PERFORMANCE

Processor

Processor Family
AMD Ryzen™ 3 / 5 / 7, or Ryzen 3 / 5 / 7 PRO series 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 Athlon Silver</td>
<td>2</td>
<td>4</td>
<td>3.4GHz</td>
<td>3.4GHz</td>
<td>1MB L2 / 4MB L3</td>
<td>DDR4-2666</td>
<td>AMD Radeon™ Graphics</td>
</tr>
<tr>
<td>AMD Athlon Silver PRO</td>
<td>2</td>
<td>4</td>
<td>3.4GHz</td>
<td>3.4GHz</td>
<td>1MB L2 / 4MB L3</td>
<td>DDR4-Up to 2667</td>
<td>Radeon Graphics</td>
</tr>
<tr>
<td>AMD Athlon Gold PRO</td>
<td>4</td>
<td>4</td>
<td>3.3GHz</td>
<td>3.8GHz</td>
<td>2MB L2 / 4MB L3</td>
<td>DDR4-Up to 2933</td>
<td>Radeon Graphics</td>
</tr>
<tr>
<td>AMD Athlon Silver</td>
<td>4</td>
<td>4</td>
<td>3.3GHz</td>
<td>3.8GHz</td>
<td>2MB L2 / 4MB L3</td>
<td>DDR4-2933</td>
<td>AMD Radeon Vega 8 Graphics</td>
</tr>
<tr>
<td>AMD Ryzen 3 3200GE</td>
<td>4</td>
<td>4</td>
<td>3.3GHz</td>
<td>3.8GHz</td>
<td>2MB L2 / 4MB L3</td>
<td>DDR4-3200</td>
<td>AMD Radeon Graphics</td>
</tr>
<tr>
<td>AMD Ryzen 3 4300GE</td>
<td>4</td>
<td>8</td>
<td>3.5GHz</td>
<td>4.0GHz</td>
<td>2MB L2 / 4MB L3</td>
<td>DDR4-3200</td>
<td>AMD Radeon Graphics</td>
</tr>
<tr>
<td>AMD Ryzen 3 PRO 4350GE</td>
<td>4</td>
<td>8</td>
<td>3.5GHz</td>
<td>4.0GHz</td>
<td>2MB L2 / 4MB L3</td>
<td>DDR4-3200</td>
<td>AMD Radeon Graphics</td>
</tr>
<tr>
<td>AMD Ryzen 5 4600GE</td>
<td>6</td>
<td>12</td>
<td>3.3GHz</td>
<td>4.2GHz</td>
<td>3MB L2 / 8MB L3</td>
<td>DDR4-3200</td>
<td>AMD Radeon Graphics</td>
</tr>
<tr>
<td>AMD Ryzen 5 PRO 4650GE</td>
<td>6</td>
<td>12</td>
<td>3.3GHz</td>
<td>4.2GHz</td>
<td>3MB L2 / 8MB L3</td>
<td>DDR4-3200</td>
<td>AMD Radeon Graphics</td>
</tr>
<tr>
<td>AMD Ryzen 7 4700GE</td>
<td>8</td>
<td>16</td>
<td>3.1GHz</td>
<td>4.3GHz</td>
<td>4MB L2 / 8MB L3</td>
<td>DDR4-3200</td>
<td>AMD Radeon Graphics</td>
</tr>
<tr>
<td>AMD Ryzen 7 PRO 4750GE</td>
<td>8</td>
<td>16</td>
<td>3.1GHz</td>
<td>4.3GHz</td>
<td>4MB L2 / 8MB L3</td>
<td>DDR4-3200</td>
<td>AMD Radeon Graphics</td>
</tr>
</tbody>
</table>

Operating System
- Windows® 10 Home 64
- Windows 10 Pro 64
- Windows 10 IoT Enterprise
- 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 Graphics</td>
<td>Integrated</td>
<td>Shared</td>
<td>-</td>
<td>-</td>
<td>DirectX® 12</td>
</tr>
<tr>
<td>AMD Radeon Vega 8 Graphics</td>
<td>Integrated</td>
<td>Shared</td>
<td>-</td>
<td>-</td>
<td>DirectX 12</td>
</tr>
</tbody>
</table>

Notes:
- 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 3 independent displays via onboard ports (DisplayPort™ + HDMI® + 2x optional ports [VGA / 2nd DP / 2nd HDMI / USB-C / 2x DP])

Chipset
AMD PRO 500 chipset

Memory
Memory Type
DDR4-3200
Memory Slots
Two DDR4 SO-DIMM slots, dual-channel capable

Max Memory
Up to 64GB

Notes:
• 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 2.5” HDD + 1x M.2 PCIe NVMe SSD
• 2.5” HDD up to 1TB
• M.2 SSD up to 1TB

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>5.4K</td>
<td>-</td>
</tr>
<tr>
<td>2.5” SATA HDD</td>
<td>SATA 6Gb/s</td>
<td>7.2K</td>
<td>-</td>
</tr>
<tr>
<td>M.2 2242 SSD</td>
<td>PCIe NVMe, PCIe 3.0 x2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>M.2 2280 SSD</td>
<td>PCIe NVMe, PCIe 3.0 x4</td>
<td>-</td>
<td>Opal</td>
</tr>
</tbody>
</table>

Removable Storage

Optical
• DVD-ROM, slim (9.0mm), via USB external ODD box
• DVD burner (DVD±RW), slim (9.0mm), via USB external ODD box
• None

Multi-Media

Audio Chip
High Definition (HD) Audio, Realtek® ALC222 codec

Speakers
Single speaker, 1.5W x1

Power Supply

<table>
<thead>
<tr>
<th>Power</th>
<th>Type</th>
<th>Efficiency</th>
<th>Key Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>65W</td>
<td>Adapter</td>
<td>89%</td>
<td>Autosensing</td>
</tr>
<tr>
<td>90W</td>
<td>Adapter</td>
<td>89%</td>
<td>Autosensing</td>
</tr>
</tbody>
</table>

DESIGN

Input Device

Keyboard
• Lenovo Calliope Keyboard (USB connector), black
• Lenovo Calliope Wireless Keyboard, black
• Lenovo Traditional Keyboard (USB connector), black

Mouse
• Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
• Lenovo Calliope Mouse (USB connector), black
• Lenovo Fingerprint Mouse (USB connector), black

Mechanical

Form Factor
Tiny (1L)
Dimensions (WxDxH)
179 x 183 x 34.5 / 37 mm with rubber feet (7.05 x 7.2 x 1.36 / 1.5 inches with rubber feet)

Weight
1.25 kg (2.76 lbs)

Case Color
Black

Bays
1x 2.5" disk bay

Expansion Slots
• One M.2 slot (for SSD)
• One M.2 slot (for WLAN)

EOU
(Optional) Toolless chassis open (Toolless Chassis Screw required) and toolless M.2 SSD, HDD, memory assembly / removal

Stand
• Vertical stand
• No stand

Mounting
• VESA mount bracket kit, supports VESA 75mm and 100mm
• Not configured

CONNECTIVITY

Network

Onboard Ethernet
Gigabit Ethernet, Realtek RTL8111FP, 1x RJ45, supports Wake-on-LAN

WLAN + Bluetooth™
• Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
• Intel® Wireless-AC 9260, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
• Intel Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
• No WLAN and Bluetooth

Ports

Front Ports
• 1x USB 3.2 Gen 2 (Always On and fast charge)
• 1x USB-C 3.2 Gen 1
• 1x headphone / microphone combo jack (3.5mm)

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;

Rear Ports
• 2x USB 2.0
• 2x USB 3.2 Gen 1
• 1x Ethernet (RJ-45)
• 1x HDMI
• 1x DisplayPort
Notes:
- For video ports on discrete graphics, please see graphics section

Optional Rear Ports
- 2x DisplayPort (occupies Port 1 and 2)
- Optional Port 1 (VGA / 2nd DisplayPort / 2nd HDMI / serial / USB-C 3.2 Gen 1 with DisplayPort function, select one)
- Optional Port 2 (serial)
- Quad USB 3.2 Gen 1 ports (share one USB 3.2 Gen 1 bandwidth, occupy optional port 1 and 2)
- 2x USB 3.2 Gen 1 (occupies Port 1 and 2)

Monitor Cable
- DP to VGA dongle
- HDMI to VGA Dongle
- No monitor cable

SECURITY & PRIVACY

Security
Security Chip
Discrete TPM 2.0, TCG certified

Physical Locks
Kensington® Security Slot

Chassis Intrusion Switch
Chassis intrusion switch

BIOS Security
- Power-on password
- Administrator password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Individual USB port disablement

MANAGEABILITY

System Management
DASH

SERVICE

Warranty
Base Warranty
- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty

CERTIFICATIONS

Green Certifications
- EPEAT™ Gold (on some models)
- EPEAT Silver (on some models)
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO
- TUV low noise / ultra low noise verified (on some models)
- RoHS compliant

Other Certifications
Mil-Spec Test

- MIL-STD-810H military test passed