OVERVIEW



1. Smart card reader *	6. Ethernet (GbE RJ-45)
2. Nano-SIM card slot *	7. Kensington Nano Security Slot
3. Headphone / microphone combo jack (3.5mm)	8. HDMI
4. SD Express 7.0 card reader	9. 2x Thunderbolt 4
5. USB-A (USB 5Gbps)	10. USB-A (USB 5Gbps), Always On

Notes:

- Items with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Intel® H Series Core Ultra 5 / 7 / 9 Processor (Series 2); supports up to 16 cores; up to 5.4GHz

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Processor Graphics	NPU	Intel® vPro® Eligibility	Overall TOPS
Core Ultra 5 225H[1]	14 (4 P-core + 8 E-core + 2 LP E-core)	14	P-core 1.7GHz / E-core 1.3GHz / LP E-core 700MHz	P-core 4.9GHz / E-core 4.3GHz / LP E-core 2.5GHz	18MB Intel® Smart Cache	Intel® Arc™ 130T GPU, up to 63 TOPS	Intel® AI Boost, up to 13 TOPS	-	Up to 83 TOPS
Core Ultra 7 255H	16 (6 P-core + 8 E-core + 2 LP E-core)	16	P-core 2.0GHz / E-core 1.5GHz / LP E-core 700MHz	P-core 5.1GHz / E-core 4.4GHz / LP E-core 2.5GHz	24MB Intel® Smart Cache	Intel® Arc™ 140T GPU, up to 74 TOPS	Intel® AI Boost, up to 13 TOPS	-	Up to 96 TOPS
Core Ultra 7 265H	16 (6 P-core + 8 E-core + 2 LP E-core)	16	P-core 2.2GHz / E-core 1.7GHz / LP E-core 700MHz	P-core 5.3GHz / E-core 4.5GHz / LP E-core 2.5GHz	24MB Intel® Smart Cache	Intel® Arc™ 140T GPU, up to 75 TOPS	Intel® AI Boost, up to 13 TOPS	Intel® vPro® Enterprise	Up to 97 TOPS
Core Ultra 9 285H	16 (6 P-core + 8 E-core + 2 LP E-core)	16	P-core 2.9GHz / E-core 2.7GHz / LP E-core 1.0GHz	P-core 5.4GHz / E-core 4.5GHz / LP E-core 2.5GHz	24MB Intel® Smart Cache	Intel® Arc™ 140T GPU, up to 77 TOPS	Intel® AI Boost, up to 13 TOPS	Intel® vPro® Enterprise	Up to 99 TOPS

Notes:

[1] Core Ultra 5 225H is only available as special bid in EMEA.

AI (Artificial Intelligence)

AI PC Category

AI-Ready Workstations

NPU

Integrated Intel® AI Boost, up to 13 TOPS

Operating System

Operating System

- Windows® 11 Pro
- Windows® 11 Home
- Windows® 11 Home Single Language
- Ubuntu Linux
- Red Hat Enterprise Linux 10 (certified only, for detailed and latest information, please visit Red Hat Certified Hardware)[1]

Notes:

[1] Red Hat Enterprise Linux 10 certification will be available in November 2025.

Graphics

Graphics

Graphics	Type	Memory	AI TOPS (Peak)
NVIDIA® RTX PRO 500 Blackwell Generation 6GB GDDR7 Laptop GPU	Discrete	6GB GDDR7	294 TOPS
NVIDIA® RTX PRO 1000 Blackwell Generation 8GB GDDR7 Laptop GPU	Discrete	8GB GDDR7	440 TOPS

NVIDIA® RTX PRO 2000 Blackwell Generation 8GB GDDR7 Laptop GPU	Discrete	8GB GDDR7	572 TOPS

Monitor Support

Monitor Support

Supports up to 4 independent displays (native display and 3 external monitors via Thunderbolt™ 4 and HDMI®).
Max resolution for multiple external display:
• 3x 3840x2160@60Hz (Thunderbolt™ 4 and HDMI®)
Max resolution for single external display:
• Thunderbolt™ 4 supports up to 7680x4320@60Hz or 3840x2160@240Hz
• HDMI® supports up to 7680x4320@60Hz or 3840x2160@240Hz

Chipset

Chipset

Intel® SoC (System on Chip) platform

Memory

Max Memory

Up to 96GB (2x 48GB DDR5 CSODIMM)

Memory Slots

Two DDR5 SODIMM / CSODIMM slots, dual-channel capable

Memory Type**

- DDR5-5600 SODIMM, non-ECC, maximum transfer speeds of up to 5600 MT/s, 16GB / 32GB memory modules are available
- DDR5-6400 CSODIMM, non-ECC, maximum transfer speeds of up to 6400 MT/s, 32GB / 48GB memory modules are available

Storage

Max Storage Support[1]

Up to two M.2 2280 Gen 5 Performance SSD; up to 4TB total, 2TB each

Storage Slot[2]

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	512GB / 1TB	Opal 2.0
M.2 2280 SSD	PCIe® NVMe®, PCIe® 5.0 x4 Performance[3]	512GB / 1TB / 2TB	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.
[2] The actual data transfer rate of the following PCIe® interface also depends on the capabilities of the connected PCIe® device. The listed values represent theoretical maximums.
PCIe® 3.0 (x2 / x4): 2 GB/s (16 Gbps) / 4 GB/s (32 Gbps);
PCIe® 4.0 (x2 / x4): 4 GB/s (32 Gbps) / 8 GB/s (64 Gbps);
PCIe® 5.0 (x2 / x4): 8 GB/s (64 Gbps) / 16 GB/s (128 Gbps).
[3] Gen 5 SSD on M.2 PCIe® 4.0 slot will run on PCIe® 4.0 protocols.

Removable Storage

Card Reader

SD Express 7.0 card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby Audio™

Microphone

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

Camera**

- 5.0MP + IR with privacy shutter and Ultrasonic Human Presence Detection, fixed focus, temporal noise reduction
- 5.0MP with privacy shutter, fixed focus, temporal noise reduction
- No camera

Battery

Battery

90Wh Rechargeable Li-ion Battery, supports Rapid Charge (charge up to 80% in 1hr)

Power Adapter

Power Adapter[1]

- 140W USB-C® GaN (3-pin) AC adapter, supports PD 3.1, 100-240V, 50-60Hz
- No power adapter

Notes:

[1] AC adapter offerings depend on the country.

DESIGN

Display

Display**

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle (L/R/U/D)	Key Features
16″	WUXGA (1920x1200)	Non-touch	IPS	400nits	Anti-glare	16:10	1200:1	45% NTSC	89° / 89° / 89° / 89°	87.7% screen to body ratio, TÜV Low Blue Light, AICCP color calibration, DC dimming
16″	WUXGA (1920x1200)	Non-touch	IPS	500nits	Anti-glare	16:10	1200:1	100% sRGB	89° / 89° / 89° / 89°	87.7% screen to body ratio, AICCP color calibration, Low power, TÜV Low Blue Light, Eyesafe® 2.0 Certified, DC dimming
16″	WQUXGA (3840x2400)	Add-on Film Touch	OLED	400nits	Anti-glare, anti-reflection, anti-smudge	16:10	100,000:1	100% DCI-P3	87.5° / 87.5° / 87.5° / 87.5°	87.7% screen to body ratio, Eyesafe® Certified 2.0, TÜV Low Blue Light, Dolby Vision®, X-Rite® Factory Color Calibration, PWM dimming

Touchscreen

- Add-on Film Touch, supports 10-point touch (OLED models)
- Non-touch

Screen-to-Body Ratio

87.7%

Color Calibration**

- AICCP color calibration (WUXGA display)
- X-Rite® factory color calibration (OLED display)

Input Device

Pen

No support

Keyboard

6-row, spill-resistant, multimedia Fn keys, numeric keypad, Copilot key

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

3-button TrackPoint® pointing device and Mylar® surface multi-touch Trackpad, 67 x 115 mm (2.64 x 4.53 inches)

Mechanical

Dimensions (WxDxH)[1]

361.5 x 248.6 x 12.8 / 19.55 (front / rear), 26.3 (maximum) mm
14.23 x 9.79 x 0.50 / 0.77 (front / rear), 1.04 (maximum) inches

Weight[2]

Around 2.1 kg (4.6 lbs)

Case Color

Black

Case Material

Aluminium (top), PC-ABS (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

WLAN + Bluetooth®**[1]

- Intel® Wi-Fi® 7 BE201, 802.11be 2x2 Wi-Fi® + Bluetooth® 5.4
- Intel® Wi-Fi® 7 BE201, 802.11be 2x2 Wi-Fi® + Bluetooth® 5.4, Intel® vPro® technology support[2]

WWAN**

- Wireless WAN upgradable to 5G (with antenna ready)
- Rolling Wireless RW350R-GL, 5G Sub-6 GHz, M.2 card, with embedded eSIM functionality[3]
- No support

SIM Card

No physical SIM card included

Ethernet**

- Gigabit Ethernet, Intel® Ethernet Connection I219-LM (vPro® models), 1x RJ-45, supports Wake-on-LAN
- Gigabit Ethernet, Intel® Ethernet Connection I219-V (non-vPro® models), 1x RJ-45, supports Wake-on-LAN

NFC

- Near Field Communication
- No support

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.
[3] RW350R-GL is only available in EMEA, ANZ. and Japan.

Ports[1]

Standard Ports

- 1x USB-A (USB 5Gbps / USB 3.2 Gen 1)
- 1x USB-A (USB 5Gbps / USB 3.2 Gen 1), Always On
- 2x Thunderbolt™ 4, with USB PD 3.1, 140W input / 15W output
- 1x HDMI® 2.1, up to 8K/60Hz
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Ethernet (GbE RJ-45)
- 1x SD Express 7.0 card reader
- 1x Kensington® Nano Security Slot™

Optional Ports

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

Docking

Docking

Various docking solutions supported via Thunderbolt™ / USB-C®.
For more compatible docking solutions, please visit Docking for ThinkPad® P16v Gen 3 (Intel®)

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, supports ISO 7816 and EMV
- No smart card reader

Fingerprint Reader

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

BIOS Security

- NVMe® password
- Power-on password
- Supervisor password
- Self-healing BIOS
- More BIOS security features, please visit BIOS Simulator

Other Security

- Bottom cover tamper detection

- Camera privacy shutter
- (Optional) Ultrasonic Human Presence Detection for IR camera
- (Optional) IR camera for Windows® Hello (facial recognition)

MANAGEABILITY

System Management

System Management[1]

- Intel® vPro® Enterprise
- Non-vPro®

Notes:

[1] Intel® vPro® platform require an eligible Intel® processor, a supported operating system, Intel® LAN and/or WLAN silicon, firmware enhancements, and other hardware and software necessary to deliver the manageability use cases, security features, system performance, and stability that define the platform. See Intel® vPro® Platform for details.

SERVICE

Warranty

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
- No base warranty

ACCESSORIES

Bundled Accessories

Bundled Accessories[1]

- Lenovo® HDMI® to VGA Monitor Adapter
- Lenovo® USB-C® to DisplayPort™ Adapter
- Lenovo® USB-C® to VGA Adapter

Notes:

[1] For more compatible accessory solutions, please visit Accessories for ThinkPad® P16v Gen 3 (Intel®).

OPERATING REQUIREMENTS

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)

Relative 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).

ENVIRONMENTAL

Sustainability

Material[1]

75% Recycled Aluminum A Cover
30% PCC Plastic C Cover
30% PCC Plastic D Cover
90% PCC Plastic 140W AC Adapter
Plastic free packaging with 90% recycled and/or FSC certified content (standard/bulk)

Notes:

[1] PCC: Post Consumer Content, recycled materials from customers.

CERTIFICATIONS

Green Certifications[1]

Green Certifications[2]

- ENERGY STAR® 9.0
- EPEAT 2.0 Gold Registered
- RoHS compliant
- TCO Certified, generation 10

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] EPEAT registration and ENERGY STAR® certification are optional and only available on the models with preloaded OS. Please visit epeat.net and energystar.gov for more information.

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed[1]

Other Certifications

- (Optional) Eyesafe® Certified 2.0
- TÜV Rheinland® Low Blue Light

Notes:

[1] ThinkPad® P16v Gen 3 (Intel®) meets MIL-STD-810H METHOD 516.8 procedure IV (transit drop with and without packaging).

ISV Certifications

ISV Certifications

Please visit ISV certifications for Lenovo® Workstations

- 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.
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