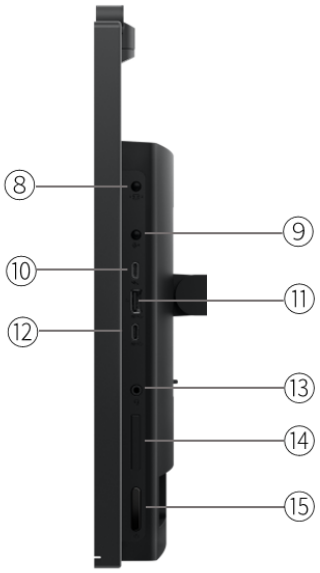
OVERVIEW



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 3 / 5 / 7 / 9 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 5 235	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
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

AI (Artificial Intelligence)

AI PC Category

AI PC[1]

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®),	1x HDMI® 2.1 TMDS, 1x	DirectX® 12

			5120x2880@60Hz (DP), 7680x4320@30Hz (Thunderbolt™ 4)	DP 1.4a, 1x Thunderbolt™ 4	
NVIDIA® GeForce RTX™ 4050	Discrete	6GB GDDR6	4096x2160@60Hz(HDMI®), 5120x2880@60Hz (DP), 7680x4320@30Hz (Thunderbolt™ 4)	1x HDMI® 2.1 TMDS, 1x DP 1.4a, 1x Thunderbolt™ 4	DirectX® 12, OpenGL 4.6

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[1]

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[1]

Up to three drives, 3x M.2 SSD
• M.2 SSD up to 2TB each[2]

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	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) and Human Presence Detection (Radar Sensor), ±20° tilt and 180° swivel view angle adjustable, Windows® Hello support[1]
- 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, 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[1]	Fixed	92%	100V - 240V, 50-60Hz, 80 PLUS Platinum qualified

Notes:

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

DESIGN

Display

Display**[1]

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)[1]

Models	Dimensions
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 (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 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 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 (without stand, without camera)	539.6 x 49.55 x 314.7 mm (21.24 x 1.95 x 12.39 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 (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 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)

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[2]

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®[1]**

- 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[2]
- 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[1]

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

- Absolute persistence module
- Administrator password
- Boot sequence control

- Boot without keyboard and mouse
- Configuration change detection
- Certificate-based BIOS authentication
- Cover tamper detected[1]
- Intel® BIOS guard
- Individual USB port disablement
- Hard disk password
- Power-on password
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Self-healing BIOS
- Secure boot
- Secure wipe
- More BIOS security features, please visit BIOS Simulator

Notes:

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

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 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[1]

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[1]

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
- Healthcare compliance: Part of IEC 60601-1 / IEC 60601-1-2
- IP54-compliant (front face, for non-touch models)
- IP55-compliant (front face, for touch models)
- 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.
- Lenovo reserves the right to change specifications or other product information without notice. Lenovo is not

responsible for photographic or typographical errors. LENOVO PROVIDES THIS PUBLICATION "AS IS", WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some jurisdictions do not allow disclaimer of express or implied warranties in certain transactions, therefore this disclaimer may not apply to you.

- The specifications on this page may not be available in all regions, and may be changed or updated without notice.

Lenovo

Lenovo

Lenovo

Lenovo