**LENOVO** PSREF
Product Specifications
Reference

## OVERVIEW



| 1. | Power button | 5. | HDMI 1.4b |
|----|--------------|----|-----------|
| 2. | Card reader | 6. | USB 2.0 |
| 3. | Headphone / microphone combo jack (3.5mm) | 7. | 2x USB 3.2 Gen 1 |
| 4. | Power connector | | |

# PERFORMANCE

## Processor

**Processor Family**

AMD 3000, AMD Athlon™, or AMD Ryzen™ 3 / 5 / 7 Processor

**Processor**\*\*

| Processor Name | Cores | Threads | Base Frequency | Max Frequency | Cache | Memory Support | Processor Graphics |
|---|---|---|---|---|---|---|---|
| AMD 3020e | 2 | 2 | 1.2GHz | 2.6GHz | 1MB L2 / 4MB L3 | DDR4-2400 | AMD Radeon™ Graphics |
| AMD Athlon™ Gold 3150U | 2 | 4 | 2.4GHz | 3.3GHz | 1MB L2 / 4MB L3 | DDR4-2400 | AMD Radeon™ Graphics |
| AMD Athlon™ Silver 3050U | 2 | 2 | 2.3GHz | 3.2GHz | 1MB L2 / 4MB L3 | DDR4-2400 | AMD Radeon™ Graphics |
| AMD Ryzen™ 3 3250U | 2 | 4 | 2.6GHz | 3.5GHz | 1MB L2 / 4MB L3 | DDR4-2400 | AMD Radeon™ Graphics |
| AMD Ryzen™ 5 3500U | 4 | 8 | 2.1GHz | 3.7GHz | 2MB L2 / 4MB L3 | DDR4-2400 | AMD Radeon™ Vega 8 Graphics |
| AMD Ryzen™ 7 3700U | 4 | 8 | 2.3GHz | 4.0GHz | 2MB L2 / 4MB L3 | DDR4-2400 | AMD Radeon™ RX Vega 10 Graphics |

## Operating System

**Operating System**\*\*

- Windows® 11 Pro
- Windows® 11 Home
- Windows® 11 Home in S mode
- Windows® 10 Pro 64
- Windows® 10 Home 64
- Windows® 10 Home 64 Single Language
- Windows® 10 Home in S mode
- FreeDOS
- No operating system

## Graphics

**Graphics**\*\*

| Graphics | Type | Memory | Key Features |
|---|---|---|---|
| AMD Radeon™ Graphics | Integrated | Shared | DirectX® 12 |
| AMD Radeon™ Vega 8 Graphics | Integrated | Shared | DirectX® 12 |
| AMD Radeon™ RX Vega 10 Graphics | Integrated | Shared | DirectX® 12 |

## Monitor Support

**Monitor Support**

Supports up to 2 independent displays (native display and 1 external monitor via HDMI®)
• HDMI® supports up to 3840x2160@30Hz

## Chipset

**Chipset**

AMD SoC (System on Chip) platform

## Memory

**Max Memory**\*\*

- Up to 8GB (8GB SO-DIMM) DDR4-2400 offering (AMD 3020e models)
- Up to 12GB (4GB soldered + 8GB SO-DIMM) DDR4-2400 offering (Athlon™ or Ryzen™ models)

**Memory Slots**\*\*

- One DDR4 SO-DIMM slot (AMD 3020e models)
- One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable (Athlon™ or Ryzen™ models)

**Memory Type**

DDR4-2400[1]

Notes:

[1] Installed memory is actually DDR4-2666 or DDR4-3200 but run as DDR4-2400 due to platform limitation.

## Storage

**Storage Support**\*\*[1]

- Models with 45Wh battery: one drive, 1x M.2 SSD
  - M.2 2242 SSD up to 512GB
  - M.2 2280 SSD up to 512GB
- Model with 35Wh battery: up to two drives, 1x 2.5″ HDD + 1x M.2 SSD
  - 2.5″ HDD up to 1TB
  - M.2 2242 SSD up to 512GB
  - M.2 2280 SSD up to 512GB

**Storage Slot**\*\*

- Models with 35Wh battery: one 2.5″ drive slot + one M.2 slot
  - One 2.5″ drive slot, supports 2.5″ SATA HDD
  - One M.2 2280 PCIe® Gen 3x4 slot, supports M.2 2242/2280 SSD
- Models with 45Wh battery: one M.2 slot
  - One M.2 2280 PCIe® Gen 3x4 slot, supports M.2 2242/2280 SSD

**Storage Type**\*\*\*

| Disk Type | Interface | RPM |
|---|---|---|
| 2.5″ SATA HDD | SATA 6Gb/s | 5.4K |
| M.2 2280 SSD | PCIe® NVMe®, PCIe® 3.0 x4 | - |
| M.2 2242 SSD | PCIe® NVMe®, PCIe® 3.0 x2 | - |

Notes:

[1] The storage capacity supported is based on the test results with current Lenovo® storage offerings.

## Removable Storage

**Optical**

None

**Card Reader**

4-in-1 card reader (SD, SDHC, SDXC, MMC)

## Multi-Media

**Audio Chip**

High Definition (HD) Audio

**Speakers**

Stereo speakers, 1.5W x2, Dolby Audio™

**Microphone**

Dual-microphone array

**Camera**\*\*[1]

- 0.3-megapixel, with privacy shutter, fixed focus
- HD 720p, with privacy shutter, fixed focus

Notes:

[1] HD720p camera for AP and NA only.

## Battery

**Battery**\*\*

- Integrated Li-Polymer 35Wh battery
- Integrated Li-Polymer 45Wh battery, supports Rapid Charge (charge up to 80% in 1hr)

**Max Battery Life**\*\*[1]

- MobileMark® 2014: 12.2 hr (45Wh)
- MobileMark® 2014: 7.5 hr (35Wh)

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**

65W round tip (2-pin, wall-mount) AC adapter, 100-240V, 50-60Hz

# DESIGN

## Display

**Display**\*\*

| Size | Resolution | Touch | Type | Brightness | Surface | Aspect Ratio |
|------|------------|-------|------|------------|---------|--------------|
| 14.0" | HD (1366x768) | None | TN | 220nits | Anti-glare | 16:9 |
| 14.0" | FHD (1920x1080) | None | TN | 220nits | Anti-glare | 16:9 |
| 14.0" | FHD (1920x1080) | None | IPS | 250nits | Anti-glare | 16:9 |

**Touchscreen**

Non-touch

## Input Device

**Keyboard**

6-row, multimedia Fn keys

**Keyboard Backlight**

Non-backlight

**Touchpad**

Buttonless Mylar® surface multi-touch touchpad, supports Precision TouchPad (PTP), 69 x 104 mm (2.72 x 4.09 inches)

## Mechanical

**Dimensions (WxDxH)**[1]

327.1 x 241 x 19.9 mm (12.88 x 9.49 x 0.78 inches)

**Weight**[2]

Around 1.6 kg (3.53 lbs)

**Case Color**\*\*

- Abyss blue
- Business black
- Cherry red
- Platinum grey

**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**

No onboard Ethernet

**WLAN + Bluetooth®**[1]

802.11ac 2x2 Wi-Fi® + Bluetooth® 5.0, M.2 card

Notes:

[1] Bluetooth® may operate at a lower version than hardware design depending on the factors such as operating system, driver, etc.

## Ports[1]

**Standard Ports**

- 1x USB 2.0
- 2x USB 3.2 Gen 1
- 1x HDMI® 1.4b
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Card reader
- 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 chipset

**Fingerprint Reader**

- No fingerprint reader
- Touch style fingerprint reader on power button

**BIOS Security**

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

**Other Security**

Camera privacy shutter

# SERVICE

## Warranty

**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

# OPERATING REQUIREMENTS

## Operating Environment

**Temperature**[1][2]

- 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)

**Relative 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], [2] When you charge the battery, its temperature must be no lower than 10°C (50°F).

# CERTIFICATIONS

## Green Certifications[1]

**Green Certifications**[2]

- 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. For ESG & regulatory compliance documents, please visit https://compliance.lenovo.com.
[2] EPEAT™ registration and ENERGY STAR® certification are dependent on system OS. Please visit epeat.net and energystar.gov for more information.

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

- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.

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