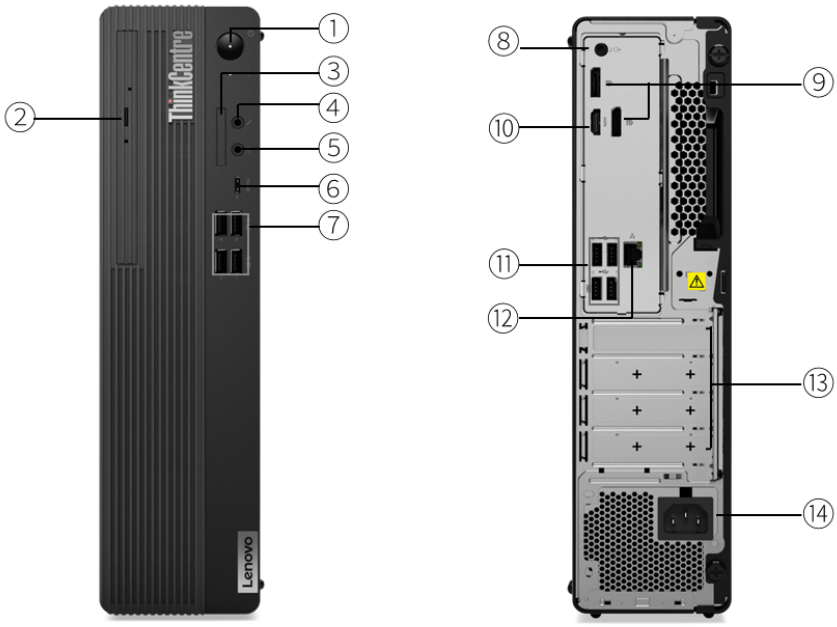
# OVERVIEW




| | |
|---|---|
| 1. Power button | 8. Line-out (3.5mm) |
| 2. Optical drive * | 9. 2x DisplayPort 1.4a (HBR2, DSC) |
| 3. Card reader * | 10. HDMI 2.1 TMDS |
| 4. Microphone jack (3.5mm) | 11. 4x USB-A (Hi-Speed USB) |
| 5. Headphone / microphone combo jack (3.5mm) | 12. Ethernet (RJ-45) |
| 6. USB-C (USB 5Gbps), with 15W charging | 13. Optional ports on expansion cards * |
| 7. 4x USB-A (USB 5Gbps) | 14. Power connector |

Notes:

- Items with * are only available on selected models
- More ports are available through the optional expansion cards (not shown on the sample product above)

# PERFORMANCE

## Processor

**Processor Family**

AMD Ryzen™ 3 / 5 / 7 8000 or Ryzen™ 3 / 5 / 7 PRO 8000 Series Processor

**Processor****

| Processor Name | Cores | Threads | Base Frequency | Max Frequency | Cache | Processor Graphics | NPU |
|---|---|---|---|---|---|---|---|
| AMD Ryzen™ 3 8300G | 4 | 8 | 3.4GHz | 4.9GHz | 4MB L2 / 8MB L3 | AMD Radeon™ 740M | - |
| AMD Ryzen™ 3 PRO 8300G | 4 | 8 | 3.4GHz | 4.9GHz | 4MB L2 / 8MB L3 | AMD Radeon™ 740M | - |
| AMD Ryzen™ 5 8500G | 6 | 12 | 3.5GHz | 5.0GHz | 6MB L2 / 16MB L3 | AMD Radeon™ 740M | - |
| AMD Ryzen™ 5 8600G | 6 | 12 | 4.3GHz | 5.0GHz | 6MB L2 / 16MB L3 | AMD Radeon™ 760M | AMD Ryzen™ AI, up to 16 TOPS |
| AMD Ryzen™ 5 PRO 8500G | 6 | 12 | 3.5GHz | 5.0GHz | 6MB L2 / 16MB L3 | AMD Radeon™ 740M | - |
| AMD Ryzen™ 5 PRO 8600G | 6 | 12 | 4.3GHz | 5.0GHz | 6MB L2 / 16MB L3 | AMD Radeon™ 760M | AMD Ryzen™ AI, up to 16 TOPS |
| AMD Ryzen™ 7 8700G | 8 | 16 | 4.2GHz | 5.1GHz | 8MB L2 / 16MB L3 | AMD Radeon™ 780M | AMD Ryzen™ AI, up to 16 TOPS |
| AMD Ryzen™ 7 PRO 8700G | 8 | 16 | 4.2GHz | 5.1GHz | 8MB L2 / 16MB L3 | AMD Radeon™ 780M | AMD Ryzen™ AI, up to 16 TOPS |

## Operating System

**Operating System****

- Windows® 11 Pro
- Windows® 11 Home
- Windows® 11 Home Single Language
- Windows® 11 IoT Enterprise LTSC 2024
- Windows® 11 DG Windows® 10 Pro 64
- Ubuntu Linux
- No preload operating system

## Graphics

**Graphics*****

| Graphics | Type | Memory | Max Resolution | Connector | Key Features |
|---|---|---|---|---|---|
| AMD Radeon™ 740M | Integrated | Shared | 4096x2160@60Hz(HDMI®), 4096x2160@60Hz(DP) | 2x DP 1.4a (HBR2, DSC), 1x HDMI® 2.1 TMDS | DirectX® 12 |
| AMD Radeon™ 760M | Integrated | Shared | 4096x2160@60Hz(HDMI®), 4096x2160@60Hz(DP) | 2x DP 1.4a (HBR2, DSC), 1x HDMI® 2.1 TMDS | DirectX® 12 |
| AMD Radeon™ 780M | Integrated | Shared | 4096x2160@60Hz(HDMI®), 4096x2160@60Hz(DP) | 2x DP 1.4a (HBR2, DSC), 1x HDMI® 2.1 TMDS | DirectX® 12 |
| AMD Radeon™ RX 6400 | Discrete | 4GB GDDR6 | 7680x4320@60Hz(HDMI®), 7680x4320@60Hz(DP) | 1x HDMI® 2.1 FRL, 1x DP 1.4a | DirectX® 12, OpenGL 4.6 |

## Monitor Support

**Monitor Support**

Supports up to 3 independent displays via onboard ports (2x DisplayPort™ and 1x HDMI®), more displays support via discrete graphics

## Chipset

**Chipset**

AMD PRO665 Chipset

## Memory

**Max Memory**[1]

Up to 64GB DDR5-5200

**Memory Slots**

Two DDR5 UDIMM slots, dual-channel capable

**Memory Type**[2]

DDR5-5200

Notes:

[1] The max memory is based on the test results with current Lenovo® memory offerings.
[2] Installed memory is actually DDR5-5600 but may run as DDR5-5200 due to the memory support capability of processor.

## Storage

**Max Storage Support**[1]

Up to three drives, 1x 3.5" HDD + 2x M.2 SSD
• 3.5" HDD up to 2TB
• M.2 SSD up to 2TB each

**Storage Type*****

| Disk Type | Interface | RPM | Security |
|---|---|---|---|
| 3.5" SATA HDD | SATA 6Gb/s | 7.2K | - |
| M.2 2280 SSD | PCIe® NVMe®, PCIe® 4.0 x4 | - | Opal 2.0 |

**RAID**

RAID 0/1 support for M.2 SSDs (RAID preset only available via special bid models)

Notes:

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

## Removable Storage

**Optical**

- DVD burner (DVD±RW), SATA connector, slim (9.0mm)
- None

**Card Reader**

- 3-in-1 card reader (SD, SDHC, SDXC)
- No card reader

## Multi-Media

**Audio Chip**

High Definition (HD) Audio, Realtek® ALC623-CG codec

**Speakers**

- No speakers
- Single speaker, 1W x1

## Power Supply

**Power Supply****

| Power | Type | Efficiency | Key Features |
|---|---|---|---|
| 180W | Fixed | 85% | 100-240V, 50-60Hz |
| 258W | Fixed | 90% | 100-240V, 50-60Hz |
| 260W[1] | Fixed | 90% | 100-240V, 50-60Hz |
| 310W | Fixed | 92% | 100-240V, 50-60Hz |

Notes:

[1] Hybrid PSU sources configured for supply assurance; assembled product has maximum wattage of 258W.

# DESIGN

## Input Device

**Keyboard****

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

**Mouse**

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

## Mechanical

**Form Factor**

SFF (8.2L)

**Dimensions (WxDxH)**[1]

92.5 x 297.7 x 339.5 mm (3.6 x 11.7 x 13.4 inches)

**Packaging Dimensions (WxDxH)**

195 x 395 x 530 mm (7.68 x 15.55 x 20.87 inches)

**Weight**[2]

Around 4.6 kg (10.1 lbs)

**Packaging Weight**

Around 7.5 kg (16.5 lbs)

**Case Color**

Black

**Bays**

- 1x 3.5″ disk bay
- 1x slim ODD bay

**Expansion Slots**

- One PCIe® 3.0 x16, low-profile, length ≤ 155mm, height ≤ 70mm
- One PCIe® 3.0 x1, low-profile, length ≤ 155mm, height ≤ 70mm
- Three M.2 slots (one for WLAN, two for SSD)[3]

**EOU**

Toolless cover, memory, disk, optical, extension card assembly / removal[4]

**Stand**

- Vertical stand
- No stand

**Others**

- (Optional) Dust filter
- Supports Smart Power On

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.

[3] M.2 slot for SSD is M.2 PCIe® 4.0 x4 slot, supports up to 64Gbps on NVMe® drives

[4] To comply with UL 4200A, the toolless features are not available for the following countries:
Argentina, Belize, Bolivia, Canada, Caribbean Group, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, TAA, Uruguay, USA, Venezuela.

# CONNECTIVITY

## Network

**WLAN + Bluetooth®**[1]**

- Realtek® Wi-Fi® 6 RTL8852BE, 802.11ax Dual Band 2x2 Wi-Fi® + Bluetooth® 5.3, M.2 card
- AMD Wi-Fi® 6E RZ616, 802.11ax 2x2 Wi-Fi® + Bluetooth® 5.3, M.2 card
- No WLAN and Bluetooth®

**Onboard Ethernet**

Gigabit Ethernet, Realtek® RTL8111FP, 1x RJ-45, supports DASH and Wake-on-LAN

**Optional Ethernet**

- 2.5 Gigabit Ethernet, Realtek® RTL8125BGS, 1x RJ-45, PCIe® x1
- No optional Ethernet

Notes:

[1] Wi-Fi® operation (including Wi-Fi® 6, Wi-Fi® 6E, Wi-Fi® 7, etc.) is subject to the regulatory requirements of each country. Bluetooth® may operate at a lower version than hardware design depending on the factors such as operating system, driver, etc.

## Ports[1]

**Front Ports**

- 1x USB-C® (USB 5Gbps / USB 3.2 Gen 1), with 15W charging
- 4x USB-A (USB 5Gbps / USB 3.2 Gen 1)
- 1x headphone / microphone combo jack (3.5mm)
- 1x microphone (3.5mm)

**Optional Front Ports**

1x card reader

**Rear Ports**[2]

- 4x USB-A (Hi-Speed USB / USB 2.0)
- 1x HDMI® 2.1 TMDS
- 2x DisplayPort™ 1.4a (HBR2, DSC)
- 1x Ethernet (RJ-45)
- 1x line-out (3.5mm)

**Optional Rear Ports*****

- 1x USB-C® (USB 20Gbps / USB 3.2 Gen 2x2), support data transfer, via PCIe® x4 card
- 2x USB-C® (USB 10Gbps / USB 3.2 Gen 2), support data transfer, via PCIe® x4 card
- 2x USB-A (Hi-Speed USB / USB 2.0), via 2-port adapter
- 2x USB-A (USB 5Gbps / USB 3.2 Gen 1), via 2-port USB expansion card, PCIe® x1
- 1x 2.5GbE RJ-45, via additional PCIe® adapter
- 1x parallel
- 1x serial

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.
Thunderbolt™ 5: 80 Gbit/s (bidirectional), up to 120 Gbit/s in bandwidth boost mode for video-intensive applications.
[2] For video ports on discrete graphics, please see graphics section

# SECURITY & PRIVACY

## Security

**Security Chip**

Discrete TPM 2.0, TCG certified, FIPS 140-2 certified

### Physical Locks

- (Optional) E-lock
- (Optional) Smart Cable Clip
- Kensington® Security Slot™, 3 x 7 mm
- Padlock Loop

### Chassis Intrusion Switch

- Chassis intrusion switch
- No chassis intrusion switch

### Fingerprint Reader

No fingerprint reader

### Other Security

Pluton security processor

### BIOS Security

- Administrator password
- Hard disk password
- Power-on password
- Absolute persistence module
- Boot sequence control
- Boot without keyboard and mouse
- Cover tamper detected[1]
- Certificate-based BIOS authentication
- Configuration change detection
- Individual USB port disablement
- Secure wipe
- Secure boot
- Self-healing BIOS[2]
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- More BIOS security features, please visit BIOS Simulator[3]

Notes:

[1] Only available for the models with Chassis Intrusion Switch

[2] Self-healing BIOS is only available via Special Bids

[3] The BIOS simulator is just for reference. Default settings and some options may vary depending on the hardware, operating system and BIOS version.

# MANAGEABILITY

## System Management

### System Management

- DASH 1.1 / 1.2
- Non-DASH

# SERVICE

## Warranty[1]

### Base Warranty**

- 1-year courier or carry-in service
- 1-year limited onsite service
- 3-year limited onsite 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://support.lenovo.com/warrantylookup/warrantypolicy.

# ACCESSORIES

## Bundled Accessories

**Bundled Accessories*****

- DP to DVI dongle
- DP to HDMI® dongle
- DP to VGA dongle
- HDMI® to VGA dongle
- Smart Cable (USB-A to USB-C®)
- None

# OPERATING REQUIREMENTS

## Operating Environment

**Temperature**

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

**Relative 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)

# ENVIRONMENTAL

## Sustainability

**Material**[1]

85% PCC ABS bezel
95% PCC ABS wired USB keyboard/mouse top/bottom cover
30% OBP + 60% PCC thermal shell
90% PIC recycled plastic EPE cushion
30% OBP used in bag
FSC certified paper in packaging

Notes:

[1] PCC: Post Consumer Content, recycled materials from customers.
PIC: Post Industry Content, recycled materials from internal factories.
EPE: Expanded Polyethylene.
OBP: Ocean Bound Plastic, reducing plastic spill into the sea.
FSC: Forest Stewardship Council.

# CERTIFICATIONS

## Green Certifications[1]

**Green Certifications**

- (Optional) ENERGY STAR® 8.0
- (Optional) EPEAT™ Silver Registered[2]
- (Optional) EPEAT™ Gold Registered[3]
- ErP Lot 3
- GREENGUARD®
- RoHS compliant
- TCO Certified 9.0

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], [3] EPEAT™ is registered where applicable, please visit epeat.net for registration status by country.

## Other Certifications

**Other Certifications**

(Optional) TÜV Rheinland® Ultra Low Noise

**Mil-Spec Test**

MIL-STD-810H military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Solar Radiation, Contamination by Fluids, Salt Fog)

- Feature with ** means that only one option listed under the feature can be configured on selected models. Please refer to the model configuration for specific information.
- Feature with *** means that one or more options listed under the feature can be configured on selected models. Please refer to the model configuration for specific information.
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