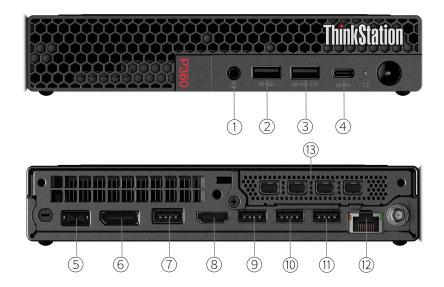
OVERVIEW



1. Headphone / microphone combo jack (3.5mm)	8. HDMI 2.1 TMDS
2. USB 3.2 Gen 2	9. USB 3.2 Gen 1 (with Smart Power On feature)
3. USB 3.2 Gen 2 (Always On and fast charge)	10. USB 3.2 Gen 2
4. USB-C 3.2 Gen 2	11. USB 3.2 Gen 2
5. Power connector	12. Ethernet (RJ-45)
6. DisplayPort 1.4	13. 2 Optional ports or expansion cards *
7. USB 3.2 Gen 1	

Notes:

• Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

12th Generation Intel® Core $^{\rm m}$ i3 / i5 / i7 / i9 Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i3- 12100	4 (4 P-core + 0 E-core)	8	P-core 3.3GHz	P-core 4.3GHz	12MB	DDR5-4800	Intel UHD Graphics 730
Core i3- 12100T	4 (4 P-core + 0 E-core)	8	P-core 2.2GHz	P-core 4.1GHz	12MB	DDR5-4800	Intel UHD Graphics 730
Core i3- 12300T	4 (4 P-core + 0 E-core)	8	P-core 2.3GHz	P-core 4.2GHz	12MB	DDR5-4800	Intel UHD Graphics 730
Core i3- 12300	4 (4 P-core + 0 E-core)	8	P-core 3.5GHz	P-core 4.4GHz	12MB	DDR5-4800	Intel UHD Graphics 730
Core i5- 12400T	6 (6 P-core + 0 E-core)	12	P-core 1.8GHz	P-core 4.2GHz	18MB	DDR5-4800	Intel UHD Graphics 730
Core i5- 12600	6 (6 P-core + 0 E-core)	12	P-core 3.3GHz	P-core 4.8GHz	18MB	DDR5-4800	Intel UHD Graphics 770
Core i5- 12400	6 (6 P-core + 0 E-core)	12	P-core 2.5GHz	P-core 4.4GHz	18MB	DDR5-4800	Intel UHD Graphics 730
Core i5- 12500T	6 (6 P-core + 0 E-core)	12	P-core 2.0GHz	P-core 4.4GHz	18MB	DDR5-4800	Intel UHD Graphics 770
Core i5- 12500	6 (6 P-core + 0 E-core)	12	P-core 3.0GHz	P-core 4.6GHz	18MB	DDR5-4800	Intel UHD Graphics 770
Core i5- 12600T	6 (6 P-core + 0 E-core)	12	P-core 2.1GHz	P-core 4.6GHz	18MB	DDR5-4800	Intel UHD Graphics 770
Core i7- 12700	12 (8 P-core + 4 E-core)	20	P-core 2.1GHz / E- core 1.6GHz	P-core 4.8GHz / E- core 3.6GHz	25MB	DDR5-4800	Intel UHD Graphics 770
Core i7- 12700T	12 (8 P-core + 4 E-core)	20	P-core 1.4GHz / E- core 1.0GHz	P-core 4.6GHz / E- core 3.4GHz	25MB	DDR5-4800	Intel UHD Graphics 770
Core i9- 12900	16 (8 P-core + 8 E-core)	24	P-core 2.4GHz / E- core 1.8GHz	P-core 5.0GHz / E- core 3.8GHz	30MB	DDR5-4800	Intel UHD Graphics 770
Core i9- 12900T	16 (8 P-core + 8 E-core)	24	P-core 1.4GHz / E- core 1.0GHz	P-core 4.8GHz / E- core 3.6GHz	30MB	DDR5-4800	Intel UHD Graphics 770

Processor Sockets

1x FCLGA1700

Operating System

Operating System**

- Windows[®] 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Ubuntu Linux
- Red Hat Enterprise Linux (certified only)
- No operating system

Graphics

Integrated Graphics**

- Intel UHD Graphics 730
- Intel UHD Graphics 770
- None

Discrete Graphics Support

Lenovo

Supports up to one NVIDIA® T1000 on models with 35W processor

Discrete Graphics Offering***

Graphics	Memory	Power	Connector	SLI / NVlink
NVIDIA T400	4GB GDDR6	40W	3x miniDP 1.4	None
NVIDIA T600	4GB GDDR6	40W	4x miniDP 1.4	None
NVIDIA T1000	4GB GDDR6	50W	4x miniDP 1.4	None
NVIDIA T1000	8GB GDDR6	50W	4x miniDP 1.4	None

Monitor Support

Monitor Support

Onboard graphics supports up to 4 independent displays via (onboard DP, onboard HDMI®, punch out port 1 [VGA / HDMI / DP / USB-C®], and punch out port 2 [VGA / HDMI / DP]);

the number of maximum monitors also depends on the discrete graphic card in use

Chipset

Chipset

Intel Q670 Chipset

Memory

Max Memory^[1]

Up to 64GB DDR5-4800

Memory Type

DDR5-4800 non-ECC

Memory Slots

Two DDR5 SO-DIMM slots, dual-channel capable

Notes:

Storage

Storage Support^[1]

Up to two drives, 2x M.2 SSD, up to 2TB each

Storage Type

Disk Type	Interface	RPM	Offering	Security
M.2 2280 SSE	PCIe® NVMe®, PCIe 4.0 x4 Performance	-	512GB / 1TB / 2TB	Opal2

Storage Controllers

Storage Controller	Туре	Interface	RAID	Cache
Integrated NVMe controller	Standard	PCle NVMe	0/1	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.

Removable Storage

Optical Support

Optional one 9.0mm optical drive via optical drive kit, DVD-ROM or DVD±RW

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC256VB codec

Speakers**

^{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.

- Single speaker
- Single speaker, premium

Power Supply

Power Supply**

Power	Туре	Efficiency	Key Features
170W	Adapter	90%	100V - 240V
230W	Adapter	90%	100V - 240V

DESIGN

Mechanical

Form Factor

Tiny (1L)

Dimensions (WxDxH)

Models	Dimensions
Tiny only	179 x 182.9 x 37mm with rubber feet (7.05 x 7.2 x 1.5 inches with rubber feet)
Tiny & ODD	204.2 x 186.6 x 64 mm with rubber feet (8.04 x 7.35 x 2.52 inches with rubber feet)

Weight

Models	Weight	
Tiny only	1.4 kg (3 lbs, maximum configuration)	

Bays

No bays

M.2 Slots

• Two M.2 PCIe Gen 4x4 slots (for SSD)

One M.2 slot (for WLAN)

Expansion Slots

One PCIe 4.0 x8, low-profile

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN

Optional Ethernet

- Gigabit Ethernet, Intel I350-T2, 2x RJ-45, PCIe x4
- Gigabit Ethernet, Intel I350-T4, 4x RJ-45, PCIe x4
- 2.5 Gigabit Ethernet, Realtek RTL8125BGS, 1x RJ-45

WLAN + Bluetooth®**[1]

- AMD RZ616, Wi-Fi[®] 6E, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Realtek Wi-Fi 6 RTL8852BE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Intel Wi-Fi 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, 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 limitation

Ports^[1]

Front Ports

Lenovo

- 1x USB 3.2 Gen 2
- 1x USB 3.2 Gen 2 (Always On and 5V@2.1A charging)
- 1x USB-C 3.2 Gen 2
- 1x headphone / microphone combo jack (3.5mm)

Rear Ports^[2]

- 2x USB 3.2 Gen 1 (one supports Smart Power On)
- 2x USB 3.2 Gen 2
- 1x HDMI 2.1 TMDS
- 1x DisplayPort[™] 1.4
- 1x Ethernet (RJ-45)

Optional Rear Ports

- Punch out port 1 (one of VGA / DisplayPort / HDMI / serial / USB-C 3.2 Gen 1 with DisplayPort and PD 3.0 functions)
- 2x USB 3.2 Gen 1 (occupies port 1 and 2)
- 1x 2.5GbE RJ-45, via RTL8125BGS
- 2x GbE RJ-45, via I350-T2
- 4x GbE RJ-45, via I350-T4
- Punch out port 2 (one of VGA / DisplayPort / HDMI / serial / RJ-45)

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

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington[®] Security Slot, 3 x 7 mm

Chassis Intrusion Switch

Chassis intrusion switch

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Certificate based BIOS management
- Cover presence switch
- Self-healing BIOS
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

MANAGEABILITY

System Management

System Management**[1][2]

- Intel vPro Enterprise with Intel AMT 16.0
- Standard Manageability

Notes:

- 1. Intel vPro offers a superset of DASH's defined capabilities.
- 2. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty**[1]

- 1-year limited onsite service
- 2-year limited onsite service
- 3-year limited onsite service with 9x5 NBD (for most models)
- No base warranty

Notes:

1. More information 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

Green Certifications

- EPEAT[™] Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 9.0RoHS compliant
- Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

ISV Certifications

ISV Certifications

Please visit ISV certifications for Lenovo Workstations

- 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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