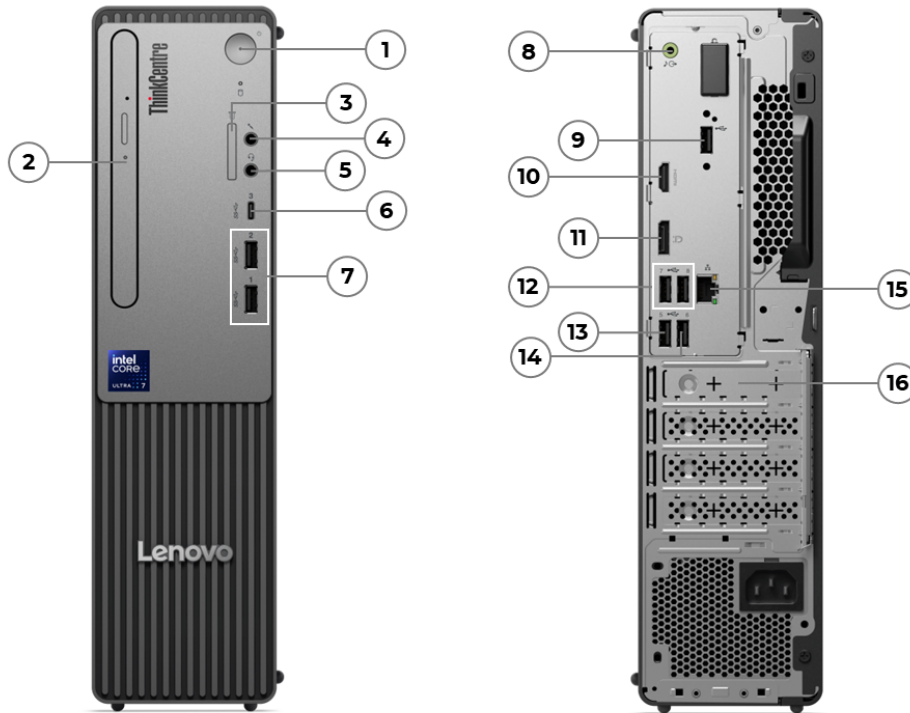


## OVERVIEW



|  |  |
|--|--|
| 1. Power button                              | 9. USB-A (Hi-Speed USB) *                  |
| 2. Optical drive *                           | 10. HDMI 2.1 TMDS                          |
| 3. Card reader *                             | 11. DisplayPort 1.4                        |
| 4. Microphone jack (3.5mm)                   | 12. 2x USB-A (Hi-Speed USB)                |
| 5. Headphone / microphone combo jack (3.5mm) | 13. USB-A (USB 5Gbps), with Smart Power On |
| 6. USB-C (USB 5Gbps), with 15W charging      | 14. USB-A (USB 5Gbps)                      |
| 7. 2x USB-A (USB 5Gbps)                      | 15. Ethernet (RJ-45)                       |
| 8. Audio line-out (3.5mm)                    | 16. Optional parts on expansion cards *    |

Notes:

- Items with \* are only available on selected models

## PERFORMANCE

### Processor

#### Processor Family

Intel® Core™ Ultra 3 / 5 / 7 Processor (Series 2)

#### Processor\*\*

| Processor Name   | Cores                     | Threads | Base Frequency                | Max Frequency  | Cache                                   | Processor Graphics | NPU                            | Overall TOPS  |
|------------------|---------------------------|---------|-------------------------------|--|---|--------------------|--------------------------------|---------------|
| Core Ultra 3 205 | 8 (4 P-core + 4 E-core)   | 8       | P-core 3.8GHz / E-core 3.2GHz | P-core 4.9GHz / E-core 4.4GHz                          | 16MB L2 Cache / 15MB Intel® Smart Cache | Intel® Graphics    | Intel® AI Boost, up to 13 TOPS | Up to 22 TOPS |
| Core Ultra 5 225 | 10 (6 P-core + 4 E-core)  | 10      | P-core 3.3GHz / E-core 2.7GHz | P-core 4.9GHz / E-core 4.4GHz                          | 22MB L2 Cache / 20MB Intel® Smart Cache | Intel® Graphics    | Intel® AI Boost, up to 13 TOPS | Up to 23 TOPS |
| Core Ultra 5 235 | 14 (6 P-core + 8 E-core)  | 14      | P-core 3.4GHz / E-core 2.9GHz | P-core 5.0GHz / E-core 4.4GHz                          | 26MB L2 Cache / 24MB Intel® Smart Cache | Intel® Graphics    | Intel® AI Boost, up to 13 TOPS | Up to 27 TOPS |
| Core Ultra 5 245 | 14 (6 P-core + 8 E-core)  | 14      | P-core 3.5GHz / E-core 3.0GHz | P-core 5.1GHz / E-core 4.5GHz                          | 26MB L2 Cache / 24MB Intel® Smart Cache | Intel® Graphics    | Intel® AI Boost, up to 13 TOPS | Up to 29 TOPS |
| Core Ultra 7 265 | 20 (8 P-core + 12 E-core) | 20      | P-core 2.4GHz / E-core 1.8GHz | Max Turbo up to 5.3GHz / P-core 5.2GHz / E-core 4.6GHz | 36MB L2 Cache / 30MB Intel® Smart Cache | Intel® Graphics    | Intel® AI Boost, up to 13 TOPS | Up to 33 TOPS |

### AI (Artificial Intelligence)

#### AI PC Category

AI PC<sup>[1]</sup>

Notes:

[1] AI PCs have a NPU capable of 10+ TOPs to run the Copilot assistant by pressing the optional Microsoft® Copilot key or using Win + C.

### Operating System

#### Operating System\*\*

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

### Graphics

#### Graphics\*\*

| Graphics                  | Type       | Memory    | AI TOPS (Peak) | Max Resolution                             | Connector                    | Key Features            |
|---------------------------|------------|-----------|----------------|--|------------------------------|-------------------------|
| Intel® UHD Graphics       | Integrated | Shared    | -              | 3840x2160@60Hz(HDMI®), 4096x2304@60Hz(DP)  | 1x HDMI® 2.1 TMDS, 1x DP 1.4 | DirectX® 12             |
| NVIDIA® GeForce RTX™ 3050 | Discrete   | 6GB GDDR6 | 108 TOPS       | 7680x4320@60Hz(HDMI®), 7680x4320@120Hz(DP) | 1x DP 1.4, 1x HDMI® 2.1 FRL  | DirectX® 12, OpenGL 4.6 |

### Monitor Support

## Monitor Support

Supports up to 2 independent displays via onboard ports (1x DP and 1x HDMI®), more displays support via discrete graphics

## Chipset

### Chipset

Intel® B860 chipset

## Memory

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

Up to 64GB DDR5-5600

### Memory Slots

Two DDR5 UDIMM slots, dual-channel capable

### Memory Type

DDR5-5600

Notes:

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

## Storage

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

- Up to three drives, 1x 3.5" HDD + 2x M.2 SSD
  - 3.5" HDD up to 2TB
  - M.2 SSD up to 1TB each
- To install a HDD storage, 3.5" HDD screw and grommet kit is needed.

### Storage Type<sup>\*\*\*</sup>

| Disk Type     | Interface                 | RPM  | Security |
|---------------|---------------------------|------|----------|
| 3.5" SATA HDD | SATA 6Gb/s                | 7.2K | -        |
| M.2 2280 SSD  | PCIe® NVMe®, PCIe® 4.0 x4 | -    | -        |
| M.2 2280 SSD  | PCIe® NVMe®, PCIe® 4.0 x4 | -    | Opal 2.0 |

Notes:

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

## Removable Storage

### Optical<sup>\*\*</sup>

- DVD-ROM, SATA connector, slim (9.0mm)
- DVD burner (DVD±RW), SATA connector, slim (9.0mm)
- None

### Card Reader

- 3-in-1 card reader (SD, SDHC, SDXC)
- No card reader

## Multi-Media

### Audio Chip<sup>\*\*</sup>

- 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
- Single speaker, 1W x1

## Power Supply

### Power Supply<sup>\*\*</sup>

| Power | Type  | Efficiency | Key Features      |
|-------|-------|------------|-------------------|
| 200W  | Fixed | 90%        | 100-240V, 50-60Hz |
| 260W  | Fixed | 90%        | 100-240V, 50-60Hz |

## DESIGN

### Input Device

#### Keyboard\*\*

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

#### Mouse

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

### Mechanical

#### Form Factor

SFF (8.2L)

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

| Models                 | Dimensions   |
|------------------------|--|
| Models (Max Dimension) | 92.5 x 291.7 x 339.5 mm (3.6 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 4.62 kg (10.19 lbs)

#### Packaging Weight

Around 5.6 kg (12.35 lbs)

#### Case Color

Raven black

#### Bays

1x 3.5" disk bay

#### Expansion Slots

- One PCIe® 4.0 x16, low-profile, length ≤ 155mm, height ≤ 70mm
- One PCIe® 3.0 x1, low-profile, length ≤ 155mm, height ≤ 70mm
- Three M.2 slots (one for WLAN, two for SSD)

#### EOU

No support

#### Stand

- Vertical stand
- No stand

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®\*\*<sup>[1]</sup>

- Realtek® Wi-Fi® 6 RTL8852BE, 802.11ax Dual Band 2x2 Wi-Fi® + Bluetooth® 5.2, M.2 card

- Intel® Wi-Fi® 6 AX203, 802.11ax 2x2 Wi-Fi® + Bluetooth® 5.2, M.2 card
- Intel® Wi-Fi® 6E AX211, 802.11ax 2x2 Wi-Fi® + Bluetooth® 5.3, M.2 card
- Realtek® Wi-Fi® 7 RTL8922AE, 802.11be 2x2 Wi-Fi® + Bluetooth® 5.4
- No WLAN and Bluetooth®

**Onboard Ethernet**

Gigabit Ethernet, Realtek® RTL8111K, 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**

- 2x USB-A (Hi-Speed USB / USB 2.0)
- 2x USB-A (USB 5Gbps / USB 3.2 Gen 1), one supports Smart Power On
- 1x HDMI® 2.1 TMDS
- 1x DisplayPort™ 1.4
- 1x Ethernet (RJ-45)
- 1x line-out (3.5mm)

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

- 1x USB-A (Hi-Speed USB / USB 2.0)
- 2x USB-A (USB 5Gbps / USB 3.2 Gen 1), via 2-port USB expansion card, PCIe® x1
- 1x parallel
- 1x serial
- 1x 2nd 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™ 3/4: 40 Gbit/s.

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

## SECURITY & PRIVACY

### Security

**Security Chip**

Discrete TPM 2.0, TCG certified, FIPS 140-2 certified

**Physical Locks**

- (Optional) Smart Cable Clip
- Kensington® Security Slot™, 3 x 7 mm
- Padlock Loop

**Chassis Intrusion Switch**

- Chassis intrusion switch
- No chassis intrusion switch

**BIOS Security**

- Administrator password

- Hard disk password
- Power-on password
- Absolute persistence module
- Boot sequence control
- Boot without keyboard and mouse
- Cover tamper detected
- Configuration change detection
- Individual USB port disablement
- Intel® BIOS guard
- Never crash Self-healing
- Secure wipe
- Secure boot
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- More BIOS security features, please visit [BIOS Simulator](#)

## MANAGEABILITY

### System Management

#### System Management

Non-vPro®

## SERVICE

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

#### Base Warranty\*\*

- 1-year courier or carry-in service
- 1-year 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 <https://smartfind.lenovo.com/>. To learn more details of warranty policy, please access <https://support.lenovo.com/warrantylookup/warrantypolicy>.

## ACCESSORIES

### Bundled Accessories

#### Bundled Accessories\*\*\*

- 3.5" HDD screw and grommet kit (optional, or comes with 3.5" HDD disk)
- DP to DVI dongle
- DP to Dual DP dongle
- DP to HDMI® dongle
- DP to VGA dongle
- HDMI® to HDMI® dongle
- HDMI® to VGA dongle
- Slim ODD bracket kit (optional, or comes with optical drive)
- Smart Cable (USB-A to USB-C®)
- None

## OPERATING REQUIREMENTS

### Operating Environment

#### Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

#### Relative 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)

## ENVIRONMENTAL

### Sustainability

**Material**

85% PCC ABS used in the chassis  
30% OBP used in the device bag  
FSC certified carton

## CERTIFICATIONS

### Green Certifications<sup>[1]</sup>

**Green Certifications**

- (Optional) ENERGY STAR® 9.0
- (Optional) EPEAT™ Gold Registered
- RoHS / WEEE / REACH

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**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 <https://compliance.lenovo.com>.

### Other Certifications

**Other Certifications**

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

- Feature with \*\* means that only one option listed under the feature can be configured on selected models. Please refer to the model configuration for specific information.
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