

**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 operating system

### Graphics

#### Graphics

Graphics	Type	Memory	Boost Clock	TGP	Key Features
NVIDIA® GeForce RTX™ 3050 Laptop GPU	Discrete	6GB GDDR6	1732 MHz	95W	MUX Switch, Advanced Optimus, Resizable BAR, 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, Resizable BAR, Dynamic Boost 2.0, VR ready, DirectX 12 Ultimate
NVIDIA GeForce RTX 2050 Laptop GPU	Discrete	4GB GDDR6	1575 MHz	70W	MUX Switch, VR ready, DirectX 12, Ray Tracing
NVIDIA GeForce RTX 4050 Laptop GPU	Discrete	6GB GDDR6	2370 MHz	95W	MUX Switch, Advanced Optimus, DLSS 3, Resizable BAR, 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

- Up to 16GB DDR5-4800 offering
- Up to 16GB DDR5-5200 offering

#### Memory Slots

Two DDR5 SO-DIMM slots, dual-channel capable

**Memory Type<sup>[1]</sup>**

- DDR5-4800
- DDR5-5200

Notes:

[1] Installed memory is actually 5600MHz but may run at 4800MHz or 5200MHz 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. The system may support larger storage as the technology develops.

**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**

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

[1] AC adapter offerings depend on the country.

## Special Features

### Special Features

AI Chip: LA1

## DESIGN

### Display

#### Display<sup>[1][2]</sup>

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

### Touchscreen

Non-touch

Notes:

[1] California Electronic Waste Recycling Fee

In California USA, 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, please go to <https://www.calrecycle.ca.gov/Electronics/Consumer>.

[2] All the panels support MUX-switch function.

### 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

Gigabit Ethernet, 1x RJ-45

#### WLAN + Bluetooth<sup>[1][2]</sup>

Wi-Fi<sup>®</sup> 6, 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.

[2] 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, Power Delivery 140W and DisplayPort™ 1.4)
- 1x HDMI 2.1, 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;

USB4<sup>®</sup> 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.

## SECURITY & PRIVACY

### Security

#### Security Chip

Firmware TPM 2.0 integrated in SoC

#### Fingerprint Reader

No fingerprint reader

#### 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)
- At altitudes above 2438 m (8,000 ft)
  - Maximum temperature when operating under the unpressurized condition: 31.3°C (88°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] Note: When you charge the battery, its temperature must be no lower than 10°C (50°F).

## ACCESSORIES

### Bundled Accessories

#### Bundled Accessories

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

## 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.

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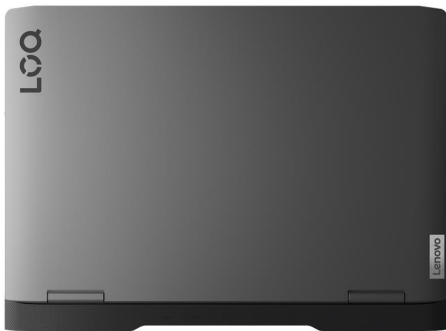
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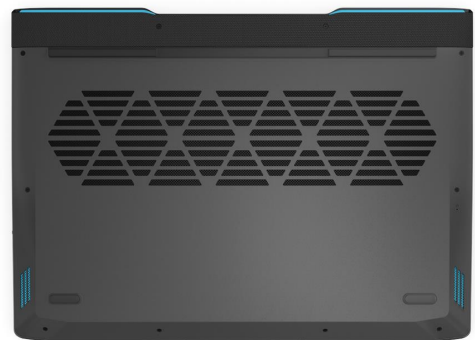
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