

OVERVIEW



| | |
|---------------------|--|
| 1. Power connector | 6. Power button |
| 2. HDMI 1.4 | 7. Headphone / microphone combo jack (3.5mm) |
| 3. 2x USB 3.2 Gen 2 | 8. Optical drive eject button |
| 4. Ethernet (RJ-45) | 9. Top camera |
| 5. 2x USB 2.0 | |

PERFORMANCE

Processor

Processor Family

Intel® Celeron®, Intel Pentium®, or 12th Generation Intel Core™ i3 / i5 / i7 Processor

Processor**^[1]

| Processor Name | Cores | Threads | Base Frequency | Max Frequency | Cache | Memory Support | Processor Graphics |
|----------------------------------|--------------------------|---------|-------------------------------|-------------------------------|-------|----------------|-------------------------|
| Celeron 7305 | 5 (1 P-core + 4 E-core) | 6 | P-core 1.1GHz / E-core 0.9GHz | - | 8MB | DDR4-3200 | Intel UHD Graphics |
| Pentium Gold 8505 ^[2] | 5 (1 P-core + 4 E-core) | 6 | P-core 1.2GHz / E-core 0.9GHz | P-core 4.4GHz / E-core 3.3GHz | 8MB | DDR4-3200 | Intel UHD Graphics |
| Core i3-1215U ^[3] | 6 (2 P-core + 4 E-core) | 8 | P-core 1.2GHz / E-core 0.9GHz | P-core 4.4GHz / E-core 3.3GHz | 10MB | DDR4-3200 | Intel UHD Graphics |
| Core i3-1220P ^[4] | 10 (2 P-core + 8 E-core) | 12 | P-core 1.5GHz / E-core 1.1GHz | P-core 4.4GHz / E-core 3.3GHz | 12MB | DDR4-3200 | Intel UHD Graphics |
| Core i5-1235U ^[5] | 10 (2 P-core + 8 E-core) | 12 | P-core 1.3GHz / E-core 0.9GHz | P-core 4.4GHz / E-core 3.3GHz | 12MB | DDR4-3200 | Intel Iris® Xe Graphics |
| Core i5-1240P ^[6] | 12 (4 P-core + 8 E-core) | 16 | P-core 1.7GHz / E-core 1.2GHz | P-core 4.4GHz / E-core 3.3GHz | 12MB | - | Intel Iris Xe Graphics |
| Core i5-12450H ^[7] | 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 | DDR4-3200 | Intel UHD Graphics |
| Core i7-1260P ^[8] | 12 (4 P-core + 8 E-core) | 16 | P-core 2.1GHz / E-core 1.5GHz | P-core 4.7GHz / E-core 3.4GHz | 18MB | - | Intel Iris Xe Graphics |
| Core i5-13420H ^[9] | 8 (4 P-core + 4 E-core) | 12 | P-core 2.1GHz / E-core 1.5GHz | P-core 4.6GHz / E-core 3.4GHz | 12MB | DDR4-3200 | Intel UHD Graphics |
| Core i7-13620H ^[10] | 10 (6 P-core + 4 E-core) | 16 | P-core 2.4GHz / E-core 1.8GHz | P-core 4.9GHz / E-core 3.6GHz | 24MB | DDR4-3200 | Intel UHD Graphics |

Notes:

[1] Intel Iris Xe Graphics capability requires system to be configured with dual-channel memory. On the system with single-channel memory, Intel Iris Xe Graphics will function as Intel UHD Graphics.

[2], [3], [4], [5], [6], [7], [8], [9], [10] Intel Max Turbo frequency will vary depending on application workload and the hardware and software configurations, see <http://www.intel.com/technology/turboboost/> for more information.

Operating System

Operating System**

- Windows® 11 Home
- Windows 11 Home Single Language
- Windows 11 Home in S mode
- Windows 11 Pro
- No operating system

Graphics

Graphics**^[1]

| Graphics | Type | Memory | Connector | Max Resolution | Key Features |
|------------------------|------------|-----------|--------------|----------------------|---------------|
| Intel UHD Graphics | Integrated | Shared | 1x HDMI® 1.4 | 1920x1080@60Hz(HDMI) | DirectX® 12.1 |
| Intel Iris Xe Graphics | Integrated | Shared | 1x HDMI 1.4 | 1920x1080@60Hz(HDMI) | DirectX 12.1 |
| Intel Iris Xe Graphics | Integrated | Shared | 1x HDMI 1.4 | 1920x1080@60Hz(HDMI) | DirectX 12 |
| NVIDIA® GeForce MX550 | Discrete | 2GB GDDR6 | 1x HDMI 1.4 | 1920x1080@60Hz(HDMI) | DirectX 12 |
| NVIDIA GeForce MX550 | Discrete | 4GB GDDR6 | 1x HDMI 1.4 | 1920x1080@60Hz(HDMI) | DirectX 12 |

Notes:

[1] Intel Iris Xe Graphics capability requires system to be configured with dual-channel memory. On the system with single-channel memory, Intel Iris Xe Graphics will function as Intel UHD Graphics.

Monitor Support

Monitor Support

Supports up to 2 independent displays via native display and 1 external monitor; supports external monitor via HDMI

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^[1]

Up to 16GB DDR4-3200

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Memory Type

DDR4-3200

Memory Protection

Non-ECC

Notes:

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

Storage

Storage Support^{[1][2]}

Up to two drives, 1x 2.5" HDD + 1x M.2 SSD

- 2.5" HDD up to 1TB
- M.2 SSD up to 1TB

Storage Type**

| Disk Type | Interface | RPM |
|---------------|--------------------------|------|
| 2.5" SATA HDD | SATA 6Gb/s | 5.4K |
| M.2 2242 SSD | PCIe® NVMe®, PCIe 3.0 x4 | - |
| M.2 2280 SSD | PCIe NVMe, PCIe 3.0 x4 | - |
| M.2 2280 SSD | PCIe NVMe, PCIe 4.0 x4 | - |

RAID

No support

Notes:

[1] The max capacity of each disk type is based on the test results with current Lenovo storage offerings.

[2] 2.5" HDD bracket kit only comes with pre-configured HDD models.

Removable Storage

Optical

- DVD burner (DVD±RW), SATA 1.5Gb/s, slim (9.0mm)
- None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC256 codec

Speakers

IdeaCentre AIO 3 24IAP7

Stereo speakers, 3W x2, Audio by HARMAN

Microphone

Dual-microphone array

Camera**

- HD 720p, fixed focus
- IR & 5.0-megapixel, fixed focus
- No camera

Power Supply

Power Supply**

| Power | Type | Efficiency | Key Features |
|-------|---------|------------|--------------|
| 90W | Adapter | 89% | 100V - 240V |
| 135W | Adapter | 89% | 100V - 240V |

DESIGN

Display

Display**^[1]

| Size | Resolution | Touch | Type | Brightness | Surface | Aspect Ratio | Contrast Ratio | Color Gamut | Viewing Angle (L/R/U/D) | Key Features |
|-------|-----------------|-------------|------|------------|------------|--------------|----------------|-------------|--|-------------------|
| 23.8" | FHD (1920x1080) | None | IPS | 250nits | Anti-glare | 16:9 | 1000:1 | 72% NTSC | horizontal: +/- 89°, vertical: +/- 89° | Borderless design |
| 23.8" | FHD (1920x1080) | Multi-touch | IPS | 250nits | Anti-glare | 16:9 | 1000:1 | 72% NTSC | horizontal: +/- 89°, vertical: +/- 89° | Borderless design |

Touchscreen

- Advanced In-cell Touch (AIT), supports 10-point touch
- Non-touch

Notes:

[1] IPS (in-plane switching) technology may refer to IPS, PLS, ADS, AHVA, AAS.

Input Device

Pen

No support

Keyboard**

- EOS Wireless Keyboard, black
- EOS Wireless Keyboard, white
- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Keyboard (USB connector), silver
- Lenovo Calliope Keyboard (USB connector), white
- Lenovo Calliope Wireless Keyboard, black
- Lenovo Calliope Wireless Keyboard, silver
- Lenovo Calliope Wireless Keyboard, white

Mouse**

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Calliope Mouse (USB connector), white
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), white

Mechanical

Form Factor

AIO (23.8 inches)

Dimensions (WxDxH)^[1]

541.2 x 185.34 x 433.96 mm (21.3 x 7.29 x 17.08 inches)

Packaging Dimensions (WxDxH)

235 x 666 x 561 mm (9.25 x 26.22 x 22.08 inches)

Weight^[2]

| Models | Weight |
|-------------------|---------------------|
| Models with stand | 7.03 kg (15.49 lbs) |

Packaging Weight

All models: 9.79 kg (21.58 lbs)

Case Color^{}**

- Black
- White

Bays

- 1x 2.5" disk bay
- 1x slim ODD bay

Expansion Slots

Two M.2 slots (one for WLAN, one for SSD)

Stand

Monitor stand, supports -5° to +25° tilt

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

Onboard Ethernet

Gigabit Ethernet, 1x RJ-45

WLAN + Bluetooth^{}**

- 802.11ac 2x2 Wi-Fi[®] + Bluetooth 5.1, M.2 Card^[1]
- Wi-Fi 6, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 card^[2]

Notes:

[1], [2] Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitations.

Ports^[1]

Rear Ports

- 2x USB 2.0
- 2x USB 3.2 Gen 2
- 1x HDMI 1.4
- 1x Ethernet (RJ-45)
- 1x power connector

Bottom Ports

1x headphone / microphone combo jack (3.5mm)

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

Physical Locks

No physical locks

BIOS Security

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

SERVICE

Warranty^[1]

Base Warranty**

- 1-year mail-in service
- 1-year courier or carry-in service
- 1-year limited onsite service
- 2-year courier or carry-in service
- 3-year courier or carry-in service
- OB

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

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -20°C (-4°F) to 60°C (140°F)

Humidity

- Operating: 20% to 80%
- Storage: 10% to 90%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications^[1]

Green Certifications

- ErP Lot 3 and Lot 7
- 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.
- 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