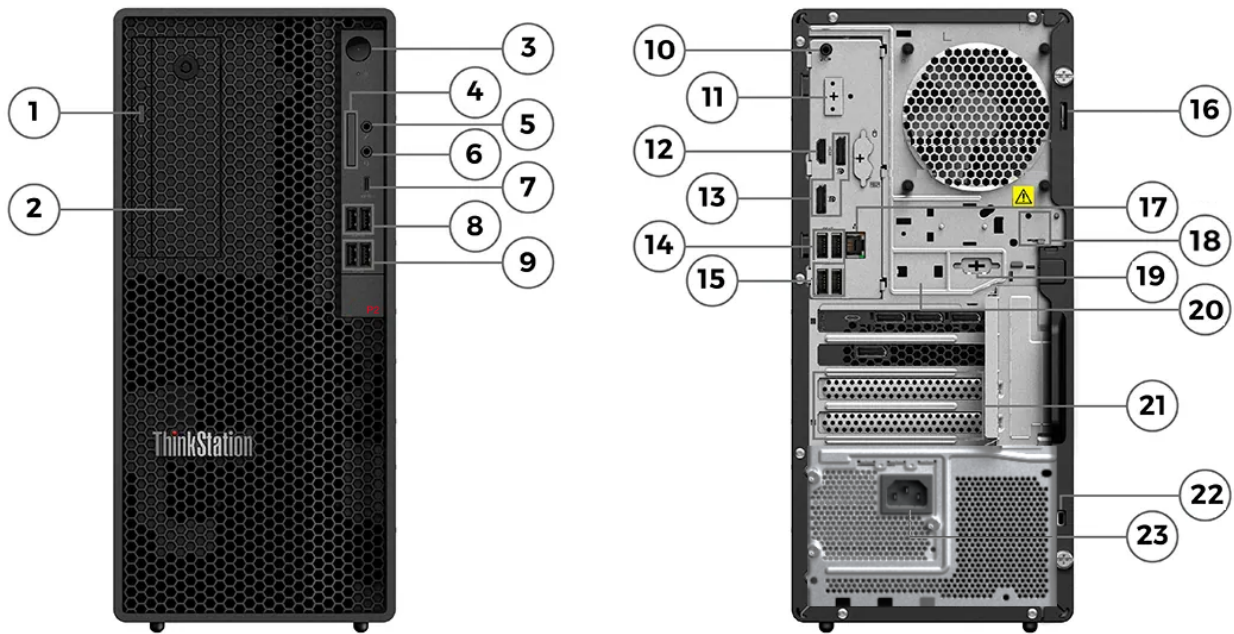


**OVERVIEW**



1. Optical drive *	13. 2x DisplayPort
2. Front access storage bay or 2nd HDD bay *	14. 2x USB-A (Hi-Speed USB)
3. Power button	15. 2x USB-A (USB 5Gbps), with Smart Power On
4. SD card reader *	16. Padlock loop
5. Microphone jack (3.5mm)	17. Ethernet (GbE RJ-45)
6. Headphone / microphone combo jack (3.5mm)	18. E-lock slot *
7. USB-C (USB 20Gbps), data transfer only	19. Serial (9-pin) *
8. 2x USB-A (USB 5Gbps)	20. Smart cable clip slots
9. 2x USB-A (USB 10Gbps)	21. Optional ports on expansion cards *
10. Audio line-out (3.5mm)	22. Kensington Security Slot
11. Flex IO *	23. Power-in
12. HDMI	

Notes:

- Items with \* are only available on selected models

**PERFORMANCE****Processor****Processor Family**

Up to one 125W Intel® Core™ Ultra (Series 2) processor; supports up to 24 cores; up to 5.7GHz

**Processor\*\*[1]**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics	NPU	Intel® vPro® Eligibility	Overall TOPS
Core Ultra 5 225	10 (6 P-core + 4 E-core)	10	P-core 3.3GHz / E-core 2.7GHz	Max Turbo up to 4.9GHz / P-core 4.9GHz / E-core 4.4GHz	22MB L2 Cache / 20MB Intel® Smart Cache	DDR5-6400	Intel® Graphics	-	-	-
Core Ultra 5 235	14 (6 P-core + 8 E-core)	14	P-core 3.4GHz / E-core 2.9GHz	Max Turbo up to 5.0GHz / P-core 5.0GHz / E-core 4.4GHz	26MB L2 Cache / 24MB Intel® Smart Cache	DDR5-6400	Intel® Graphics	-	Intel® vPro® Enterprise	-
Core Ultra 5 235A	14 (6 P-core + 8 E-core)	14	P-core 3.4GHz / E-core 2.9GHz	P-core 5.0GHz / E-core 4.4GHz	26MB L2 Cache / 24MB Intel® Smart Cache	DDR5-6400	Intel® Graphics	-	Intel® vPro® Enterprise	-
Core Ultra 5 245	14 (6 P-core + 8 E-core)	14	P-core 3.5GHz / E-core 3.0GHz	Max Turbo up to 5.1GHz / P-core 5.1GHz / E-core 4.5GHz	26MB L2 Cache / 24MB Intel® Smart Cache	DDR5-6400	Intel® Graphics	-	Intel® vPro® Enterprise	-
Core Ultra 5 245K	14 (6 P-core + 8 E-core)	14	P-core 4.2GHz / E-core 3.6GHz	Max Turbo up to 5.2GHz / P-core 5.2GHz / E-core 4.6GHz	26MB L2 Cache / 24MB Intel® Smart Cache	DDR5-6400	Intel® Graphics	-	Intel® vPro® Enterprise	-
Core Ultra 7 265	20 (8 P-core + 12 E-core)	20	P-core 2.4GHz / E-core 1.8GHz	Max Turbo up to 5.3GHz / P-core 5.2GHz / E-core 4.6GHz	36MB L2 Cache / 30MB Intel® Smart Cache	DDR5-6400	Intel® Graphics	-	Intel® vPro® Enterprise	-
Core Ultra 7 265K	20 (8 P-core + 12 E-core)	20	P-core 3.9GHz / E-core 3.3GHz	Max Turbo up to 5.5GHz / P-core 5.4GHz / E-core 4.6GHz	36MB L2 Cache / 30MB Intel® Smart Cache	DDR5-6400	Intel® Graphics	-	Intel® vPro® Enterprise	-
Core Ultra 9 285	24 (8 P-core + 16 E-core)	24	P-core 2.5GHz / E-core 1.9GHz	Max Turbo up to 5.6GHz / P-core 5.4GHz / E-core 4.6GHz	40MB L2 Cache / 36MB Intel® Smart Cache	DDR5-6400	Intel® Graphics, up to 8 TOPS	Intel® AI Boost, up to 13 TOPS	Intel® vPro® Enterprise	Up to 36 TOPS
Core Ultra 9 285K	24 (8 P-core + 16 E-core)	24	P-core 3.7GHz / E-core 3.2GHz	Max Turbo up to 5.7GHz / P-core 5.5GHz /	40MB L2 Cache / 36MB	DDR5-6400	Intel® Graphics	-	Intel® vPro® Enterprise	-

	core)			E-core 4.6GHz	Intel® Smart Cache					
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**Processor Sockets**

1x FCLGA1851

Notes:

[1] Intel® Max Turbo frequency will vary depending on application workload and the hardware and software configurations, see <http://www.intel.com/technology/turboboost/> for more information.

**AI (Artificial Intelligence)**

**AI PC Category<sup>[1]</sup>**

AI-Ready Workstations

Notes:

[1] With scalable configurations of higher-performance CPUs and professional NVIDIA® RTX GPUs, in addition to advantage of the same modern AI PC technology, AI-Ready workstation power the demanding AI consumption & development workflows.

**Operating System**

**Operating System\*\***

- Windows® 11 Pro
- Windows® 11 Home
- Windows® 11 Home Single Language
- Ubuntu Linux LTS
- Red Hat Enterprise Linux 10 (certified only, for detailed and latest information, please visit [Red Hat Certified Hardware](#))
- No preload operating system

**Graphics**

**Integrated Graphics**

Intel® Graphics

**Discrete Graphics Support<sup>[1]</sup>**

- Supports up to two NVIDIA® RTX 2000 Ada Generation
- Supports up to two NVIDIA® RTX PRO 2000 Blackwell

**Discrete Graphics Offering\*\*\***

Graphics	Memory	Power	Connector	Form Factor	SLI / NVLink
NVIDIA® RTX PRO 2000 Blackwell	16GB GDDR7 with ECC	70W	4x miniDP 2.1	Dual slot	-
NVIDIA® RTX 4000 Ada Generation	20GB GDDR6 with ECC	130W	4x DP 1.4a	Single slot	-
NVIDIA® RTX 2000 Ada Generation	16GB GDDR6 with ECC	70W	4x miniDP 1.4a	Dual slot	None
NVIDIA® RTX A1000	8GB GDDR6	50W	4x miniDP 1.4a	Single slot	None
NVIDIA® RTX A400	4GB GDDR6	50W	4x miniDP 1.4a	Single slot	None

Notes:

[1] Blackwell GPUs are already supported, and the exact orderability timeframe is under confirmation and may be slightly later.

**Monitor Support**

**Monitor Support**

Supports up to 12 independent displays:

- 3 by onboard ports: 2x DP, 1x HDMI®, standard
- 1 by Flex IO port: one of DP / HDMI® / USB-C® / VGA, optional
- 8 by two discrete graphics, optional

**Chipset**

**Chipset**

Intel® W880 chipset

**Memory**

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

Up to 128GB (4x 32GB DDR5 UDIMM)

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

DDR5-5600 UDIMM, ECC or non-ECC, maximum transfer speeds of up to 5600 MT/s

**Memory Slots**

Four DDR5 UDIMM slots, dual-channel capable

**Memory Protection**

ECC on models with ECC DIMMs

Notes:

- [1] The max memory is based on the test results with current Lenovo® memory offerings.
- [2] System comes with DDR5-5600 UDIMM memory and will run at lower speed due to platform limitations:  
1x 8GB / 2x 8GB / 1x 16GB / 2x 16GB / 1x 32GB / 2x 32GB configurations run at 5600 MT/s;  
4x 8GB / 4x 16GB configurations run at 4800 MT/s;  
4x 32GB configuration run at 4400 MT/s.

**Storage**

**Max Storage Support**<sup>[1][2]</sup>

Up to 2x 3.5" SATA HDD; also supports up to 4x M.2 SSD (3 by onboard, 1 by M.2 to PCIe® adapter)

- 3.5" HDD up to 4TB each
- Onboard M.2 SSD up to 4TB each
- M.2 SSD by M.2 to PCIe® adapter up to 4TB<sup>[3]</sup>

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

Disk Type	Interface	RPM	Offering	Security
3.5" SATA HDD for disk bays and front access bay <sup>[4]</sup>	SATA 6Gb/s	7.2K	2TB / 4TB / 6TB	-
M.2 SSD for 1x M.2 PCIe® 3.0 slot (by Single M.2 to PCIe® Adapter) <sup>[5]</sup>	NVMe®, PCIe® 4.0 x4	-	Gen 4 Performance SSD: 512GB / 1TB / 2TB / 4TB Gen 4 SSD: 256GB	Opal 2.0
M.2 SSD for 1x onboard M.2 PCIe® 5.0 slot <sup>[6]</sup>	NVMe®, PCIe® 4.0 x4	-	Gen 4 Performance SSD: 512GB / 1TB / 2TB / 4TB Gen 4 SSD: 256GB	Opal 2.0
M.2 SSD for 2x onboard M.2 PCIe® 4.0 slots	NVMe®, PCIe® 4.0 x4	-	Gen 4 Performance SSD: 512GB / 1TB / 2TB / 4TB Gen 4 SSD: 256GB	Opal 2.0

**Storage Controllers**

Storage Controller	Type	Interface	RAID	Cache
Integrated SATA controller	Standard	SATA 6.0Gb/s	0/1	None
Integrated NVMe® controller	Standard	PCIe® NVMe®	0/1/5	None

Notes:

- [1] The storage capacity supported is based on the test results with current Lenovo® storage offerings.
- [2] For certain post-manufacturing storage upgrades, additional upgrade kits may be required.
- [3] In addition to 2x 3.5" bays, an optional 2.5" bay is supported. 2.5" drive is for customer-own configuration. None of configurable 2.5" drive options are provided.
- [4] 6TB 3.5" HDD is for special bids only.
- [5] M.2 slot supports PCIe® 3.0, Gen 4 SSDs will run on PCIe® 3.0.
- [6] M.2 slot supports PCIe® 5.0, currently optional M.2 SSD support PCIe® 4.0.

**Removable Storage**

**Optical Support**

Optional one 9.0mm optical drive, DVD-ROM, DVD±RW, and Blu-ray

**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
500W	Fixed	92%	Autosensing, 80 PLUS Platinum qualified
750W	Fixed	92%	Autosensing, 80 PLUS Platinum qualified

**DESIGN****Mechanical<sup>[1]</sup>****Form Factor**

Tower (17L)

**Dimensions (WxDxH)<sup>[2]</sup>**

170 x 315.35 x 376 mm (6.7 x 12.4 x 14.8 inches, with feet)

**Weight<sup>[3]</sup>**

9.67 kg (21.32 lbs, maximum configuration)

**Bays**

Three internal disk bays, up to two 3.5" bays plus one 2.5" bay:

- Bay 1 supports one 3.5" HDD, standard; or one 2.5" HDD / SSD, optional
- Bay 2 supports one 3.5" HDD or 2.5" HDD / SSD, optional
- Bay 3 supports one 2.5" HDD / SSD, optional
- Front Access HDD Bay supports one 3.5" HDD or 2.5" HDD / SSD, optional, occupies Bay 2 location<sup>[4]</sup>

**M.2 Slots**

- One M.2 slot (for WLAN)
- Up to 4x M.2 slots for M.2 SSD:
  - 2 onboard M.2 PCIe® 4.0 slots
  - 1 onboard M.2 PCIe® 5.0 slot
  - 1 via Single M.2 to PCIe® adapter, running on PCIe® 3.0 protocol<sup>[5]</sup>

**Expansion Slots**

Supports four PCIe® slots with one PCIe® 5.0 x16, one PCIe® 4.0 x16, and two PCIe® 3.0 x1.

- Slot 1: PCIe® 5.0 x16, full height, length ≤ 268mm, 75W, double-width
- Slot 2: PCIe® 3.0 x1, full height, half length, 25W, open-ended
- Slot 3: PCIe® 4.0 x16 (x4 lanes), full height, half length, 25W
- Slot 4: PCIe® 3.0 x1, full height, half length, 25W, open-ended

**EOU**

Tool-less design for side cover, memory, 3.5" HDD, optical, PCIe® card assembly / removal

**Notes:**

[1] The actual data transfer rate of the following PCIe® interface also depends on the capabilities of the connected PCIe® device. The listed values represent theoretical maximums.

PCIe® 3.0 (x1 / x2 / x4 / x8 / x16): 1 GB/s ( 8 Gbps) / 2 GB/s (16 Gbps) / 4 GB/s (32 Gbps) / 8 GB/s (64 Gbps) / 16 GB/s (128 Gbps);

PCIe® 4.0 (x1 / x2 / x4 / x8 / x16): 2 GB/s (16 Gbps) / 4 GB/s (32 Gbps) / 8 GB/s (64 Gbps) / 16 GB/s (128 Gbps) / 32 GB/s (256 Gbps);

PCIe® 5.0 (x1 / x2 / x4 / x8 / x16): 4 GB/s (32 Gbps) / 8 GB/s (64 Gbps) / 16 GB/s (128 Gbps) / 32 GB/s (256 Gbps) / 64 GB/s (512 Gbps).

[2] The system dimensions may vary depending on configurations.

[3] 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.

[4] 3.5" bay and Front Access HDD Bay need optional 3.5" to 2.5" HDD bracket kit to support 2.5" drive. 2.5" drive is for customer-own configuration. None of configurable 2.5" drive options are provided.

[5] M.2 slot is PCIe® 5.0 compatible, and currently M.2 PCIe® 4.0 SSD is offered.

## CONNECTIVITY

### Network

#### WLAN + Bluetooth<sup>[1]</sup>

- Intel® Wi-Fi® 7 BE200, 802.11be 2x2 Wi-Fi® + Bluetooth® 5.4, Intel® vPro® technology support
- No WLAN and Bluetooth®

#### Onboard Ethernet

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

#### Optional Ethernet

Up to two additional PCIe® x1 Ethernet adapters; or one PCIe® x4 plus one PCIe® x1 Ethernet adapter, up to five additional GbE ports

- Gigabit Ethernet, Intel® I210-T1, 1x RJ-45, PCIe® x1
- Gigabit Ethernet, Intel® I350-T4, 4x RJ-45, PCIe® x4
- 2.5 Gigabit Ethernet, Realtek® RTL8125BGS, 1x RJ-45, PCIe® x1

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<sup>[1]</sup>

#### Front Ports

- 1x USB-C® (USB 20Gbps / USB 3.2 Gen 2x2), data transfer only
- 2x USB-A (USB 5Gbps / USB 3.2 Gen 1)
- 2x USB-A (USB 10Gbps / USB 3.2 Gen 2)
- 1x headphone / microphone combo jack (3.5mm)
- 1x microphone (3.5mm)

#### Optional Front Ports

1x SD card reader

#### Rear Ports

- 2x USB-A (Hi-Speed USB / USB 2.0)
- 2x USB-A (USB 5Gbps / USB 3.2 Gen 1), one supports Smart Power On
- 1x HDMI® 2.1 TMDS
- 2x DisplayPort™ 1.4
- 1x Ethernet (GbE RJ-45)
- 1x line-out (3.5mm)

#### Optional Rear Ports

- 1x USB-C® (USB 5Gbps / USB 3.2 Gen 1), with DisplayPort™ function (Flex IO)
- 1x HDMI® 2.1 TMDS (Flex IO)
- 1x DP 1.2 (Flex IO)
- 1x VGA (Flex IO)
- 1x parallel (via cable and PCIe® bracket)
- 1x USB-C® (USB 20Gbps / USB 3.2 Gen 2x2), support data transfer, via PCIe® x4 card
- 2x USB-A (Hi-Speed USB / USB 2.0), via cable and PCIe® bracket
- 2x USB-A (USB 5Gbps / USB 3.2 Gen 1), via additional PCIe® x1 adapter
- 1x serial (via cable)
- 4x serial (via 4-port serial expansion card, PCIe® x1)



## OPERATING REQUIREMENTS

### 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)

#### Relative Humidity

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

## ENVIRONMENTAL

### Sustainability

#### Material<sup>[1]</sup>

- 85% PCC ABS bezel
- 95% PCC ABS wired USB keyboard/mouse top/bottom cover
- 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<sup>[1]</sup>

#### Green Certifications

- (Optional) ENERGY STAR® 9.0
- (Optional) EPEAT™ Gold Registered
- RoHS compliant
- TCO Certified, generation 10

#### 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>.

### ISV Certifications

#### ISV Certifications

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

- 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.
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