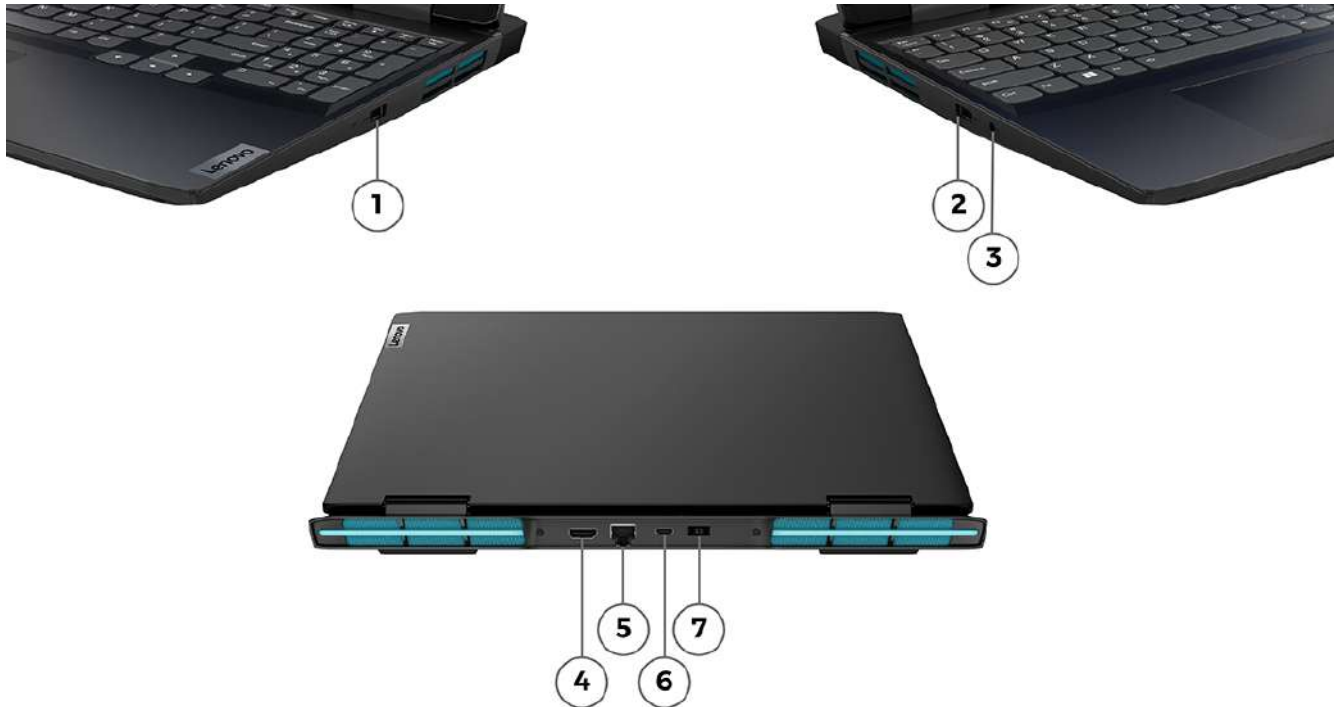


## OVERVIEW



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\*\*<sup>[1]</sup>

- Windows® 11 Pro
- Windows 11 Home
- Windows 11 Home Single Language
- No operating system

#### Notes:

1. Some features may not be supported on the system with Linux preload, including but not limited to Intel RST RAID, MIPI computer vision camera, WWAN, Human Presence Detection, etc.

### Graphics

#### Graphics\*\*

Graphics	Type	Memory	Boost Clock	TGP	Key Features
NVIDIA® GeForce RTX™ 3050 Laptop GPU	Discrete	4GB GDDR6	1740 MHz	85W	Resizable BAR, Dynamic Boost 2.0, DirectX® 12 Ultimate
NVIDIA GeForce RTX 3050 Ti Laptop GPU	Discrete	4GB GDDR6	1695 MHz	85W	Resizable BAR, Dynamic Boost 2.0, DirectX 12 Ultimate
NVIDIA GeForce RTX 3060 Laptop GPU	Discrete	6GB GDDR6	1642 MHz	105W	Resizable BAR, 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. The system may support more memory as the technology develops.

**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. The system may support larger storage as the technology develops.

**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, 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 and depends 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

# IdeaPad Gaming 3 16IAH7

- 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\*\*<sup>[1]</sup>

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle (L/R/U/D)	Key Features
16"	WUXGA (1920x1200)	None	IPS	350 nits	Anti-glare	16:10	1200:1	100% sRGB	89°/89°/89°/89°	Refresh rate 165Hz, AMD FreeSync™, DC dimmer
16"	WQXGA (2560x1600)	None	IPS	500 nits	Anti-glare	16:10	1200:1	100% sRGB	80°/80°/80°/80°	Refresh rate 165Hz, AMD FreeSync, DC dimmer

#### Touchscreen

Non-touch

Notes:

1. California Electronic Waste Recycling Fee  
In California USA, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, please go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

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

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

#### Weight<sup>[2]</sup>

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, 1x RJ-45

### WLAN + Bluetooth<sup>®</sup>\*<sup>[1][2]</sup>

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

#### Notes:

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

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

### Standard Ports

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

### Optional Ports\*\*

- 1x Thunderbolt 4 / USB4<sup>®</sup> 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

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

#### 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

**Notes:**

1. The warranty upgrades may be bundled with some models, please check the "Included upgrade" column in the specific model's configurations. For more service extensions, please go to <https://smartfind.lenovo.com/>. To learn more details of warranty policy, please access <https://pcsupport.lenovo.com/warranty>.

## ENVIRONMENTAL

### Operating Environment

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

- Operating: 0°C (32°F) to 40°C (104°F)
- Storage: -20°C (-4°F) to 60°C (140°F)
- Maximum temperature when operating under unpressurized conditions: 31.3°C (88°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. Note: When you charge the battery, its temperature must be no lower than 10°C (50°F).

## ACCESSORIES

### Bundled Accessories

**Bundled Accessories**

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

## CERTIFICATIONS

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

**Green Certifications**

- 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.

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