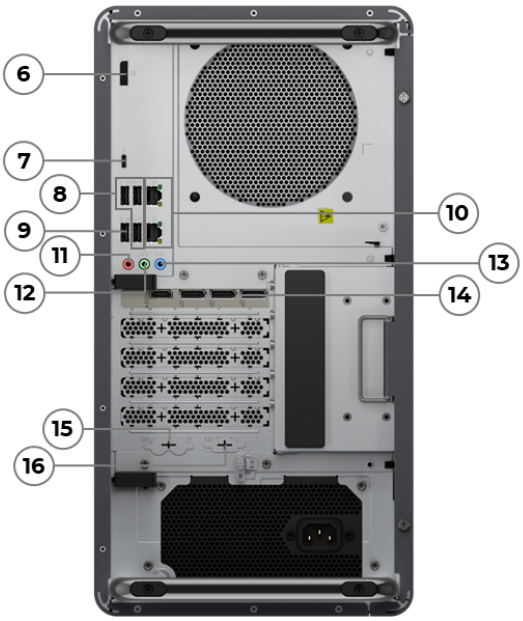
OVERVIEW





1. 1x headphone / microphone combo jack (3.5mm)	9. 1x USB-A (USB 5Gbps), with Smart Power On
2. 1x USB-C (USB 20Gbps)	10. 2x GbE Ethernet (RJ-45, PoE)
3. 2x USB-A (USB 10Gbps)	11. 1x Microphone (3.5mm)
4. 2x USB-A (USB 5Gbps)	12. 1x Audio-out (3.5mm)
5. Card reader	13. 1x Audio-in (3.5mm)
6. 1x DisplayPort 1.4	14. Optional parts on expansion cards *
7. 1x Thunderbolt 4	15. 1x PS/2 ports (keyboard / mouse) *
8. 3x USB-A (USB 5Gbps)	16. 1x Serial *

Notes:

- Items with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Intel Core™ Ultra 5 / 7 / 9 Processor (Series 2)

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Processor Graphics	NPU	Overall 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 250K Plus	18 (6 P-core + 12 E-core)	18	P-core 4.2GHz / E-core 3.3GHz	Max Turbo up to 5.3GHz / P-core 5.3GHz / E-core 4.6GHz	30MB L2 Cache / 30MB Intel® Smart Cache	Intel® Graphics, up to 8 TOPS	Intel® AI Boost, up to 13 TOPS	Up to 30 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
Core Ultra 7 270K Plus	24 (8 P-core + 16 E-core)	24	P-core 3.7GHz / E-core 3.2GHz	Max Turbo up to 5.5GHz / P-core 5.4GHz / E-core 4.7GHz	40MB L2 Cache / 36MB Intel® Smart Cache	Intel® Graphics, up to 8 TOPS	Intel® AI Boost, up to 13 TOPS	Up to 36 TOPS
Core Ultra 9 285	24 (8 P-core + 16 E-core)	24	P-core 2.5GHz / E-core 1.9GHz	Max Turbo up to 5.6GHz / P-core 5.4GHz / E-core 4.6GHz	40MB L2 Cache / 36MB Intel® Smart Cache	Intel® Graphics, up to 8 TOPS	Intel® AI Boost, up to 13 TOPS	Up to 36 TOPS
Core Ultra 9 285K	24 (8 P-core + 16 E-core)	24	P-core 3.7GHz / E-core 3.2GHz	Max Turbo up to 5.7GHz / P-core 5.5GHz / E-core 4.6GHz	40MB L2 Cache / 36MB Intel® Smart Cache	Intel® Graphics, up to 8 TOPS	Intel® AI Boost, up to 13 TOPS	Up to 36 TOPS

AI (Artificial Intelligence)

AI PC Category

AI PC

NPU

Integrated Intel® AI Boost, up to 13 TOPS

Operating System

Operating System**

- Windows® 11 Pro
- Windows® 11 Home
- Windows® 11 Home Single Language
- Windows® 11 IoT Enterprise LTSC 2024[1]
- Ubuntu Linux
- No preload operating system

Notes:

[1] Coming soon

Graphics

Graphics*[1][2]

Graphics	Type	Memory	AI TOPS (Peak)	Max Resolution	Connector	Key Features
Intel®	Integrated	Shared	4 TOPS	7680x4320@60Hz with DSC (DP),	1x DP 1.4, 1x	DirectX® 12

Graphics			(Core Ultra 5 225) / 8 TOPS	7680 x 4320@40Hz (Thunderbolt™ 4)	Thunderbolt™ 4	
NVIDIA GeForce RTX™ 5060 Ti [3]	Discrete	16G GDDR7	759 TOPS	7680x4320@120Hz with DSC(HDMI®), 7680x4320@165Hz with DSC(DP)	3x DP 2.1b, 1x HDMI® 2.1b FRL	DirectX® 12, OpenGL 4.6
NVIDIA GeForce RTX™ 5070[4]	Discrete	12G GDDR7	988 TOPS	7680x4320@120Hz with DSC(HDMI®), 7680x4320@165Hz with DSC(DP)	3x DP 2.1b UHBR20, 1x HDMI® 2.1b FRL	DirectX® 12, OpenGL 4.6
NVIDIA GeForce RTX™ 5080	Discrete	16G GDDR7	1801 TOPS	7680x4320@60Hz(HDMI®), 7680x4320@120Hz(DP)	3x DP 2.1b, 1x HDMI® 2.1b FRL	DirectX® 12, OpenGL 4.6
NVIDIA GeForce RTX™ 5090	Discrete	32G GDDR7	3352 TOPS	7680x4320@60Hz(HDMI®), 7680x4320@120Hz(DP)	3x DP 2.1b, 1x HDMI® 2.1b FRL	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] Supports dual discrete graphics cards. To install the second graphics card, dual graphics bracket kit is required. Technique support single or two NVIDIA® RTX PRO 5000 Blackwell 48GB GDDR7, need to order from Accessories. Technique support single or two NVIDIA® RTX PRO 5000 Blackwell 72GB GDDR7, need to order from Accessories.
[3] Support up to two NVIDIA GeForce RTX™ 5060 Ti.
[4] coming soon

Monitor Support

Monitor Support

Supports up to 2 independent displays via onboard ports (HDMI® and Thunderbolt4), more displays support via discrete graphics

Chipset

Chipset

Intel® Q870 chipset

Memory

Max Memory[1]

Up to 256GB (4x 64GB DDR5 CUDIMM)

Memory Slots

Four DDR5 UDIMM/CUDIMM slots, dual-channel capable

Memory Type**

- DDR5-5600
- DDR5-6400 CUDIMM

Notes:

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

Storage

Max Storage Support[1]

Up to five drives, 2x 3.5" HDD + 3x M.2 SSD
• 3.5" HDD up to 4TB each
• M.2 SSD up to 2TB each
• M.2 SSD AI Accelerator 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
M.2 2280 SSD	PCIe® NVMe®, PCIe® 5.0 x4	-	Opal 2.0
M.2 2280 SSD	PCIe® NVMe®, PCIe® 5.0 x4 Performance	-	Opal 2.0

RAID

- RAID 0/1/5 support for SSDs
- None

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

3-in-1 card reader (SD, SDHC, SDXC)

Multi-Media

Audio Chip

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

Speakers

- Single speaker, 2W x1
- No speakers

Power Supply

Power Supply**

Power	Type	Efficiency	Key Features
500W	Fixed	92%	100V - 240V
850W	Fixed	90%	100V - 240V
1200W	Fixed	90%	100V - 240V

DESIGN

Input Device

Keyboard

- Wireless EOS Keyboard, black
- No keyboard

Mouse

- Wireless EOS Mouse, black
- No mouse

Mechanical

Form Factor

Tower (34L)

Dimensions (WxDxH)[1]

220 x 420 x 359 mm (8.66 x 16.54 x 14.13 inches)

Packaging Dimensions (WxDxH)

370 x 588 x 624 mm (14.57 x 23.15 x 24.57 inches)

Weight[2]

Around 20.7 kg (45.64 lbs)

Packaging Weight

Around 21.5 kg (47.4 lbs)

Case Color

Raven black

Bays

2x 3.5″ HDD disk bay

Expansion Slots

- One PCIe® 5.0 x16, single card configuration (length ≤ 325mm, height ≤ 135mm) / dual cards configuration (Length ≤ 200mm, Height ≤ 114mm)
- Four M.2 slots (one for WLAN, three for SSD: One M.2 PCIe® 5.0 x4 and two M.2 PCIe® 4.0 x4)[3]
- Two PCIe® 4.0 x4, single card configuration (length ≤ 325mm, height ≤ 135mm) / dual cards configuration (Length ≤ 200mm, Height ≤ 114mm)

Cooling System (Fan & Cooler)***

- 1x Top system fan
- 2x Side system fan
- 2x Top system fan
- 3x Top system fan
- No System Fan

Others

Dust filter

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.

[3] Gen 5 SSD on M.2 PCIe® 4.0 slot will run on PCIe® 4.0 protocols.

CONNECTIVITY

Network

WLAN + Bluetooth®[1]**

- Intel® Wi-Fi® 7 BE200, 802.11be 2x2 Wi-Fi® + Bluetooth® 5.4, Intel® vPro® technology support, M.2 card
- Intel® Wi-Fi® 7 BE200, 802.11be 2x2 Wi-Fi® + Bluetooth® 5.4, M.2 card
- No WLAN and Bluetooth®

Onboard Ethernet

- Gigabit Ethernet, Intel® Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN
- Gigabit Ethernet, Realtek® RTL8111K, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet

2.5 Gigabit Ethernet, Realtek® RTL8125BGS, 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.

Ports[1]

Rear Ports

None

Top Ports

- 2x USB-A (USB 5Gbps / USB 3.2 Gen 1)
- 1x headphone / microphone combo jack (3.5mm)
- 1x USB-C® (USB 20Gbps / USB 3.2 Gen 2x2), support data transfer and 15W charging
- 2x USB-A (USB 10Gbps / USB 3.2 Gen 2)

Bottom Ports

- 1x line-in (3.5mm)
- 1x line-out (3.5mm)
- 2x Ethernet (GbE RJ-45)

- 1x Thunderbolt™ 4 / USB4® 40Gbps, support data transfer and 5V@3A output
- 4x USB-A (USB 5Gbps / USB 3.2 Gen 1), one with smart power on
- 1x DisplayPort™ 1.4
- 1x microphone (3.5mm)

Optional Bottom Ports

- 1x serial
- 1x PS/2 (keyboard / mouse)

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

Physical Locks

(Optional) E-lock

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
- Certificate-based BIOS authentication
- Cover tamper detected
- EC Based (Level2) Self-Healing 2.0
- Intel® BIOS guard
- Individual USB port disablement
- Hard disk password
- Power-on password
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Secure boot
- Secure wipe
- More BIOS security features, please visit BIOS Simulator

MANAGEABILITY

System Management

System Management[1]

- Intel® vPro® Enterprise
- Non-vPro®

Notes:

[1] Intel® vPro® offers a superset of DASH's defined capabilities.

SERVICE

Warranty[1]

Base Warranty**

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

- Dual graphics bracket kit
- DP to HDMI® dongle
- 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% (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)

ENVIRONMENTAL

Sustainability

Material[1]

97% recycled with 55% PCC cushion
30% OBP bag
FSC carton
85% PCC ABS in chassis
95% PCC ABS in KB/mouse

Notes:

[1] PCC: Post Consumer Content, recycled materials from customers.
PIC: Post Industry Content, recycled materials from internal factories.
EPE: Expanded Polyethylene.
OBP: Ocean Bound Plastic, reducing plastic spill into the sea.
FSC: Forest Stewardship Council.

CERTIFICATIONS

Green Certifications[1]

Green Certifications

- (Optional) ENERGY STAR® 9.0
- (Optional) EPEAT 1.0 Gold Registered[2]
- (Optional) EPEAT 2.0 Silver Registered[3]

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 for registration status by country.

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed (Low Pressure [Altitude] 500.6, High Temperature 501.7, Low Temperature 502.7, Temperature Shock 503.7, Contamination by fluids 504.3, Solar Radiation 505.7, Humidity 507.6, Salt Fog 509.8, Blowing Dust 510.7, Vibration 514.8, Shock 516.8)

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