

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 2.1	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
NVIDIA GeForce RTX 3070 Laptop GPU	Discrete	8GB GDDR6	1620 MHz	150W	Advanced Optimus, Resizable BAR, Dynamic Boost 2.0, VR ready, DirectX 12
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

Monitor Support

Monitor Support^[1]

Supports up to 4 independent displays (native display and 3 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

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

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
- No support

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

720p, with E-camera shutter, fixed focus

Battery

Battery

Integrated Li-Polymer 80Wh battery, supports Super Rapid Charge (charge up to 40% in 10min, 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

300W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz

DESIGN

Display

Display^[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
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

Color Calibration

X-Rite® Pantone® factory color calibration

Touchscreen

Non-touch

Notes:

- 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

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

Dimensions (WxDxH)

Models	Dimensions
All models	359.9 x 264.4 x 26.6-19.9 mm (14.17 x 10.41 x 1.05-0.78 inches)

Weight^[1]

Models	Weight
All models	2.49 kg (5.49 lbs)

Case Color

Storm grey (top), black (bottom)

Surface Treatment

Storm grey model: Anodizing

Case Material

Aluminium (top), aluminium (bottom)

System Lighting

No system lighting

Notes:

- The system weight varies depending on configurations.

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, 1x RJ-45

WLAN + Bluetooth®

- 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

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 2.1
- 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: 40 Gbit/s;
FireWire 400: 400 Mbit/s;
FireWire 800: 800 Mbit/s

SECURITY & PRIVACY

Security

Security Chip

Firmware TPM 2.0 integrated in chipset

Fingerprint Reader

No fingerprint reader

BIOS Security

- Administrator password
- Power-on password
- Hard disk password

Other Security

E-Camera shutter

SERVICE

Warranty

Base Warranty^[1]

- 1-year depot service
- 1-year depot with 2-year system board service
- 2-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® Low Blue Light (Hardware Solution)

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