

PERFORMANCE

Processor

Processor Family

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

Processor

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:

- Intel UHD Graphics 630 in processor is disabled

Operating System

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

Graphics

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	7680x4320@60Hz(DP)	DirectX 12 VR ready

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

- Notes:
- Ports may vary by the discrete graphics.

Chipset

Intel Z370 chipset

Memory

Memory Type

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

- Notes:
- Installed memory is actually 2666MHz or 3200MHz, but may run at 2666MHz depending on the memory support capability of processor

Memory Slots

Two DDR4 UDIMM 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 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	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 combinations)

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

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

Notes:

- For video ports on discrete graphics, please see graphics section

Top Ports

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

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

- ErP Lot 3
- RoHS compliant

