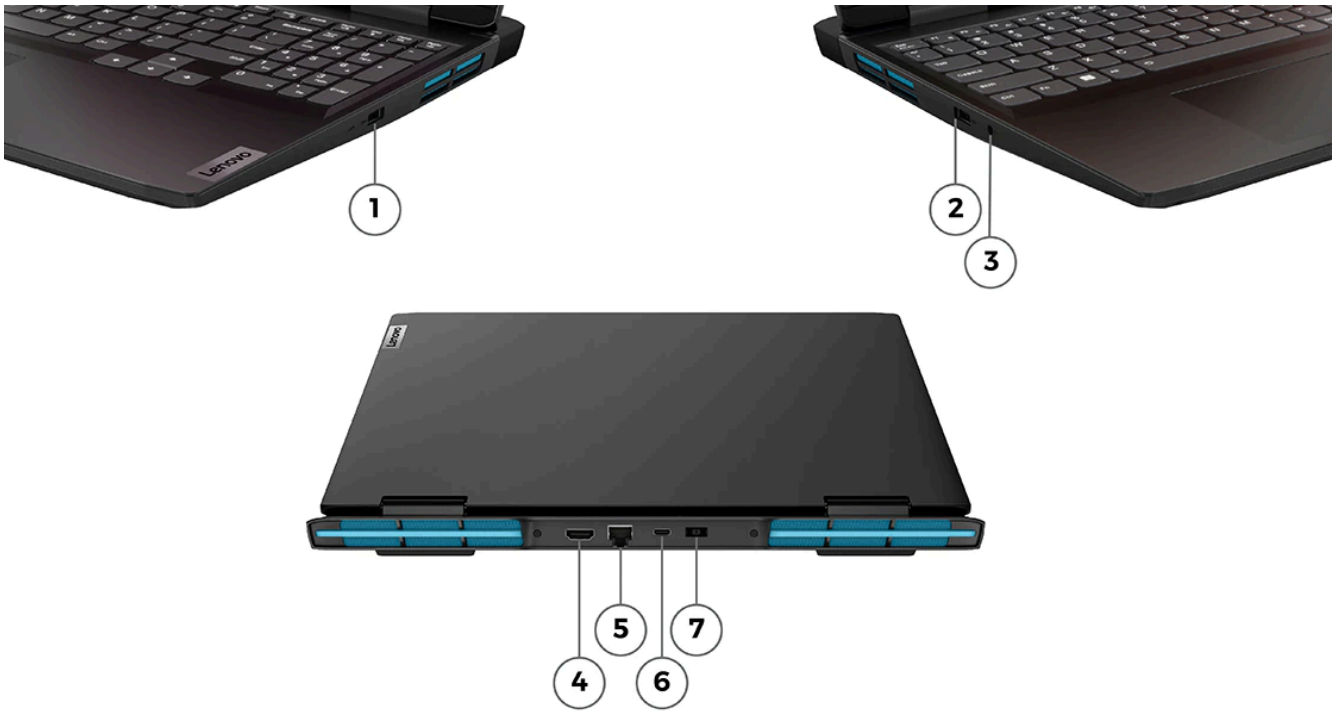
OVERVIEW



1. USB 3.2 Gen 1	5. Ethernet (RJ-45)
2. USB 3.2 Gen 1	6. USB-C 3.2 Gen 2
3. Headphone / microphone combo jack (3.5mm)	7. Power connector
4. HDMI 2.0	

PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 5 / 7 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Processor Graphics
AMD Ryzen™ 5 6600H	6	12	3.3GHz	4.5GHz	3MB L2 / 16MB L3	AMD Radeon™ 660M Graphics
AMD Ryzen™ 7 6800H	8	16	3.2GHz	4.7GHz	4MB L2 / 16MB L3	AMD Radeon™ 680M 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™ 3050 Laptop GPU	Discrete	4GB GDDR6	1740 MHz	85W	Dynamic Boost 2.0, DirectX® 12 Ultimate
NVIDIA® GeForce RTX™ 3050 Ti Laptop GPU	Discrete	4GB GDDR6	1695 MHz	85W	Dynamic Boost 2.0, DirectX® 12 Ultimate

Monitor Support

Monitor Support

Supports up to 3 independent displays (native display and 2 external monitors via HDMI® and USB-C®)
• HDMI® supports up to 4K@60Hz
• USB-C® supports up to 5K@60Hz

Chipset

Chipset

AMD SoC (System on Chip) platform

Memory

Max Memory[1]

Up to 16GB DDR5-4800 offering

Memory Slots

Two DDR5 SO-DIMM slots, dual-channel capable

Memory Type

DDR5-4800

Notes:

[1] The max memory is based on the test results with current Lenovo® memory offerings.

Storage

Storage Support[1]

Up to two drives, 2x M.2 SSD
• M.2 2242 SSD up to 1TB
• M.2 2280 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	256GB / 512GB / 1TB
M.2 2280 SSD	PCIe® NVMe®, PCIe® 3.0 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, Nahimic Audio

Microphone

Dual-microphone array

Camera

FHD 1080p, with privacy shutter, fixed focus

Battery

Battery

Integrated Li-Polymer 71Wh battery, supports Rapid Charge Boost (get 2 hours of runtime with a 15-minute charge)

Max Battery Life[1]

MobileMark® 2018: 10.3 hr
Local video (1080p) playback@150nits: 17.7 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**[1]

- 135W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz
- 170W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz

Notes:

[1] AC adapter offerings depend on the country.

DESIGN

Display

Display**[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect	Contrast	Color	Refresh	Viewing Angle	Key

						Ratio	Ratio	Gamut	Rate	(L/R/U/D)	Features
16″	WUXGA (1920x1200)	None	IPS	350nits	Anti-glare	16:10	1200:1	100% sRGB	165Hz	89°/89°/89°/89°	AMD FreeSync™, DC dimmer
16″	WQXGA (2560x1600)	None	IPS	500nits	Anti-glare	16:10	1200:1	100% sRGB	165Hz	80°/80°/80°/80°	AMD FreeSync™, DC dimmer

Touchscreen

Non-touch

Notes:

[1] 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, 75 x 120 mm (2.95 x 4.72 inches)

Mechanical

Dimensions (WxDxH)[1]

359.6 x 277.8 x 20.9 mm (14.16 x 10.94 x 0.82 inches)

Weight[2]

Around 2.5 kg (5.5 lbs)

Case Color

Onyx 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

WLAN + Bluetooth®**

- Wi-Fi® 5, 802.11ac 2x2 Wi-Fi® + Bluetooth® 5.0, M.2 card
- Wi-Fi® 6, 802.11ax 2x2 Wi-Fi® + Bluetooth® 5.2, M.2 card[1]

Notes:

[1] Wi-Fi® 6 full features might be limited by country-level restrictions.
Bluetooth® 5.2 is hardware ready but may run at a lower version due to OS limitations.

Ports[1]

Standard Ports

- 2x USB 3.2 Gen 1
- 1x USB-C® 3.2 Gen 2 (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4)
- 1x HDMI® 2.0
- 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.

Docking

Docking

Various docking solutions supported via USB-C®.
For more compatible docking solutions, please visit Docking for IdeaPad® Gaming 3 16ARH7

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

Camera privacy 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

ACCESSORIES

Bundled Accessories

Bundled Accessories[1]

- Lenovo® IdeaPad® Gaming M100 RGB Mouse (USB connector)
- None

Notes:

[1] For more compatible accessory solutions, please visit Accessories for IdeaPad® Gaming 3 16ARH7

OPERATING REQUIREMENTS

Operating Environment

Temperature[1]

- Maximum temperature when operating under unpressurized conditions: 31.3°C (88°F)
- Operating: 0°C (32°F) to 40°C (104°F)
- Storage: -20°C (-4°F) to 60°C (140°F)

Relative Humidity

- Operating: 0% to 90% at wet-bulb temperature 23°C (73°F)
- Storage: 20% to 90% 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[2]

- 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.
[2] EPEAT™ registration and ENERGY STAR® certification are dependent on system OS. Please visit epeat.net and energystar.gov for more information.

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

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