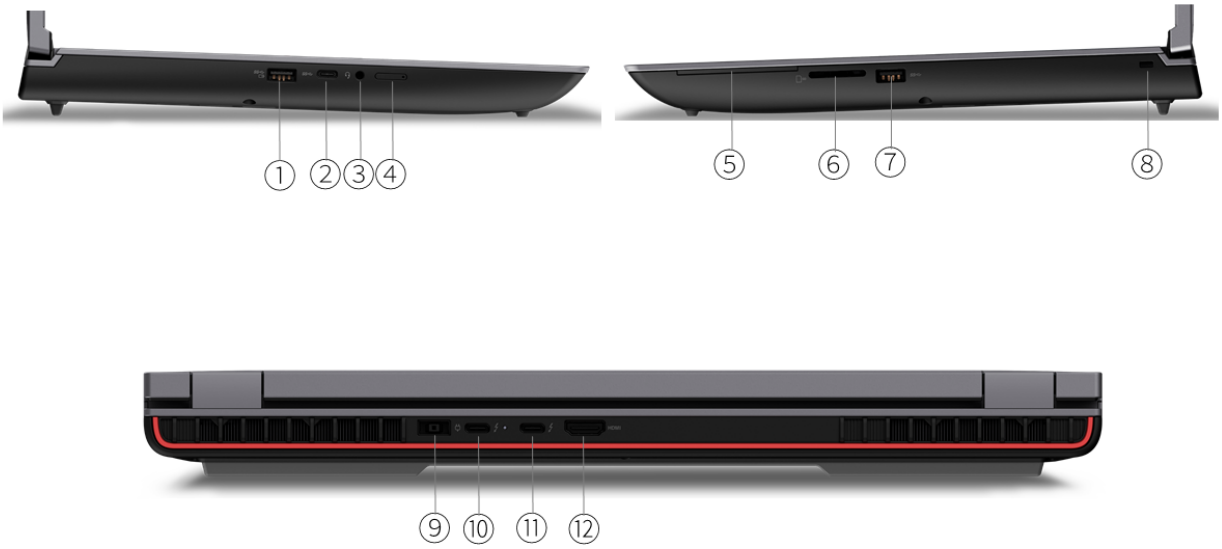
OVERVIEW



1. USB 3.2 Gen 1 (one Always On)	7. USB 3.2 Gen 1
2. USB-C 3.2 Gen 2	8. Kensington Nano Security Slot
3. Headphone / microphone combo jack (3.5mm)	9. Power connector
4. Nano-SIM card slot *	10. Thunderbolt 4
5. Smart card reader *	11. Thunderbolt 4
6. SD Express 7.0 card reader	12. HDMI

Notes:

- Items with * are only available on selected models

PERFORMANCE

Processor

Processor Family

13th Generation HX series Intel® Core™ i5 / i7 / i9 processor, supports up to 24 cores, up to 5.6GHz

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Processor Graphics
Core i5-13600HX	14 (6 P-core + 8 E-core)	20	P-core 2.6GHz / E-core 1.9GHz	P-core 4.8GHz / E-core 3.6GHz	24MB	Intel UHD Graphics
Core i7-13700HX	16 (8 P-core + 8 E-core)	24	P-core 2.1GHz / E-core 1.5GHz	P-core 5.0GHz / E-core 3.7GHz	30MB	Intel UHD Graphics
Core i7-13850HX	20 (8 P-core + 12 E-core)	28	P-core 2.1GHz / E-core 1.5GHz	P-core 5.3GHz / E-core 3.8GHz	30MB	Intel UHD Graphics
Core i9-13950HX	24 (8 P-core + 16 E-core)	32	P-core 2.2GHz / E-core 1.6GHz	P-core 5.5GHz / E-core 4.0GHz	36MB	Intel UHD Graphics
Core i9-13980HX	24 (8 P-core + 16 E-core)	32	P-core 2.2GHz / E-core 1.6GHz	P-core 5.6GHz / E-core 4.0GHz	36MB	Intel UHD Graphics

Operating System

Operating System**

- Fedora Linux
- Red Hat Enterprise Linux 9.2 (certified only, for detailed and latest information, please visit Red Hat Certified Hardware)[1]
- Ubuntu Linux LTS
- Ubuntu Linux with Data Science Preload
- Windows® 11 DG Windows 10 Pro 64
- Windows 11 Home
- Windows 11 Home Single Language
- Windows 11 Pro
- No operating system

Notes:

[1] Red Hat Enterprise Linux 9.2 certification will be available after Aug 18, 2023.

Graphics

Graphics

Graphics	Type	Memory	TGP	Key Features
Intel UHD Graphics	Integrated	Shared	Share CPU TDP	DirectX® 12.1
NVIDIA® RTX 3500 Ada Generation Laptop GPU	Discrete	12GB GDDR6 ECC	115W	DirectX 12 Ultimate, Vulkan Support, NVIDIA FXAA / TXAA Anti-Aliasing, NVIDIA RTX Desktop Manager
NVIDIA RTX 4000 Ada Generation Laptop GPU	Discrete	12GB GDDR6 ECC	115W	DirectX 12 Ultimate, Vulkan Support, NVIDIA FXAA / TXAA Anti-Aliasing, NVIDIA RTX Desktop Manager
NVIDIA RTX 5000 Ada Generation Laptop GPU	Discrete	16GB GDDR6 ECC	115W	DirectX 12 Ultimate, Vulkan Support, NVIDIA FXAA / TXAA Anti-Aliasing, NVIDIA RTX Desktop Manager
Intel Arc™ Pro A30M Graphics	Discrete	4GB GDDR6	35W	DirectX 12 Ultimate, Deep Link technologies
NVIDIA RTX A1000 Laptop GPU	Discrete	6GB GDDR6	60W	DirectX 12 Ultimate, Vulkan Support, NVIDIA FXAA / TXAA Anti-Aliasing, NVIDIA RTX Desktop Manager
NVIDIA RTX 2000 Ada Generation Laptop GPU	Discrete	8GB GDDR6	60W	DirectX 12 Ultimate, Vulkan Support, NVIDIA FXAA / TXAA Anti-Aliasing, NVIDIA RTX Desktop Manager

Monitor Support

Monitor Support

Supports up to 4 independent displays (native display and 3 external monitors via HDMI® and Thunderbolt™)
• HDMI supports up to 3840x2160@60Hz on integrated or Arc graphics models; 7680x4320@60Hz on NVIDIA graphics models
• Thunderbolt supports up to 5120x3200@60Hz

Chipset

Chipset

Intel WM790 chipset

Memory

Max Memory

Up to 192GB (4x 48GB DDR5 SO-DIMM)

Memory Slots

Four DDR5 SO-DIMM slots, dual-channel capable

Memory Type**[1]

- DDR5-5600 ECC
- DDR5-5600 non-ECC

Memory Protection

ECC on models with ECC DIMMs and ECC capable processor (i5-13600HX / i7-13850HX / i9-13950HX)

Notes:

[1] System comes with DDR5-5600 memory and will run at lower speed due to platform limitations:
4x 32GB / 4x 48GB configurations run at DDR5-3600.
Other configurations run at DDR5-4000.

Storage

Storage Support[1]

Up to two drives, 2x M.2 SSD
• M.2 2280 SSD up to 8TB, 4TB each
• RAID 0/1 support

Storage Slot

Two M.2 2280 PCIe® 4.0 x4 slots

Storage Type

Disk Type	Interface	Offering	Security
M.2 2280 SSD	PCIe NVMe®, PCIe 4.0 x4	256GB / 512GB / 1TB	Opal 2.0
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Performance	512GB / 1TB / 2TB / 4TB	Opal 2.0

RAID

RAID 0/1 support

Notes:

[1] The storage capacity supported is based on the test results with current Lenovo® storage offerings.

Removable Storage

Card Reader

SD Express 7.0 card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3306 codec

Speakers

Stereo speakers, 2W x2, Dolby® Atmos®

Microphone

- Dual-microphone array, far-field, Dolby Voice
- No microphone

Camera**

- FHD 1080p + IR hybrid, with privacy shutter and Ultrasonic Human Presence Detection, fixed focus
- FHD 1080p, with privacy shutter, fixed focus

Battery

Battery

Integrated Li-Polymer 94Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 230W AC adapter

Power Adapter

Power Adapter**[1]

- 170W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz
- 230W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz

Notes:

[1] AC adapter offerings depend on the country.

DESIGN

Display

Display**

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Refresh Rate	Viewing Angle (L/R/U/D)	Key Features
16″	WUXGA (1920x1200)	None	IPS[1]	300nits	Anti-glare	16:10	1200:1	100% sRGB	60Hz	85° / 85° / 85° / 85°	Eyesafe® Certified 2.0, Low Blue Light, X-Rite® Factory Color Calibration, 83.4% screen to body ratio, DC dimming
16″	WQXGA (2560x1600)	None	IPS[2]	500nits	Anti-glare	16:10	1200:1	100% sRGB	165Hz	89° / 89° / 89° / 89°	Eyesafe Certified 2.0, Low Blue Light, X-Rite Factory Color Calibration, 83.4% screen to body ratio, DC dimming
16″	WQUXGA (3840x2400)	None	IPS[3]	800nits	Anti-glare	16:10	1500:1	100% DCI-P3	60Hz	85° / 85° / 85° / 85°	Eyesafe Certified 2.0, TÜV Low Blue Light, DisplayHDR™ 400, Dolby Vision™, X-Rite Factory Color Calibration, 83.4% screen to body ratio, DC dimming
16″	WQUXGA (3840x2400)	Multi-touch	OLED	SDR 400nits / HDR 500nits	Anti-reflection, anti-smudge	16:10	100000:1	100% DCI-P3	60Hz	87.5° / 87.5° / 87.5° / 87.5°	Eyesafe Certified 2.0, TÜV Low Blue Light, Dolby Vision, DisplayHDR

											True Black 500, X-Rite Factory Color Calibration, 83.4% screen to body ratio

Color Calibration

X-Rite factory color calibration

Touchscreen

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

Notes:

[1], [2], [3] IPS (in-plane switching) technology may refer to IPS, PLS, ADS, AHVA, AAS.

Input Device

Pen

- Lenovo Precision Pen 2 with built-in rechargeable battery, 4096 levels of pressure sensitivity, tilt detection, supports WGP, AES 2.0 and MPP 2.0 protocols. For more information, please read Lenovo Precision Pen 2
- No pen (purchase separately)
- No support

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls, numeric keypad

Keyboard Backlight

LED backlight

UltraNav™

3-button TrackPoint® pointing device and glass-like Mylar® surface multi-touch touchpad, 67.6 x 115 mm (2.66 x 4.53 inches)

Mechanical

Dimensions (WxDxH)[1]

364 x 266 x 30.23 mm (14.3 x 10.5 x 1.2 inches)

Weight[2]

Starting at 2.95 kg (6.5 lbs)

Case Color

Storm grey (top), villi black (bottom)

Case Material

AL5052 (97.25% aluminium, 2.5% magnesium, and 0.25% chromium; top), PPS + 50% GF (bottom)

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

Ethernet

No onboard Ethernet[1]

WLAN + Bluetooth®

- Intel Wi-Fi® 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.3[2]
- No WLAN and Bluetooth

WWAN**

- Wireless WAN upgradable to 4G (with antenna ready)

- Fibocom L860-GL-16, 4G LTE CAT16, M.2 card, with embedded eSIM functionality
- No support

SIM Card

No physical SIM card inbox

NFC

- Near Field Communication
- No support

Notes:

[1] Ethernet support via optional docking or Lenovo USB-C® to Ethernet Adapter, up to 2.5GbE.
[2] Wi-Fi 6E full features might be limited by country-level restrictions.
Wi-Fi 6E is only enabled on Windows 11 and operates as Wi-Fi 6 with Windows 10.
6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation.
Bluetooth 5.3 operation requires Windows 11. For more information please see General Bluetooth Support Information on Microsoft®.

Ports[1]

Standard Ports[2]

- 1x Headphone / microphone combo jack (3.5mm)
- 1x SD Express 7.0 card reader
- 1x USB-C 3.2 Gen 2 (support data transfer and Power Delivery 3.0)
- 2x Thunderbolt 4 / USB4® 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4)
- 2x USB 3.2 Gen 1 (one Always On)
- Models with NVIDIA graphics: 1x HDMI 2.1, up to 8K/60Hz
- Models with integrated or Intel Arc graphics: 1x HDMI 2.1, up to 4K/60Hz

Optional Ports***

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

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] Power Delivery only supports power-out for charging peripherals.

Docking

Docking

Various docking solutions supported via Thunderbolt or USB-C.
For more compatible docking solutions, please visit Docking for ThinkPad® P16 Gen 2

Monitor Cable

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to VGA Adapter
- Lenovo USB-C to DisplayPort Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified, FIPS 140-2 certified

Physical Locks

Kensington® Nano Security Slot™, 2.5 x 6 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

Touch style fingerprint reader integrated in power button, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- (Optional) Ultrasonic Human Presence Detection for IR camera
- (Optional) Camera privacy shutter
- Bottom cover tamper detection
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

System Management

- Intel vPro® Enterprise[1]
- 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 courier or carry-in with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) courier or carry-in service
- 3-year (1-yr battery) 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://pcsupport.lenovo.com/warranty.

ENVIRONMENTAL

Operating Environment

Temperature[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping packaging: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

[1] When you charge the battery, its temperature must be no lower than 10°C (50°F).

ACCESSORIES

Bundled Accessories

Bundled Accessories

- Lenovo USB-C to Ethernet Adapter (2.5Gbps)
- None

CERTIFICATIONS

Green Certifications[1]

Green Certifications

- (Optional) ENERGY STAR® 8.0
- (Optional) EPEAT™ Gold Registered[2]
- RoHS compliant
- TCO Certified 9.0

Notes:

[1] The items listed under the "Green Certifications" section may not only refer to certification but also registration or self-declaration.

[2] EPEAT is registered where applicable, please see https://www.epeat.net for registration status by country.

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

Other Certifications

- Eyesafe Certified 2.0
- TÜV Rheinland® Low Blue Light

ISV Certifications

ISV Certifications

Please visit ISV certifications for Lenovo Workstations

- 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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