## OVERVIEW




| | |
|---|---|
| 1. 2x USB 3.2 Gen 1 | 7. Microphone (3.5mm) |
| 2. Headphone / microphone combo jack (3.5mm) | 8. Ethernet (RJ-45) |
| 3. Power button | 9. Line-out (3.5mm) |
| 4. USB-C 3.2 Gen 1 | 10. Line-in (3.5mm) |
| 5. 2x USB 3.2 Gen 1 | 11. Optional ports on expansion cards |
| 6. 2x USB 2.0 | 12. Power connector |

# PERFORMANCE

## Processor

**Processor Family**

10th Generation Intel® Core™ i5 / i7 / i9 Processor

**Processor**[**][1]

| Processor Name | Cores | Threads | Base Frequency | Max Frequency | Cache | Memory Support | Processor Graphics |
|---|---|---|---|---|---|---|---|
| Core i5-10400 | 6 | 12 | 2.9GHz | 4.3GHz | 12MB | DDR4-2666 | Intel UHD Graphics 630 |
| Core i5-10400F | 6 | 12 | 2.9GHz | 4.3GHz | 12MB | DDR4-2666 | - |
| Core i7-10700 | 8 | 16 | 2.9GHz | 4.8GHz | 16MB | DDR4-2933 | Intel UHD Graphics 630 |
| Core i7-10700F | 8 | 16 | 2.9GHz | 4.8GHz | 16MB | DDR4-2933 | - |
| Core i7-10700K | 8 | 16 | 3.8GHz | 5.1GHz | 16MB | DDR4-2933 | Intel UHD Graphics 630 |
| Core i9-10900 | 10 | 20 | 2.8GHz | 5.2GHz | 20MB | DDR4-2933 | Intel UHD Graphics 630 |
| Core i9-10900F | 10 | 20 | 2.8GHz | 5.2GHz | 20MB | DDR4-2933 | - |

Notes:

1. Intel UHD Graphics 630 in processor is disabled

## Operating System

**Operating System**[**]

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

## Graphics

**Graphics**[**][1]

| Graphics | Type | Memory | Connector | Max Resolution | Key Features |
|---|---|---|---|---|---|
| AMD Radeon™ RX 5500 | Discrete | 4GB GDDR6 | 1x HDMI® 2.0, 3x DP 1.4 | 4096x2160@60Hz(HDMI), 7680x4320@60Hz(DP) | DirectX® 12 |
| AMD Radeon RX 5700XT | Discrete | 8GB GDDR6 | 1x HDMI 2.0, 3x DP 1.4 | 7680x4320@60Hz(DP) | DirectX 12 |
| NVIDIA® GeForce® GTX 1650 SUPER | Discrete | 4GB GDDR6 | 1x HDMI 2.0b, 2x DP 1.4 | 7680x4320 @60Hz(DP) | DirectX 12 |
| NVIDIA GeForce GTX 1660 SUPER | Discrete | 6GB GDDR6 | 1x DVI, 1x HDMI 2.0b, 1x DP 1.4 | 7680x4320@60Hz(DP) | DirectX 12 |
| NVIDIA GeForce RTX™ 2060 CD | Discrete | 6GB GDDR6 | 1x HDMI 2.0b, 3x DP 1.4 | 4096x2160@60Hz(HDMI), 7680x4320@60Hz with DSC(DP) | DirectX 12 |
| NVIDIA GeForce RTX 2070 CD | Discrete | 8GB GDDR6 | 1x HDMI 2.0b, 3x DP 1.4 | 7680x4320@60Hz(DP) | DirectX 12 VR ready |
| NVIDIA GeForce RTX 2070 SUPER | Discrete | 8GB GDDR6 | 1x HDMI 2.0b, 1x USB-C Gen 2, 3x DP 1.4 | 7680x4320@60Hz(DP) | DirectX 12 VR ready |
| NVIDIA GeForce RTX 3060 | Discrete | 12G GDDR6 | 3x DP 1.4a, 1x HDMI 2.1 | 7680x4320@60Hz(HDMI), 7680x4320@60Hz(DP) | DirectX 12 |
| NVIDIA GeForce RTX 3070 | Discrete | 8G GDDR6 | 3x DP 1.4a, 1x HDMI 2.1 | 7680x4320@60Hz(HDMI); 7680x4320@60Hz(DP) | DirectX 12 |

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**[1]

Supports up to 4 independent displays via discrete graphics

Notes:

1. Ports may vary by the discrete graphics.

## Chipset

**Chipset**

Intel B460 chipset

## Memory

**Max Memory**[1]

Up to 128GB DDR4-2933

**Memory Slots**

Four DDR4 UDIMM slots, dual-channel capable

**Memory Type****[2]

- DDR4-2933
- DDR4-3200, Armor

**Memory Protection**

Non-ECC

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.
2. Installed memory is actually 2933MHz or 3200MHz, but may run at 2666MHz or 2933MHz depending on the memory support capability of processor

## Storage

**Storage Support**[1]

Up to two drives, 1x 3.5" HDD + 1x M.2 SSD
• 3.5" HDD up to 2TB
• M.2 SSD up to 1TB
• Optional Intel Optane™ Memory Integrated with SSD, M.2

**Storage Type*****

| Disk Type | Interface | RPM | Security |
|---|---|---|---|
| 3.5" SATA HDD | SATA 6Gb/s | 7.2K | - |
| M.2 2280 SSD | PCIe® NVMe® | - | - |
| Intel Optane Memory with Solid State Storage, M.2 2280 | PCIe NVMe, PCIe 3.0 x4 | - | - |

**RAID**

No support

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

## 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® ALC887 codec

**Speakers**

No speakers

## Power Supply

**Power Supply****

| Power | Type | Efficiency | Key Features |
|---|---|---|---|
| 350W | Fixed | - | 100-240V, 50-60Hz |
| 400W | Fixed | - | 100V - 240V |
| 650W | Fixed | - | 100V - 240V |

# DESIGN

## Input Device

**Keyboard****

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

**Mouse****

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

## Mechanical

**Form Factor**

Tower (28L)

**Dimensions (WxDxH)**

184.5 x 455.8 x 457 mm (7.26 x 17.94 x 17.99 inches)

**Packaging Dimensions (WxDxH)**

All models: 330 x 600 x 554 mm (13 x 23.6 x 21.8 inches)

**Weight**

14 kg (30.86 lbs)

**Packaging Weight**

All models: 16 kg (35.27 lbs)

**Case Color**

Phantom black

**Chassis****

- Normal side cover
- Transparent side cover

**Bays**

2x 3.5" disk bay

**Expansion Slots**

- One PCIe 3.0 x4
- One PCIe 3.0 x16
- Two PCIe 3.0 x1
- Three M.2 slots (one for WLAN, two for SSD)

**Cooling System (Fan & Cooler)*****

- (Optional) 1x front system fan, 1x rear system fan for airflow or liquid
- (Optional) 65W Air-Cooler, 95W Air-Cooler, 150W Air-Cooler, or 150W Liquid-Cooler

**System Lighting*****

- (Optional) Internal ambient lighting
- Legion OY iconic LED

**Others**

- (Optional) Normal side cover
- (Optional) Transparent side cover

# CONNECTIVITY

## Network

**Onboard Ethernet**

Gigabit Ethernet, 1x RJ-45

**WLAN + Bluetooth®**[**][1]

- 802.11ac 2x2 Wi-Fi® + Bluetooth 5.0, M.2 card
- Wi-Fi 6, 802.11ax 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- No WLAN and Bluetooth

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

## Ports[1]

**Front Ports**

None

**Rear Ports**[2]

- 2x USB 2.0
- 2x USB 3.2 Gen 1
- 1x USB-C 3.2 Gen 1 (support data transfer and 5V@3A charging)
- 1x Ethernet (RJ-45)
- 1x line-in (3.5mm)
- 1x line-out (3.5mm)
- 1x microphone (3.5mm)
- 1x power connector

**Top Ports**

- 2x USB 3.2 Gen 1
- 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™ 3/4: 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

**Security Chip**

Firmware TPM 2.0 integrated in chipset

**BIOS Security**

- Administrator password
- Power-on password

# SERVICE

## Warranty

**Base Warranty**[**[1]]

- 1-year mail-in service
- 1-year depot service
- 1-year limited onsite service
- 2-year depot service
- OB

Notes:

1. More information of warranty policy, please access https://pcsupport.lenovo.com/warranty

# ENVIRONMENTAL

## Operating Environment

**Temperature**

Storage: -40°C (-40°F) to 60°C (140°F)

**Humidity**

- Operating: 20% to 80%
- Storage: 10% to 90%

**Altitude**

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

# CERTIFICATIONS

## Green Certifications

**Green Certifications**

- ENERGY STAR® 8.0
- 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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LEGION






LEGION



