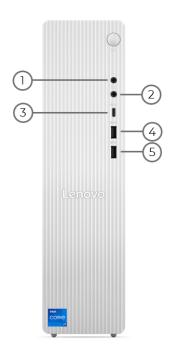
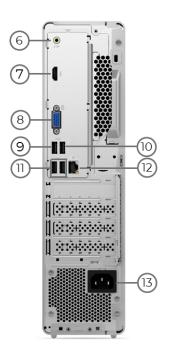


# **OVERVIEW**





1. 1x Microphone (3.5mm)	8. 1x VGA
2. 1x headphone / microphone combo jack (3.5mm)	9. 1x USB-A (USB 5Gbps), with Smart Power On
3. 1x USB-C (USB 5Gbps), with 15W charging	10. 1x USB-A (USB 5Gbps)
4. 1x USB-A (USB 5Gbps)	11. 2x USB-A (Hi-Speed USB)
5. 1x USB-A (USB 5Gbps)	12. 1x Ethernet (RJ-45)
6. 1x Audio-out (3.5mm)	13. 1x Power connector
7. 1x HDMI 2.1 TMDS	



# **PERFORMANCE**

### **Processor**

#### **Processor Family**

13th Generation Intel® Core™ i5 / i7 Processor

#### Processor\*\*

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i3-	6 (2 P-core +	8	P-core 1.2GHz / E-	P-core 4.5GHz / E-	10MB Intel®	DDR5-	Intel® UHD
1315U	4 E-core)		core 0.9GHz	core 3.3GHz	Smart Cache	5200	Graphics
Core i5-	8 (4 P-core +	12	P-core 2.1GHz / E-	P-core 4.6GHz / E-	12MB Intel®	DDR5-	Intel® UHD
13420H	4 E-core)		core 1.5GHz	core 3.4GHz	Smart Cache	5200	Graphics
Core i7-	10 (6 P-core	16	P-core 2.4GHz / E-	P-core 4.9GHz / E-	24MB Intel®	DDR5-	Intel® UHD
13620H	+ 4 E-core)		core 1.8GHz	core 3.6GHz	Smart Cache	5200	Graphics

# **Operating System**

### Operating System\*\*

- Windows® 11 Pro
- Windows® 11 Home
- Windows® 11 Home Single Language
- No preload operating system

# **Graphics**

# Graphics\*\*[1]

Graphics	Туре	Memory	Max Resolution	Connector	Key Features
Intel® UHD Graphics	Integrated	Shared	3840x2160@60Hz(HDMI®), 1920x1200@60Hz(VGA)	1x HDMI® 2.1 TMDS, 1x VGA	DirectX® 12, OpenGL 4.6
Intel® Arc™ A310 LP Graphics	Discrete	4GB GDDR6	3840x2160@60Hz(HDMI®), 1600x1200@60Hz(VGA)	1x HDMI® 2.1 TMDS, 1x VGA	DirectX® 12, OpenGL 4.6

#### Notes:

[1] The information of integrated graphics are not applicable for the models with processor which has no integrated graphics inside (for the details, please refer to processor section).

# **Monitor Support**

#### **Monitor Support**

Supports up to 2 independent displays via onboard ports (VGA + HDMI®)

# Chipset

#### Chipset

Intel® SoC (System on Chip) platform

# **Memory**

Max Memory[1]

Up to 32GB DDR5-5200

#### **Memory Slots**

Two DDR5 SODIMM slots, dual-channel capable

# **Memory Type**

DDR5-5200

# Notes:

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

# **Storage**



### Max Storage Support[1]

Up to three drives, 1x 3.5" HDD + 2x M.2 SSD

- 3.5" HDD bay only for customer self upgrade
- M.2 SSD up to 1TB each

### **Storage Type**

Disk Type	Interface	
M.2 2280 SSD	PCle® NVMe®, PCle® 4.0 x4	

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® ALC623-CG codec
- 24-bit DAC supports 44.1K/48K/96K sample rate, 2 channel DAC supports 16/20/24-bit PCM format for independent two stereo channel or 2.1 audio playback
- 24-bit ADC supports 44.1K/48K/96K sample rate, 2 channel ADC supports 16/20/24-bit PCM format for independent two stereo channel audio inputs

#### **Speakers**

No speakers

# **Power Supply**

### Power Supply\*\*

Power	Туре	Efficiency	Key Features
180W	Fixed	85%	100-240V, 50-60Hz
260W <sup>[1]</sup>	Fixed	90%	100-240V, 50-60Hz

#### Notes:

[1] Hybrid PSU sources configured for supply assurance; assembled product has maximum wattage of 258W.

# **DESIGN**

# **Input Device**

#### Keyboard

- Lenovo® Calliope Keyboard (USB connector), black
- Lenovo® Calliope Keyboard (USB connector), cloud grey
- · No keyboard

#### Mouse

- Lenovo® Calliope Mouse (USB connector), Cloud Grey
- Lenovo® Calliope Mouse (USB connector), black
- No mouse

#### Mechanical

# Form Factor

SFF (8.2L)

## Dimensions (WxDxH)[1]

89 x 291.4 x 339.5mm (3.5 x 11.5 x 13.4 inches)



#### Packaging Dimensions (WxDxH)

195 x 395 x 530 mm (7.7 x 15.6 x 20.9 inches)

Weight<sup>[2]</sup>

Around 3.59 kg (7.9 lbs)

#### **Packaging Weight**

All models: Around 5.89 kg (13.0 lbs)

**Case Color** 

Cloud grey

#### **Bays**

1x 3.5" disk bay

#### **Expansion Slots**

- One PCle® 3.0 x16, low-profile, length ≤ 155mm, height ≤ 70mm
- One PCle® 3.0 x1, low-profile, length ≤ 155mm, height ≤ 70mm
- Three M.2 slots (one for WLAN, two for SSD)

#### 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**

WLAN + Bluetooth®[1]

Wi-Fi® 6, 802.11ax 2x2 Wi-Fi® + Bluetooth® 5.2, M.2 card

#### **Onboard Ethernet**

Gigabit Ethernet, 1x RJ-45

#### Notes:

[1] Wi-Fi® operation (including Wi-Fi® 6, Wi-Fi® 6E, Wi-Fi® 7, etc.) is subject to the regulatory requirements of each country. Bluetooth® may operate at a lower version than hardware design depending on the factors such as operating system, driver, etc.

## Ports<sup>[1]</sup>

### **Front Ports**

- 1x USB-C® (USB 5Gbps / USB 3.2 Gen 1), with 15W charging
- 2x USB-A (USB 5Gbps / USB 3.2 Gen 1)
- 1x headphone / microphone combo jack (3.5mm)
- 1x microphone (3.5mm)

#### Rear Ports<sup>[2]</sup>

- 1x USB-A (USB 5Gbps / USB 3.2 Gen 1)
- 1x USB-A (USB 5Gbps / USB 3.2 Gen 1), with Smart Power On
- 2x USB-A (Hi-Speed USB / USB 2.0)
- 1x HDMI® 2.1 TMDS
- 1x VGA
- 1x Ethernet (RJ-45)
- 1x audio-out (3.5mm)
- 1x power connector

# 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™ 3/4: 40 Gbit/s.

Thunderbolt<sup>™</sup> 5: 80 Gbit/s (bidirectional), up to 120 Gbit/s in bandwidth boost mode for video-intensive applications.

[2] For video ports on discrete graphics, please see graphics section

# SECURITY & PRIVACY

# Security

### **Security Chip**

Firmware TPM 2.0 integrated in SoC

#### **BIOS Security**

- · Administrator password
- · Hard disk password
- · Power-on password
- More BIOS security features, please visit BIOS Simulator[1]

#### Notes:

[1] The BIOS simulator is just for reference. Default settings and some options may vary depending on the hardware, operating system and BIOS version.

## **MANAGEABILITY**

# **System Management**

#### **System Management**

None

# **SERVICE**

# **Warranty**<sup>[1]</sup>

# Base Warranty\*\*

- 1-year courier or carry-in service
- 1-year limited onsite service
- 2-year courier or carry-in service
- 3-year courier or carry-in service

#### 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 warranty policy, please access <a href="https://support.lenovo.com/warrantylookup/warrantypolicy">https://support.lenovo.com/warrantylookup/warrantypolicy</a>.

# **ACCESSORIES**

### **Bundled Accessories**

### **Bundled Accessories**

- Intelligent Cable (USB-A to USB-C®)
- Vertical Stand
- Vertical stand and USB A to Intelligent Cable (USB-A to USB-C®)
- None

# OPERATING REQUIREMENTS

# **Operating Environment**

# Temperature

# IdeaCentre Tower 08IRH9



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

• Storage: -40°C (-40°F) to 60°C (140°F)

#### **Relative Humidity**

• Operating: 10% to 90% (non-condensing)

• Storage: 10% to 90% (non-condensing)

#### **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>11</sup>

#### **Green Certifications**

- ErP Lot 3
- RoHS compliant

#### Notes:

[1] The items listed under the "Green Certifications" section may not only refer to certification but also registration or self-declaration. For ESG & regulatory compliance documents, please visit <a href="https://compliance.lenovo.com">https://compliance.lenovo.com</a>.

- Feature with \*\* means that only one option listed under the feature can be configured on selected models.

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