OVERVIEW

1. Headphone / microphone combo jack (3.5mm)	6. USB-C (USB 10Gbps), with PD 140W & DP 1.4
2. USB-A (USB 5Gbps)	7. HDMI
3. USB-A (USB 5Gbps)	8. USB-A (USB 5Gbps)
4. Thunderbolt 4	9. USB-A (USB 5Gbps), Always On
5. Ethernet (RJ-45)	10. Power connector

Notes:

- Port 6: PD 140W indicates the input power and requires the use of Lenovo unique adapter, otherwise it may support lower than 140W.

PERFORMANCE

Processor

Processor Family

14th Generation Intel® Core™ i9 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Processor Graphics
Core i9-14900HX	24 (8 P-core + 16 E-core)	32	P-core 2.2GHz / E-core 1.6GHz	P-core 5.8GHz / E-core 4.1GHz	36MB	Intel® UHD Graphics

AI (Artificial Intelligence)

AI PC Category

AI-Powered Gaming PC

Operating System

Operating System[**]

- Windows® 11 Pro
- Windows® 11 Home
- Windows® 11 Home Single Language
- No preload operating system

Graphics

Graphics[**]

Graphics	Type	Memory	Boost Clock	TGP	AI TOPS (Peak)	Key Features
NVIDIA® GeForce RTX™ 4080 Laptop GPU	Discrete	12GB GDDR6	2280 MHz	175W	542 TOPS	Advanced Optimus, DLSS 3.5, Dynamic Boost 2.0, VR ready, DirectX® 12 Ultimate
NVIDIA® GeForce RTX™ 4090 Laptop GPU	Discrete	16GB GDDR6	2040 MHz	175W	686 TOPS	Advanced Optimus, DLSS 3.5, Dynamic Boost 2.0, VR ready, DirectX® 12 Ultimate

Monitor Support

Monitor Support

Supports up to 4 independent displays (native display and 3 external monitors via HDMI® and USB-C®)
• HDMI® supports up to 4K@60Hz
• USB-C® supports up to 4K@60Hz
• Thunderbolt™ supports up to 4K@60Hz

Chipset

Chipset

Intel® HM770 chipset

Memory

Max Memory[1]

Up to 32GB DDR5-5600 offering

Memory Slots

Two DDR5 SO-DIMM slots, dual-channel capable

Memory Type

DDR5-5600

Notes:

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

Storage

Storage Support[1]

Up to two drives, 2x M.2 SSD
• M.2 2280 SSD up to 1TB each

Storage Slot

Two M.2 2280 PCIe® 4.0 x4 slots

Storage Type

Disk Type	Interface	Offering
M.2 2280 SSD	PCIe® NVMe®, PCIe® 4.0 x4	1TB

Notes:

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

Removable Storage

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3306 codec

Speakers

Stereo speakers (super linear speaker), 2W x2, audio by HARMAN, optimized with Nahimic Audio, Smart Amplifier (AMP)

Microphone

Dual-microphone array

Camera**

- FHD 1080p, with E-shutter, fixed focus
- HD 720p, with E-shutter, fixed focus

Battery

Battery**

- Integrated Li-Polymer 80Wh battery, supports Super Rapid Charge (10min charge 0~30% capacity, 30min charge 0~70% capacity, 80min charge 0~100% capacity)
- Integrated Li-Polymer 99.9Wh battery, supports Super Rapid Charge (10min charge 0~30% capacity, 30min charge 0~70% capacity, 80min charge 0~100% capacity)

Max Battery Life[1]

- Models with 80Wh battery:
  MobileMark® 2018: 7.3 hr
  Local video (1080p) playback@150nits: 9 hr
- Models with 99.9Wh battery:
  MobileMark® 2018: 9 hr
  Local video (1080p) playback@150nits: 10.4 hr

Notes:

[1] All battery life claims are approximate maximum and based on results using the MobileMark® 2014, MobileMark® 2018, MobileMark® 25, MobileMark® 30, JEITA 2.0, JEITA 3.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary depending on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter

330W slim tip tiny GaN (3-pin) AC adapter, 100-240V, 50-60Hz

Special Features

Special Features**

- AI Chip: LA2-Q
- Hybrid thermal solution (air cooling + liquid metal)

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″	WQXGA (2560x1600)	None	IPS[1]	500nits	Anti-glare	16:10	1200:1	100% DCI-P3	240Hz	89° / 89° / 89° / 89°	DisplayHDR™ 400, Dolby Vision®, NVIDIA® G-SYNC®, Advanced Optimus support, TÜV Low Blue Light, TÜV High Gaming Performance

Color Calibration

X-Rite® factory color calibration

Touchscreen

Non-touch

Notes:

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

Input Device

Pen

No support

Keyboard

6-row, multimedia Fn keys, numeric keypad

Keyboard Backlight**

- Per-key RGB backlight (with lighting lens on the front side)
- White backlight

Touchpad

Buttonless Mylar® surface multi-touch touchpad, supports Precision TouchPad (PTP), 75 x 120 mm (2.95 x 4.72 inches)

Mechanical

Dimensions (WxDxH)[1]

363.5 x 262.1 x 21.95-25.9 mm (14.31 x 10.32 x 0.86-1.02 inches)

Weight[2]

Around 2.62 kg (5.78 lbs)

Case Color

Eclipse black

Surface Treatment

Anodizing

Case Material

Aluminium (top), aluminium (bottom)

System Lighting

No system lighting

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[1]

Gigabit Ethernet, 1x RJ-45, supports Wake-on-LAN

WLAN + Bluetooth®**[2][3]

- Wi-Fi® 6E, 802.11ax 2x2 Wi-Fi® + Bluetooth® 5.3, M.2 card
- Intel® Killer Wi-Fi® 6E AX1675i, 802.11ax 2x2 Wi-Fi® + Bluetooth® 5.3, M.2 Card

WWAN

No support

Notes:

[1] Wake-on-LAN needs the power adapter plugged in.

[2] Bluetooth® may operate at a lower version than hardware design depending on the factors such as operating system, driver, etc.

[3] Wi-Fi® 6E full features might be limited by country-level restrictions.
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 visit General Bluetooth® Support Information on Microsoft®.

Ports[1]

Standard Ports

- 1x USB-A (USB 5Gbps / USB 3.2 Gen 1), Always On
- 3x USB-A (USB 5Gbps / USB 3.2 Gen 1)
- 1x USB-C® (USB 10Gbps / USB 3.2 Gen 2), with Lenovo® PD 140W and DisplayPort™ 1.4[2]
- 1x USB-C® (Thunderbolt™ 4 / USB4® 40Gbps), with DisplayPort™ 1.4
- 1x HDMI® 2.1, up to 8K/60Hz
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Ethernet (RJ-45)
- 1x Power connector

Notes:

[1] The transfer speed of the 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.

[2] PD 140W is the input power and requires the use of Lenovo® unique adapter, otherwise it may support lower than 140W.

SECURITY & PRIVACY

Security

Security Chip

Firmware TPM 2.0 integrated in chipset

Fingerprint Reader

No fingerprint reader

BIOS Security

- Administrator password
- Master hard disk password
- Power-on password
- User hard disk password
- User password
- Self-healing BIOS
- More BIOS security features, please visit BIOS Simulator[1]

Other Security

E-shutter

Notes:

[1] The BIOS simulator is just for reference. Default settings and some options may vary depending on the hardware, operating system and BIOS version.

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)
- 2-year (1-yr battery) courier or carry-in service
- 3-year (1-yr battery) courier or carry-in service

ACCESSORIES

Bundled Accessories

Bundled Accessories*[1]**

- 4 switchable keycaps and easy tool
- Lenovo® Legion™ Gaming Speed Mouse Pad M
- None

Notes:

[1] For more compatible accessory solutions, please visit Accessories for Legion Pro 7 16IRX9H.

OPERATING REQUIREMENTS

Operating Environment

Temperature[1]

- At altitudes up to 2438 m (8,000 ft)
  - Operating: 5°C to 35°C (41°F to 95°F)
  - Storage: 5°C to 43°C (41°F to 109°F)
- At altitudes above 2438 m (8,000 ft)
  - Maximum temperature when operating under the unpressurized condition: 31.3°C (88°F)

Relative Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage: 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).

CERTIFICATIONS

Green Certifications[1]

Green Certifications

- ErP Lot 3
- RoHS compliant

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

- TÜV Rheinland® High Gaming Performance
- TÜV Rheinland® Low Blue Light (Hardware Solution)

- 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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