## OVERVIEW

<table>
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<tr>
<th>1. Power button</th>
<th>4. USB-C 3.2 Gen 2 / Thunderbolt 3</th>
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<tr>
<td>2. USB 3.2 Gen 1 (Always On)</td>
<td>5. Power connector</td>
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<tr>
<td>3. Headphone / microphone combo jack (3.5mm)</td>
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</tr>
</tbody>
</table>
PERFORMANCE

Processor

Processor Family
10th Generation Intel® Core™ i7 / i9 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 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>
</tbody>
</table>

Operating System

Operating System
• Windows® 11 Pro 64
• Windows 11 Home 64
• Windows 10 Pro 64
• Windows 10 Home 64

Graphics

<table>
<thead>
<tr>
<th>Graphics</th>
<th>Type</th>
<th>Memory</th>
<th>Key Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>NVIDIA® GeForce® GTX 1650 Ti Laptop GPU</td>
<td>Discrete</td>
<td>4GB GDDR6</td>
<td>DirectX® 12</td>
</tr>
</tbody>
</table>

Monitor Support

Monitor Support
Supports up to 3 independent displays (native display and 2 external monitors via Thunderbolt™)
• Thunderbolt supports up to 5120x3200@60Hz

Chipset

Chipset
Intel HM470 chipset

Memory

Max Memory
• 12GB soldered memory, not upgradable
• 16GB soldered memory, not upgradable

Memory Slots
Memory soldered to systemboard, no slots

Memory Type
DDR4-2933

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.

Storage

Storage Support
One drive, up to 2TB M.2 2280 SSD, optional Intel Optane™ Memory integrated with SSD, M.2

Storage Slot
One M.2 2280 PCIe® Gen 3x4 slot, supports M.2 2280 SSD

<table>
<thead>
<tr>
<th>Disk Type</th>
<th>Interface</th>
<th>RPM</th>
<th>Offering</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>256GB / 512GB / 1TB / 2TB</td>
<td>-</td>
</tr>
</tbody>
</table>
Intel Optane Memory with Solid State Storage, M.2 2280 | PCIe NVMe, PCIe 3.0 x4 | - | 32GB | -

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**
No card reader

**Multi-Media**

**Audio Chip**
High Definition (HD) Audio

**Speakers**
Stereo speakers, 2W x4 (2x woofers, 2x tweeters), optimized with Dolby® Atmos®

**Microphone**
Dual array microphone, support WoV (Wake-on-Voice)

**Camera**
1.0-megapixel RGB, HD 720p, with privacy shutter, fixed focus

**Sensor**

**Accelerometer (G) sensor**

**Battery**

**Battery**
Integrated Li-Polymer 69Wh battery, supports Rapid Charge Boost (get 2 hours of runtime with a 15-minute charge)

**Max Battery Life**
- FHD model:
  - MobileMark® 2014: 13 hr
  - Local video (1080p) playback@150nits: 14 hr
- UHD model:
  - MobileMark 2014: 9 hr
  - Local video (1080p) playback@150nits: 11 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 (3-pin) AC adapter, 100-240V, 50-60Hz

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

**DESIGN**

**Display**

*Display**
### Key Features

<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>Multi-touch</td>
<td>IPS</td>
<td>500 nits</td>
<td>Glossy</td>
<td>16:9</td>
<td></td>
<td>72% NTSC</td>
<td>-</td>
<td>VESA DisplayHDR™ 400, Dolby Vision™</td>
</tr>
<tr>
<td>15.6”</td>
<td>UHD (3840x2160)</td>
<td>Multi-touch</td>
<td>IPS</td>
<td>500 nits</td>
<td>Glossy</td>
<td>16:9</td>
<td></td>
<td>72% NTSC</td>
<td>-</td>
<td>VESA DisplayHDR 400, Dolby Vision</td>
</tr>
</tbody>
</table>

**Touchscreen**
OGS (One Glass Solution) Direct Bonding, capacitive-type multi-touch, supports 10-point 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

### Multi-mode

Multi-mode
Laptop, tent, stand, and tablet modes supported by 360° hinge

### Input Device

**Pen**
Lenovo Integrated Pen with built-in rechargeable battery, 4096 levels of pressure sensitivity, on-board garaged and rechargeable

**Keyboard**
6-row, multimedia Fn keys, numeric keypad

**Keyboard Backlight**
LED backlight

**Touchpad**
Buttonless glass surface multi-touch touchpad, supports Precision TouchPad (PTP), 70 x 105 mm (2.76 x 4.13 inches)

### Mechanical

**Dimensions (Wx Dx H)**
355.5 x 238.5 x 17.5-19.7 mm (13.99 x 9.39 x 0.69-0.78 inches)

**Weight**
2.0 kg (4.41 lbs)

**Case Color**
Slate grey

**Surface Treatment**
Aluminium CNC

**Case Material**
Aluminium (top), aluminium (bottom)

**Notes:**
1. The system dimensions and weight vary depending on configurations.

### CONNECTIVITY

### Network

WLAN + Bluetooth®
Intel Wi-Fi® 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.0, M.2 card

### Ports

**Standard Ports**
- 1x USB 3.2 Gen 1 (Always On)
- 2x USB-C 3.2 Gen 2 / Thunderbolt 3 (support data transfer, Power Delivery and DisplayPort™ 1.4)
1x Headphone / microphone combo jack (3.5mm)
1x Power connector

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;
   - FireWire 400: 400 Mbit/s;
   - FireWire 800: 800 Mbit/s

Monitor Cable

- Lenovo USB-C 3-in-1 Hub (USB-C to VGA / HDMI® / USB-A)
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip
Firmware TPM 2.0 integrated in chipset

Fingerprint Reader
Touch style fingerprint reader on palm rest

BIOS Security
- Administrator password
- User password
- Master hard disk password
- User hard disk password

Other Security
Camera privacy shutter

SERVICE

Warranty

Base Warranty
- 1-year depot service
- 2-year (1-yr battery) depot service

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

ENVIRONMENTAL

Operating Environment

Temperature
- At altitudes up to 2438 m (8,000 ft)
  - Operating: 5°C to 35°C (41°F to 95°F)
  - Storage: 5°C to 43°C (41°F to 109°F)
- At altitudes above 2438 m (8,000 ft)
  - Maximum temperature when operating under the unpressurized condition: 31.3°C (88°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).

CERTIFICATIONS

Green Certifications

• ENERGY STAR® 8.0
• ErP Lot 3
• RoHS compliant

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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