

OVERVIEW



1. Headphone / microphone combo jack (3.5mm)	6. USB 3.2 Gen 1
2. USB 3.2 Gen 1	7. USB 3.2 Gen 1 (Always On)
3. Ethernet (RJ-45)	8. Power connector
4. USB-C 3.2 Gen 2	9. Thunderbolt 4
5. HDMI	10. USB-C 3.2 Gen 2 (data transfer / DP 1.4 only)

PERFORMANCE

Processor

Processor Family

12th Generation Intel® Core™ i5 / i7 / i9 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor 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	DDR5-4800	Intel Iris® Xe 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	DDR5-4800	Intel Iris Xe Graphics
Core i9-12900H	14 (6 P-core + 8 E-core)	20	P-core 2.5GHz / E-core 1.8GHz	P-core 5.0GHz / E-core 3.8GHz	24MB	DDR5-4800	Intel Iris Xe Graphics

Operating System

Operating System

- Windows® 11 Pro 64
- Windows 11 Home 64
- No operating system

Graphics

Graphics

Graphics	Type	Memory	Boost Clock	TGP	Key Features
NVIDIA® GeForce RTX™ 3060 Laptop GPU	Discrete	6GB GDDR6	1702 MHz	140W	Advanced Optimus, Resizable BAR, Dynamic Boost 2.0, VR ready, DirectX® 12 Ultimate
NVIDIA GeForce RTX 3070 Laptop GPU	Discrete	8GB GDDR6	1620 MHz	150W	Advanced Optimus, Resizable BAR, Dynamic Boost 2.0, VR ready, DirectX 12 Ultimate
NVIDIA GeForce RTX 3070 Ti Laptop GPU	Discrete	8GB GDDR6	1485 MHz	150W	Advanced Optimus, Resizable BAR, Dynamic Boost 2.0, VR ready, DirectX 12 Ultimate

Monitor Support

Monitor Support^[1]

Supports up to 5 independent displays (native display and 4 external monitors via HDMI® and USB-C®)

- HDMI supports up to 7680x4320@60Hz
- USB-C supports up to 7680x4320@60Hz

Notes:

1. For Max resolution, DSC-enabled display is required. Three external output display devices cannot be supported at the same time when displaying 8K resolution.

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^[1]

Up to 32GB 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. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

Up to two drives, 2x M.2 SSD

- M.2 2242 SSD up to 512GB
- M.2 2280 SSD up to 1TB

Storage Slot

Two M.2 slots

- Two M.2 2280 PCIe® Gen 4x4 slots, support M.2 2242/2280 SSD

Storage Type

Disk Type	Interface	Offering
M.2 2242 SSD	PCIe NVMe®, PCIe 4.0 x4	512GB
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4	512GB / 1TB

RAID

RAID 0 support

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

Optical

None

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 array microphone

Camera

HD 720p, with E-camera shutter, fixed focus

Battery

Battery

Integrated Li-Polymer 80Wh battery, supports Super Rapid Charge (charge up to 80% in 30min)

Max Battery Life^[1]

MobileMark® 2018: 4.01 hr (discrete mode) or 6.55 hr (hybrid mode)

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^[1]

300W 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	Viewing Angle	Key Features
16.0"	WUXGA (1920x1200)	None	IPS	300 nits	Anti-glare	16:10	1200:1	100% sRGB	178°	Refresh rate 165Hz, Dolby Vision™, G-Sync, DC dimmer, Advanced Optimus, TÜV Low Blue Light
16.0"	WQXGA (2560x1600)	None	IPS	500 nits	Anti-glare	16:10	1200:1	100% sRGB	178°	Refresh rate 240Hz, Dolby Vision, G-Sync, DC dimmer, Advanced Optimus, TÜV Low Blue Light, TÜV High Gaming Performance
16.0"	WQXGA (2560x1600)	None	IPS	500 nits	Anti-glare	16:10	1200:1	100% sRGB	178°	Refresh rate 165Hz, Dolby Vision, DisplayHDR™ 400, G-Sync, DC dimmer, TÜV Low Blue Light, TÜV High Gaming Performance, Advanced Optimus

Color Calibration

X-Rite® Pantone® factory color calibration

Touchscreen

Non-touch

Notes:

- 1. California Electronic Waste Recycling Fee
In California, 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, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Input Device

Keyboard

- Glacier white model: 6-row, multimedia Fn keys, numeric keypad, moon white keycap
- Storm grey model: 6-row, multimedia Fn keys, numeric keypad, black keycap

Keyboard Backlight

- Blue backlight
- White backlight
- 4-Zone RGB backlight

Touchpad

Buttonless Mylar® surface multi-touch touchpad, 75 x 120 mm (2.95 x 4.72 inches)

Mechanical^[1]

Dimensions (WxDxH)

359.9 x 264.4 x 19.9 mm (14.17 x 10.41 x 0.78 inches)

Weight

Starting at 2.49 kg (5.49 lbs)

Case Color

- Glacier white (top), dove grey (bottom)
- Storm grey (top), black (bottom)

Surface Treatment

- Glacier white model: Anodize electrophoresis deposition
- Storm grey model: Anodizing

Case Material

Aluminium (top), aluminium (bottom)

System Lighting

No system lighting

Notes:

1. The system dimensions and weight vary depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, 1x RJ-45

WLAN + Bluetooth[®]^{[1][2]}

- 802.11ac 2x2 Wi-Fi[®] + Bluetooth 5.1, M.2 Card
- Wi-Fi 6, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
- Wi-Fi 6E, 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 limitation
2. Wi-Fi 6 and Wi-Fi 6E full features might be limited by country-level restrictions.
Wi-Fi 6E is only enabled on Windows 11 and operates as Wi-Fi 6 with Windows 10.

Ports^[1]

Standard Ports

- 2x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 2 (support data transfer and DisplayPort™ 1.4)
- 1x USB-C 3.2 Gen 2 (support data transfer, Power Delivery 135W and DisplayPort 1.4)
- 1x Thunderbolt™ 4 / USB4[®] 40Gbps (support data transfer and DisplayPort 1.4)
- 1x HDMI, up to 8K/60Hz
- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)
- 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;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 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

E-Camera shutter

SERVICE**Warranty****Base Warranty^[1]**

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 2-year (1-yr battery) depot service
- 3-year (1-yr battery) depot service

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

ENVIRONMENTAL**Operating Environment****Temperature**

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)

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)

CERTIFICATIONS**Green Certifications****Green Certifications**

- ErP Lot 3
- RoHS compliant

Other Certifications**Other Certifications**

- TÜV Rheinland® High Gaming Performance (WQXGA display model only)
- TÜV Rheinland Low Blue Light (Hardware Solution)

- Lenovo reserves the right to change specifications or other product information without notice. Lenovo is not responsible for photographic or typographical errors. LENOVO PROVIDES THIS PUBLICATION "AS IS," WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some jurisdictions do not allow disclaimer of express or implied warranties in certain transactions, therefore this disclaimer may not apply to you.

- The specifications on this page may not be available in all regions, and may be changed or updated without notice.



intel



intel



intel



intel



intel



intel