

**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 3.5, Dynamic Boost 2.0, DirectX® 12 Ultimate           |
| NVIDIA® GeForce RTX™ 4060 Laptop GPU | Discrete | 8GB GDDR6 | 2370 MHz    | 115W | MUX Switch, Advanced Optimus, DLSS 3.5, 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\*\*

- DDR5-4800<sup>[2]</sup>
- DDR5-5200<sup>[3]</sup>

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 due to processor limitation.

[3] Installed memory is actually DDR5-5600 but may run as 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, 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\*\*<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]</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:

[1] MUX-switch function support.

[2], [3], [4] 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 HDMI® 2.1, up to 8K/60Hz
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Ethernet (RJ-45)
- 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 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
- 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
- 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

- Feature with \*\* means that only one offering listed under the feature is configured on selected models.
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