## OVERVIEW

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

**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 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 i9-10885H</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>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>
</tbody>
</table>

**Operating System**

**Operating System**
- Windows® 10 Pro 64
- Windows 10 Pro 64 for Workstations
- Windows 10 Home 64
- Fedora Linux
- 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>Intel UHD Graphics</td>
<td>Integrated</td>
<td>Shared</td>
<td>DirectX® 12</td>
</tr>
<tr>
<td>NVIDIA® Quadro® T1000 with Max-Q Design</td>
<td>Discrete</td>
<td>4GB GDDR6</td>
<td>DirectX 12</td>
</tr>
<tr>
<td>NVIDIA Quadro T2000 with Max-Q Design</td>
<td>Discrete</td>
<td>4GB GDDR6</td>
<td>DirectX 12</td>
</tr>
</tbody>
</table>

**Monitor Support**

**Monitor Support**
Supports up to 4 independent displays (native display and 3 external monitors via HDMI® and Thunderbolt™)
- HDMI supports up to 4K@60Hz
- Thunderbolt supports up to 5K@60Hz

**Chipset**

**Chipset**
Intel WM490 chipset

**Memory**

**Max Memory**(1)
Up to 64GB DDR4-2933

**Memory Slots**
Two DDR4 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:
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</td>
<td>-</td>
<td>Opal2</td>
</tr>
</tbody>
</table>

RAID

RAID 0/1 support

Notes:
1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

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

- HD 720p, with ThinkShutter, fixed focus
- IR & HD 720p hybrid, with ThinkShutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 80Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 135W AC adapter

Max Battery Life

MobileMark® 2014: 15.9 hr
MobileMark 2018: 12 hr
JEITA 2.0: 17.1 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

- 135W slim tip (2-pin) AC adapter, 100-240V, 50-60Hz
- 135W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz
• 170W slim tip (2-pin) AC adapter, 100-240V, 50-60Hz
• 170W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz

Notes:
1. AC adapter offerings depend on the country.

**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>15.6”</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>170°</td>
<td>-</td>
</tr>
<tr>
<td>15.6”</td>
<td>FHD (1920x1080)</td>
<td>None</td>
<td>IPS</td>
<td>500 nits</td>
<td>Anti-glare</td>
<td>16:9</td>
<td>800:1</td>
<td>72% NTSC</td>
<td>170°</td>
<td>Dolby Vision™, HDR</td>
</tr>
<tr>
<td>15.6”</td>
<td>UHD (3840x2160)</td>
<td>None</td>
<td>IPS</td>
<td>600 nits</td>
<td>Anti-glare</td>
<td>16:9</td>
<td>1400:1</td>
<td>100% Adobe® RGB</td>
<td>178°</td>
<td>Dolby Vision, HDR</td>
</tr>
<tr>
<td>15.6”</td>
<td>UHD (3840x2160)</td>
<td>Multi-touch</td>
<td>OLED</td>
<td>SDR 400nits, HDR 540nits (peak)</td>
<td>Anti-reflection</td>
<td>16:9</td>
<td>100000:1</td>
<td>100% DCI-P3</td>
<td>170°</td>
<td>Dolby Vision, HDR</td>
</tr>
</tbody>
</table>

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

**Touchscreen**
- On-cell touch, supports 10-point touch
- 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**
- Lenovo Pen Pro (for UHD OLED models)
- No support (non-touch display doesn't support pen input)

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

**Keyboard Backlight**
- LED backlight

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

**Mechanical**

**Dimensions (WxDxH)**

<table>
<thead>
<tr>
<th>Models</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Touch models</td>
<td>361.8 x 245.7 x 18.7 mm (14.24 x 9.67 x 0.74 inches)</td>
</tr>
<tr>
<td>Non-touch models</td>
<td>361.8 x 245.7 x 18.4 mm (14.24 x 9.67 x 0.72 inches)</td>
</tr>
</tbody>
</table>
**Weight**

<table>
<thead>
<tr>
<th>Models</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-touch models</td>
<td>1.7 kg (3.75 lbs)</td>
</tr>
<tr>
<td>Touch models</td>
<td>1.8 kg (3.97 lbs)</td>
</tr>
</tbody>
</table>

**Case Color**

Black

**Case Material**

- Carbon fiber (black) + PC + PPS hybrid (top), aluminium + PC + ABS (bottom)
- Carbon fiber (woven pattern) + PC + PPS hybrid (top), aluminium + PC + ABS (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

**CONNECTIVITY**

**Network**

**Onboard Ethernet**

Ethernet support via optional Lenovo USB-C® to Ethernet Adapter

**WLAN + Bluetooth®**

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

**WWAN**

- Fibocom L860-GL-16, 4G LTE CAT16, M.2 card
- No support

**SIM Card**

No SIM card inbox

**NFC**

No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

**Ports**

**Standard Ports**

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

**Optional Ports**

1x Nano-SIM card slot (WWAN support 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 3/4: 40 Gbit/s

**Docking**

Various docking solutions supported via Thunderbolt or USB-C.

For more compatible docking solutions, please visit [Docking for ThinkPad® P1 Gen 3](#)
Monitor Cable
Monitor Cable**
  • Lenovo HDMI to VGA Monitor Adapter
  • Lenovo USB-C to DisplayPort Adapter
  • Lenovo USB-C to VGA Adapter

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, 3 x 7 mm
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) ThinkShutter camera cover
  • (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management
System Management[1]
  • Intel vPro
  • Non-vPro

Notes:
  1. Intel vPro offers a superset of DASH’s defined capabilities.

SERVICE

Warranty
Base Warranty**[1]
  • 1-year depot service
  • 1-year depot with 2-year system board service (Korea only)
  • 1-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

Lenovo USB-C to Ethernet Adapter
None

CERTIFICATIONS

Green Certifications

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

Other Certifications

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

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.

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