## OVERVIEW



| 1. Power button | 7. HDMI 1.4 |
| :--- | :--- |
| 2. Headphone / microphone combo jack (3.5mm) | 8. VGA |
| 3. USB-C 3.2 Gen 1 | 9. $4 \times$ USB 2.0 |
| 4. USB 3.2 Gen 1 | 10. Ethernet (RJ-45) |
| 5. USB 3.2 Gen 2 | 11. Optional ports on expansion cards |
| 6. Audio line-out (3.5mm) | 12. Power connector |

Notes:

- Items with * are only available on selected models
- The onboard video ports VGA and HDMI are disabled on the models with discrete graphics


## PERFORMANCE

## Processor

## Processor Family

AMD Ryzen ${ }^{T M} 5$ / 7 Processor

## Processor**

| Processor Name | Cores | Threads | Base <br> Frequency | Max <br> Frequency | Cache | Memory <br> Support | Processor Graphics |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| AMD Ryzen 5 <br> 5600 G | 6 | 12 | 3.9 GHz | 4.4 GHz | $3 \mathrm{MB} \mathrm{L2/16MB}$ <br> $\mathrm{L3}$ | DDR4-3200 | AMD Radeon ${ }^{\text {TM }}$ <br> Graphics |
| AMD Ryzen 7 <br> 5700 G | 8 | 16 | 3.8 GHz | 4.6 GHz | $4 \mathrm{MB} \mathrm{L2/16MB}$ <br> $\mathrm{L3}$ | DDR4-3200 | AMD Radeon <br> Graphics |
| AMD Ryzen 7 <br> 5800 | 8 | 16 | 3.4 GHz | 4.6 GHz | $4 \mathrm{MB} \mathrm{L2/32MB}$ <br> $\mathrm{L3}$ | DDR4-3200 | - |

## Operating System

## Operating System**

- Windows 11 Pro
- Windows 11 Home
- Windows 11 Home Single Language
- No operating system


## Graphics

## Graphics**[]

| Graphics | Type | Memory | Connector | Max Resolution | Key <br> Features |
| :---: | :---: | :---: | :---: | :---: | :---: |
| AMD Radeon Graphics ${ }^{[2]}$ | Integrated | Shared | $\begin{aligned} & \text { 1x HDMI® 1.4, 1x } \\ & \text { VGA } \end{aligned}$ | $\begin{aligned} & \text { 3840×2160@30Hz(HDMI), } \\ & 2048 \times 1536 @ 50 \mathrm{~Hz}(\text { VGA ) } \end{aligned}$ | $\begin{aligned} & \text { DirectX® } \\ & 12 \end{aligned}$ |
| AMD Radeon RX 6400 | Discrete | $\begin{aligned} & \text { 4GB } \\ & \text { GDDR6 } \end{aligned}$ | $\begin{aligned} & 1 \times \mathrm{HDMI} 2.1,1 \times \mathrm{DP} \\ & 1.4 \end{aligned}$ | $\begin{aligned} & 7680 \times 4320 @ 60 \mathrm{~Hz}(\mathrm{HDMI}), \\ & 7680 \times 4320 @ 60 \mathrm{~Hz}(\mathrm{DP}) \end{aligned}$ | DirectX 12 |
| AMD Radeon RX 6500XT | Discrete | $\begin{aligned} & \text { 4GB } \\ & \text { GDDR6 } \end{aligned}$ | 1x HDMI 2.1, 1x DP 1.4 | $\begin{aligned} & \text { 7680×4320@60Hz(HDMI), } \\ & 7680 \times 4320 @ 60 \mathrm{~Hz}(\mathrm{DP}) \end{aligned}$ | DirectX 12 |
| NVIDIA ${ }^{\oplus}$ GeForce GTX 1660 SUPER | Discrete | $\begin{aligned} & \text { 6GB } \\ & \text { GDDR6 } \end{aligned}$ | 1x HDMI 2.0, 1x DP 1.4, 1x DVI-D | 4096x2160@60Hz(HDMI), 5120x3200@60Hz <br> (DP), 2560x1600@60Hz(DVI-D) | DirectX 12 |
| NVIDIA GeForce RTX ${ }^{\text {TM }} 3060$ | Discrete | $\begin{aligned} & \text { 12G } \\ & \text { GDDR6 } \end{aligned}$ | $\begin{aligned} & \text { 1x HDMI 2.1, 3x DP } \\ & 1.4 \end{aligned}$ | $\begin{aligned} & 7680 \times 4320 @ 60 \mathrm{~Hz}(\mathrm{HDMI}), \\ & 5120 \times 2880 @ 60 \mathrm{~Hz}(\mathrm{DP}) \end{aligned}$ | DirectX 12 |
| NVIDIA GeForce RTX 3060 Ti | Discrete | $\begin{aligned} & \text { 8G } \\ & \text { GDDR6 } \end{aligned}$ | $\begin{aligned} & \text { 3x DP 1.4a, 1x } \\ & \text { HDMI } 2.1 \end{aligned}$ | $\begin{aligned} & 7680 \times 4320 @ 60 \mathrm{~Hz}(\mathrm{HDMI}), \\ & 7680 \times 4320 @ 120 \mathrm{~Hz}(\mathrm{DP}) \end{aligned}$ | DirectX 12 |

## Notes:

[1], [2] The information of integrated graphics are not applicable for the models with processor which has no integrated graphics inside (for the details, please refer to processor section).

## Monitor Support

## Monitor Support

Supports up to 2 independent displays via onboard ports (VGA and HDMI), more displays support via discrete graphics

## Chipset

## Chipset

AMD PRO 565 chipset

## Memory

## Max Memory ${ }^{[1]}$

Up to 64GB DDR4-3200

## Memory Slots

Two DDR4 UDIMM 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 ${ }^{\oplus}$ memory offerings.

## Storage

Storage Support ${ }^{[1]}$
Up to two drives, $1 \times 3.5^{\prime \prime}$ HDD + 1x M. 2 SSD

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

Storage Type**

| Disk Type | Interface | RPM |
| :---: | :---: | :---: |
| 3.5" SATA HDD | SATA 6Gb/s | 7.2 K |
| M. 22280 SSD | PCle ${ }^{\oplus}$ NVMe ${ }^{\oplus}$, PCle $3.0 \times 4$ | - |
| M. 22280 SSD | PCle NVMe, PCIe $4.0 \times 4$ | - |

## RAID

No support

## Notes:

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

## Removable Storage <br> Optical

None

## Card Reader

No card reader

## Multi-Media

## Audio Chip

High Definition (HD) Audio, Realtek ${ }^{\circledR}$ ALC222 codec

## Speakers

No speakers

## Microphone

No microphone

## Camera

No camera

## Power Supply

Power Supply**

| Power | Type | Efficiency | Key Features |
| :--- | :--- | :--- | :---: |
| $310 W$ | Fixed | $92 \%$ | $100-240 \mathrm{~V}, 50-60 \mathrm{~Hz}$ |
| $380 W$ | Fixed | $92 \%$ | $100-240 \mathrm{~V}, 50-60 \mathrm{~Hz}$ |
| 500 W | Fixed | $92 \%$ | $100-240 \mathrm{~V}, 50-60 \mathrm{~Hz}$ |

## DESIGN

## Input Device

## Keyboard

- Lenovo Calliope Keyboard (USB connector), black
- No keyboard


## Mouse

- Lenovo Calliope Mouse (USB connector), black
- No mouse


## Mechanical

## Form Factor

Tower (17L)

## Dimensions (WxDxH) ${ }^{[1]}$

$376 \times 170 \times 288 \mathrm{~mm}$ ( $14.8 \times 6.69 \times 11.33$ inches)

## Packaging Dimensions (WxDxH)

$270 \times 525 \times 395 \mathrm{~mm}$ ( $10.62 \times 20.66 \times 15.55$ inches)

## Weight ${ }^{[2]}$

7.55 kg ( 16.64 lbs )

## Packaging Weight

All models: 10.55 kg ( 23.25 lbs )

## Case Color

Raven black

## Bays

- $1 \times 3.5^{\prime \prime}$ disk bay (optional)
- No bays


## Expansion Slots

- One PCle $3.0 \times 16$, full height
- One PCle $3.0 \times 1$, full height
- Two M. 2 slots (one for WLAN, one for SSD)

Cooling System (Fan \& Cooler)**

- (Optional) $1 x$ front system fan, $1 \times$ rear system fan
- (Optional) 1x rear system fan


## 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®**

- Wi-Fi® 6, 802.11ax $2 \times 2$ Wi-Fi + Bluetooth 5.1, M. 2 card ${ }^{[1]}$
- No WLAN and Bluetooth
- Wi-Fi 6E, 802.11ax $2 \times 2 \mathrm{Wi}-\mathrm{Fi}+$ 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 ${ }^{[1]}$

```
Front Ports
```

- 1x USB-C ${ }^{\text {® }}$ 3.2 Gen 1
- $1 x$ USB 3.2 Gen 1
- $1 \times$ USB 3.2 Gen 2
- 1x headphone / microphone combo jack (3.5mm)


## Rear Ports ${ }^{[2]}$

- $4 x$ USB 2.0
- 1x HDMI 1.4
- $1 \times$ VGA
- 1x Ethernet (RJ-45)
- 1x audio-out ( 3.5 mm )
- 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: $480 \mathrm{Mbit} / \mathrm{s}$;
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): $10 \mathrm{Gbit} / \mathrm{s}$;
USB4 ${ }^{\oplus}$ 20Gbps / USB 3.2 Gen $2 \times 2$ (SuperSpeed USB 2OGbps): 20 Gbit/s;
USB4 4OGbps (USB 40Gbps): 40 Gbit/s;
Thunderbolt ${ }^{\text {TM }} 3 / 4$ : $40 \mathrm{Gbit} / \mathrm{s}$.
[2] For video ports on discrete graphics, please see graphics section.

## SECURITY \& PRIVACY

## Security

Security Chip
Firmware TPM 2.0 integrated in processor

## 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: $5^{\circ} \mathrm{C}\left(41^{\circ} \mathrm{F}\right)$ to $35^{\circ} \mathrm{C}\left(95^{\circ} \mathrm{F}\right)$
- Storage: $-40^{\circ} \mathrm{C}\left(-40^{\circ} \mathrm{F}\right)$ to $60^{\circ} \mathrm{C}\left(140^{\circ} \mathrm{F}\right)$


## Humidity

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


## Altitude

- Operating: $0 \mathrm{~m}(0 \mathrm{ft})$ to $3048 \mathrm{~m}(10,000 \mathrm{ft})$
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)


## CERTIFICATIONS

## Green Certifications ${ }^{11}$

## 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 selfdeclaration.

- Feature with ${ }^{* *}$ means that only one offering listed under the feature is configured on selected models.
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AMDA


