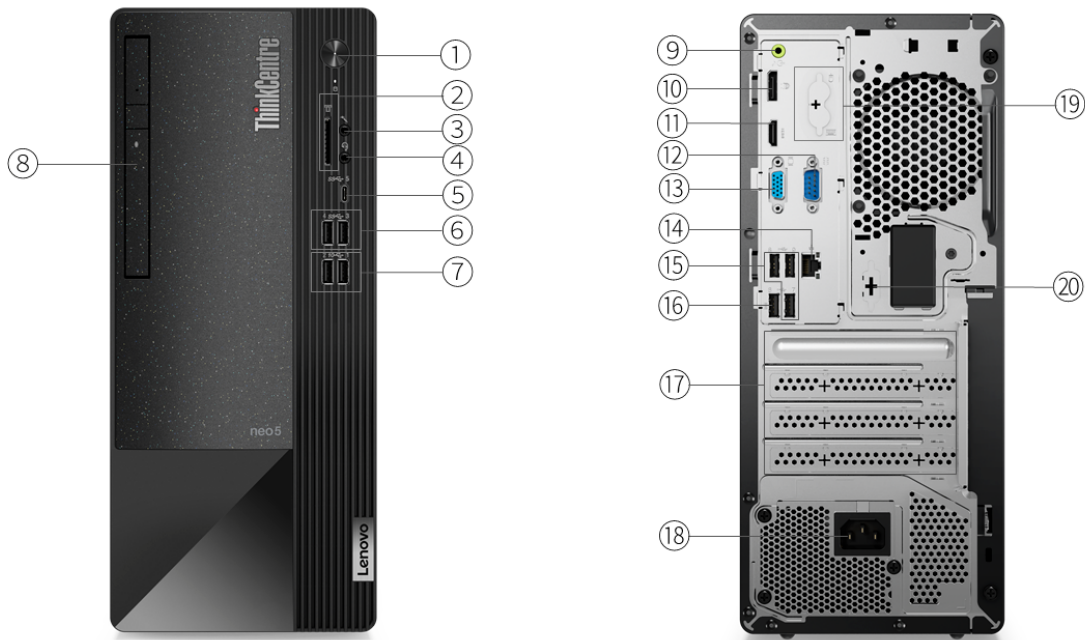


**OVERVIEW**



1. Power button	11. HDMI 1.4b
2. Card reader *	12. Serial
3. Microphone (3.5mm)	13. VGA
4. Headphone / microphone combo jack (3.5mm)	14. Ethernet (RJ-45)
5. 1x USB-C 3.2 Gen 1	15. 3x USB 2.0
6. 2x USB 3.2 Gen 1	16. 1x USB 2.0 (with smart power-on feature)
7. 2x USB 3.2 Gen 2	17. Optional ports on expansion cards *
8. Optical drive *	18. Power connector
9. Headphone (3.5mm)	19. 2x PS/2 ports (keyboard / mouse) *
10. DisplayPort 1.4	20. Serial *

Notes:

- Items with \* are only available on selected models
- Onboard video ports are only available for the models with integrated graphics

## PERFORMANCE

### Processor

#### Processor Family

Intel® Celeron®, Intel® Pentium®, or 12th / 13th Generation Intel® Core™ i3 / i5 / i7 / i9 Processor

#### Processor\*\*

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Processor Graphics
Celeron® G6900	2	2	3.4GHz	-	4MB	Intel® UHD Graphics 710
Pentium® Gold G7400	2	4	3.7GHz	-	6MB	Intel® UHD Graphics 710
Core i3-12100	4 (4 P-core + 0 E-core)	8	P-core 3.3GHz	P-core 4.3GHz <sup>[1]</sup>	12MB	Intel® UHD Graphics 730
Core i5-12400	6 (6 P-core + 0 E-core)	12	P-core 2.5GHz	P-core 4.4GHz <sup>[2]</sup>	18MB	Intel® UHD Graphics 730
Core i5-12400F	6 (6 P-core + 0 E-core)	12	P-core 2.5GHz	P-core 4.4GHz <sup>[3]</sup>	18MB	-
Core i5-12500	6 (6 P-core + 0 E-core)	12	P-core 3.0GHz	P-core 4.6GHz <sup>[4]</sup>	18MB	Intel® UHD Graphics 770
Core i7-12700	12 (8 P-core + 4 E-core)	20	P-core 2.1GHz / E-core 1.6GHz	Max Turbo up to 4.9GHz / P-core 4.8GHz / E-core 3.6GHz <sup>[5]</sup>	25MB	Intel® UHD Graphics 770
Core i9-12900	16 (8 P-core + 8 E-core)	24	P-core 2.4GHz / E-core 1.8GHz	Max Turbo up to 5.1GHz / P-core 5.0GHz / E-core 3.8GHz <sup>[6]</sup>	30MB	Intel® UHD Graphics 770
Core i3-13100	4 (4 P-core + 0 E-core)	8	P-core 3.4GHz	P-core 4.5GHz <sup>[7]</sup>	12MB	Intel® UHD Graphics 730
Core i5-13400	10 (6 P-core + 4 E-core)	16	P-core 2.5GHz / E-core 1.8GHz	P-core 4.6GHz / E-core 3.3GHz <sup>[8]</sup>	20MB	Intel® UHD Graphics 730
Core i5-13400F	10 (6 P-core + 4 E-core)	16	P-core 2.5GHz / E-core 1.8GHz	P-core 4.6GHz / E-core 3.3GHz <sup>[9]</sup>	20MB	-
Core i5-13500	14 (6 P-core + 8 E-core)	20	P-core 2.5GHz / E-core 1.8GHz	P-core 4.8GHz / E-core 3.5GHz <sup>[10]</sup>	24MB	Intel® UHD Graphics 770
Core i7-13700	16 (8 P-core + 8 E-core)	24	P-core 2.1GHz / E-core 1.5GHz	Max Turbo up to 5.2GHz / P-core 5.1GHz / E-core 4.1GHz <sup>[11]</sup>	30MB	Intel® UHD Graphics 770
Core i9-13900	24 (8 P-core + 16 E-core)	32	P-core 2.0GHz / E-core 1.5GHz	Max Turbo up to 5.6GHz / P-core 5.2GHz / E-core 4.2GHz <sup>[12]</sup>	36MB	Intel® UHD Graphics 770

#### Notes:

[1], [2], [3], [4], [5], [6], [7], [8], [9], [10], [11], [12] Intel® Max Turbo frequency will vary depending on application workload and the hardware and software configurations, see <http://www.intel.com/technology/turboboost/> for more information.

### Operating System

#### Operating System\*\*

- Windows® 11 Pro
- Windows® 11 Home
- Windows® 11 Home Single Language
- Windows® 11 DG Windows® 10 Pro 64
- Ubuntu Linux<sup>[1]</sup>
- No preload operating system

#### Notes:

[1] Some features may not be supported on the system with Linux preload, including but not limited to Intel® RST RAID, Human Presence Detection, etc.

## Graphics

### Graphics\*\*\*<sup>[1]</sup>

Graphics	Type	Memory	Max Resolution	Connector	Key Features
Intel® UHD graphics 710	Integrated	Shared	1920x1080@60Hz(HDMI®), 2048x1536@60HZ(VGA), 4096x2304@60Hz(DP)	1x HDMI® 1.4b, 1x VGA, 1x DP 1.4	DirectX® 12
Intel® UHD graphics 730	Integrated	Shared	1920x1080@60Hz(HDMI®), 2048x1536@60HZ(VGA), 4096x2304@60Hz(DP)	1x HDMI® 1.4b, 1x VGA, 1x DP 1.4	DirectX® 12
Intel® UHD graphics 770	Integrated	Shared	1920x1080@60Hz(HDMI®), 2048x1536@60HZ(VGA), 4096x2304@60Hz(DP)	1x HDMI® 1.4b, 1x VGA, 1x DP 1.4	DirectX® 12
AMD Radeon™ RX 6400 <sup>[2]</sup>	Discrete	4GB GDDR6	7680x4320@60Hz(HDMI®), 7680x4320@60Hz(DP)	1x HDMI® 2.1 FRL, 1x DP 1.4a	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).

[2] The onboard video ports VGA, HDMI® and DisplayPort™ are disabled on the models with discrete graphics.

## Monitor Support

### Monitor Support

Supports up to 3 independent displays via (HDMI®, DP and VGA)

## Chipset

### Chipset

Intel® B760 chipset

## Memory

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

Up to 64GB DDR4-3200

### Memory Slots

Two DDR4 UDIMM slots, dual-channel capable

### Memory Type

DDR4-3200

Notes:

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

## Storage

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

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

- 3.5" HDD up to 2TB
- M.2 SSD up to 1TB

### 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

### 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\*\*

- DVD-ROM, SATA 1.5Gb/s, slim (9.0mm)
- DVD burner (DVD±RW), SATA 1.5Gb/s, slim (9.0mm)
- None

### Card Reader

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

## Multi-Media

### Audio Chip

High Definition (HD) Audio, Realtek® ALC222-CG codec

### Speakers

- No speakers
- Single speaker, 2W x1

## Power Supply

### Power Supply\*\*

Power	Type	Efficiency	Key Features
180W	Fixed	85%	100-240V, 50-60Hz
260W	Fixed	90%	100-240V, 50-60Hz
310W	Fixed	92%	100-240V, 50-60Hz
380W	Fixed	92%	100-240V, 50-60Hz

## DESIGN

## Input Device

### Keyboard\*\*

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

### Mouse\*\*

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

## Mechanical

### Form Factor

Tower (13.6L)

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

145 x 294 x 340 mm (5.71 x 11.57 x 13.39 inches)

### Packaging Dimensions (WxDxH)

245 x 395 x 530 mm (9.65 x 15.55 x 20.87 inches)

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

Around 5.5 kg (12.1 lbs)

### Packaging Weight

Around 7.5 kg (16.53 lbs)

### Case Color

Black

### Bays

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

**Expansion Slots**

- One PCIe® 4.0 x16, full-height, half-length
- Two PCIe® 3.0 x1, full-height, half-length
- (Optional) M.2 Bracket. For installing M.2 devices, M.2 bracket kit is needed. The kit is optional, or comes with pre-configured M.2 SSD or M.2 Wifi models
- Two M.2 slots (one for WLAN, one for SSD)

**Cooling System (Fan & Cooler)\*\***

- (Optional) 1x Photocatalyst System fan
- (Optional) 1x front system fan
- (Optional) 1x rear system fan

**Others**

(Optional) Smart Cable (USB-A to USB-C®)

**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, Intel® Ethernet Connection I219-V, 1x RJ-45, supports Wake-on-LAN

**Optional Ethernet**

No optional Ethernet

**WLAN + Bluetooth®\*\***

- Realtek® Wi-Fi® 6 RTL8852BE, 802.11ax Dual Band 2x2 Wi-Fi® + Bluetooth® 5.3, M.2 card<sup>[1]</sup>
- Intel® Wi-Fi® 6 AX201, 802.11ax 2x2 Wi-Fi® + Bluetooth® 5.2, M.2 Card<sup>[2]</sup>
- No WLAN and Bluetooth®

**Notes:**

[1] Bluetooth® 5.3 requires Windows® 11.

[2] Bluetooth® 5.2 requires Windows® 11.

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

**Front Ports**

- 1x USB-C® 3.2 Gen 1 (support data transfer and 5V@3A charging)
- 2x USB 3.2 Gen 1
- 2x USB 3.2 Gen 2
- 1x headphone / microphone combo jack (3.5mm)
- 1x microphone (3.5mm)

**Optional Front Ports**

1x card reader

**Rear Ports<sup>[2][3]</sup>**

- 4x USB 2.0 (one supports Smart Power On)
- 1x HDMI® 1.4b
- 1x DisplayPort™ 1.4
- 1x VGA
- 1x Ethernet (RJ-45)
- 1x headphone (3.5mm)
- 1x serial (9-pin)

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

- 1x parallel

- 1x 2nd serial
- 2x PS/2
- None

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**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.

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

[3] The onboard video ports VGA, HDMI® and DisplayPort™ are disabled on the models with discrete graphics.

## SECURITY & PRIVACY

### Security

#### Security Chip

Discrete TPM 2.0, TCG 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

#### Fingerprint Reader

No fingerprint reader

#### BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Certificate based BIOS authentication
- Cover presence switch
- Individual USB port disablement
- Self-healing BIOS
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)

## 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

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**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://smart.find.lenovo.com/>. To learn more details of warranty policy, please access <https://pcsupport.lenovo.com/warranty>.

## ACCESSORIES

### Bundled Accessories

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

- DP to DVI dongle
- HDMI® to DVI dongle

## 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)

## CERTIFICATIONS

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

#### Green Certifications

- (Optional) ENERGY STAR® 8.0
- (Optional) EPEAT™ Silver Registered<sup>[2]</sup>
- (Optional) EPEAT™ Gold Registered<sup>[3]</sup>
- REACH
- 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 self-declaration. For ESG & regulatory compliance documents, please visit <https://compliance.lenovo.com>.

[2], [3] EPEAT™ is registered where applicable, please visit [epeat.net](https://epeat.net) for registration status by country.

### Other Certifications

#### Other Certifications

(Optional) TÜV Rheinland® Ultra Low Noise

- 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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