Lenovo PSREF
Product Specifications
Reference

# OVERVIEW



| 1. | USB 3.2 Gen 1 | 5. | USB 3.2 Gen 1 |
|---|---|---|---|
| 2. | Ethernet (RJ-45) | 6. | HDMI |
| 3. | Kensington Nano Security Slot | 7. | USB-C 3.2 Gen 1 |
| 4. | Power connector | 8. | Headphone / microphone combo jack (3.5mm) |

# PERFORMANCE

## Processor

**Processor Family**

AMD Athlon™ or AMD Ryzen™ 3 / 5 Processor

**Processor**\*\*

| Processor Name | Cores | Threads | Base Frequency | Max Frequency | Cache | Processor Graphics |
|---|---|---|---|---|---|---|
| AMD Ryzen 5 7520U | 4 | 8 | 2.8GHz | 4.3GHz | 2MB L2 / 4MB L3 | AMD Radeon™ 610M Graphics |
| AMD Ryzen 3 7320U | 4 | 8 | 2.4GHz | 4.1GHz | 2MB L2 / 4MB L3 | AMD Radeon 610M Graphics |
| AMD Athlon Silver 7120U | 2 | 2 | 2.4GHz | 3.5GHz | 1MB L2 / 2MB L3 | AMD Radeon 610M Graphics |
| AMD Athlon Gold 7220U | 2 | 4 | 2.4GHz | 3.7GHz | 1MB L2 / 4MB L3 | AMD Radeon 610M Graphics |

## Operating System

**Operating System**\*\*[1]

- 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 | TGP | Key Features |
|---|---|---|---|---|
| AMD Radeon 610M | Integrated | Shared | Share CPU TDP | DirectX® 12 |

## Monitor Support

**Monitor Support**

Supports up to 3 independent displays (native display and 2 external monitors via HDMI® and USB-C®)
• HDMI supports up to 3840x2160@30Hz
• USB-C supports up to 4096x2160@60Hz

## Chipset

**Chipset**

AMD SoC (System on Chip) platform

## Memory

**Max Memory**

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable

**Memory Slots**

Memory soldered to systemboard, no slots, dual-channel

**Memory Type**

LPDDR5-4800

## Storage

**Storage Support**[1]

One drive, up to 512GB M.2 2242 SSD

**Storage Slot**

One M.2 2242 PCIe® 3.0 x2 slot

**Storage Type**\*\*[2]

| Disk Type | Interface | Offering |
|---|---|---|
| M.2 2242 SSD | PCIe NVMe®, PCIe 3.0 x4 | 128GB |
| M.2 2242 SSD | PCIe NVMe, PCIe 4.0 x4 | 256GB / 512GB |

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.
2. The SSD with PCIe 4.0x4 is downgraded to closer to PCIe 3.0x2 due to the system slot limitation.

## Removable Storage

**Card Reader**

No card reader

## Multi-Media

**Audio Chip**

High Definition (HD) Audio, Realtek® ALC3287 codec

**Speakers**

Stereo speakers, 1.5W x2, Dolby® Audio™

**Microphone**

Dual-microphone array

**Camera**

HD 720p, with privacy shutter, fixed focus

## Battery

**Battery**\*\*

- Integrated Li-Polymer 38Wh battery, supports Rapid Charge (charge up to 80% in 1hr)
- Integrated Li-Polymer 47Wh battery, supports Rapid Charge (charge up to 80% in 1hr)

**Max Battery Life**[1]

- Models with 38Wh battery:
  MobileMark® 2018: 8.7 hr
  Local video (1080p) playback@150nits: 14.4 hr
- Models with 47Wh battery:
  MobileMark 2018: 11.6 hr
  Local video (1080p) playback@150nits: 15.1 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**[1]

65W round tip (3-pin) AC adapter, 100-240V, 50-60Hz

Notes:

1. AC adapter offerings depend on the country.

## DESIGN

## Display

**Display**\*\*[1][2]

| Size | Resolution | Touch | Type | Brightness | Surface | Aspect Ratio | Contrast Ratio | Color Gamut | Viewing Angle (L/R/U/D) |
|------|-----------|-------|------|-----------|---------|--------------|----------------|-------------|-------------------------|
| 15.6" | FHD (1920x1080) | None | TN | 250 nits | Anti-glare | 16:9 | 500:1 | 45% NTSC | 45°/45°/15°/35° |
| 15.6" | FHD (1920x1080) | None | IPS | 300 nits | Anti-glare | 16:9 | 800:1 | 45% NTSC | 85°/85°/85°/85° |

**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
2. IPS (in-plane switching) technology may refer to IPS, PLS, ADS, AHVA, AAS.

## Input Device

**Keyboard**

6-row, spill-resistant, multimedia Fn keys, SMB Service Hot key, numeric keypad

**Keyboard Backlight**

Non-backlight

**Touchpad**

Buttonless Mylar® surface multi-touch touchpad, supports Precision TouchPad (PTP), 62 x 104 mm (2.44 x 4.09 inches)

## Mechanical

**Dimensions (WxDxH)**[1]

359.2 x 235.8 x 19.9 mm (14.14 x 9.28 x 0.78 inches)

**Weight**[2]

Starting at 1.65 kg (3.63 lbs)

**Case Color**\*\*

• Arctic grey
• Business black

**Surface Treatment**\*\*

• IMR (in-mold decoration by roller)
• Texture

**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, supports Wake-on-LAN

**WLAN + Bluetooth®**\*\*[1]

• 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

Notes:

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

## Ports[1]

**Standard Ports**

- 2x USB 3.2 Gen 1
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery (20V only) and DisplayPort™ 1.2)
- 1x HDMI 1.4b
- 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; 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**

Kensington® Nano Security Slot™, 2.5 x 6 mm

**Fingerprint Reader**

No fingerprint reader

**BIOS Security**

- Power-on password
- Supervisor password
- Hard disk password

**Other Security**

Camera privacy shutter

# SERVICE

## Warranty[1]

**Base Warranty****

- 1-year courier or carry-in service
- 2-year (1-yr battery) courier or carry-in service
- No base warranty

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[1]**

- 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)
- At altitudes above 2438 m (8,000 ft)

- Maximum temperature when operating under the unpressurized condition: 31.3°C (88°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)

Notes:

1. When you charge the battery, its temperature must be no lower than 10°C (50°F).

# CERTIFICATIONS

## Green Certifications[1]

### Green Certifications[2]

- FSC certified package
- EPEAT™ Silver Registered
- ENERGY STAR® 8.0
- 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 is registered where applicable, please see https://www.epeat.net for registration status by country.

## Other Certifications

### Mil-Spec Test

MIL-STD-810H military test passed

### Other Certifications

TÜV Rheinland® Low Blue Light (Software Solution)

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

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