

**OVERVIEW**



1. USB 3.2 Gen 1	5. HDMI
2. USB 3.2 Gen 2	6. Power connector
3. USB 3.2 Gen 2	7. USB-C 3.2 Gen 2
4. Ethernet (RJ-45)	8. Headphone / microphone combo jack (3.5mm)

## PERFORMANCE

### Processor

#### Processor Family

12th Generation Intel® Core™ i5 or 13th Generation Intel® Core™ i5 / i7 Processor

#### Processor\*\*

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Processor Graphics
Core™ i5-12450H	8 (4 P-core + 4 E-core)	12	P-core 2.0GHz / E-core 1.5GHz	P-core 4.4GHz / E-core 3.3GHz	12MB	Intel® UHD Graphics
Core™ i5-13420H	8 (4 P-core + 4 E-core)	12	P-core 2.1GHz / E-core 1.5GHz	P-core 4.6GHz / E-core 3.4GHz	12MB	Intel® UHD Graphics
Core™ i5-13500H	12 (4 P-core + 8 E-core)	16	P-core 2.6GHz / E-core 1.9GHz	P-core 4.7GHz / E-core 3.5GHz	18MB	Intel® Iris® Xe Graphics
Core™ i7-13620H	10 (6 P-core + 4 E-core)	16	P-core 2.4GHz / E-core 1.8GHz	P-core 4.9GHz / E-core 3.6GHz	24MB	Intel® UHD Graphics
Core™ i7-13700H	14 (6 P-core + 8 E-core)	20	P-core 2.4GHz / E-core 1.8GHz	P-core 5.0GHz / E-core 3.7GHz	24MB	Intel® Iris® Xe Graphics

### 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	Key Features
NVIDIA® GeForce RTX™ 2050 Laptop GPU	Discrete	4GB GDDR6	1575 MHz	70W	MUX Switch, VR ready, DirectX® 12, Ray Tracing
NVIDIA® GeForce RTX™ 3050 Laptop GPU	Discrete	6GB GDDR6	1732 MHz	95W	MUX Switch, Advanced Optimus, Dynamic Boost 2.0, DirectX® 12 Ultimate
NVIDIA® GeForce RTX™ 4050 Laptop GPU	Discrete	6GB GDDR6	2370 MHz	95W	MUX Switch, Advanced Optimus, DLSS 3, Dynamic Boost 2.0, DirectX® 12 Ultimate
NVIDIA® GeForce RTX™ 4060 Laptop GPU	Discrete	8GB GDDR6	2370 MHz	115W	MUX Switch, Advanced Optimus, DLSS 3, Dynamic Boost 2.0, VR ready, DirectX® 12 Ultimate

### Monitor Support

#### Monitor Support

Supports up to 3 independent displays (native display and 2 external monitors via HDMI®, USB-C®)

- HDMI® supports up to 4096x2160@60Hz
- USB-C® supports up to 5120x3200@60Hz

### Chipset

#### Chipset

Intel® SoC (System on Chip) platform

### Memory

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

- Up to 32GB DDR5-4800
- Up to 32GB DDR5-5200

#### Memory Slots

Two DDR5 SO-DIMM slots, dual-channel capable

#### Memory Type\*\*[2]

- DDR5-4800
- DDR5-5200

Notes:

[1] Maximum memory is only to test technical readiness of notebook. Available memory to sell would vary.

[2] Installed memory is actually DDR5-5600 but may run as DDR5-4800 or DDR5-5200 due to processor limitation.

## Storage

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

Up to two drives, 2x M.2 SSD

- M.2 2242 SSD up to 1TB

#### Storage Slot

Two M.2 slots

- One M.2 2242 PCIe® 4.0 x4 slot
- One M.2 2280 PCIe® 4.0 x4 slot

#### Storage Type

Disk Type	Interface	Offering
M.2 2242 SSD	PCIe® NVMe®, PCIe® 4.0 x4	512GB / 1TB

Notes:

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

## Removable Storage

#### Optical

None

#### Card Reader

No card reader

## Multi-Media

#### Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

#### Speakers

Stereo speakers, 2W x2, optimized with Nahimic Gaming Audio

#### Microphone

Dual-microphone array

#### Camera\*\*

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

## Battery

#### Battery

Integrated Li-Polymer 60Wh battery, supports Rapid Charge (charge up to 80% in 1hr)

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

MobileMark® 2018: 5.32 hr

Local video (1080p) playback@150nits: 4.72 hr

Notes:

[1] All battery life claims are approximate maximum and based on results using the MobileMark® 2014, MobileMark® 2018, MobileMark® 25, 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 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\*\*<sup>[1]</sup>

- 135W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz
- 170W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz
- 230W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz

Notes:

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

## Special Features

### Special Features

AI Chip: LA1

## DESIGN

## Display

### Display\*\*<sup>[1]</sup>

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Refresh Rate	Viewing Angle (L/R/U/D)	Key Features
15.6"	FHD (1920x1080)	None	IPS <sup>[2]</sup>	300nits	Anti-glare	16:9	800:1	45% NTSC	60Hz	85°/85°/85°/85°	-
15.6"	FHD (1920x1080)	None	IPS <sup>[3]</sup>	350nits	Anti-glare	16:9	1000:1	45% NTSC	144Hz	85°/85°/85°/85°	Advanced Optimus, NVIDIA® G-SYNC®
15.6"	WQHD (2560x1440)	None	IPS <sup>[4]</sup>	350nits	Anti-glare	16:9	1000:1	100% sRGB	165Hz	85°/85°/85°/85°	Advanced Optimus, NVIDIA® G-SYNC®

### Touchscreen

Non-touch

Notes:

<sup>[1]</sup> MUX-switch function support.

<sup>[2]</sup>, <sup>[3]</sup>, <sup>[4]</sup> IPS (in-plane switching) technology may refer to IPS, PLS, ADS, AHVA, AAS.

## Input Device

### Keyboard

6-row, multimedia Fn keys, numeric keypad

### Keyboard Backlight\*\*

- 4-Zone RGB backlight
- 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)<sup>[1]</sup>

359.6 x 264.8 x 22.1-25.2 mm (14.16 x 10.43 x 0.87-0.99 inches)

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

Starting at 2.4 kg (5.29 lbs)

### Case Color

Storm grey

### Surface Treatment

Painting

### Case Material

PC-ABS (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

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

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

#### WLAN + Bluetooth<sup>[2][3]</sup>

Wi-Fi® 6, 802.11ax 2x2 Wi-Fi® + Bluetooth® 5.2, M.2 card

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® 6 full features might be limited by country-level restrictions.

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

#### Standard Ports

- 1x USB 3.2 Gen 1
- 2x USB 3.2 Gen 2
- 1x USB-C® 3.2 Gen 2 (support data transfer, Lenovo® Power Delivery 140W and 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 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.

### Docking

#### Docking

Various docking solutions supported via USB-C®.

For more compatible docking solutions, please visit [Docking for LOQ 15IRH8](#)

## SECURITY & PRIVACY

### Security

#### Security Chip

Firmware TPM 2.0 integrated in SoC

#### Fingerprint Reader

No fingerprint reader

## BIOS Security

- Administrator password
- Hard disk password
- Power-on 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
- No base warranty

# ACCESSORIES

## Bundled Accessories

### Bundled Accessories<sup>[1]</sup>

- Lenovo® LOQ M100 RGB Mouse (USB connector)
- None

Notes:

[1] For more compatible accessory solutions, please visit [Accessories for LOQ 15IRH8](#)

# OPERATING REQUIREMENTS

## 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)
- 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<sup>[1]</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. For ESG & regulatory compliance documents, please visit <https://compliance.lenovo.com>.

## Other Certifications

### Mil-Spec Test

MIL-STD-810H military test passed

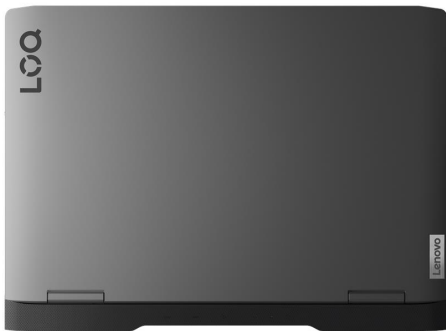
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