

## OVERVIEW



1. Power button	5. 2x USB 3.2 Gen 2
2. Combo audio jack (on bottom)	6. Ethernet (RJ-45)
3. Power connector	7. 2x USB 2.0
4. HDMI-out	8. Optical drive *

Notes:

- Ports with \* are only available on selected models

## PERFORMANCE

### Processor

#### Processor Family

Intel® Celeron®, Intel Pentium®, 12th Generation Intel Core™ i3 U-Series, or 12th Generation Intel Core i3 / i5 Processor P-Series

#### Processor\*\*[1]

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron 7305	5 (1 P-core + 4 E-core)	6	P-core 1.1GHz / E-core 0.9GHz	-	8MB	DDR4-3200	Intel UHD Graphics
Pentium Gold 8505	5 (1 P-core + 4 E-core)	6	P-core 1.2GHz / E-core 0.9GHz	P-core 4.4GHz / E-core 3.3GHz	8MB	DDR4-3200	Intel UHD Graphics
Core i3-1215U	6 (2 P-core + 4 E-core)	8	P-core 1.2GHz / E-core 0.9GHz	P-core 4.4GHz / E-core 3.3GHz	10MB	DDR4-3200	Intel UHD Graphics
Core i5-1235U	10 (2 P-core + 8 E-core)	12	P-core 1.3GHz / E-core 0.9GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	DDR4-3200	Intel Iris® Xe Graphics
Core i3-1220P	10 (2 P-core + 8 E-core)	12	P-core 1.5GHz / E-core 1.1GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	DDR4-3200	Intel UHD Graphics
Core i5-1240P	12 (4 P-core + 8 E-core)	16	P-core 1.7GHz / E-core 1.2GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i5-12450H	8 (4 P-core + 4 E-core)	12	P-core 2.0GHz / E-core 1.5GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	DDR5-4800	Intel UHD Graphics

#### Notes:

- Intel Iris Xe Graphics capability requires system to be configured with dual-channel memory. On the system with single-channel memory, Intel Iris Xe Graphics will function as Intel UHD Graphics.

### Operating System

#### Operating System\*\*

- Windows® 11 Pro
- Windows 11 Home
- Windows 11 DG Windows 10 Pro 64
- No operating system

### Graphics

#### Graphics\*\*[1][2]

Graphics	Type	Memory	Connector	Max Resolution	Key Features
Intel UHD Graphics	Integrated	Shared	1x HDMI® 1.4	1920x1080@60Hz	DirectX® 12
Intel Iris Xe Graphics	Integrated	Shared	1x HDMI 1.4	1920x1080@60Hz	DirectX 12
Intel UHD Graphics	Integrated	Shared	1x HDMI 1.4	1920x1080@60Hz	DirectX 12.1

#### Notes:

- The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)
- Intel Iris Xe Graphics capability requires system to be configured with dual-channel memory. On the system with single-channel memory, Intel Iris Xe Graphics will function as Intel UHD Graphics.

### Monitor Support

#### Monitor Support

Supports up to 2 independent displays via native display and 1 external monitor; supports external monitor via HDMI

### Chipset

#### Chipset

Intel SoC (System on Chip) platform

## Memory

### Max Memory<sup>[1]</sup>

Up to 16GB DDR4-3200

### Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

### Memory Type

DDR4-3200

#### 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.

## Storage

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

- Up to two drives, 1x 2.5" HDD + 1x M.2 SSD
  - 2.5" HDD up to 1TB
  - M.2 SSD up to 512GB
- For installing HDD storage, assembly kits are needed. The kits only come with HDD models.

### Storage Type\*\*

Disk Type	Interface	RPM
2.5" SATA HDD	SATA 6Gb/s	5.4K
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x4	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4	-
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4	-

### RAID

No support

#### Notes:

1. 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.

## 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® ALC256 codec

### Speakers

Stereo speakers, 3W x2, Audio by HARMAN

### Microphone\*\*

- Single microphone
- Dual-microphone array

### Camera

- HD 720p 0° Pre-angle pull up camera, with privacy shutter, LED indicator
- No camera

## Power Supply

### Power Supply

Power	Type	Efficiency	Key Features
90W	Adapter	89%	Autosensing

## DESIGN

### Display

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

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
21.5"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	1000:1	72% NTSC	horizontal: +/- 89°, vertical: +/- 89°	14ms response Time, 16.7 million color depth, 60Hz refresh rate, borderless design

#### Touchscreen

Non-touch

#### Notes:

- California Electronic Waste Recycling Fee

In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product.

For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

### Input Device

#### Keyboard\*\*

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard, black

#### Mouse\*\*

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- No mouse

### Mechanical

#### Form Factor

AIO (21.5 inches)

#### Dimensions (WxDxH)

490.3 x 185 x 405.39 mm (19.3 x 7.3 x 15.96 inches)

#### Packaging Dimensions (WxDxH)

591 x 231 x 522 mm (23.27 x 9.09 x 20.55 inches)

#### Weight

Around 5.7 kg (12.6 lbs)

#### Packaging Weight

Around 9.1 kg (20.01 lbs)

#### Case Color

Raven black

#### Bays

- 1x 2.5" disk bay
- For installing HDD storage, assembly kits are needed. The kits only come with HDD models.

#### Expansion Slots

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

#### EOU

Support EOU design for HDD

#### Stand

Monitor stand, supports -5° to +25° tilt, left & right 45° swivel

**Mounting**

None

**CONNECTIVITY****Network****Onboard Ethernet**

Gigabit Ethernet, Realtek RTL8111H, 1x RJ-45

**WLAN + Bluetooth®\*\*<sup>[1]</sup>**

- Intel Wi-Fi® 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 Card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Realtek Wi-Fi 6 RTL8852BE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card

**Notes:**

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

**Ports<sup>[1]</sup>****Rear Ports<sup>[2]</sup>**

- 1x HDMI-out
- 2x USB 2.0
- 2x USB 3.2 Gen 2
- 1x Ethernet (RJ-45)
- 1x power connector

**Bottom Ports**

1x headphone / microphone combo jack (3.5mm)

**Left Ports**

None

**Optional Left Ports**

None

**Right Ports**

None

**Optional Right Ports**

None

**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**

No monitor cable

**SECURITY & PRIVACY****Security****Security Chip**

Firmware TPM 2.0 integrated in SoC

**BIOS Security**

- Administrator password

- Power-on password
- Hard disk password
- Cover presence switch
- Intel BIOS guard

## SERVICE

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

#### Base Warranty\*\*

- 1-year courier or carry-in service
- 1-year limited onsite 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 <https://smartfind.lenovo.com/>. To learn more details 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: -20°C (-4°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

- (Optional) EPEAT™ Silver
- (Optional) ENERGY STAR® 8.0
- ErP Lot 3 and Lot 7
- RoHS / WEEE / REACH

### Other Certifications

#### Other Certifications

- TÜV Rheinland® Flicker Free
- TÜV Rheinland Low Blue Light
- TÜV Rheinland Low Noise

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