OVERVIEW

1. USB-A (USB 5Gbps)	5. Ethernet (RJ-45)
2. USB-A (USB 5Gbps)	6. HDMI
3. USB-C (USB 5Gbps), with USB PD 65-100W	7. Slim tip (rectangle) power connector
4. Headphone / microphone combo jack (3.5mm)	

PERFORMANCE

Processor

Processor Family

13th Generation Intel® Core™ i5 / i7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Processor Graphics
Core i5-13450HX	10 (6 P-core + 4 E-core)	16	P-core 2.4GHz / E-core 1.8GHz	P-core 4.6GHz / E-core 3.4GHz	20MB Intel® Smart Cache	Intel® UHD Graphics
Core i7-13650HX	14 (6 P-core + 8 E-core)	20	P-core 2.6GHz / E-core 1.9GHz	P-core 4.9GHz / E-core 3.6GHz	24MB Intel® Smart Cache	Intel® UHD Graphics
Core i7-13850HX	20 (8 P-core + 12 E-core)	28	-	P-core 5.3GHz / E-core 3.8GHz	30MB Intel® Smart Cache	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	AI TOPS (Peak)	Key Features
NVIDIA® GeForce RTX™ 5050 Laptop GPU	Discrete	8GB GDDR7	1500 MHz	65W	440 TOPS	DLSS 4, DirectX® 12 Ultimate
NVIDIA® GeForce RTX™ 5060 Laptop GPU	Discrete	8GB GDDR7	1455 MHz	65W	572 TOPS	DLSS 4, DirectX® 12 Ultimate

Monitor Support

Monitor Support

Supports up to 2 independent displays (native display and 1 external monitor via HDMI®)
• HDMI® supports up to 8K@60Hz

Chipset

Chipset

Intel® HM770 chipset

Memory

Max Memory[1]

Up to 16GB DDR5-4800 offering

Memory Slots

Two DDR5 SODIMM slots, dual-channel capable

Memory Type[2]

DDR5-4800

Notes:

[1] The max memory is based on the test results with current Lenovo® memory offerings.
[2] Installed memory is actually DDR5-5600 but may run as DDR5-4800 due to processor limitation.

Storage

Max Storage Support[1]

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

Storage Slot[3]

Two M.2 2242 PCIe® 4.0 x4 slots

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.
[2] The system supports dual SSD via two M.2 slots, but Lenovo® offers only one SSD configuration with a second slot for user self-expansion.
[3] The actual data transfer rate of the following PCIe® interface also depends on the capabilities of the connected PCIe® device. The listed values represent theoretical maximums.
PCIe® 3.0 (x2 / x4): 2 GB/s (16 Gbps) / 4 GB/s (32 Gbps);
PCIe® 4.0 (x2 / x4): 4 GB/s (32 Gbps) / 8 GB/s (64 Gbps);
PCIe® 5.0 (x2 / x4): 8 GB/s (64 Gbps) / 16 GB/s (128 Gbps).

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 Audio

Microphone

Dual-microphone array

Camera

HD 720p, with E-shutter, fixed focus

Battery

Battery

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

Max Battery Life[1]

MobileMark® 25@250nits: 5 hr
Local video (1080p) playback@150nits: 9 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

- 135W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz
- No power adapter

Special Features

Special Features

AI Chip: LA1

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Refresh Rate	Viewing Angle (L/R/U/D)
15.6″	FHD (1920x1080)	Non-touch	IPS[1]	300nits	Anti-glare	16:9	1000:1	100% sRGB	144Hz	85° / 85° / 85° / 85°

Touchscreen

Non-touch

Screen-to-Body Ratio

88% AAR (active area ratio)

Color Calibration

No color calibration

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, key travel 1.3mm, cap recess 0.1mm, Copilot key

Keyboard Backlight

- White backlight
- Non-backlight

Touchpad

Buttonless Mylar® surface multi-touch touchpad, supports Precision TouchPad (PTP), 69 x 104 mm (2.72 x 4.09 inches)

Mechanical

Dimensions (WxDxH)[1]

361.26 x 255.6 x 22.9-24.8 mm (14.22 x 10.06 x 0.90-0.98 inches)

Weight[2]

Starting at 2.3 kg (5.07 lbs)

Case Color**

- Eclipse black
- Luna grey

Case Material

PC-ABS (top), PC-ABS (bottom)

Surface Treatment

Painting

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]

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

WWAN

No support

Ethernet[2]

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

Notes:

[1] Wi-Fi® operation (including Wi-Fi® 6, Wi-Fi® 6E, Wi-Fi® 7, etc.) is subject to the regulatory requirements of each country. Bluetooth® may operate at a lower version than hardware design depending on the factors such as operating system, driver, etc.

[2] Wake-on-LAN needs the AC adapter plugged in and the system in S3 mode (sleep mode). Since Wake-on-LAN is enabled by default, there are no options displayed in the BIOS.

Ports[1]

Standard Ports

- 2x USB-A (USB 5Gbps / USB 3.2 Gen 1), with 4.5W output
- 1x USB-C® (USB 5Gbps / USB 3.2 Gen 1), with USB PD 65-100W input / 15W output[2]
- 1x HDMI® 2.1, up to 8K/60Hz
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Ethernet (RJ-45)
- 1x Slim tip (rectangle) power connector

Notes:

[1] The transfer speed of the 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.

[2] Support Lenovo® protocol on 140W (20V/7A) charging, but requires a unique Lenovo® adapter for operation.

SECURITY & PRIVACY

Security

Security Chip

Firmware TPM 2.0 integrated in chipset

Fingerprint Reader

No fingerprint reader

BIOS Security

- Hard disk 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

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[1]

- Lenovo® Legion™ M220 Wireless RGB Gaming Mouse
- None

Notes:

[1] For more compatible accessory solutions, please visit Accessories for LOQ™ Essential 15IRX11.

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)

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.

- 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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