

PERFORMANCE

Processor

Processor Family

Up to one Intel® Xeon®, Core™ i9, i7, i5, or i3 processor

Processor

| Processor Name | Cores | Threads | Base Frequency | Max Frequency | Cache | Memory Support | Processor Graphics |
|----------------|-------|---------|----------------|---------------|-------|----------------|-------------------------|
| Core i3-10100 | 4 | 8 | 3.6GHz | 4.3GHz | 6MB | DDR4-2666 | Intel UHD Graphics 630 |
| Core i3-10300 | 4 | 8 | 3.7GHz | 4.4GHz | 8MB | DDR4-2666 | Intel UHD Graphics 630 |
| Core i3-10320 | 4 | 8 | 3.8GHz | 4.6GHz | 8MB | DDR4-2666 | Intel UHD Graphics 630 |
| Core i5-10400 | 6 | 12 | 2.9GHz | 4.3GHz | 12MB | DDR4-2666 | Intel UHD Graphics 630 |
| Core i5-10500 | 6 | 12 | 3.1GHz | 4.5GHz | 12MB | DDR4-2666 | Intel UHD Graphics 630 |
| Core i5-10600 | 6 | 12 | 3.3GHz | 4.8GHz | 12MB | DDR4-2666 | Intel UHD Graphics 630 |
| Core i5-10600K | 6 | 12 | 4.1GHz | 4.8GHz | 12MB | DDR4-2666 | Intel UHD Graphics 630 |
| Core i7-10700 | 8 | 16 | 2.9GHz | 4.8GHz | 16MB | DDR4-2933 | Intel UHD Graphics 630 |
| Core i7-10700K | 8 | 16 | 3.8GHz | 5.1GHz | 16MB | DDR4-2933 | Intel UHD Graphics 630 |
| Core i9-10900 | 10 | 20 | 2.8GHz | 5.2GHz | 20MB | DDR4-2933 | Intel UHD Graphics 630 |
| Core i9-10900K | 10 | 20 | 3.7GHz | 5.3GHz | 20MB | DDR4-2933 | Intel UHD Graphics 630 |
| Xeon W-1250 | 6 | 12 | 3.3GHz | 4.7GHz | 12MB | DDR4-2666 | Intel UHD Graphics P630 |
| Xeon W-1250P | 6 | 12 | 4.1GHz | 4.8GHz | 12MB | DDR4-2666 | Intel UHD Graphics P630 |
| Xeon W-1270 | 8 | 16 | 3.4GHz | 5.0GHz | 16MB | DDR4-2933 | Intel UHD Graphics P630 |
| Xeon W-1270P | 8 | 16 | 3.8GHz | 5.1GHz | 16MB | DDR4-2933 | Intel UHD Graphics P630 |
| Xeon W-1290 | 10 | 20 | 3.2GHz | 5.2GHz | 20MB | DDR4-2933 | Intel UHD Graphics P630 |
| Xeon W-1290P | 10 | 20 | 3.7GHz | 5.3GHz | 20MB | DDR4-2933 | Intel UHD Graphics P630 |

Processor Sockets

1x FCLGA1200

Operating System

Operating System

- Windows® 10 Pro 64
- Windows 10 Pro 64 for Workstations
- Ubuntu Linux LTS
- No operating system

Graphics

Integrated Graphics

- Intel UHD Graphics 630
- Intel UHD Graphics P630

Discrete Graphics Support

Supports up to one NVIDIA® Quadro® RTX 5000, or two NVIDIA Quadro P2200, 500W PSU is needed

Discrete Graphics Offering

| Graphics | Memory | Power | Connector | SLI / NVlink |
|-----------------|------------|-------|-----------------------|--------------|
| Quadro P400 | 2GB GDDR5 | 30W | 3x miniDP | None |
| Quadro P620 | 2GB GDDR5 | 40W | 4x miniDP | None |
| Quadro P1000 | 4GB GDDR5 | 50W | 4x miniDP | None |
| Quadro P2200 | 5GB GDDR5 | 75W | 4x DP | None |
| Quadro RTX 4000 | 8GB GDDR6 | 160W | 3x DP, 1x VirtualLink | None |
| Quadro RTX 5000 | 16GB GDDR6 | 265W | 4x DP, 1x VirtualLink | None |

Monitor Support

Monitor Support

Supports multiple displays via onboard video ports and discrete graphics

Chipset

Chipset

Intel W480 chipset

Memory

Memory Type

- DDR4-2933 UDIMM ECC
- DDR4-2933 UDIMM non-ECC

Memory Slots

Four DDR4 UDIMM slots, dual-channel capable

Memory Protection

ECC on models with ECC DIMMs and Xeon processor

Max Memory^[1]

Up to 128GB DDR4-2933

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

Up to 2x 3.5" SATA HDD / 4x 2.5" SATA HDD / SSD + 4x M.2 PCIe SSD

- 3.5" HDD up to 4TB each
- 2.5" SATA HDD up to 1TB each
- 2.5" SATA SSD up to 1TB each
- M.2 PCIe SSD up to 2TB each
- Optional Intel Optane™ Memory

Storage Controllers

| Storage Controller | Type | Interface | RAID | Cache |
|-----------------------------|----------|--------------|----------|-------|
| Onboard Intel RST SATA RAID | Standard | SATA 6.0Gb/s | 0/1/10/5 | None |
| Onboard Intel RST PCIe RAID | Standard | PCIe NVMe | 0/1 | None |

Storage Type

| Disk Type | Interface | RPM | Offering |
|---------------------|------------|------|---------------------|
| 3.5" SATA HDD | SATA 6Gb/s | 7.2K | 1TB/2TB/4TB/6TB |
| 2.5" SATA HDD | SATA 6Gb/s | 7.2K | 1TB FIPS |
| 2.5" SATA SSD | SATA 6Gb/s | - | 512GB/1TB |
| M.2 PCIe SSD | PCIe NVMe | - | 256GB/512GB/1TB/2TB |
| Intel Optane Memory | PCIe NVMe | - | - |

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

ThinkStation P340 Tower

High Definition (HD) Audio, Realtek® ALC623 codec

Power Supply

PowerSupply

| Power | Type | Efficiency | Key Features |
|-------|-------|------------|---|
| 300W | Fixed | 90% | 100V - 240V, 80 PLUS Gold qualified |
| 500W | Fixed | 92% | 100V - 240V, 80 PLUS Platinum qualified |

DESIGN

Mechanical

Form Factor

Tower (17L)

Dimensions (WxDxH)

170 x 315.35 x 376 mm (6.7 x 12.4 x 14.8 inches)

Weight

9.38 kg (20.68 lbs, maximum configuration)

Bays

- 1x 3.5" disk bay (standard)
- 1x 3.5" disk bay (optional, via Flex bay)
- 2x 2.5" disk bay (optional, comes with disk or optional upgrade kit)

M.2 Slots

Up to 4x M.2 SSD:

- 2 via onboard slots
- 2 via Single M.2 to PCIe adapter

Expansion Slots

- Two PCIe 3.0 x16
- One PCIe 3.0 x1

Expansion Slots Offering

Slot 1: PCIe 3.0 x16, full height, full length, links to CPU

Slot 2: PCIe 3.0 x1, full height, full length, links to PCH

Slot 3: PCIe 3.0 x16 (negotiable link width x4), full height, full length, links to PCH

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-LM, 1x RJ45, supports Wake-on-LAN

Optional Ethernet

Additional Ethernet options via PCIe adapter

WLAN + Bluetooth™

- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 Card
- No WLAN and Bluetooth

Ports

Front Ports^[1]

- 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]

- 2x USB 2.0

- 2x USB 3.2 Gen 1
- 1x serial (9-pin)
- 1x Ethernet (RJ-45)
- 1x line-out (3.5mm)
- 2x DisplayPort™

Optional Rear Ports

- 2x USB 2.0
- 2x USB-C 3.2 Gen 2 (via 2-port USB-C expansion card)
- 1x video (DisplayPort, HDMI®, or USB-C)
- 1x Thunderbolt™
- 2x USB 3.2 Gen 1 (via 2-port USB expansion card, PCIe x1)
- 1x serial
- 4x serial (via 4-port serial expansion card, PCIe x1)
- 1x parallel
- 2x PS/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: 40 Gbit/s;
FireWire 400: 400 Mbit/s;
FireWire 800: 800 Mbit/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

- (Optional) E-lock
- (Optional) Cable lock
- Kensington® Security Slot
- Padlock Loop

Chassis Intrusion Switch

- Chassis intrusion switch
- No chassis intrusion switch

BIOS Security

- Power-on password
- Administrator password

MANAGEABILITY

System Management

SystemManagement

- Intel vPro with Intel AMT 14 (vPro-enable processor and WiFi needed)
- Standard Manageability

SERVICE

Warranty

Base Warranty

- 1-year limited onsite service
- 2-year limited onsite service

- 3-year limited onsite service

ENVIRONMENTAL

Environmental Specifications

Temperature

Operating: 10° C to 35° C (50° F to 95° F)
Storage: -40°C to 60°C (-40°F to 140°F) in original shipping carton
Storage: -10°C to 60°C (14°F to 140°F) without carton

Altitude

Operating: -15.2m to 3048m (-50ft to 10000ft)
Storage: -15.2m to 10668m (-50ft to 35000ft)

Humidity

Relative Humidity Operating: 10% to 80% (non-condensing)
Relative Humidity Storage/Transit: 10% to 90% (non-condensing)
Wet Bulb Temperature Operating: 25°C (77°F) max
Wet Bulb Temperature Non-operating: 40°C (104°F) max

CERTIFICATIONS

Green Certifications

Green Certifications

- EPEAT™ Silver
- ENERGY STAR® 8.0
- RoHS compliant

ISV Certifications

ISV Certifications

Please visit www.thinkworkstations.com/isv-certifications/

