## OVERVIEW

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</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Headphone / microphone combo jack (3.5mm)</td>
<td>2</td>
<td>USB-C 3.2 Gen 1 (data transfer / DP 1.4 only)</td>
<td>3</td>
<td>USB-C 3.2 Gen 2 / Thunderbolt 3</td>
<td>4</td>
<td>USB 3.2 Gen 1 (Always On)</td>
<td>5</td>
<td>HDMI 2.0</td>
<td></td>
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</tr>
<tr>
<td>6</td>
<td>USB 3.2 Gen 2</td>
<td>7</td>
<td>Ethernet (RJ-45)</td>
<td>8</td>
<td>USB 3.2 Gen 2</td>
<td>9</td>
<td>Power connector</td>
<td>10</td>
<td>Kensington Security Slot</td>
<td></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 Home 64
- Windows 10 Pro 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>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>-</td>
<td></td>
</tr>
</tbody>
</table>

RAID
RAID 0 support (RAID preset on some models)

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
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, 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
230W slim tip (3-pin) AC adapter

DESIGN
Display

<table>
<thead>
<tr>
<th>Display</th>
<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&quot;</td>
<td>FHD</td>
<td>(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&quot;</td>
<td>FHD</td>
<td>(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® RGB</td>
<td>-</td>
<td>Refresh rate 144Hz, Dolby Vision, HDR 400, G-Sync, DC dimmer</td>
</tr>
</tbody>
</table>
**Color Calibration**
X-Rite Pantone factory color calibration

**Touchscreen**
Non-touch

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**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

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**Input Device**

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

**Keyboard Backlight**
RGB LED backlight

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

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**Mechanical**

**Dimensions (WxDxH)**
359.34 x 259.04 x 19.9 mm (14.15 x 10.20 x 0.78 inches)

**Weight**
2.25 kg (4.96 lbs)

**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

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

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

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