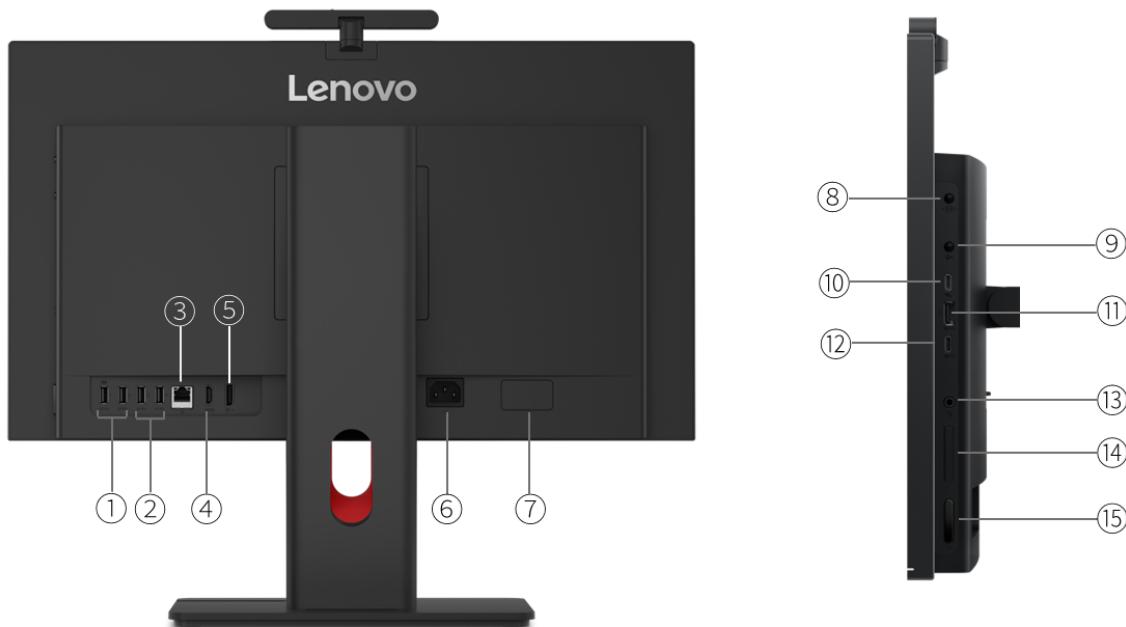


## OVERVIEW



1. 2x USB-A (USB 5Gbps)	9. Microphone mute button
2. 2x USB-A (USB 10Gbps)	10. USB-C (Thunderbolt 4)
3. Ethernet (RJ-45)	11. USB-A (USB 10Gbps)
4. HDMI (HDMI in 1.4 / HDMI out 2.1 TMDS combo)	12. USB-C (USB 10Gbps), with 15W charging
5. DisplayPort 1.4	13. Headphone / microphone combo jack (3.5mm)
6. Power connector	14. Card reader *
7. Serial *	15. Power button
8. PC / monitor mode switch	

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	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
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	Intel® AI Boost, up to 13 TOPS	Up to 36 TOPS

### AI (Artificial Intelligence)

#### AI PC Category

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

#### NPU\*\*\*

- (Optional) Discrete NPU card, up to 30 TOPS
- 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
- No preload operating system

### Graphics

#### Graphics\*\*

Graphics	Type	Memory	Max Resolution	Connector	Key Features
Intel® Graphics	Integrated	Shared	4096x2160@60Hz(HDMI®), 5120x2880@60Hz (DP), 7680x4320@30Hz (Thunderbolt™ 4)	1x HDMI® 2.1 TMDS, 1x DP 1.4a, 1x Thunderbolt™ 4	DirectX® 12
NVIDIA® GeForce RTX™	Discrete	6GB GDDR6	4096x2160@60Hz(HDMI®), 5120x2880@60Hz (DP), 7680x4320@30Hz	1x HDMI® 2.1 TMDS, 1x DP 1.4a, 1x	DirectX® 12, OpenGL 4.6

4050			(Thunderbolt™ 4)	Thunderbolt™ 4	
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## Monitor Support

### Monitor Support

Supports up to 4 independent displays via native display and 3 external monitors; supports external monitors via DisplayPort™, HDMI® and Thunderbolt™ 4; work as standalone monitor via HDMI® (HDMI® in / out combo)

## Chipset

### Chipset

Intel® Q870 chipset

## Memory

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

Up to 64GB DDR5-5600

### Memory Slots

Two DDR5 SODIMM slots, dual-channel capable

### Memory Type

DDR5-5600

### Memory Protection

Non-ECC

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, 3x M.2 SSD

- M.2 SSD up to 2TB each<sup>[2]</sup>

### Storage Type\*\*\*

Disk Type	Interface	Security
M.2 2280 SSD	PCIe® NVMe®, PCIe® 4.0 x4	Opal 2.0
M.2 2280 SSD	PCIe® NVMe®, PCIe® 4.0 x4 Performance	Opal 2.0
M.2 2280 SSD	PCIe® NVMe®, PCIe® 5.0 x4 Performance	Opal 2.0

### RAID

RAID 0/1 support for SSDs

Notes:

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

[2] Discrete NPU and 3rd SSD are mutually exclusive.

## Removable Storage

### Optical\*\*

- DVD-ROM, slim (9.0mm), via USB external ODD box
- DVD burner (DVD±RW), slim (9.0mm), via USB external ODD box
- None

### Card Reader

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

## Multi-Media

### Audio Chip

High Definition (HD) Audio, Realtek® ALC233NL-VB2-CG codec

### Speakers

Stereo speakers, 3W x2, Dolby Atmos®

**Microphone**

- Dual-microphone array
- No microphone

**Camera\*\***

- 5.0-megapixel, IR + RGB hybrid, with ThinkShutter (physical switch on/off), ±20° tilt and 180° swivel view angle adjustable, Windows® Hello support
- 5.0-megapixel, IR + RGB hybrid, with ThinkShutter (physical switch on/off) and Human Presence Detection (Radar Sensor), ±20° tilt and 180° swivel view angle adjustable, Windows® Hello support<sup>[1]</sup>
- 5.0-megapixel, with ThinkShutter (physical switch on/off)
- No camera

Notes:

[1] To comply with the regulation rules in each country, the camera with radar sensor is only selectable for the following countries / regions:

Africa French Portuguese / Australia / Austria / Belgium / Bulgaria / Croatia / Cyprus / Czech Slovakia / Denmark / Estonia Latvia Lithuania / Finland / France / Germany / Greece / Hong Kong / Hungary / Iceland / Ireland / Italy / Luxembourg / Netherlands / New Zealand / Nordics / Norway / Poland / Portugal / Romania / Saudi Arabia / Slovenia / South East Europe / Spain / Sweden / Switzerland / Turkiye / UK

**Power Supply****Power Supply\*\***

Power	Type	Efficiency	Key Features
180W	Fixed	90%	100V - 240V, 50-60Hz, 80 PLUS Gold qualified
230W <sup>[1]</sup>	Fixed	92%	100V - 240V, 50-60Hz, 80 PLUS Platinum qualified

Notes:

[1] 230W PSU is for discrete graphics models only

**DESIGN****Display****Display\*\*<sup>[1]</sup>**

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Refresh Rate	Viewing Angle (L/R/U/D)	Key Features
23.8"	FHD (1920x1080)	Multi-touch	IPS	250nits	Anti-glare (25% Haze)	16:9	1500:1	99% sRGB	120Hz	89° / 89° / 89° / 89°	14ms response Time, 4-side like Borderless, TÜV Rheinland® Low Blue Light (Hardware Solution), TÜV Rheinland® Flicker Free, Eyesafe® Certified 2.0
23.8"	FHD (1920x1080)	Non-touch	IPS	250nits	Anti-glare (25% Haze)	16:9	1500:1	99% sRGB	120Hz	89° / 89° / 89° / 89°	14ms response Time, 4-side like Borderless, TÜV Rheinland® Low Blue Light (Hardware Solution), TÜV Rheinland® Flicker Free, Eyesafe® Certified 2.0

**Touchscreen**

- OGM (One Glass Metal mesh) multi-touch, supports 10-point touch
- Non-touch

#### Notes:

[1] IPS (in-plane switching) technology may refer to IPS, PLS, ADS, AHVA, AAS.

## Input Device

### Keyboard\*\*

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

### Mouse\*\*

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

## Mechanical

### Buttons

- Microphone mute button
- Monitor / PC mode switch button
- Power button

### Form Factor

AIO (23.8 inches)

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

Models	Dimensions
Models (with UltraFlex IV stand, with No-Tilt camera)	Lowest in flat mode: 539.6 x 333.45 x 222 mm (21.24 x 13.13 x 8.74 inches) Highest in vertical mode: 539.6 x 264.91 x 450.93 mm (21.24 x 10.43 x 17.75 inches)
Models (with UltraFlex V stand, with camera)	Lowest in flat mode: 539.6 x 333.45 x 224.10 mm (21.24 x 13.13 x 8.82 inches) Highest in vertical mode: 539.6 x 264.91 x 455.94 mm (21.24 x 10.43 x 17.95 inches)
Models (with UltraFlex V stand, without camera)	Lowest in flat mode: 539.6 x 333.45 x 214.33 mm (21.24 x 13.13 x 8.44 inches) Highest in vertical mode: 539.6 x 264.91 x 430.43 mm (21.24 x 10.43 x 16.95 inches)
Models (with full function monitor stand, with No-Tilt camera)	539.6 x 222.21 x 388.01-538.01 mm (21.24 x 8.75 x 15.28-21.18 inches)
Models (with full function monitor stand, with camera)	539.6 x 222.21 x 393.01-543.01 mm (21.24 x 8.75 x 15.47-21.38 inches)
Models (with full function monitor stand, without camera)	539.6 x 222.21 x 367.51-517.51 mm (21.24 x 8.75 x 14.47-20.37 inches)
Models (with tilt only stand, with No-Tilt camera)	539.6 x 213.14 x 437 mm (21.24 x 8.39 x 17.2 inches)
Models (with tilt only stand, with camera)	539.6 x 213.14 x 442 mm (21.24 x 8.39 x 17.4 inches)
Models (with tilt only stand, without camera)	539.6 x 213.14 x 416.5 mm (21.24 x 8.39 x 16.4 inches)
Models (without stand, with No-Tilt camera)	539.6 x 49.55 x 335.2 mm (21.24 x 1.95 x 13.2 inches)
Models (without stand, with camera)	539.6 x 49.55 x 340.2 mm (21.24 x 1.95 x 13.39 inches)
Models (without stand, without camera)	539.6 x 49.55 x 314.7 mm (21.24 x 1.95 x 12.39 inches)

### Packaging Dimensions (WxDxH)

EPE: 690 x 238 x 545 mm (27.17 x 9.37 x 21.46 inches)

Paper pulp: 713 x 232 x 575 mm (28.07 x 9.13 x 22.64 inches)

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

Models	Weight
Models (with UltraFlex V stand)	8.04 kg (17.73 lbs, maximum configuration)
Models (with full function monitor stand)	8.96 kg (19.75 lbs, maximum configuration)
Models (with tilt only stand)	8 kg (17.64 lbs, maximum configuration)
Models (without stand)	6 kg (13.23 lbs, maximum configuration)

**Packaging Weight**

EPE: 1.904Kg (4.20 lbs), packaging only

Paper pulp: 2.698 Kg (5.95 lbs), packaging only

**Case Color**

Black

**Bays**

No bays

**Expansion Slots**

Four M.2 slots (one for WLAN, three for SSD / discrete NPU)

**EOU**

Toolless cover, stand, motherboard shielding, and memory assembly / removal

**Stand\*\***

- UltraFlex V stand, supports -5° to +70° tilt, up to 70°±2° lift (up to 169.86mm lift in flat mode / up to 102.74mm lift in vertical mode)
- Full function monitor stand, supports -5° to +22° tilt, left & right 45° swivel, 90° pivot, up to 150mm lift
- Tilt only stand, supports -5° to +25° tilt
- No stand

**Mounting**

Supports VESA mount 100mm

**Others**

Supports Smart Power On

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, Intel® vPro® technology support, M.2 card<sup>[2]</sup>
- 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, Intel® Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN

**Optional Ethernet**

No optional Ethernet

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] Intel® vPro® platform requires the hardware and software necessary to deliver the manageability use cases, security features, system performance, and stability that define the platform. For detailed vPro® support information, please refer

to the System Management section.

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

### Rear Ports

- 2x USB-A (USB 10Gbps / USB 3.2 Gen 2)
- 2x USB-A (USB 5Gbps / USB 3.2 Gen 1), one supports Smart Power On
- 1x HDMI® (HDMI® in 1.4 / HDMI® out 2.1 TMDS combo port)
- 1x DisplayPort™ 1.4a (HBR2)
- 1x Ethernet (RJ-45)

### Optional Rear Ports

1x serial

### Right Ports

- 1x headphone / microphone combo jack (3.5mm)
- 1x USB-C® (Thunderbolt™ 4 / USB4® 40Gbps), with USB PD 3.0 up to 65W output, DisplayPort™ 2.1, Always On
- 1x USB-A (USB 10Gbps / USB 3.2 Gen 2)
- 1x USB-C® (USB 10Gbps / USB 3.2 Gen 2), support data transfer and 5V@3A charging

### Optional Right Ports

1x card reader

### 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

Kensington® Security Slot™, 3 x 7 mm

#### Chassis Intrusion Switch

- Chassis intrusion switch
- No chassis intrusion switch

#### Fingerprint Reader

No fingerprint reader

#### Other Security

- (Optional) Smart Human Presence Detection (Camera with Radar Sensor)
- ThinkShutter camera cover (camera models)

#### BIOS Security

- Administrator password
- Hard disk password
- Power-on password
- Absolute persistence module
- Boot sequence control
- Boot without keyboard and mouse
- Cover tamper detected<sup>[1]</sup>
- Certificate-based BIOS authentication
- Configuration change detection
- Individual USB port disablement

- Intel® BIOS guard
- Secure wipe
- Secure boot
- Self-healing BIOS
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- More BIOS security features, please visit [BIOS Simulator](#)

Notes:

[1] Only available for the models with Chassis Intrusion Switch

## MANAGEABILITY

### System Management

#### System Management<sup>1]</sup>

- Intel® vPro® Enterprise
- Non-vPro®

Notes:

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

## SERVICE

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

#### Base Warranty\*\*

- 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\*\*

- DP to DVI dongle
- DP to HDMI® dongle
- DP to VGA dongle
- HDMI® to DVI dongle
- HDMI® to VGA dongle
- None

## OPERATING REQUIREMENTS

### Operating Environment

#### Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -20°C (-4°F) to 60°C (140°F)

#### Relative Humidity

Operating: 20% to 80%

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

85% PCC ABS with brand closed-loop material in plastic in chassis  
 95% PCC ABS with brand closed-loop material in wired keyboard/mouse  
 paper pulp cushion or 90% PIC EPE cushion  
 30% OBP in bag  
 FSC carton in packaging

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

#### Green Certifications

- (Optional) ENERGY STAR® 9.0
- (Optional) EPEAT™ Gold Registered
- ErP Lot 3
- GREENGUARD®
- RoHS compliant
- TCO Certified, generation 10
- TCO edge

#### 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

- Anti-dust
- IP55-compliant (front face, for touch models)
- IP54-compliant (front face, for non-touch models)
- Healthcare compliance: Part of IEC 60601-1 / IEC 60601-1-2
- Eyesafe® Certified 2.0
- SGS Performance Tested certification: Super Quiet@Hi-Performance Grade 1
- TÜV Rheinland® Flicker Free
- TÜV Rheinland® Low Blue Light (Hardware Solution)

#### Mil-Spec Test

MIL-STD-810H military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation, Contamination by Fluids, Salt Fog)

- 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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