# **OVERVIEW**



1. USB4 40Gbps (data transfer / DP1.4 only)	6. HDMI
2. USB-C 3.2 Gen 2 (data transfer / DP 1.4 only)	7. USB-C 3.2 Gen 2
3. Power connector	8. Ethernet (RJ-45)
4. USB 3.2 Gen 1 (Always On)	9. Headphone / microphone combo jack (3.5mm)
5. USB 3.2 Gen 1	10. USB-C 3.2 Gen 1 (data transfer only)

# PERFORMANCE

# **Processor**

## **Processor Family**

AMD Ryzen<sup>™</sup> 7 / 9 Processor

#### Processor\*\*

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Processor Graphics
AMD Ryzen 7 6800H	8	16	3.2GHz	4.7GHz	4MB L2 / 16MB L3	AMD Radeon™ 680M Graphics
AMD Ryzen 9 6900HX	8	16	3.3GHz	4.9GHz	4MB L2 / 16MB L3	AMD Radeon 680M Graphics

# **Operating System**

## Operating System\*\*[1]

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

Notes:

1. Some features may not be supported on the system with Linux preload, including but not limited to Intel® RST RAID, MIPI computer vision camera, WWAN, Human Presence Detection, etc.

# **Graphics**

## Graphics\*\*

Graphics	Туре	Memory	Key Features
AMD Radeon RX 6700M	Discrete	10GB GDDR6	AMD Smart Access Memory, AMD SmartShift Technology, DirectX® 12 Ultimate
AMD Radeon RX 6850M XT	Discrete	12GB GDDR6	AMD Smart Access Memory, AMD SmartShift Technology, DirectX 12 Ultimate

# **Monitor Support**

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

Supports up to 4 independent displays (native display and 3 external monitors via HDMI® and USB-C®)

- HDMI supports up to 7680x4320@60Hz
- USB-C supports up to 7680x4320@30Hz

Notes:

1. For Max resolution, DSC-enabled display is required. Three external output display devices cannot be supported at the same time when displaying 8K resolution.

# Chipset

#### Chipset

AMD SoC (System on Chip) platform

# Memory

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

Up to 32GB DDR5-4800 offering

#### **Memory Slots**

Two DDR5 SO-DIMM slots, dual-channel capable

#### **Memory Type**

DDR5-4800

#### Notes:

<sup>1.</sup> The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the Legion 7 16ARHA7 - January 11 2023 2 of 7

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technology develops.

# Storage

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

Up to two drives, 2x M.2 SSD

• M.2 2280 SSD up to 2TB

# Storage Slot

Two M.2 2280 PCIe® 4.0 x4 slots

#### Storage Type

Disk Type	Offering	
M.2 2280 SSD	PCIe NVMe®, PCIe 4.0 x4	512GB / 1TB / 2TB

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

# **Removable Storage**

#### **Card Reader**

No card reader

## **Multi-Media**

#### **Audio Chip**

High Definition (HD) Audio, Realtek® ALC3287 codec

#### Speakers

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

## Microphone

Dual-microphone array

#### Camera

FHD 1080p, with E-shutter, fixed focus

## Sensor

#### Sensors

Force sensor

# Battery

#### Battery

Integrated Li-Polymer 99.99Wh battery, supports Rapid Charge Pro (charge up to 50% in 15min, 70% in 30min)

### Max Battery Life<sup>[1]</sup>

MobileMark® 2018: 10 hr Local video (1080p) playback@150nits: 12 hr

#### Notes:

1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, 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 and depends 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\*\*[1]

- 230W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz
- 300W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz

Notes:

<sup>1.</sup> AC adapter offerings depend on the country.

# Display

## Display\*\*[1]

Size	Resolution	Touch	Туре	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle (L/R/U/D)	Key Features
16″	WQXGA (2560x1600)	None	IPS	500 nits	Anti- glare	16:10	1200:1	100% sRGB	89°/89°/89°/89°	Refresh rate 165Hz, Dolby® Vision™, DisplayHDR™ 400, AMD FreeSync™, DC dimmer, TÜV Low Blue Light, TÜV High Gaming Performance
16″	WQXGA (2560x1600)	None	IPS	500 nits	Anti- glare	16:10	1200:1	100% sRGB	89°/89°/89°/89°	Refresh rate 240Hz, Dolby Vision, AMD FreeSync, DC dimmer, Advanced Optimus, TÜV Low Blue Light, TÜV High Gaming Performance

#### **Color Calibration**

X-Rite® Pantone® factory color calibration

#### Touchscreen

Non-touch

Notes:

In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to https://www.calrecycle.ca.gov/Electronics/Consumer

# **Input Device**

#### Keyboard

6-row, spill-resistant, multimedia Fn keys, numeric keypad, Force sensor, switchable keycaps, easy tool inbox

## Keyboard Backlight

Per-key RGB backlight

## Touchpad

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

# **Mechanical**

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

358.1 x 263.5 x 19.4 mm (14.1 x 10.37 x 0.76 inches)

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

Around 2.53 kg (5.58 lbs)

#### Case Color

Storm grey

## Surface Treatment

Iron sandblasting (anodized)

## Case Material

Aluminium (top), aluminium (bottom)

## System Lighting

"Y" logo RGB lighting on top cover RGB lighting on power button "U" strip RGB lighting RGB lighting on left, right, and rear thermal vent

#### Notes:

1. The system dimensions may vary depending on configurations.

<sup>1.</sup> California Electronic Waste Recycling Fee

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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

2.5GbE, Realtek RTL8125BG Gaming Ethernet, 1x RJ-45

#### WLAN + Bluetooth®\*\*[1][2]

- Wi-Fi<sup>®</sup> 6, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
- Wi-Fi 6E, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 card

Notes:

- 1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitations.
- Wi-Fi 6 and 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.

## **Ports**<sup>III</sup>

#### Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer only)
- 1x USB-C 3.2 Gen 2 (support data transfer and DisplayPort<sup>™</sup> 1.4)
- 1x USB-C 3.2 Gen 2 (support data transfer, Power Delivery 135W and DisplayPort 1.4)
- 1x USB4<sup>®</sup> 40Gbps (support data transfer and DisplayPort 1.4)
- 1x HDMI, up to 8K/60Hz
- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Power connector

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;
- USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;

Thunderbolt™ 3/4: 40 Gbit/s

# **SECURITY & PRIVACY**

# Security

Security Chip

Firmware TPM 2.0 integrated in SoC

#### **Fingerprint Reader**

Touch style fingerprint reader integrated in power button

#### **BIOS Security**

- Administrator password
- Power-on password
- Hard disk password
- Self-healing BIOS

#### Other Security

E-shutter

# 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

# ENVIRONMENTAL

# **Operating Environment**

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

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)

## 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**<sup>11</sup>

## **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.

# **Other Certifications**

## Other Certifications

- TÜV Rheinland<sup>®</sup> High Gaming Performance
- TÜV Rheinland Low Blue Light (Hardware Solution)
- Feature with \*\* means that only one offering listed under the feature is configured on selected models.
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