1. Card reader
2. USB 3.2 Gen 1
3. Ethernet (RJ-45)
4. USB-C 3.2 Gen 2
5. 2x USB 3.2 Gen 1
6. HDMI 2.1
7. USB 3.2 Gen 1 (Always On)
8. Power connector
9. USB-C 3.2 Gen 2 (data transfer / DP 1.4 only)
10. Headphone / microphone combo jack (3.5mm)
PERFORMANCE

Processor

Processor Family
AMD Ryzen™ 5 / 7 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>AMD Ryzen 5 5600H</td>
<td>6</td>
<td>12</td>
<td>3.3GHz</td>
<td>4.2GHz</td>
<td>3MB L2 / 16MB L3</td>
<td>DDR4-3200</td>
<td>AMD Radeon™ Graphics</td>
</tr>
<tr>
<td>AMD Ryzen 7 5800H</td>
<td>8</td>
<td>16</td>
<td>3.2GHz</td>
<td>4.4GHz</td>
<td>4MB L2 / 16MB L3</td>
<td>DDR4-3200</td>
<td>AMD Radeon Graphics</td>
</tr>
</tbody>
</table>

Operating System

Operating System
- Windows® 11 Home 64
- Windows 10 Home 64
- No operating system

Graphics

<table>
<thead>
<tr>
<th>Graphics</th>
<th>Type</th>
<th>Memory</th>
<th>Boost Clock</th>
<th>TGP</th>
<th>Key Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>NVIDIA® GeForce® GTX 1650</td>
<td>Discrete</td>
<td>4GB GDDR6</td>
<td>-</td>
<td>-</td>
<td>DirectX® 12</td>
</tr>
<tr>
<td>NVIDIA GeForce RTX™ 3050</td>
<td>Discrete</td>
<td>4GB GDDR6</td>
<td>1500 MHz / 1740 MHz</td>
<td>95W</td>
<td>Advanced Optimus, Resizable BAR, Dynamic Boost 2.0, DirectX 12</td>
</tr>
</tbody>
</table>

Monitor Support

Monitor Support
- 3050 / 3050Ti model: supports up to 4 independent displays (native display and 3 external monitors via HDMI® and USB-C)
  - HDMI supports up to 7680x4320@60Hz
  - USB-C supports up to 5120x3200@60Hz
- 1650 model: supports up to 4 independent displays (native display and 3 external monitors via HDMI and USB-C)
  - HDMI supports up to 3840x2160@60Hz
  - USB-C supports up to 5120x3200@60Hz

Chipset

Chipset
AMD SoC (System on Chip) platform

Memory

Max Memory
Up to 16GB DDR4-3200 offering

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

Memory Type
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.

Storage

Storage Support
Up to two drives, 1x 2.5" HDD + 1x M.2 SSD
- 2.5" HDD up to 1TB
- M.2 2242 SSD up to 512GB
- 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>2.5&quot; SATA HDD</td>
<td>SATA 6Gb/s</td>
<td>5.4K</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M.2 2242 SSD</td>
<td>PCIe® NVMe®, PCIe 3.0 x4</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>M.2 2280 SSD</td>
<td>PCIe NVMe, PCIe 3.0 x4</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

Removable Storage

Optical
None

Card Reader
4-in-1 card reader (SD, SDHC, SDXC, MMC)

Multi-Media

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

Speakers
Stereo speakers, 2W x2, Nahimic Audio

Microphone
Dual array microphone

Camera
720p, with camera 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: 5.72 hr (discrete mode) or 8.1 hr (hybrid mode)

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, 100-240V, 50-60Hz

DESIGN

Display

<table>
<thead>
<tr>
<th>Display**[i]</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>17.3&quot; FHD (1920x1080)</td>
<td>None</td>
<td>IPS</td>
<td>300 nits</td>
<td>Anti-glare</td>
<td>16:9</td>
<td>800:1</td>
<td>72% NTSC</td>
<td>170°</td>
<td>Refresh rate 60Hz, Free-Sync, DC dimmer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17.3&quot; FHD (1920x1080)</td>
<td>None</td>
<td>IPS</td>
<td>300 nits</td>
<td>Anti-glare</td>
<td>16:9</td>
<td>800:1</td>
<td>72% NTSC</td>
<td>170°</td>
<td>Refresh rate 144Hz, Free-Sync, Dolby®</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**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.cairecycle.ca.gov/Electronics/Consumer

**Input Device**

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

**Keyboard Backlight**
White backlight

**Touchpad**
Buttonless Mylar® surface multi-touch touchpad, 69 x 104 mm (2.72 x 4.09 inches)

**Mechanical**

**Dimensions (WxDxH)**
398.6 x 290 x 24.3-26.2 mm (15.7 x 11.41 x 0.96-1.03 inches)

**Weight**
2.98 kg (6.57 lbs)

**Case Color**
Phantom blue (top), shadow black (bottom)

**Surface Treatment**
Painting

**Case Material**
PC + ABS (top), PC + ABS (bottom)

**System Lighting**
No system lighting

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

**CONNECTIVITY**

**Network**

**Onboard Ethernet**
Gigabit Ethernet

**WLAN + Bluetooth®**
Wi-Fi® 6, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 Card

**Ports**

**Standard Ports**
- 3x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 2 (support data transfer and DisplayPort™ 1.4)
- 1x USB-C 3.2 Gen 2 (support data transfer, Power Delivery and DisplayPort 1.4)
- 1x HDMI 2.1
- 1x Card reader
- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Power connector

**Notes:**
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

Firmware TPM 2.0 integrated in chipset

Fingerprint Reader

No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password

Other Security

Camera privacy shutter

SERVICE

Warranty

Base Warranty**[1]

- 1-year depot service
- 1-year depot with 2-year system board 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[1]

- 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
Green Certifications

- 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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