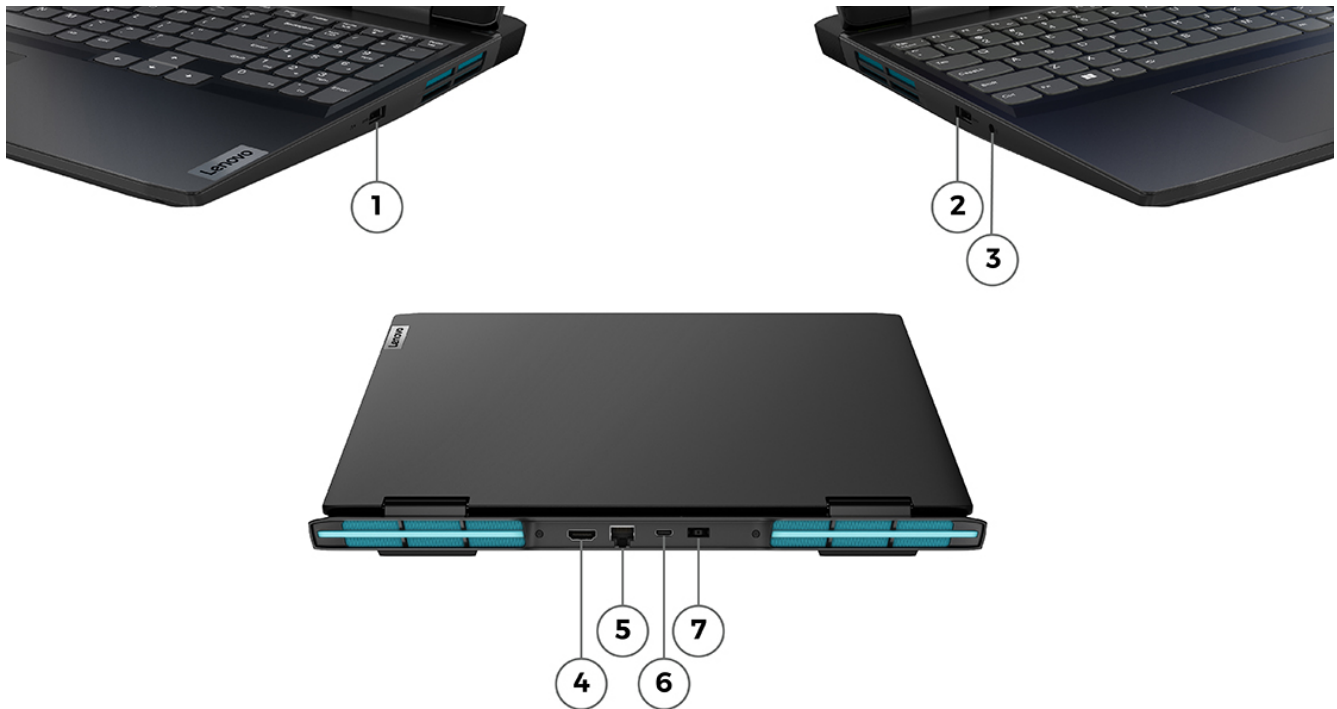


**OVERVIEW**



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

Notes:

- Port 6 is Thunderbolt 4 on RTX 3050/3050 Ti models and is USB-C 3.2 Gen 2 on RTX 3060 models.

## PERFORMANCE

### Processor

#### Processor Family

12th 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 i5-12500H	12 (4 P-core + 8 E-core)	16	P-core 2.5GHz / E-core 1.8GHz	P-core 4.5GHz / E-core 3.3GHz	18MB	Intel Iris® Xe Graphics
Core i7-12650H	10 (6 P-core + 4 E-core)	16	P-core 2.3GHz / E-core 1.7GHz	P-core 4.7GHz / E-core 3.5GHz	24MB	Intel UHD Graphics
Core i7-12700H	14 (6 P-core + 8 E-core)	20	P-core 2.3GHz / E-core 1.7GHz	P-core 4.7GHz / E-core 3.5GHz	24MB	Intel Iris Xe Graphics

### Operating System

#### Operating System\*\*

- Windows® 11 Home
- Windows 11 Home Single Language
- Windows 11 Pro
- No 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
NVIDIA GeForce RTX 3060 Laptop GPU	Discrete	6GB GDDR6	1642 MHz	105W	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® or Thunderbolt™)

- HDMI supports up to 4K@30Hz
- Thunderbolt supports up to 8k@60Hz
- USB-C supports up to 5120x3200@120Hz

### Chipset

#### Chipset

Intel SoC (System on Chip) platform

### Memory

#### Max Memory<sup>[1]</sup>

Up to 16GB DDR4-3200 offering

#### Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

#### Memory Type

DDR4-3200

Notes:

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

## Storage

### Storage Support<sup>[1]</sup>

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<sup>\*\*</sup>

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<sup>[1]</sup>

MobileMark® 2018: 7 hr

Local video (1080p) playback@150nits: 10 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<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.

## 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	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 2.6 kg (5.7 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®

\*\*

- 802.11ac 2x2 Wi-Fi® + Bluetooth 5.0, M.2 card
- Wi-Fi 6, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 card<sup>[1]</sup>

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<sup>[1]</sup>

### Standard Ports

- 2x USB 3.2 Gen 1
- 1x HDMI, up to 4K/30Hz
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Ethernet (RJ-45)
- 1x Power connector

### Optional Ports\*\*

- 1x Thunderbolt 4 / USB4® 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4, for RTX 3050/3050 Ti Graphics models)
- 1x USB-C 3.2 Gen 2 (support data transfer, Power Delivery 3.0 and DisplayPort 1.4, for RTX 3060 Graphics models)

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 Thunderbolt / USB-C. For more compatible docking solutions, please visit [Docking for IdeaPad® Gaming 3 16IAH7](#)

## 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

## ENVIRONMENTAL

### Operating Environment

#### Temperature<sup>[1]</sup>

- 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)

#### 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).

## ACCESSORIES

### Bundled Accessories

#### Bundled Accessories<sup>[1]</sup>

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

Notes:

[1] For more compatible accessory solutions, please visit [Accessories for IdeaPad Gaming 3 16IAH7](#).

## CERTIFICATIONS

### Green Certifications<sup>[1]</sup>

#### Green Certifications<sup>[2]</sup>

- 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.

[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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