P17 Gen 1

- 170W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz
- 230W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz

**DESIGN**

**Display**

<table>
<thead>
<tr>
<th>Size</th>
<th>Resolution</th>
<th>Touch Type</th>
<th>Brightness</th>
<th>Surface</th>
<th>Aspect Ratio</th>
<th>Contrast Ratio</th>
<th>Color Gamut</th>
<th>Viewing Angle</th>
<th>Key Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>17.3&quot;</td>
<td>FHD (1920x1080)</td>
<td>None</td>
<td>300 nits</td>
<td>Anti-glare</td>
<td>16:9</td>
<td>700:1</td>
<td>72% NTSC</td>
<td>160°</td>
<td>-</td>
</tr>
<tr>
<td>17.3&quot;</td>
<td>UHD (3840x2160)</td>
<td>None</td>
<td>500 nits</td>
<td>Anti-glare</td>
<td>16:9</td>
<td>1500:1</td>
<td>100% Adobe® RGB</td>
<td>178°</td>
<td>Dolby Vision™, HDR 400</td>
</tr>
</tbody>
</table>

**Color Calibration**
- X-Rite® Pantone® factory color calibration (UHD display)
- No color calibration

**Touchscreen**
- Non-touch

**Notes:**
1. 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
2. For non-OLED display, HDR is only supported under hybrid mode.

**Input Device**

**Pen**
- No support

**Keyboard**
- 6-row, spill-resistant, multimedia Fn keys with Unified Communications controls, numeric keypad

**Keyboard Backlight**
- LED backlight

**UltraNav™**
- 3-button TrackPoint® pointing device and Mylar® surface multi-touch touchpad

**Mechanical**

**Dimensions (WxDxH)**

<table>
<thead>
<tr>
<th>Models</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>All models</td>
<td>415.44 x 280.81 x 25.11-33.25 mm (16.36 x 11.06 x 0.99-1.31 inches)</td>
</tr>
</tbody>
</table>

**Weight**

<table>
<thead>
<tr>
<th>Models</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>FHD models</td>
<td>3.5 kg (7.7 lbs)</td>
</tr>
</tbody>
</table>

**Case Color**
- Black

**Case Material**
- PPS695 + GF 50% (top), PPS + GF (bottom)

**Notes:**
1. The system weight varies depending on configurations.

**CONNECTIVITY**
Network

Onboard Ethernet**
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), supports Wake-on-LAN
- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), supports Wake-on-LAN

WLAN + Bluetooth®
- Intel Wi-Fi® 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 Card
- No WLAN and Bluetooth

WWAN**
- Wireless WAN upgradable to 4G (with antenna ready)
- Integrated Mobile Broadband 4G LTE-A, Fibocom L860-GL, MIMO 2x2, M.2 card
- No support

SIM Card
No SIM card inbox

Ports(*)

Standard Ports
- 3x USB 3.2 Gen 1 (one Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery and DisplayPort™ 1.4)
- 2x USB-C 3.2 Gen 2 / Thunderbolt 3 (support data transfer, Power Delivery and DisplayPort 1.4)
- 1x HDMI 2.0
- 1x SD card reader
- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports***
- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN model)

Notes:
1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
   - USB 2.0: 480 Mbit/s;
   - USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
   - USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
   - USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
   - Thunderbolt 3: 40 Gbit/s;
   - FireWire 400: 400 Mbit/s;
   - FireWire 800: 800 Mbit/s

Docking

Docking
Various docking solutions supported via Thunderbolt or USB-C.
For more compatible docking solutions, please visit Docking for ThinkPad® P17 Gen 1

Monitor Cable

Monitor Cable***
- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip**
- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
• Disabled (in some regions)

**Physical Locks**

Kensington® Security Slot

**Smart Card Reader**

• Smart card reader
• No smart card reader

**Fingerprint Reader**

Touch style fingerprint reader on palm rest, match-on-chip

**BIOS Security**

• Power-on password
• Supervisor password
• Hard disk password
• Self-healing BIOS

**Other Security**

(Optional) IR camera for Windows Hello

**MANAGEABILITY**

**System Management**

System Management

• Intel vPro Technology, DASH
• None

**SERVICE**

**Warranty**

Base Warranty**(1)**

• 1-year depot service
• 1-year depot with 2-year system board service
• 1-year limited onsite service
• 1-year + 2-year depot service
• 1-year + 2-year limited onsite service
• 3-year (1-yr battery) depot service
• 3-year (1-yr battery) limited onsite service
• No base warranty

Notes:

1. More information of warranty policy, please access https://pcsupport.lenovo.com/warranty

**ENVIRONMENTAL**

**Operating Environment**

Temperature**(1)**

• Operating: 5°C (41°F) to 35°C (95°F)
• Storage and transportation in original shipping packaging: -20°C (-4°F) to 60°C (140°F)
• Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

• Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
• Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).
ACCESSORIES

Bundled Accessories

None

CERTIFICATIONS

Green Certifications

Green Certifications
- EPEAT™ Gold
- ENERGY STAR® 8.0
- RoHS compliant

Other Certifications

MIL-Spec Test
MIL-STD-810G military test passed

ISV Certifications

ISV Certifications
Please visit www.thinkworkstations.com/isv-certifications/

• Feature with ** means that only one offering listed under the feature is configured on selected models.
• Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
• 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. Some jurisdictions do not allow disclaimer of express or implied warranties in certain transactions, therefore this disclaimer may not apply to you.
• The specifications on this page may not be available in all regions, and may be changed or updated without notice.