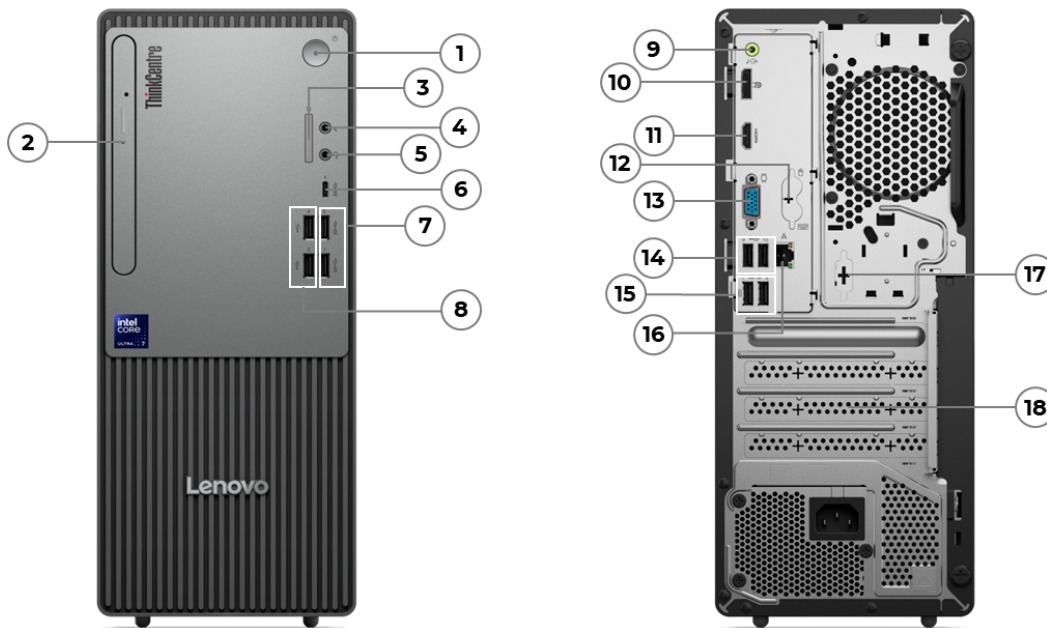


**OVERVIEW**



1. Power button	10. DisplayPort
2. Optical drive *	11. HDMI 2.1 TMDS
3. Card reader *	12. 2x PS/2 ports (keyboard / mouse) *
4. Microphone jack (3.5mm)	13. VGA
5. Headphone / microphone combo jack (3.5mm)	14. 2x USB-A (Hi-Speed USB)
6. USB-C (USB 5Gbps), data transfer only	15. 2x USB-A (USB 5Gbps), with Smart Power On
7. 2x USB-A (USB 5Gbps)	16. Ethernet (RJ-45)
8. 2x USB-A (Hi-Speed USB)	17. Serial *
9. Audio-out (3.5mm)	18. Optional ports 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, up to 4 TOPS	Intel® AI Boost, up to 13 TOPS	Up to 23 TOPS
Core Ultra 5 225F	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® AI Boost, up to 13 TOPS	Up to 19 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, up to 6 TOPS	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, up to 8 TOPS	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, up to 8 TOPS	Intel® AI Boost, up to 13 TOPS	Up to 33 TOPS

### AI (Artificial Intelligence)

#### AI PC Category

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

#### NPU

Integrated Intel® AI Boost, up to 13 TOPS

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<sup>[1]</sup>

Graphics	Type	Memory	AI TOPS (Peak)	Max Resolution	Connector	Key Features
Intel® UHD	Integrated	Shared	-	3840x2160@60Hz(HDMI®),	1x HDMI® 2.1	DirectX® 12

Graphics				1920x1200@60Hz(VGA), 3840x2160@60Hz(DP)	TMDS, 1x VGA, 1x DP 1.4	
NVIDIA® GeForce RTX™ 3050	Discrete	6GB GDDR6	108 TOPS	7680x4320@60Hz(HDMI®), 7680x4320@120Hz(DP)	1x HDMI® 2.1 FRL, 1x DP 1.4a	DirectX® 12, OpenGL 4.5
Intel® Arc™ A310 LP Graphics	Discrete	4GB GDDR6	-	3840x2160@60Hz(DP)	2x DP 1.4	DirectX® 12

## 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 3 independent displays via (HDMI®, DP and VGA), 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][2]</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

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.

[2] 3.5" HDD bracket kit is optional or comes with pre-configured HDD models.

## Removable Storage

### Optical

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

### Card Reader

- 3-in-1 card reader
- No card reader

## Multi-Media

### Audio Chip

High Definition (HD) Audio, Realtek® ALC623-CG codec

### Speakers

- No speakers
- Single speaker, 2W x1

## Power Supply

### Power Supply

Power	Type	Efficiency	Key Features
200W	Fixed	90%	100-240V, 50-60Hz
260W	Fixed	90%	100-240V, 50-60Hz
310W	Fixed	92%	100-240V, 50-60Hz
400W	Fixed	92%	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

Tower (13.6L)

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

Models	Dimensions
All models (Max Dimension)	145 x 292.2 x 365 mm (5.71x 11.50 x 14.37 inches)

### Packaging Dimensions (WxDxH)

240 x 395 x 530 mm (9.45 x 15.55 x 20.87 inches)

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

Around 5.8 kg (12.79 lbs)

### Packaging Weight

Around 7.8 kg (17.2 lbs)

### Case Color

Raven black

### Bays

- 1x 3.5" disk bay
- 1x slim ODD bay

### Expansion Slots

- One PCIe® 4.0 x16, full-height, length ≤ 233.6mm, height ≤ 117.5mm
- One PCIe® 3.0 x1, full-height, (length ≤ 185mm, height ≤ 100mm) or (length ≤ 118mm, height ≤ 110mm)
- Three M.2 slots (one for WLAN, two for SSD)

### EOU

- (Optional) toolless chassis open (toolless chassis screw required)

- No support

**Cooling System (Fan & Cooler)**

- (Optional) 1x rear system fan
- No System Fan

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>**

- 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 160MHz Wi-Fi® + Bluetooth® 5.4, M.2 card<sup>[2]</sup>
- No WLAN and Bluetooth®

**Onboard Ethernet**

Gigabit Ethernet, Realtek® RTL8111K, 1x RJ-45, supports Wake-on-LAN

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.

[2] The bandwidth of WiFi 7 adapter is 160 MHz.

Wi-Fi® 7 and Bluetooth® 5.4 require the supported Windows® OS.

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

**Front Ports**

- 1x USB-C® (USB 5Gbps / USB 3.2 Gen 1), with data transfer and 15W charging
- 2x USB-A (Hi-Speed USB / USB 2.0)
- 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>**

- 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 VGA
- 1x Ethernet (RJ-45)
- 1x line-out (3.5mm)

**Optional Rear Ports**

- 1x parallel
- 2x serial
- 2x PS/2

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.  
[2] For video ports on discrete graphics, please see [graphics section](#)

## 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

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

## 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://support.lenovo.com/warrantylookup/warrantypolicy>.

## OPERATING REQUIREMENTS

### Operating Environment

#### Temperature

- Operating: 10°C (50°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

#### Relative Humidity

- Operating: 20% to 80%
- Storage: 20% to 90%

#### Altitude

- Operating: -15.2 m (-50 ft) to 3048 m (10,000 ft)
- Storage: -15.2 m (-50 ft) to 10668 m (35,000 ft)

## ENVIRONMENTAL

### Sustainability

#### Material

85% PCC ABS used in the chassis  
95% PCC recycled plastic used in USB keyboard/mouse  
90% PIC recycled plastic EPE cushion  
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

#### 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® Ultra Low Noise

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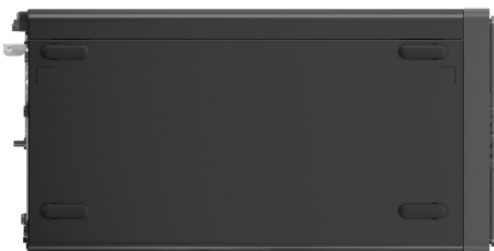
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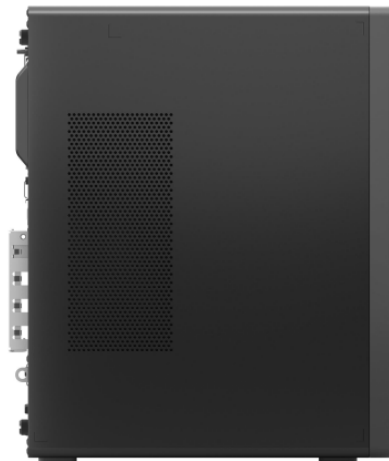
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