## OVERVIEW

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<th>Number</th>
<th>Description</th>
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<tr>
<td>1</td>
<td>2x USB 3.2 Gen 1</td>
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<tr>
<td>2</td>
<td>Headphone (3.5mm)</td>
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<td>3</td>
<td>Microphone (3.5mm)</td>
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<td>Power button</td>
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<td>5</td>
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<td>Ethernet (RJ-45)</td>
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<td>9</td>
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<td>Line-out (3.5mm)</td>
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<td>13</td>
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</table>
PERFORMANCE

Processor

Processor Family
AMD Ryzen™ 5 / 7 / 9 series Processor

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<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>
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<tbody>
<tr>
<td>AMD Ryzen 5 3600</td>
<td>6</td>
<td>12</td>
<td>3.6GHz</td>
<td>4.2GHz</td>
<td>3MB L2 / 32MB L3</td>
<td>DDR4-3200</td>
<td>-</td>
</tr>
<tr>
<td>AMD Ryzen 5 5600G</td>
<td>6</td>
<td>12</td>
<td>3.9GHz</td>
<td>4.4GHz</td>
<td>3MB L2 / 16MB L3</td>
<td>DDR4-3200</td>
<td>Radeon™ Graphics</td>
</tr>
<tr>
<td>AMD Ryzen 7 3700X</td>
<td>8</td>
<td>16</td>
<td>3.6GHz</td>
<td>4.4GHz</td>
<td>4MB L2 / 32MB L3</td>
<td>DDR4-3200</td>
<td>-</td>
</tr>
<tr>
<td>AMD Ryzen 7 5700G</td>
<td>8</td>
<td>16</td>
<td>3.8GHz</td>
<td>4.6GHz</td>
<td>4MB L2 / 16MB L3</td>
<td>DDR4-3200</td>
<td>Radeon Graphics</td>
</tr>
<tr>
<td>AMD Ryzen 7 5800</td>
<td>8</td>
<td>16</td>
<td>3.4GHz</td>
<td>4.6GHz</td>
<td>4MB L2 / 32MB L3</td>
<td>DDR4-3200</td>
<td>-</td>
</tr>
<tr>
<td>AMD Ryzen 9 5900X</td>
<td>12</td>
<td>24</td>
<td>3.7GHz</td>
<td>4.8GHz</td>
<td>6MB L2 / 64MB L3</td>
<td>DDR4-3200</td>
<td>-</td>
</tr>
<tr>
<td>AMD Ryzen 9 5950X</td>
<td>16</td>
<td>32</td>
<td>3.4GHz</td>
<td>4.9GHz</td>
<td>8MB L2 / 64MB L3</td>
<td>DDR4-3200</td>
<td>-</td>
</tr>
</tbody>
</table>

Operating System

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

Graphics

<table>
<thead>
<tr>
<th>Graphics</th>
<th>Type</th>
<th>Memory</th>
<th>Connector</th>
<th>Max Resolution</th>
<th>Key Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMD Radeon RX 5500</td>
<td>Discrete</td>
<td>4GB GDDR6</td>
<td>1x HDMI 2.0, 3x DP 1.4</td>
<td>4096x2160@60Hz(HDMI), 7680x4320@60Hz(DP)</td>
<td>DirectX 12</td>
</tr>
<tr>
<td>NVIDIA® GeForce® GTX 1650 SUPER</td>
<td>Discrete</td>
<td>4GB GDDR6</td>
<td>1x HDMI 2.0b, 2x DP 1.4</td>
<td>7680x4320@60Hz(DP), 4096x2160@60Hz(HDMI)</td>
<td>DirectX 12</td>
</tr>
<tr>
<td>NVIDIA GeForce RTX™ 2060 CD</td>
<td>Discrete</td>
<td>6GB GDDR6</td>
<td>1x HDMI 2.0b, 3x DP 1.4</td>
<td>4096x2160@60Hz(HDMI), 7680x4320@60Hz with DSC(DP)</td>
<td>DirectX 12</td>
</tr>
<tr>
<td>NVIDIA GeForce GTX 1660 SUPER</td>
<td>Discrete</td>
<td>6GB GDDR6</td>
<td>1x DVI, 1x HDMI 2.0b, 1x DP 1.4</td>
<td>7680x4320@60Hz(DP)</td>
<td>DirectX 12</td>
</tr>
<tr>
<td>NVIDIA GeForce RTX 3060 Ti</td>
<td>Discrete</td>
<td>8GB GDDR6</td>
<td>3x DP 1.4a, 1x HDMI 2.1</td>
<td>7680x4320@60Hz(HDMI), 7680x4320@60Hz(DP)</td>
<td>DirectX 12</td>
</tr>
<tr>
<td>NVIDIA GeForce RTX 2070 CD</td>
<td>Discrete</td>
<td>8GB GDDR6</td>
<td>1x HDMI 2.0b, 3x DP 1.4</td>
<td>7680x4320@60Hz(DP)</td>
<td>DirectX 12 VR ready</td>
</tr>
<tr>
<td>NVIDIA GeForce RTX 3060</td>
<td>Discrete</td>
<td>12G GDDR6</td>
<td>3x DP 1.4a, 1x HDMI 2.1</td>
<td>7680x4320@60Hz(HDMI), 7680x4320@60Hz(DP)</td>
<td>DirectX 12</td>
</tr>
<tr>
<td>NVIDIA GeForce RTX 3070</td>
<td>Discrete</td>
<td>8G GDDR6</td>
<td>3x DP 1.4a, 1x HDMI 2.1</td>
<td>7680x4320@60Hz(HDMI), 7680x4320@60Hz(DP)</td>
<td>DirectX 12</td>
</tr>
</tbody>
</table>

Notes:
1. Integrated graphics information and onboard video ports information are not applicable for all models without integrated graphics (for the details, please refer to processor section)
Monitor Support

Supports up to 5 independent displays via discrete graphics ports** (DP, HDMI, and USB-C 3.2 Gen2)

Notes:
1. Ports may vary by the discrete graphics.

Chipset

Chipset
AMD B550 chipset

Memory

Memory Type
- DDR4-3200
- DDR4-3200, Armor

Memory Slots
Four DDR4 UDIMM slots, dual-channel capable

Memory Protection
Non-ECC

Max Memory
Up to 128GB 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 2 drives, 1x 3.5” HDD + 2x M.2 SSD
- 3.5” HDD up to 2TB
- M.2 SSD up to 1TB

RAID
Not support

Storage Type

<table>
<thead>
<tr>
<th>Disk Type</th>
<th>Interface</th>
<th>RPM</th>
<th>Security</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5” SATA HDD</td>
<td>SATA 6Gb/s</td>
<td>7.2K</td>
<td>-</td>
</tr>
<tr>
<td>M.2 2280 SSD</td>
<td>PCIe NVMe</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Removable Storage

Optical
- DVD burner (DVD±RW), SATA 1.5Gb/s, slim (9.0mm)
- None

Card Reader
No card reader

Multi-Media

Audio Chip
High Definition (HD) Audio, Realtek® ALC892 codec

Power Supply

Power Supply

<table>
<thead>
<tr>
<th>Power</th>
<th>Type</th>
<th>Efficiency</th>
<th>Key Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>350W</td>
<td>Fixed</td>
<td>85%</td>
<td>100V - 240V</td>
</tr>
</tbody>
</table>
400W | Fixed | 90% | 100V - 240V
550W | Fixed | 88% | 220V
650W | Fixed | 90% | 100V - 240V

**DESIGN**

**Input Device**

**Keyboard**
- Lenovo Calliope Keyboard (USB connector), black
- No keyboard

**Mouse**
- Lenovo Calliope Mouse (USB connector), black
- No mouse

**Mechanical**

**Form Factor**
Tower (26L)

**Dimensions (WxDxH)**
205x 396 x 411 mm (8.1 x 15.6 x 16.2 inches)

**Weight**
14kg (30.86 lbs)

**Case Color**
Raven black

**Bays**
- 1x 2.5" disk bay
- 2x 3.5" disk bay

**Expansion Slots**
- One PCIe 4.0 x16
- One PCIe 3.0 x4
- Three M.2 slots (one for WLAN, two for SSD)

**Cooling System (Fan&Cooler)**
- (Optional) 65W Air-Cooler, 95W Air-Cooler, 150W Air-Cooler
- (Optional) Two top system with ARGB, one front system fan, one rear system fan with ARGB
- (Optional) Two top system fan with ARGB, two front system fan with ARGB, one rear system fan with ARGB
- (Optional) Rear system fan with ARGB
- (Optional) Two top system fan, one front system fan, one rear system fan
- (Optional) Front system fan, rear system fan for airflow or liquid
- (Optional) Front system fan, rear system fan
- (Optional) Two front system fan, one rear system fan
- (Optional) Rear system fan
- (Optional) Two front system fan with ARGB, one rear system fan with ARGB
- (Optional) Front system fan, rear system fan with ARGB
- (Optional) Two top system fan, one rear system fan

**System Lighting**
- Front panel light
- Front panel light; optional ARGB cooler light and ARGB system fan light

**Others**
- Carry handle

**CONNECTIVITY**

**Network**

**Onboard Ethernet**
- Gigabit Ethernet, 1x RJ45
Gigabit Ethernet, Realtek RTL8111H, 1x RJ45

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

**Ports**

- Rear Ports
  - 2x USB 2.0
  - 3x line out (3.5mm)
  - 2x USB 3.2 Gen 1
  - 1x USB-C 3.2 Gen 2
  - 1x Ethernet (RJ-45)
  - 1x power connector

- Top Ports
  - 2x USB 3.2 Gen 1
  - 1x microphone (3.5mm)
  - 1x headphone / microphone combo jack (3.5mm)

**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. For video ports on discrete graphics, please see graphics section

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**SECURITY & PRIVACY**

**Security**

**BIOS Security**
- Power-on password
- Administrator password

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**SERVICE**

**Warranty**

**Base Warranty**
- 1-year mail-in service
- 1-year depot service
- 2-year depot service

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**CERTIFICATIONS**

**Green Certifications**

**Green Certifications**
- ENERGY STAR® 8.0
- ErP Lot 3
- RoHS compliant