PERFORMANCE

Processor

Processor Family

8th / 9th Generation Intel® Core™ i5 / i7 / i9 Processor

Processor[1]

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-8400	6	6	2.8GHz	4.0GHz	9MB	DDR4-2666	Intel UHD Graphics 630
Core i7-8700	6	12	3.2GHz	4.6GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i7-8700K	6	12	3.7GHz	4.7GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i7-9700	8	8	3.0GHz	4.7GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i7-9700K	8	8	3.6GHz	4.9GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i9-9900	8	16	3.1GHz	5.0GHz	16MB	DDR4-2666	Intel UHD Graphics 630
Core i9-9900K	8	16	3.6GHz	5.0GHz	16MB	DDR4-2666	Intel UHD Graphics 630

Notes:

1. Intel UHD Graphics 630 in processor is disabled

Operating System

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- FreeDOS

Graphics

Graphics[1]

Graphics	Type	Memory	Connector	Max Resolution	Key Features
AMD Radeon™ RX 570	Discrete	4GB GDDR5	1x HDMI® 2.0, 3x DP 1.4	4096x2160@60Hz(HDMI), 5120x2880@60Hz(DP)	DirectX® 12 VR ready
AMD Radeon RX 5700XT	Discrete	8GB GDDR6	1x HDMI 2.0, 3x DP 1.4	7680x4320@60Hz(DP)	DirectX 12
NVIDIA® GeForce® GTX 1060	Discrete	3GB GDDR5	1x HDMI 2.0, 1x DVI, 3x DP 1.3	4096x2160@60Hz(HDMI), 5120x3200@60Hz(DP), 2560x1600@60Hz(DVI)	DirectX 12 VR ready
NVIDIA GeForce GTX 1060	Discrete	6GB GDDR5	1x HDMI 2.0, 1x DVI, 3x DP 1.3	4096x2160@60Hz(HDMI), 5120x3200@60Hz(DP), 2560x1600@60Hz(DVI)	DirectX 12 VR ready
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 2060	Discrete	6GB GDDR6	1x HDMI 2.0b, 3x DP 1.4, 1x DVI	7680x4320@60Hz(DP)	DirectX 12
NVIDIA GeForce RTX 2060 SUPER	Discrete	8GB GDDR6	1x HDMI 2.0b, 3x DP 1.4	7680x4320@60Hz(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	Discrete	8GB GDDR6	1x HDMI 2.0b, 1x USB Type-C Gen 2, 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 Type-C Gen 2, 3x DP 1.4	7680x4320@60Hz(DP)	DirectX 12 VR ready

NVIDIA GeForce RTX 2080	Discrete	8GB GDDR6	1x HDMI 2.0b, 1x USB Type-C Gen 2, 3x DP 1.4	7680x4320@60Hz(DP)	DirectX 12 VR ready
NVIDIA GeForce RTX 2080 Ti	Discrete	11GB GDDR6	1x HDMI 2.0b, 1x USB Type-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

Notes:

1. 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

Monitor Support[1]

Supports up to 5 independent displays via discrete graphics ports** (DP, HDMI, USB-C 3.2 Gen2, and DVI)

Notes:

1. Ports may vary by the discrete graphics.

Chipset

Chipset

Intel Z370 chipset

Memory

Memory Type[1]

- DDR4-2666
- DDR4-2666, XMP
- DDR4-3200, XMP

Memory Slots

Two DDR4 UDIMM slots, dual-channel capable

Memory Protection

Non-ECC

Max Memory[2]

Up to 32GB DDR4-2666

Notes:

1. Installed memory is actually 2666MHz or 3200MHz, but may run at 2666MHz 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 3 drives, 2x 3.5" HDD + 1x M.2 SSD
• 3.5" HDD up to 2TB each
• M.2 SSD up to 1TB each
• Optional Intel Optane™ Memory

RAID

Not support

Storage Type

Disk Type	Interface	RPM	Security
3.5" SATA HDD	SATA 6Gb/s	7.2K	-
M.2 2242 SSD	PCIe NVMe	-	-
M.2 2280 SSD	PCIe NVMe	-	-

Intel Optane Memory	PCIe NVMe, PCIe 3.0 x2	-	-

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® ALC233 codec

Speakers

No speakers

Power Supply

Power Supply

Power	Type	Efficiency	Key Features
450W	Fixed	-	100V - 240V
500W	Fixed	-	100V - 240V
625W	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 408 x 363 mm (7.26 x 16.06 x 14.29 inches)

Weight

12 kg (26.46 lbs)

Case Color

Raven black

Bays

2x 3.5" disk bay

Expansion Slots

- One PCIe 3.0 x16, full-length (< 312mm) full-height (< 111mm)
- Two M.2 slots (one for WLAN, one for SSD)

Cooling System (Fan&Cooler)

- (Optional) Front system fan, rear system fan for airflow or liquid
- (Optional) 65W Air-Cooler with Legion cooler light, 130W Air-Cooler or 130W Liquid-Cooler

System Lighting

Full internal RGB system lighting (over 16.8 million color combiantions)

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Realtek RTL8118AS, 1x RJ45

WLAN + Bluetooth™

- 802.11ac 2x2 Wi-Fi + Bluetooth 4.1, M.2 card
- No WLAN and Bluetooth

Ports

Rear Ports[1]

- 2x USB 2.0
- 4x USB 3.1 Gen 1
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)
- 1x power connector

Top Ports

- 2x USB 3.1 Gen 1
- 1x microphone (3.5mm)
- 1x headphone / microphone combo jack (3.5mm)

Notes:

1. For video ports on discrete graphics, please see graphics section

SECURITY & PRIVACY

Security

BIOS Security

- Power-on password
- Administrator password

SERVICE

Warranty

Base Warranty

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

CERTIFICATIONS

Green Certifications

Green Certifications

- ErP Lot 3
- RoHS compliant











