

PERFORMANCE

Processor

Processor Family

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

Processor

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:

- 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 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 Type-C Gen 2, 3x DP 1.4	7680x4320@60Hz(DP)	DirectX 12 VR ready
NVIDIA GeForce RTX 3070	Discrete	8G GDDR6	3x DP 1.4a, 1x HDMI 2.1	7680x4320@60Hz(HDMI); 7680x4320@60Hz(DP)	DirectX 12

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 B460 chipset

Memory

Memory Type

- DDR4-2933
- DDR4-3200, Armor

Notes:

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

Memory Slots

Four DDR4 UDIMM slots, dual-channel capable

Memory Protection

Non-ECC

Max Memory

Up to 128GB DDR4-2933

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 2 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

RAID

Not support

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	-	-

Removable Storage

Optical

- DVD burner (DVD±RW), SATA 1.5Gb/s, slim (9.0mm)
- Not configured

Card Reader

Not Support

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC887 codec

Speakers

Not Support

Power Supply

Power	Type	Efficiency	Key Features
350W	Fixed	-	100V - 240V
400W	Fixed	-	100V - 240V
650W	Fixed	-	100V - 240V

DESIGN

Input Device

Keyboard

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Keyboard (USB connector), black
- Not configured

Mouse

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Mouse (USB connector), black
- Not configured

Mechanical

Form Factor

Tower (28L)

Dimensions (WxDxH)

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

Weight

14 kg (30.86 lbs)

Case Color

Phantom black

Bays

2x 3.5" disk bay

Expansion Slots

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

Cooling System (Fan&Cooler)

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

System Lighting

- Front panel light; optional ARGB cooler light and ARGB system fan light
- Not configured

Others

- Carry handle
- 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
- Not configured

Ports

Front Ports

Not Support

Notes:

- 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;

Rear Ports

- 2x USB 2.0
- 2x USB 3.2 Gen 1
- 1x USB-C 3.2 Gen 1
- 1x Ethernet (RJ-45)
- 1x microphone (3.5mm)
- 1x line-in (3.5mm)
- 1x line-out (3.5mm)
- 1x power connector

Notes:

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

Top Ports

- 2x USB 3.2 Gen 1
- 1x headphone / microphone combo jack (3.5mm)

SECURITY & PRIVACY

Security

Security Chip

Firmware TPM 2.0 integrated in chipset

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
- OB

CERTIFICATIONS

Green Certifications

- ENERGY STAR® 8.0
- ErP Lot 3
- RoHS

