

OVERVIEW



1. Card reader	5. HDMI
2. USB-A (USB 5Gbps)	6. USB-A (USB 5Gbps)
3. Power connector	7. USB-C (USB 5Gbps), data transfer only
4. Ethernet (RJ-45)	8. Combo audio jack

PERFORMANCE

Processor

Processor Family

12th Generation Intel® Core™ i5 / i7 Processor

Processor**

Processor Name	Cores	Threads	Max Frequency	Cache	Processor Graphics
Core i5-12450HX	8 (4 P-core + 4 E-core)	12	P-core 4.4GHz / E-core 3.1GHz	12MB Intel® Smart Cache	Intel® UHD Graphics
Core i7-12650HX	14 (6 P-core + 8 E-core)	20	P-core 4.7GHz / E-core 3.3GHz	24MB 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™ 2050 Laptop GPU	Discrete	4GB GDDR6	1575 MHz	65W	-	DLSS 2, Dynamic Boost 2.0, DirectX® 12 Ultimate
NVIDIA® GeForce RTX™ 3050 Laptop GPU	Discrete	6GB GDDR6	1432 MHz	65W	142 TOPS	DLSS 2, Dynamic Boost 2.0, DirectX® 12 Ultimate
NVIDIA® GeForce RTX™ 3050A Laptop GPU	Discrete	4GB GDDR6	2145 MHz	65W	-	DLSS, Dynamic Boost 2.0, DirectX® 12 Ultimate
NVIDIA® GeForce RTX™ 4050 Laptop GPU	Discrete	6GB GDDR6	2145 MHz	65W	194 TOPS	DLSS 3.5, Dynamic Boost 2.0, 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® HM670 chipset

Memory

Max Memory^[1]

Up to 32GB DDR5-4800

Memory Slots

One DDR5 SODIMM slot

Memory Type^[2]

DDR5-4800

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 depending on the memory support capability of processor.

Storage

Max Storage Support^[1]

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

Storage Slot^[2]

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 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

Card Reader

SD 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 privacy shutter, fixed focus

Battery

Battery

57Wh Rechargeable Li-ion Battery, supports Rapid Charge Pro (charge up to 50% in 30min)

Max Battery Life^[1]

Local video (1080p) playback@150nits: 6 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

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)

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, 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]

359.3 x 236 x 19.9-22.95 mm (14.15 x 9.29 x 0.78-0.90 inches)

Weight^[2]

Starting at 1.77 kg (3.9 lbs)

Case Color

Luna grey

Case Material

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

Surface Treatment

IMR (in-mold decoration by roller)

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

Standard Ports^[1]

- 2x USB-A (USB 5Gbps / USB 3.2 Gen 1)
- 1x USB-C® (USB 5Gbps / USB 3.2 Gen 1), data transfer only
- 1x HDMI® 2.1, up to 8K/60Hz
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Ethernet (RJ-45)
- 1x Card reader
- 1x Slim tip 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.

SECURITY & PRIVACY

Security

Security Chip

Firmware TPM 2.0 integrated in chipset

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

Camera privacy 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
- No base warranty

ACCESSORIES

Bundled Accessories

Bundled Accessories

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

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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