PERFORMANCE

Processor

Processor Family
Intel® Celeron®, Intel Pentium®, 8th Generation Intel Core™ i3 / i5 / i7 Processor, or 9th Generation Intel Core i3 / 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>Celeron G4900T</td>
<td>2</td>
<td>2</td>
<td>2.9GHz</td>
<td>-</td>
<td>2MB</td>
<td>DDR4-2400</td>
<td>Intel UHD Graphics 610</td>
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<tr>
<td>Celeron G4930T</td>
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<tr>
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<tr>
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<td>3.1GHz</td>
<td>3.7GHz</td>
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<td>Intel UHD Graphics 630</td>
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<tr>
<td>Core i7-8700T</td>
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<tr>
<td>Core i7-9700T</td>
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<td>8</td>
<td>2.0GHz</td>
<td>4.3GHz</td>
<td>12MB</td>
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<td>Intel UHD Graphics 630</td>
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<td>Core i9-9900T</td>
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<td>16</td>
<td>2.1GHz</td>
<td>4.4GHz</td>
<td>16MB</td>
<td>DDR4-2666</td>
<td>Intel UHD Graphics 630</td>
</tr>
</tbody>
</table>

Operating System
- Windows® 10 Home 64
- Windows 10 Pro 64
- Windows 10 IoT Enterprise
- Ubuntu Linux
- No operating system

Graphics
### 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>Intel UHD graphics 610</td>
<td>Integrated</td>
<td>Shared</td>
<td>1x HDMI®, 1x DP, 1x optional video port (2nd HDMI, VGA, 2nd DP, or USB-C)</td>
<td>4096x2160@24Hz(onboard HDMI), 4096x2304@60Hz(DP), 2048x1536@50Hz(VGA), 4096x2304@60Hz(USB-C)</td>
<td>DirectX 12</td>
</tr>
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<td>Intel UHD graphics 630</td>
<td>Integrated</td>
<td>Shared</td>
<td>1x HDMI, 1x DP, 1x optional video port (2nd HDMI, VGA, 2nd DP, or USB-C)</td>
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<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 + 1x optional port [VGA / 2nd DP / 2nd HDMI / USB-C])

### Chipset

Intel B360 chipset

### Memory

**Memory Type**

- DDR4-2666

**Memory Slots**

Two DDR4 SO-DIMM slots, dual-channel capable

**Memory Protection**

- Non-ECC

**Max Memory**

Up to 32GB DDR4-2666

**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 two drives, 1x 2.5" HDD/SSD + 1x M.2 2242/2280 SSD
- 2.5" HDD up to 1TB
- 2.5" SSD up to 256GB
- M.2 SSD up to 1TB
- Optional Intel Optane™ Memory, M.2

**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&quot; SATA HDD</td>
<td>SATA 6Gb/s</td>
<td>5.4K</td>
<td></td>
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<tr>
<td>2.5&quot; SATA HDD</td>
<td>SATA 6Gb/s</td>
<td>7.2K</td>
<td></td>
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<td>2.5&quot; SATA SSD</td>
<td>SATA 6Gb/s</td>
<td>-</td>
<td>Opal</td>
</tr>
<tr>
<td>2.5&quot; SATA SSD</td>
<td>SATA 6Gb/s</td>
<td>-</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></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
- Not configured

Card Reader
- Not Support

Multi-Media

Audio Chip
High Definition (HD) Audio, Realtek® ALC233VB2 codec

Speakers
- Single speaker, 1.5W x1
- Single speaker, 2W x1
- Not configured

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>88%</td>
<td>Autosensing</td>
</tr>
<tr>
<td>90W</td>
<td>Adapter</td>
<td>88%</td>
<td>Autosensing</td>
</tr>
<tr>
<td>135W</td>
<td>Adapter</td>
<td>89%</td>
<td>Autosensing</td>
</tr>
<tr>
<td>135W</td>
<td>Adapter</td>
<td>88%</td>
<td>Autosensing</td>
</tr>
<tr>
<td>Not configured</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

DESIGN

Input Device

Keyboard
- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black
- Lenovo Traditional Keyboard (USB connector), black
- Not configured

Mouse
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- Lenovo Calliope Mouse (USB connector), black
- Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black
- Not configured

Mechanical

Form Factor
Tiny (1L)

Dimensions (WxDxH)

<table>
<thead>
<tr>
<th>Models</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tiny only</td>
<td>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)</td>
</tr>
<tr>
<td>With VESA mount &amp; ODD box</td>
<td>188.4 x 185.38 x 63 mm (7.42 x 7.30 x 2.48 inches)</td>
</tr>
</tbody>
</table>

Weight

<table>
<thead>
<tr>
<th>Models</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tiny Only</td>
<td>1.32 kg (2.91 lbs)</td>
</tr>
<tr>
<td>With VESA mount &amp; ODD box</td>
<td>1.66 kg (3.66 lbs)</td>
</tr>
</tbody>
</table>
Case Color
Black

Bays
1x 2.5” disk bay

Expansion Slots
• One PCIe 3.0 x8, low-profile
• Two M.2 slots (one for WLAN, one for SSD)

Notes:
• 2.5” HDD/SSD and PCIe card are mutually exclusive

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

Stand
• Vertical stand
• Not configured

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

Others
• Optional Dust Filter
• Optional power adapter cage

CONNECTIVITY

Network
Onboard Ethernet
Gigabit Ethernet, Intel Ethernet Connection I219-V, 1x RJ45, supports Wake-on-LAN

Optional Ethernet
• Gigabit Ethernet, Intel Ethernet Server Adapter I350-T4, 4x RJ-45, PCIe x4
• Not configured

WLAN + Bluetooth™
• Realtek RTL8821CE, 802.11ac Dual Band 1x1 Wi-Fi + Bluetooth 4.2, M.2 card
• Realtek RTL8822BE, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 4.2, M.2 card
• Intel Dual Band Wireless-AC 3165, 802.11ac Dual Band 1x1 Wi-Fi + Bluetooth 4.2, M.2 Card
• Intel Dual Band Wireless-AC 8265, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 4.2, M.2 Card
• Not configured

Ports
Front Ports
• 1x USB 3.1 Gen 1 (Always On and fast charge)
• 1x USB-C 3.1 Gen 1
• 1x headphone / microphone combo jack (3.5mm)
• 1x microphone (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;
Optional Front Ports
None

Rear Ports
• 2x USB 3.1 Gen 1
• 2x USB 3.1 Gen 2
• 1x Ethernet (RJ-45)
• 1x HDMI
• 1x DisplayPort

Notes:
• For video ports on discrete graphics, please see graphics section

Optional Rear Ports
• Optional Port 1 (VGA / 2nd DP / 2nd HDMI / serial / USB-C 3.1 Gen 1 with DP function, select one)
• Optional Port 2 (serial)
• 2x USB 3.1 Gen 1 (via 2-port USB expansion card, PCIe x1)
• 4x serial (via 4-port serial expansion card, PCIe x1)
• 1x parallel
• 2x PS/2 (USB to 2x PS/2 dongle)

Monitor Cable
• VGA Cable Tiny
• DP to VGA dongle
• DP to dual DP dongle
• HDMI to VGA Dongle
• DP to DVI-D dongle
• DP to HDMI 1.4 dongle
• DP to VGA Cable (1.5M)
• Not configured

SECURITY & PRIVACY

Security

Security Chip
Discrete TPM 2.0, TCG certified

Physical Locks
Kensington® Security Slot

Chassis Intrusion Switch
• Chassis intrusion switch
• Not configured

Fingerprint Reader
• Touch style fingerprint reader on mouse
• Not configured

BIOS Security
• Power-on password
• Administrator password
• Hard disk password
• Boot sequence control
• Boot without keyboard and mouse
• Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
• Individual USB port disablement

MANAGEABILITY

System Management
None

SERVICE
**Warranty**

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

**CERTIFICATIONS**

**Green Certifications**
- EPEAT™ Gold
- EPEAT Silver
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO
- RoHS

**Other Certifications**

**Other Certifications**
- (Optional) TÜV Ultra Low Noise certified
- None

**Mil-Spec Test**
MIL-STD-810G military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)