

# **OVERVIEW**



1. Power button	6. DisplayPort
2. USB-C 3.2 Gen 2	7. 2x USB 3.2 Gen 2
3. 2x USB 3.2 Gen 2	8. USB-C 3.2 Gen 2 (display and power-in)
4. Headphone / microphone combo jack (3.5mm)	9. Ethernet (RJ-45)
5. Power connector	10. Kensington Security Slot



### **PERFORMANCE**

#### **Processor**

#### **Processor Family**

8th Generation Intel® Core™ i3 / i5 / i7 Processor

### Processor\*\*

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i3-8145U	2	4	2.1GHz	3.9GHz	4MB	DDR4-2400	Intel UHD Graphics
Core i5-8265U	4	8	1.6GHz	3.9GHz	6MB	DDR4-2400	Intel UHD Graphics
Core i5-8365U	4	8	1.6GHz	4.1GHz	6MB	DDR4-2400	Intel UHD Graphics
Core i7-8665U	4	8	1.9GHz	4.8GHz	8MB	DDR4-2400	Intel UHD Graphics

## **Operating System**

### Operating System\*\*

- Windows® 10 Pro 64
- Windows 10 Home 64
- Windows 10 Home 64 Single Language
- Windows 10 IoT Enterprise
- Ubuntu Linux
- No operating system

## **Graphics**

### Graphics[1]

Graphics	Туре	Memory	Connector	Max Resolution	Key Features
Intel UHD Graphics 620	Integrated	Shared	1x DP, 1 USB- C®	4096x2304@60Hz(DP); 4096x2304@60Hz(USB-C)	DirectX® 12

### Notes:

## **Monitor Support**

### **Monitor Support**

Supports up to 2 independent displays via onboard ports (DisplayPort™ and USB-C)

### Chipset

### Chipset

Intel SoC (System on Chip) platform

### Memory

### Max Memory[1]

- 4GB soldered memory, not upgradable
- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable

### **Memory Slots**

Memory soldered to systemboard, no slots

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

DDR4-2666

#### 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 2666MHz, but runs at 2400MHz due to the memory support capability of processor

<sup>1.</sup> The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)



## **Storage**

#### Storage Support[1]

Up to two drives, 2x M.2 SSD

- M.2 SSD up to 1TB each
- Optional Intel Optane™ Memory Integrated with SSD, M.2

#### Storage Type\*\*\*

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal
Intel Optane Memory with Solid State Storage, M.2 2280	PCIe NVMe, PCIe 3.0 x4	-	-

#### **RAID**

RAID 0/1 support for M.2 SSDs (RAID preset only available via special bid models)

#### Notes:

## **Removable Storage**

#### **Optical**

None

#### **Card Reader**

No card reader

#### Multi-Media

#### **Audio Chip**

High Definition (HD) Audio, Realtek® ALC233VB codec

#### **Speakers**

Single speaker, 1W x1

### **Power Supply**

### **Power Supply**

Power	Туре	Efficiency	Key Features
65W	Adapter	88%	-
No power supply	-	-	-

### **DESIGN**

### **Input Device**

### Keyboard\*\*

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black
- Lenovo Traditional Keyboard (USB connector), black
- · No keyboard folio

### Mouse\*\*

- · Lenovo Calliope Mouse (USB connector), black
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black
- No mouse

### Mechanical

### **Form Factor**

Nano (0.35L)

<sup>1.</sup> 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.



#### **Dimensions (WxDxH)**

179 x 88 x 22 mm (7.05 x 3.46 x 0.87 inches)

#### Packaging Dimensions (WxDxH)

490 x 125 x 255 mm (19.29 x 4.92 x 10.04 inches)

#### Weight

Around 0.505 kg (1.11 lbs)

#### **Packaging Weight**

0.83 kg (1.83 lbs)

#### **Case Color**

Iron grey (top cover), black (mid bezel), red (bottom cover)

#### Bays

No bays

#### **Expansion Slots**

Three M.2 slots (one for WLAN, two for SSD)

#### **Stand**

No stand

### **IO** Box

No IO box

#### Mounting\*\*

- VESA mount bracket kit with adapter holder, supports VESA mount 75mm and 100mm
- VESA mount bracket kit, supports VESA mount 75mm and 100mm
- · DIN rail mount bracket kit
- None

### CONNECTIVITY

### Network

### Onboard Ethernet\*\*

- Gigabit Ethernet, Intel Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN
- Gigabit Ethernet, Intel Ethernet Connection I219-V, 1x RJ-45, supports Wake-on-LAN

#### **Optional Ethernet**

No optional Ethernet

## WLAN + Bluetooth®\*\*[1]

- 802.11ac 1x1 Wi-Fi $^{\circ}$  + Bluetooth 5.0, M.2 card
- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wireless-AC 9462, 802.11ac Dual Band 1x1 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, Intel vPro technology support, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 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<sup>[1]</sup>

### **Front Ports**

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

### Rear Ports[2]

- 2x USB 3.2 Gen 2
- 1x USB-C 3.2 Gen 2 (support display function and power-in [20V and >45W])
- 1x DisplayPort
- 1x Ethernet (RJ-45)



#### 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

#### **Monitor Cable**

#### Monitor Cable\*\*\*

- USB-C to DP dongle
- USB-C to HDMI® dongle
- USB-C to VGA dongle
- DP to VGA dongle
- DP to HDMI 1.4 dongle
- No monitor cable

## **SECURITY & PRIVACY**

## **Security**

#### **Security Chip**

Discrete TPM 2.0, TCG certified

#### **Physical Locks**

Kensington® Security Slot™, 3 x 7 mm

#### **Chassis Intrusion Switch**

Chassis intrusion switch

### **Fingerprint Reader**

- · Touch style fingerprint reader on mouse
- No fingerprint reader

### **BIOS Security**

- · Administrator password
- · Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

### MANAGEABILITY

### **System Management**

## System Management[1]

- Intel vPro
- Non-vPro

#### Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

### **SERVICE**

## Warranty

#### Base Warrantv\*\*[1]

- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty



#### Notes:

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

### **ENVIRONMENTAL**

## **Operating Environment**

#### **Temperature**

Operating: 5°C (41°F) to 35°C (95°F)
 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**

- EPEAT™ Silver
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 8.0
- · RoHS compliant
- REACH
- WEEE

#### **Other Certifications**

#### **Other Certifications**

- (Optional) TÜV Rheinland® Low Noise
- (Optional) TÜV Rheinland Ultra Low Noise

#### Mil-Spec Test

MIL-STD-810H military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)

- Feature with \*\* means that only one offering listed under the feature is configured on selected models.
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