## OVERVIEW

<p>| | |</p>
<table>
<thead>
<tr>
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<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 Processor or Intel Xeon® W 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>
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</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>DDR4-2933</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 i9-10885H</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>DDR4-2933</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-10855M</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 Home 64
- Windows 10 Pro 64
- Windows 10 Pro 64 for Workstations
- Red Hat Enterprise Linux (certified only)
- Ubuntu Linux LTS
- No operating system

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 GDDR6</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 Max-Q</td>
<td>Discrete</td>
<td>8GB GDDR6</td>
<td>DirectX 12</td>
</tr>
<tr>
<td>NVIDIA Quadro RTX 5000 Max-Q</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 via native display and 4 external monitors; supports external monitors via HDMI® (up to 4K@60Hz), USB-C (up to 4K@60Hz) or Thunderbolt™ (one supports up to 5K@60Hz and the other supports up to 4K@60Hz)

Chipset

Chipset
Intel WM490 chipset

Memory

Max Memory
Up to 128GB

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

Memory Type

ThinkPad P17 Gen 1 - June 2021
**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 2280 SSD
• M.2 2280 SSD up to 2TB each

<table>
<thead>
<tr>
<th>Storage Type</th>
<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>
<td></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® Speaker System certified

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

**Camera**
• IR & 720p, 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, and/or JEITA 2.0 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 AC adapter (2-pin)
• 170W slim tip AC adapter (3-pin)
• 230W slim tip AC adapter (3-pin)

**DESIGN**

**Display**

<table>
<thead>
<tr>
<th>Size</th>
<th>Resolution</th>
<th>Touch</th>
<th>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>UHD (3840x2160)</td>
<td>None</td>
<td>IPS</td>
<td>500 nits</td>
<td>Anti-glare</td>
<td>16:9</td>
<td>1500:1</td>
<td>100% Adobe*</td>
<td>178°</td>
<td>Dolby Vision™, HDR 400</td>
</tr>
<tr>
<td>17.3&quot;</td>
<td>FHD (1920x1080)</td>
<td>None</td>
<td>IPS</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>
</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**

- Not 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)**

- 415.44 x 280.81 x 25.11-33.25 mm (16.36 x 11.06 x 0.99-1.31 inches)

**Weight**

- 3.5 kg (7.7 lbs)

**Case Color**

- Black

**Case Material**

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

**CONNECTIVITY**

**Network**

**Onboard Ethernet**

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models)
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models)

**WLAN + Bluetooth™**

- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 Card
- No WLAN and Bluetooth
WWAN
- Integrated Mobile Broadband 4G LTE-A, Fibocom L860-GL, MIMO 2x2, M.2 card
- Wireless WAN upgradable to 4G
- Not Support

SIM Card
No SIM card

Ports

Standard Ports
- 3x USB 3.2 Gen 1 (one Always On)
- 2x USB-C 3.2 Gen 2 / Thunderbolt 3 (support data transfer, Power Delivery and DisplayPort™ 1.4)
- 1x USB-C 3.2 Gen 1 (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)
- 1x Security keyhole

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

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
2. Depending on many factors, actual data transfer speed may be lower than theoretical speed

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-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board 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

ENVIRONMENTAL

Operating Environment

Temperature[^2]
- Operating: 5°C (41°F) to 35°C (95°F)
- Storage without packaging: 5°C (41°F) to 43°C (109°F)
- Storage and transportation in original shipping packaging: -20°C (-4°F) to 60°C (140°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)
2. When charging the battery pack, the environment temperature must be no lower than 10°C (50°F)

ACCESSORIES

Bundled 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/