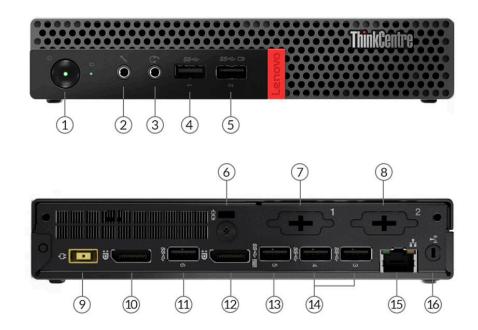
Lenovo

# **OVERVIEW**



1. Power button	9. Power connector
2. Microphone (3.5mm)	10. DisplayPort
3. Headphone / microphone combo jack (3.5mm)	11. USB 3.1 Gen 1
4. USB 3.1 Gen 1	12. DisplayPort
5. USB 3.1 Gen 1	13. USB 2.0
6. Kensington Security Slot	14. 2x USB 2.0
7. Optional port 1 *	15. Ethernet (RJ-45)
8. Optional port 2 *	16. Wi-Fi antenna slot

Notes:

• Items with \* are only available on selected models

# PERFORMANCE

# **Processor**

## **Processor Family**

AMD E2 / A4 Processor

## Processor\*\*

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD A4-9120C	2	2	1.6GHz	2.4GHz	1MB L2	DDR4-1866	AMD Radeon™ R4 Graphics
AMD A4-9120e	2	2	1.5GHz	2.2GHz	1MB L2	DDR4-1866	AMD Radeon R3 Graphics
AMD E2-9000e	2	2	1.5GHz	2.0GHz	1MB L2	DDR4-1866	AMD Radeon R2 Graphics

# **Operating System**

## **Operating System**\*\*

- LeTOS<sup>™</sup> V2 (Lenovo<sup>®</sup> Terminal Operating System, Linux-based)
- Windows<sup>®</sup> 10 IoT Enterprise
- Windows 10 IoT Enterprise (Thin Client)
- Windows Embedded Standard 7 V2 (WES 7 V2)

# Graphics

## Graphics\*\*

Graphics	Туре	Memory	Connector	Max Resolution	Key Features
AMD Radeon R2 Graphics	Integrated	Shared	2x DisplayPort™, 1x optional port (VGA)	3840x2160@60Hz(DP), 2048x1280@60Hz(VGA)	DirectX® 12
AMD Radeon R3 Graphics	Integrated	Shared	2x DisplayPort, 1x optional port (VGA)	3840x2160@60Hz(DP), 2048x1280@60Hz(VGA)	DirectX 12
AMD Radeon R4 Graphics	Integrated	Shared	2x DisplayPort, 1x optional port (VGA)	3840x2160@60Hz(DP), 2048x1280@60Hz(VGA)	DirectX 12

# **Monitor Support**

## **Monitor Support**

Supports up to 2 independent displays via onboard ports (2x DisplayPort and 1x optional port [VGA])

# Chipset

## Chipset

AMD SoC (System on Chip) platform

# Memory

Max Memory<sup>[1]</sup> Up to 8GB DDR4-2666

# Memory Slots

One DDR4 SO-DIMM slot

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

DDR4-2666

Notes:

[1] The max memory is based on the test results with current Lenovo memory offerings.

[2] Installed memory is actually 2666MHz, but run at 1866 due to the memory support capability of processor.

# Storage

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

One drive, up to 128GB M.2 2242 SSD

Storage Type\*\*

Disk Type	Interface	Security
M.2 2242 SSD	SATA 6Gb/s	-
M.2 2242 SSD	PCIe <sup>®</sup> NVMe <sup>®</sup>	-
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4	Opal 2.0

### RAID

No support

Notes:

[1] The max capacity of each disk type is based on the test results with current Lenovo storage offerings.

# **Removable Storage**

Optical

# None

Card Reader

No card reader

# Multi-Media

## **Audio Chip**

High Definition (HD) Audio, Realtek® ALC233-VB2-CG codec

**Speakers** Single speaker, 1.5W x1

# **Power Supply**

# Power Supply\*\*

Power	Туре	Efficiency	Key Features
65W	Adapter	88%	Autosensing
135W	Adapter	89%	Autosensing
No power supply	-	-	-

# DESIGN

# **Input Device**

## Keyboard

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

## Mouse

Lenovo Calliope Mouse (USB connector), black

# Mechanical

Form Factor

Tiny (1L)

## Dimensions (WxDxH)<sup>[1]</sup>

179 x 182.9 x 34.5 mm (7.05 x 7.20 x 1.36 inches)

#### Weight<sup>[2]</sup>

Around 1.3 kg (2.87 lbs)

Case Color

Black

Bays

No bays

Expansion Slots

Two M.2 slots (one for WLAN, one for SSD)

## EOU

(Optional) toolless chassis open (toolless chassis screw required) and toolless M.2 SSD, HDD, memory assembly / removal **Stand** 

- Vertical stand
- No stand

#### Mounting

- VESA mount bracket kit, supports VESA mount 75mm and 100mm
- None

## Others

(Optional) Power adapter cage

#### Notes:

[1] The system dimensions may vary depending on configurations.

[2] The system weight is approximate and based on results in Lenovo lab, which varies depending on the source of component, variance of the distribution of each component, and manufacturing process. It may not be the exact weight for each specific model.

# CONNECTIVITY

## Network

#### **Onboard Ethernet**

Gigabit Ethernet, Realtek RTL8111HN, 1x RJ-45, supports Wake-on-LAN

#### **Optional Ethernet**

No optional Ethernet

#### WLAN + Bluetooth®\*\*[1]

- Realtek RTL8821CE, 802.11ac Dual Band 1x1 Wi-Fi® + Bluetooth 4.2, M.2 card
- Realtek RTL8822BE, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 4.2, M.2 card
- Qualcomm<sup>®</sup> QCA9377, 802.11ac Dual Band 1x1 Wi-Fi + Bluetooth 4.2, M.2 card
- Qualcomm QCA6174A, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 4.2, M.2 card
- Intel® Wireless-AC 9260, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- No WLAN and Bluetooth

#### Notes:

[1] Win 10 RS3 and Win10 earlier version only support Bluetooth 4.1.

## **Ports**<sup>III</sup>

#### Front Ports

- 2x USB 3.1 Gen 1 (one supports Always On and fast charge)
- 1x headphone / microphone combo jack (3.5mm)
- 1x microphone (3.5mm)

#### **Optional Front Ports**

### None

#### **Rear Ports**

- 1x USB 3.1 Gen 1
- 3x USB 2.0
- 2x DisplayPort
- 1x Ethernet (RJ-45)

#### **Optional Rear Ports**\*\*\*

- Optional port 1 (one of VGA / serial)
- Optional port 2 (serial)

#### 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; USB4® 20Gbps / USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s; USB4 40Gbps (USB 40Gbps): 40 Gbit/s; Thunderbolt<sup>™</sup> 3/4: 40 Gbit/s.

# **Monitor Cable**

### Monitor Cable\*\*\*

- VGA Cable Tiny
- DP to VGA dongle
- DP to VGA cable (1.5M)
- DP to DVI-D dongle
- DP to HDMI® dongle
- No monitor cable

# **SECURITY & PRIVACY**

# **Security**

#### Security Chip

Discrete TPM 2.0, TCG certified

#### **Physical Locks**

Kensington<sup>®</sup> Security Slot<sup>™</sup>, 3 x 7 mm

#### **Chassis Intrusion Switch**

Chassis intrusion switch

#### Fingerprint Reader

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

Non-DASH

# SERVICE

# **Warranty**<sup>III</sup>

#### Base Warranty\*\*

- 1-year courier or carry-in service
- 1-year limited onsite service
- 3-year courier or carry-in service
- 3-year limited onsite service
- 3-year split limited onsite service
- No base warranty

#### Notes:

[1] The warranty upgrades may be bundled with some models, please check the "Included upgrade" column in the specific model's configurations. For more service extensions, please go to <a href="https://smartfind.lenovo.com/">https://smartfind.lenovo.com/</a>. To learn more details of

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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**<sup>III</sup>

#### Green Certifications<sup>[2]</sup>

- (Optional) ENERGY STAR<sup>®</sup> 8.0
- ErP Lot 3
- RoHS compliant
- TCO Certified
- WEEE

#### Notes:

[1] The items listed under the "Green Certifications" section may not only refer to certification but also registration or selfdeclaration.

[2] EnergyStar and EPEAT<sup>™</sup> are not for non-OS models.

## **Other Certifications**

#### **Mil-Spec Test**

MIL-STD-810G 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.
- Feature with \*\*\* means that one or more offerings listed under the feature could be configured on selected models.
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