# OVERVIEW

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<tr>
<td>1.</td>
<td>Power button</td>
</tr>
<tr>
<td>2.</td>
<td>Microphone (3.5mm)</td>
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<tr>
<td>3.</td>
<td>Card reader</td>
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<tr>
<td>4.</td>
<td>Headphone / microphone combo jack (3.5mm)</td>
</tr>
<tr>
<td>5.</td>
<td>2x USB 2.0</td>
</tr>
<tr>
<td>6.</td>
<td>2x USB 3.2 Gen 1</td>
</tr>
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<td>7.</td>
<td>Optical drive *</td>
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<td>8.</td>
<td>Line-out (3.5mm)</td>
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<td>9.</td>
<td>HDMI 1.4b</td>
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<td>10.</td>
<td>VGA</td>
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<td>11.</td>
<td>2x USB 2.0</td>
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<tr>
<td>12.</td>
<td>Ethernet (RJ-45)</td>
</tr>
<tr>
<td>13.</td>
<td>2x USB 3.2 Gen 1</td>
</tr>
<tr>
<td>14.</td>
<td>Power connector</td>
</tr>
</tbody>
</table>

**Notes:**
- Ports with * are only available on selected models
PERFORMANCE

Processor

**Processor Family**
Intel® Celeron®, Intel Pentium® or 10th generation Intel Core™ i3 / i5 / i7 Processors

### 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 G5900</td>
<td>2</td>
<td>2</td>
<td>3.4GHz</td>
<td>-</td>
<td>2MB</td>
<td>DDR4-2666</td>
<td>Intel UHD Graphics 610</td>
</tr>
<tr>
<td>Celeron G5905</td>
<td>2</td>
<td>2</td>
<td>3.5GHz</td>
<td>-</td>
<td>4MB</td>
<td>DDR4-2666</td>
<td>Intel UHD Graphics 610</td>
</tr>
<tr>
<td>Pentium Gold G6400</td>
<td>2</td>
<td>4</td>
<td>4.0GHz</td>
<td>-</td>
<td>4MB</td>
<td>DDR4-2666</td>
<td>Intel UHD Graphics 610</td>
</tr>
<tr>
<td>Core i3-10100</td>
<td>4</td>
<td>8</td>
<td>3.6GHz</td>
<td>4.3GHz</td>
<td>6MB</td>
<td>DDR4-2666</td>
<td>Intel UHD Graphics 630</td>
</tr>
<tr>
<td>Core i5-10400</td>
<td>6</td>
<td>12</td>
<td>2.9GHz</td>
<td>4.3GHz</td>
<td>12MB</td>
<td>DDR4-2666</td>
<td>Intel UHD Graphics 630</td>
</tr>
<tr>
<td>Core i5-10400F</td>
<td>6</td>
<td>12</td>
<td>2.9GHz</td>
<td>4.3GHz</td>
<td>12MB</td>
<td>DDR4-2666</td>
<td>-</td>
</tr>
<tr>
<td>Core i7-10700</td>
<td>8</td>
<td>16</td>
<td>2.9GHz</td>
<td>4.8GHz</td>
<td>16MB</td>
<td>DDR4-2933</td>
<td>Intel UHD Graphics 630</td>
</tr>
<tr>
<td>Core i7-10700F</td>
<td>8</td>
<td>16</td>
<td>2.9GHz</td>
<td>4.8GHz</td>
<td>16MB</td>
<td>DDR4-2933</td>
<td>-</td>
</tr>
</tbody>
</table>

**Operating System**

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

**Graphics**

**Graphics**

<table>
<thead>
<tr>
<th>Graphics Type</th>
<th>Type</th>
<th>Memory</th>
<th>Connector</th>
<th>Max Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intel UHD graphics 610</td>
<td>Integrated</td>
<td>Shared</td>
<td>1x HDMI 1.4b, 1x VGA</td>
<td>4096x2160@24Hz(HDMI), 2048x1536@50Hz(VGA)</td>
</tr>
<tr>
<td>Intel UHD graphics 630</td>
<td>Integrated</td>
<td>Shared</td>
<td>1x HDMI 1.4b, 1x VGA</td>
<td>4096x2160@24Hz(HDMI), 2048x1536@50Hz(VGA)</td>
</tr>
<tr>
<td>NVIDIA® GeForce® GT 730</td>
<td>Discrete</td>
<td>2GB GDDR5</td>
<td>1x HDMI 1.4, 1x VGA</td>
<td>3840x2160@60Hz(HDMI), 2048x1536@75Hz(VGA)</td>
</tr>
</tbody>
</table>

**Notes:**
1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section).

**Monitor Support**

**Monitor Support**
Supports up to 2 independent displays via onboard ports (VGA and HDMI), more displays support via discrete graphics

**Chipset**

**Chipset**
Intel B460 chipset

**Memory**

**Memory Type**
DDR4-2933

**Memory Slots**
Two DDR4 UDIMM slots, dual-channel capable

**Memory Protection**
Non-ECC
Max Memory

Up to 32GB DDR4-2666

Notes:
1. Installed memory is actually 2933MHz, but may run at 2666MHz or 2933MHz depending on the memory support capability of processor
2. 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 + 1x M.2 SSD
• 3.5" HDD up to 2TB
• M.2 SSD up to 512GB
• Optional Intel Optane™ Memory Integrated with SSD, 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>Intel Optane Memory with Solid State Storage, M.2 2280</td>
<td>PCIe NVMe, PCIe 3.0 x4</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>M.2 2242 SSD</td>
<td>PCIe NVMe</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>M.2 2280 SSD</td>
<td>PCIe NVMe</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3.5&quot; SATA HDD</td>
<td>SATA 6Gb/s</td>
<td>7.2K</td>
<td>-</td>
</tr>
</tbody>
</table>

Removable Storage

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

Card Reader
• 7-in-1 card reader (SD, SDHC, SDXC, MMC, MS, MS-Pro, MMC plus)
• No card reader

Multi-Media

Audio Chip
High Definition (HD) Audio, Realtek® ALC222-CG 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>180W</td>
<td>Fixed</td>
<td>85%</td>
<td>100V - 240V</td>
</tr>
<tr>
<td>260W</td>
<td>Fixed</td>
<td>85%</td>
<td>100V - 240V</td>
</tr>
</tbody>
</table>

DESIGN

Input Device

Keyboard
Lenovo Calliope Keyboard (USB connector), black

Mouse
Lenovo Calliope Mouse (USB connector), black

Mechanical

Form Factor
SFF (7.4L)
Dimensions (WxDxH)
100 x 274.5 x 312.5 mm (3.93 x 10.8 x 12.3 inches)

Weight
4.35 kg (9.59 lbs)

Case Color
Mineral grey

Bays
• 1x slim ODD bay
• 1x 2.5” disk bay
• 1x 3.5” disk bay

Expansion Slots
• One PCIe 3.0 x16, low-profile
• One PCIe 3.0 x1, low-profile
• Two M.2 slots (one for WLAN, one for SSD)

Cooling System (Fan&Cooler)
None

CONNECTIVITY

Network
Onboard Ethernet
Gigabit Ethernet, 1x RJ45

WLAN + Bluetooth™
• 802.11ac 2x2 Wi-Fi + Bluetooth 5.0, M.2 Card
• 802.11ax 2x2 Wi-Fi + Bluetooth 5.0, M.2 Card

Ports\(^1\)
Front Ports
• 4x USB 3.2 Gen 1
• 1x headphone / microphone combo jack (3.5mm)
• 1x microphone (3.5mm)

Optional Front Ports
1x card reader

Rear Ports\(^2\)
• 2x USB 2.0
• 2x USB 3.2 Gen 1
• 1x Ethernet (RJ-45)
• 1x HDMI 1.4b
• 1x VGA
• 1x line-out (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

SECURITY & PRIVACY

Security
Physical Locks
No physical locks

BIOS Security
• Power-on password
• Administrator password
• Hard disk password

SERVICE

Warranty
Base Warranty
• 1-year mail-in service
• 1-year depot service
• 1-year limited onsite service
• 2-year depot service

ENVIRONMENTAL

Operating Environment
Temperature
Storage and transportation: -40°C to 55°C (-40°F to 131°F)

Humidity
Operating: 20% to 80% (non-condensing)
Storage: 20% to 93% (non-condensing)

Atmospheric Pressure
86 kPa to 106 kPa

CERTIFICATIONS

Green Certifications
Green Certifications
• ENERGY STAR® 8.0 (MT:90NS)
• ErP Lot 3
• RoHS compliant