**OVERVIEW**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Headphone / microphone combo jack (3.5mm)</td>
</tr>
<tr>
<td>2.</td>
<td>USB-C 3.2 Gen 1 (data transfer / DP 1.4 only)</td>
</tr>
<tr>
<td>3.</td>
<td>USB-C 3.2 Gen 2 / Thunderbolt 3</td>
</tr>
<tr>
<td>4.</td>
<td>USB 3.2 Gen 1 (Always On)</td>
</tr>
<tr>
<td>5.</td>
<td>HDMI 2.0</td>
</tr>
<tr>
<td>6.</td>
<td>USB 3.2 Gen 2</td>
</tr>
<tr>
<td>7.</td>
<td>Ethernet (RJ-45)</td>
</tr>
<tr>
<td>8.</td>
<td>USB 3.2 Gen 2</td>
</tr>
<tr>
<td>9.</td>
<td>Power connector</td>
</tr>
<tr>
<td>10.</td>
<td>Kensington Security Slot</td>
</tr>
</tbody>
</table>
**PERFORMANCE**

**Processor**

**Processor Family**
10th Generation Intel® Core™ i5 / 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 i5-10300H</td>
<td>4</td>
<td>8</td>
<td>2.5GHz</td>
<td>4.5GHz</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 i7-10875H</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 i9-10980HK</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® 10 Pro 64
- Windows 10 Home 64
- FreeDOS
- 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® GeForce® GTX 1660 Ti</td>
<td>Discrete</td>
<td>6GB GDDR6</td>
<td>VR ready, DirectX® 12</td>
</tr>
<tr>
<td>NVIDIA GeForce RTX™ 2060</td>
<td>Discrete</td>
<td>6GB GDDR6</td>
<td>VR ready, DirectX 12</td>
</tr>
<tr>
<td>NVIDIA GeForce RTX 2070 with Max-Q Design</td>
<td>Discrete</td>
<td>8GB GDDR6</td>
<td>VR ready, DirectX 12</td>
</tr>
<tr>
<td>NVIDIA GeForce RTX 2070 SUPER with Max-Q Design</td>
<td>Discrete</td>
<td>8GB GDDR6</td>
<td>VR ready, DirectX 12</td>
</tr>
<tr>
<td>NVIDIA GeForce RTX 2080 SUPER with Max-Q Design</td>
<td>Discrete</td>
<td>8GB GDDR6</td>
<td>VR ready, DirectX 12</td>
</tr>
</tbody>
</table>

**Monitor Support**

**Monitor Support**
Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 4096x2304@60Hz) or USB-C (up to 4096x2304@60Hz)

**Chipset**

**Chipset**
Intel HM470 chipset

**Memory**

**Max Memory**
- Up to 32GB DDR4-2933 offering
- Up to 32GB DDR4-3200 offering

**Memory Slots**
Two DDR4 SO-DIMM slots, dual-channel capable

**Memory Type**
- DDR4-2933
- DDR4-3200

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. Installed memory is actually 3200MHz but may run at 2933MHz due to processor limitation

**Storage**
Storage Support
Up to two drives, 2x M.2 SSD
• M.2 2280 SSD up to 1TB

<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>-</td>
</tr>
</tbody>
</table>

RAID
• RAID 0 support
• No support

Removable Storage
Optical
None
Card Reader
No card reader

Multi-Media
Audio Chip
High Definition (HD) Audio, Realtek® ALC3306 codec

Speakers
Stereo speakers, 2W x2, Dolby® Atmos® for gaming

Microphone
Dual array microphone

Camera
720p, with privacy shutter, fixed focus

Battery

Integrated Li-Polymer 80Wh battery, supports Rapid Charge Pro (charge up to 50% in 30min)

Max Battery Life
MobileMark® 2018: 7.3 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
230W slim tip (3-pin) AC adapter

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>-</td>
<td>100% sRGB</td>
<td>-</td>
<td>Refresh rate 144Hz, DC dimmer, Dolby Vision™</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>-</td>
<td>100% Adobe*</td>
<td>-</td>
<td>Refresh rate 144Hz, Dolby Vision, HDR</td>
</tr>
</tbody>
</table>
**Color Calibration**
X-Rite® Pantone® factory 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

**Input Device**

**Keyboard**
6-row, spill-resistant, multimedia Fn keys, numeric keypad, CORSAIR iCUE

**Keyboard Backlight**
RGB backlight

**Touchpad**
Buttonless Mylar® surface multi-touch touchpad, supports Precision TouchPad (PTP)

**Mechanical**

**Dimensions (WxDxH)**

<table>
<thead>
<tr>
<th>Models</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>All models</td>
<td>359.34 x 259.04 x 19.9 mm (14.15 x 10.20 x 0.78 inches)</td>
</tr>
</tbody>
</table>

**Weight**

<table>
<thead>
<tr>
<th>Models</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>All models</td>
<td>2.25 kg (4.96 lbs)</td>
</tr>
</tbody>
</table>

**Case Color**
Slate grey (top), black (bottom)

**Surface Treatment**
Anodizing sandblasting

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

**System Lighting**
“Y” logo RGB lighting on top cover
RGB lighting on power button
“U” strip RGB lighting
RGB lighting on rear thermal vent

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

**CONNECTIVITY**

**Network**

**Onboard Ethernet**
Gigabit Ethernet

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

Ports

Standard Ports

• 1x USB 3.2 Gen 1 (Always On)
• 2x USB 3.2 Gen 2
• 1x USB-C 3.2 Gen 1 (support data transfer and DisplayPort™ 1.4)
• 1x USB-C 3.2 Gen 2 / Thunderbolt™ 3 (support data transfer and DisplayPort 1.4)
• 1x HDMI 2.0
• 1x Ethernet (RJ-45)
• 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: 40 Gbit/s;
   - FireWire 400: 400 Mbit/s;
   - FireWire 800: 800 Mbit/s

SECURITY & PRIVACY

Security

Security Chip
Firmware TPM 2.0 integrated in chipset

Physical Locks
Kensington® Security Slot

Fingerprint Reader
No fingerprint reader

BIOS Security
• Supervisor password
• Power-on password
• Hard disk password

Other Security
Camera privacy shutter

SERVICE

Warranty

Base Warranty**
• 1-year depot service
• 1-year depot with 2-year system board service
• 2-year (1-yr battery) depot service

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: 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

- ErP Lot 3
- RoHS compliant

- Feature with "***" means that only one offering listed under the feature is configured on selected models.
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