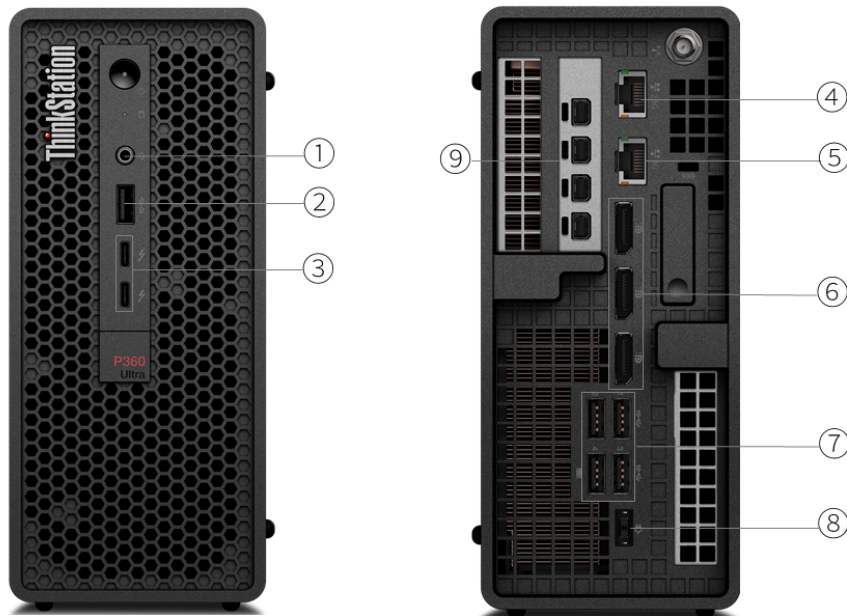


**OVERVIEW**



1. Headphone (3.5mm)	6. 3x DisplayPort
2. USB 3.2 Gen 2	7. 4x USB 3.2 Gen 2
3. 2x Thunderbolt 4	8. Power connector
4. Ethernet (2.5GbE RJ-45)	9. Optional ports on expansion cards *
5. Ethernet (GbE RJ-45)	

Notes:

- Ports with \* are only available on selected models

## PERFORMANCE

### Processor

#### Processor Family

12th Generation Intel® Core™ i3 / i5 / i7 / i9 processor, supports processors up to 16 cores; up to 5.2GHz; up to 125W TDP

#### 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 i3-12300	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 i5-12500	6 (6 P-core + 0 E-core)	12	P-core 3.0GHz	P-core 4.6GHz	18MB	DDR5-4800	Intel UHD Graphics 770
Core i5-12600K	10 (6 P-core + 4 E-core)	16	P-core 3.7GHz / E-core 2.8GHz	P-core 4.9GHz / E-core 3.6GHz	20MB	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 i7-12700K	12 (8 P-core + 4 E-core)	20	P-core 3.6GHz / E-core 2.7GHz	P-core 4.9GHz / E-core 3.8GHz	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 i9-12900K	16 (8 P-core + 8 E-core)	24	P-core 3.2GHz / E-core 2.4GHz	P-core 5.1GHz / E-core 3.9GHz	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 Pro 64
- 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

#### Discrete Graphics Support

Supports up to one NVIDIA® RTX A5000 Laptop GPU

#### Discrete Graphics Offering\*\*

Graphics	Memory	Power	Connector	SLI / NVlink
NVIDIA T400 4GB	4GB GDDR6	40W	3x 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 RTX A5000 Laptop GPU	16GB GDDR6	115W	4x miniDP 1.4a	None

## Monitor Support

### Monitor Support

Supports up to 8 independent displays, 4 via onboard ports (3x DP and 2x Thunderbolt™, simultaneously supports 4 display) and 4 via discrete graphics.

Onboard ports support (with max simultaneous displays):

- DP supports up to 4096x2160@60Hz
- Thunderbolt supports up to 5120x2880@60Hz

Discrete graphics ports support (with max simultaneous displays):

- miniDP supports up to 5120x2880@60Hz

## Chipset

### Chipset

Intel W680 chipset

## Memory

### Max Memory<sup>[1]</sup>

Up to 128GB DDR5-3600

### Memory Type<sup>\*\*[2]</sup>

- DDR5-3600 ECC
- DDR5-3600 non-ECC
- DDR5-4000 ECC
- DDR5-4000 non-ECC

### Memory Slots

Four DDR5 SO-DIMM 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.
2. ThinkStation® P360 Ultra comes with DDR5-4800 memory and will run at DDR5-4000 or DDR5-3600 due to platform limitation: 4x 32GB or four memory DIMMs with WIFI configuration runs at DDR5-3600; other configurations run at DDR5-4000

## Storage

### Storage Support<sup>[1]</sup>

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

- 2.5" HDD up to 1TB
- M.2 SSD up to 4TB each

### Storage Type<sup>\*\*\*</sup>

Disk Type	Interface	RPM	Offering	Security
2.5" SATA HDD	SATA 6Gb/s	7.2K	1TB / 1TB FIPS	-
M.2 2280 SSD	PCIe® NVMe®, PCIe 4.0 x4 Performance	-	512GB / 1TB / 2TB / 4TB	Opal2

### Storage Controllers<sup>\*\*\*</sup>

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

## Multi-Media

### Audio Chip

High Definition (HD) Audio, Realtek® ALC897-Q codec

### Speakers

Single speaker

## Power Supply

### Power Supply\*\*

Power	Type	Efficiency	Key Features
170W	Adapter	90%	100V - 240V
230W	Adapter	90%	100V - 240V
300W	Adapter	90%	100V - 240V

## DESIGN

### Mechanical

#### Form Factor

Mini-tower (3.9L)

#### Dimensions (WxDxH)

86 x 223 x 202 mm (3.4 x 8.7 x 7.9 inches)

#### Weight

3.6 kg (7.94 lbs, maximum configuration)

#### Bays

1x 2.5" disk bay (optional, comes with disk)

#### M.2 Slots

- Two M.2 PCIe Gen 4x4 slots (for SSD)
- One M.2 slot (for WLAN)

#### Expansion Slots

- One PCIe 4.0 x16
- One PCIe 3.0 x8 (x4 lanes)

## CONNECTIVITY

### Network

#### Onboard Ethernet

Two Ethernet, 2.5GbE + GbE, Intel Ethernet Connection I225-LM and I210-AT, 2x RJ-45, supports Wake-on-LAN

#### Optional Ethernet

Gigabit Ethernet, Intel I350-T2, 2x RJ-45, PCIe x4

#### WLAN + Bluetooth®\*\*<sup>[1]</sup>

- 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<sup>[1]</sup>

#### Front Ports

- 1x USB 3.2 Gen 2
- 2x Thunderbolt 4
- 1x headphone / microphone combo jack (3.5mm)

**Rear Ports**<sup>[2]</sup>

- 1x Ethernet (GbE RJ-45)
- 1x Ethernet (2.5GbE RJ-45)
- 4x USB 3.2 Gen 2
- 3x DisplayPort™ 1.2

**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
- UEFI Secure Boot
- Self-healing BIOS

## MANAGEABILITY

### System Management

**System Management**\*\*<sup>[1]</sup>

- Intel vPro Enterprise with Intel AMT 16.0
- Standard Manageability

**Notes:**

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

## SERVICE

### Warranty

**Base Warranty**\*\*<sup>[1]</sup>

- 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
- TCO Certified 9.0
- RoHS compliant

### Other Certifications

#### Mil-Spec Test

MIL-STD-810H military test in progress

### 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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