

**OVERVIEW**



1. 2x USB 2.0	8. USB 3.2 Gen 2
2. 2x USB 3.2 Gen 1	9. 2x USB 3.2 Gen 1
3. Headphone (3.5mm)	10. Ethernet (RJ-45)
4. Power button	11. 6x Audio line-out (3.5mm)
5. Microphone (3.5mm)	12. Optional ports on expansion cards
6. 4x USB 2.0	13. Power connector
7. USB-C 3.2 Gen 2	

## PERFORMANCE

### Processor

#### Processor Family

10th Generation Intel® Core™ i7 / i9 or 11th Generation Intel Core i7 / i9 Processor

#### Processor\*\*[1]

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i7-10700K	8	16	3.8GHz	5.1GHz	16MB	DDR4-2933	Intel UHD Graphics 630
Core i7-10700KF	8	16	3.8GHz	5.1GHz	16MB	DDR4-2933	-
Core i7-11700K	8	16	3.6GHz	5.0GHz	16MB	DDR4-3200	Intel UHD Graphics 750
Core i9-10850K	10	20	3.6GHz	5.2GHz	20MB	DDR4-2933	Intel UHD Graphics 630
Core i9-10900K	10	20	3.7GHz	5.3GHz	20MB	DDR4-2933	Intel UHD Graphics 630
Core i9-10900KF	10	20	3.7GHz	5.3GHz	20MB	DDR4-2933	-
Core i9-11900K	8	16	3.5GHz	5.3GHz	16MB	DDR4-3200	Intel UHD Graphics 750
Core i9-11900KF	8	16	3.5GHz	5.3GHz	16MB	DDR4-3200	-

#### Notes:

1. Intel UHD Graphics 630 in processor is disabled

### Operating System

#### Operating System\*\*

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 Home 64 Single Language
- Windows 10 Pro 64
- Windows 10 Home 64
- Windows 10 Home 64 Single Language
- No operating system

### Graphics

#### Graphics\*\*[1]

Graphics	Type	Memory	Connector	Max Resolution	Key Features
AMD Radeon™ RX 6800XT	Discrete	16GB GDDR6	1x HDMI® 2.1, 2x DP 1.4, 1x USB-C® 3.2 Gen2	7680*4320@120Hz(HDMI), 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 2080 SUPER	Discrete	8GB GDDR6	1x HDMI 2.0b, 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 3060 Ti	Discrete	8G 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
NVIDIA GeForce RTX 3070 Ti	Discrete	8G GDDR6X	3x DP 1.4a, 1x HDMI 2.1	7680x4320@60Hz(HDMI); 7680x4320@60Hz(DP)	DirectX 12

NVIDIA GeForce RTX 3080	Discrete	10G GDDR6X	3x DP 1.4a, 1x HDMI 2.1	7680x4320@60Hz(HDMI); 7680x4320@60Hz(DP)	DirectX 12
NVIDIA GeForce RTX 3080 Ti	Discrete	12G GDDR6X	3x DP 1.4a, 1x HDMI 2.1	7680x4320@60Hz(HDMI); 7680x4320@60Hz(DP)	DirectX 12

Notes:

- 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<sup>[1]</sup>

Supports up to 4 independent displays via discrete graphics

Notes:

- Ports may vary by the discrete graphics.

## Chipset

### Chipset

Intel Z490 chipset

## Memory

### Max Memory<sup>[1]</sup>

Up to 128GB DDR4-2933

### Memory Slots

Four DDR4 UDIMM slots, dual-channel capable

### Memory Type<sup>\*\*[2]</sup>

- DDR4-3200
- DDR4-3200, Armor
- DDR4-3600, RGB Armor, XMP

### Memory Protection

Non-ECC

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.
- Installed memory is actually 3200MHz or 3600MHz, but may run at 2933MHz depending on the memory support capability of processor

## Storage

### Storage Support<sup>[1]</sup>

Up to six drives, 2x 3.5" HDD + 2x 2.5" HDD + 2x M.2 SSD

- 3.5" HDD up to 2TB
- 2.5" HDD up to 1TB
- M.2 SSD up to 1TB

### Storage Type<sup>\*\*\*</sup>

Disk Type	Interface	RPM	Security
3.5" SATA HDD	SATA 6Gb/s	7.2K	-
M.2 2280 SSD	PCIe® NVMe®, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4	-	-

### RAID

RAID 0/1/5 support

Notes:

- 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® ALC892 codec

### Speakers

No speakers

## Power Supply

### Power Supply\*\*

Power	Type	Efficiency	Key Features
550W	Fixed	88%	220V
650W	Fixed	90%	100V - 240V
850W	Fixed	90%	100V - 240V

## DESIGN

## Input Device

### Keyboard\*\*

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

### Mouse\*\*

- Lenovo Calliope Mouse (USB connector), black
- USB Mouse, black

## Mechanical

### Form Factor

Tower (34L)

### Dimensions (WxDxH)

211 x 450 x 483 mm (8.3 x 17.7 x 19 inches)

### Packaging Dimensions (WxDxH)

320 x 580 x 625 mm (12.6 x 22.8 x 24.6 inches)

### Weight

12.5 kg (27.6 lbs)

### Packaging Weight

All models: 17 kg (37.47 lbs)

### Case Color

Raven black

### Chassis\*\*

- Transparent side cover
- Transparent side cover and inner decorate cover

### Bays

- 2x 2.5" disk bay
- 2x 3.5" disk bay

**Expansion Slots**

- Two PCIe 3.0 x16
- Three 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) 1x front system fan, 1x rear system fan with ARGB
- (Optional) 2x top system fan with ARGB, 3x front system fan with ARGB, 1x rear system fan with ARGB
- (Optional) 3x front system fan with ARGB, 1x rear system fan with ARGB
- (Optional) 150W side flow Air-Cooler or 200W Liquid-Cooler

**System Lighting\*\***

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

**Others**

(Optional) Carry handle

**CONNECTIVITY****Network****Ethernet**

Gigabit Ethernet, 1x RJ-45

**WLAN + Bluetooth<sup>[1]</sup>**

- Wi-Fi® 6, 802.11ax 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Wi-Fi 6, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 card

**Notes:**

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

**Ports<sup>[1]</sup>****Rear Ports<sup>[1][2]</sup>**

- 4x USB 2.0
- 2x USB 3.2 Gen 1
- 1x USB 3.2 Gen 2
- 1x USB-C 3.2 Gen 2 (support data transfer and 5V@3A charging)
- 1x Ethernet (RJ-45)
- 1x line-in (blue)
- 1x line-out / front output (green)
- 1x microphone in (pink)
- 1x centre and subwoofer combine output (orange)
- 1x side surround output (grey)
- 1x rear surround output (black)
- 1x power connector

**Top Ports**

- 2x USB 2.0
- 2x USB 3.2 Gen 1
- 1x headphone (3.5mm)
- 1x microphone (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
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\*\*<sup>[1]</sup>

- 1-year mail-in service
- 1-year depot service
- 1-year limited onsite service
- 2-year depot service
- 3-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 (on some models)
- 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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