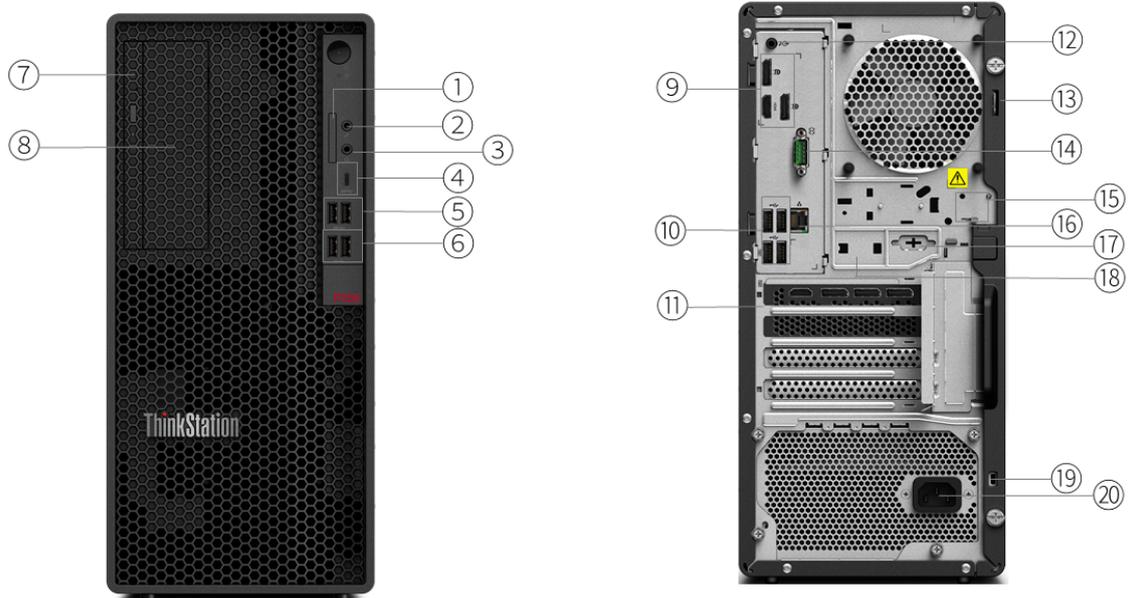


OVERVIEW



1. Card reader *	11. Optional ports on expansion cards *
2. Microphone (3.5mm)	12. Audio line-out (3.5mm)
3. Headphone / microphone combo jack (3.5mm)	13. Padlock loop
4. USB-C 3.2 Gen 1	14. Serial (9-pin)
5. 2x USB 3.2 Gen 1	15. E-lock slot *
6. 2x USB 3.2 Gen 2	16. Ethernet (RJ-45)
7. Optical drive *	17. Serial (9-pin) *
8. Flex bay *	18. Smart cable clip slots
9. Video ports (2x DP, 1x HDMI) *	19. Kensington Security Slot
10. 4x USB 2.0 (with Smart Power On feature)	20. Power connector

Notes:

- Items with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Up to one AMD Ryzen™ 9 PRO 5000 series processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 3 PRO 4350G	4	8	3.8GHz	4.0GHz	2MB L2 / 4MB L3	DDR4-3200	AMD Radeon™ Graphics
AMD Ryzen 5 PRO 4650G	6	12	3.7GHz	4.2GHz	3MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 PRO 5645	6	12	3.7GHz	4.6GHz	3MB L2 / 32MB L3	DDR4-3200	None
AMD Ryzen 7 PRO 4750G	8	16	3.6GHz	4.4GHz	4MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 PRO 5845	8	16	3.4GHz	4.6GHz	4MB L2 / 32MB L3	DDR4-3200	None
AMD Ryzen 9 PRO 5945	12	24	3.0GHz	4.7GHz	6MB L2 / 64MB L3	DDR4-3200	None

Processor Sockets

Socket AM4

Operating System

Operating System**^[1]

- Windows® 11 Pro
- Windows 11 Home
- Windows 11 Home Single Language
- Windows 11 DG Windows 10 Pro 64
- Ubuntu Linux LTS
- Red Hat Enterprise Linux 8.7 (certified only, available in late 2022, for detailed and latest information, please visit [Red Hat Certified Hardware](#))
- 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, Human Presence Detection, etc.

Graphics

Integrated Graphics

- None
- Integrated AMD Radeon Graphics

Discrete Graphics Support^[1]

Supports up to one NVIDIA® GeForce RTX™ 3080 or NVIDIA RTX A2000

Discrete Graphics Offering

Graphics	Memory	Power	Connector	SLI / NVLink
NVIDIA T400 4GB	4GB GDDR6	40W	3x miniDP 1.4	None
NVIDIA T1000	4GB GDDR6	50W	4x miniDP 1.4	None
NVIDIA T1000 8GB	8GB GDDR6	50W	4x miniDP 1.4	None
NVIDIA RTX A2000 12GB	12GB GDDR6	70W	4x miniDP 1.4a	None
NVIDIA GeForce RTX 3060	12GB GDDR6	170W	3x DP 1.4a, 1x HDMI® 2.1 FRL	-
NVIDIA GeForce RTX 3070 Ti	8GB GDDR6	290W	3x DP 1.4a, 1x HDMI 2.1 FRL	-
NVIDIA GeForce RTX 3080	10GB GDDR6	320W	3x DP 1.4a, 1x HDMI 2.1 FRL	-

Notes:

1. Discrete graphics support may vary by processor selection or power supply wattage.

Monitor Support

Monitor Support

- Models with Ryzen 3 Pro 4350G: no discrete graphic support. Onboard graphics supports up to 3 independent displays via onboard two DP, one HDMI:
 - DP supports up to 4096x2160@60Hz
 - HDMI supports up to 3840x2160@30Hz
- Models with Ryzen Pro 5000 processor: onboard video ports cannot work. Independent displays support depends on the discrete graphic card in use. Discrete graphics ports support:
 - miniDP supports up to 5120x2880@60Hz
 - HDMI supports up to 7680x4320@60Hz

Chipset

Chipset

AMD PRO 565 chipset

Memory

Max Memory^[1]

Up to 128GB (4x 32GB DDR4 UDIMM)

Memory Type**

- DDR4-3200 UDIMM non-ECC
- DDR4-3200 UDIMM ECC

Memory Slots

Four DDR4 UDIMM slots, dual-channel capable

Memory Protection

ECC on models with ECC DIMMs and ECC capable processor

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support^[1]

Up to 2x 3.5" SATA HDD + 1x 2.5" SATA HDD / SSD + 1x M.2 SSD

- 3.5" HDD up to 4TB each
- M.2 SSD up to 2TB
- No pre-configured 2.5" HDD / SSD options

Storage Type^[2]

Disk Type	Interface	RPM	Offering	Security
3.5" SATA HDD	SATA 6Gb/s	7.2K	1TB / 2TB / 4TB	-
M.2 2280 SSD	PCIe® NVMe®, PCIe 4.0 x4	-	256GB	Opal 2.0
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Performance	-	512GB / 1TB / 2TB	Opal 2.0

Storage Controllers***^[3]

Storage Controller	Type	Interface	RAID	Cache
Integrated SATA controller	Standard	SATA 6.0Gb/s	0/1	None
Integrated NVMe controller	Standard	PCIe NVMe	-	None

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. System comes with one M.2 PCIe Gen 3 slot for M.2 SSD.
3. RAID requires that BIOS version is equal or newer than SOHKT12A.
RAID is only available on models with AMD Ryzen 3 Pro 4350G.

Pre-configuration with RAID cannot be supported.

Removable Storage

Optical Support

Optional one 9.0mm DVD-ROM

Card Reader

- SD card reader
- No card reader

Multi-Media

Audio Chip

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

Speakers

Single speaker, 2W x1

Power Supply

Power Supply**

Power	Type	Efficiency	Key Features
300W	Fixed	90%	Autosensing, 80 PLUS Gold qualified
500W	Fixed	92%	Autosensing, 80 PLUS Platinum qualified
750W	Fixed	92%	Autosensing, 80 PLUS Platinum qualified

DESIGN

Mechanical

Form Factor

Tower (17L)

Dimensions (WxDxH)^[1]

170 x 315.4 x 376 mm (6.7 x 12.4 x 14.8 inches)

Weight^[2]

9.8 kg (21.6 lbs, maximum configuration)

Bays^[3]

- 1x 3.5" disk bay (standard)
- 1x 3.5" disk bay (optional)
- 1x 2.5" disk bay (optional)
- 1x slim ODD bay (optional)

M.2 Slots

- One M.2 slot (for WLAN)
- One M.2 PCIe Gen 3x4 slot (for SSD)

Expansion Slots

- One PCIe 3.0 x16
- One PCIe 3.0 x1

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. 2.5" HDD requires additional bracket

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Realtek RTL8111EPV, 1x GbE RJ-45, supports Wake-on-LAN

Optional Ethernet

One additional Ethernet adapter support, up to one additional GbE port

- Gigabit Ethernet, Intel I210-T1, 1x RJ-45, PCIe x1
- Gigabit Ethernet, Realtek RTL8168H, 1x RJ-45, PCIe x1

WLAN + Bluetooth^[1]

- Mediatek Wi-Fi® 6 MT7921, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 Card
- No WLAN and Bluetooth

Notes:

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

Ports^[1]**Front Ports**

- 2x USB 3.2 Gen 1
- 2x USB 3.2 Gen 2
- 1x USB-C® 3.2 Gen 1
- 1x headphone / microphone combo jack (3.5mm)
- 1x microphone (3.5mm)

Rear Ports^[2]

- 4x USB 2.0 (one supports Smart Power On)
- 1x serial (9-pin)
- 1x Ethernet (RJ-45)
- 1x line-out (3.5mm)

Optional Rear Ports

- 2x USB 2.0
- 2x USB 3.2 Gen 1 (via 2-port USB expansion card, PCIe x1)
- 1x HDMI 2.1 TMDS (onboard, for AMD Ryzen 3 Pro 4350G models)
- 2x DisplayPort™ 1.4 (onboard, for AMD Ryzen 3 Pro 4350G models)
- 1x serial
- 4x serial (via 4-port serial expansion card, PCIe x1)
- 1x parallel

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;
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s;
2. For video ports on discrete graphics, please see graphics section

SECURITY & PRIVACY**Security****Security Chip**

Firmware TPM 2.0 integrated in processor

Physical Locks

- (Optional) Cable lock
- (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

BIOS Security

- Administrator password
- Power-on password

- UEFI Secure Boot
- Self-healing BIOS

MANAGEABILITY

System Management

System Management

AMD Pro Manageability

SERVICE

Warranty^[1]

Base Warranty**

- 1-year limited onsite service
- 2-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://pcsupport.lenovo.com/warranty>.

ENVIRONMENTAL

Operating Environment

Temperature

- Operating: 10°C (50°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

Altitude

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

Humidity

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

CERTIFICATIONS

Green Certifications^[1]

Green Certifications^[2]

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 9.0
- 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.

ISV Certifications

ISV Certifications

Please visit [ISV certifications for Lenovo Workstations](#)

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