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

13th Generation Intel® Core™ i5 / i7 Processor

Processor[**][1]

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Processor 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

Notes:

[1] Intel® Iris® Xe Graphics capability requires system to be configured with dual-channel memory. On the system with single-channel memory, Intel® Iris® Xe Graphics will function as Intel® UHD 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[1]

Up to 32GB DDR5-5200

Memory Slots

Two DDR5 SO-DIMM slots, dual-channel capable

Memory Type[2]

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 DDR5-5200 due to processor limitation.

Storage

Max Storage Support[1]

Up to two drives, 2x M.2 SSD
• M.2 2242 SSD up to 1TB each

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

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

Battery

Battery**

- 60Wh Rechargeable Li-ion Battery, supports Rapid Charge (charge up to 80% in 1hr)
- 80Wh Rechargeable Li-ion Battery, supports Rapid Charge Pro (charge up to 50% in 30min)

Max Battery Life[1]

- Models with 60Wh battery:
  MobileMark® 2018: 5.7 hr
  Local video (1080p) playback@150nits: 7.4 hr
- Models with 80Wh battery:
  MobileMark® 2018: 8.3 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[**][1]

- 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[**][1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Refresh Rate	Viewing Angle (L/R/U/D)	Key Features
16″	WUXGA (1920x1200)	None	IPS	350nits	Anti-glare	16:10	1200:1	45% NTSC	144Hz	89° / 89° / 89° / 89°	NVIDIA® G-SYNC®, Advanced Optimus
16″	WQXGA (2560x1600)	None	IPS	350nits	Anti-glare	16:10	1200:1	100% sRGB	165Hz	89° / 89° / 89° / 89°	NVIDIA® G-SYNC®, TÜV Low Blue Light, Advanced Optimus support

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[**]

- 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)[1]

359.6 x 277.6 x 21-25.9 mm (14.16 x 10.93 x 0.83-1.02 inches)

Weight[2]

Starting at 2.6 kg (5.73 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

WLAN + Bluetooth®[1][2]

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

WWAN

No support

Ethernet[3]

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

Notes:

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

[2] Wi-Fi® 6 full features might be limited by country-level restrictions.

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

Ports[1]

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)[2]
- 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.

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

Docking

Docking

Various docking solutions supported via USB-C®.
For more compatible docking solutions, please visit Docking for LOQ™ 16IRH8

SECURITY & PRIVACY

Security

Security Chip

Firmware TPM 2.0 integrated in SoC

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]

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

Notes:

[1] For more compatible accessory solutions, please visit Accessories for LOQ™ 16IRH8

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 6/26
- 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

Other Certifications

(Optional) 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.
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