**OVERVIEW**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Power button</td>
</tr>
<tr>
<td>2.</td>
<td>Headphone / microphone combo jack (3.5mm)</td>
</tr>
<tr>
<td>3.</td>
<td>USB 3.2 Gen 2</td>
</tr>
<tr>
<td>4.</td>
<td>USB 3.2 Gen 2</td>
</tr>
<tr>
<td>5.</td>
<td>USB-C 3.2 Gen 2</td>
</tr>
<tr>
<td>6.</td>
<td>USB-C 3.2 Gen 2</td>
</tr>
<tr>
<td>7.</td>
<td>3x Audio ports (3.5mm)</td>
</tr>
<tr>
<td>8.</td>
<td>Serial *</td>
</tr>
<tr>
<td>9.</td>
<td>2x PS/2 ports (keyboard / mouse)</td>
</tr>
<tr>
<td>10.</td>
<td>2x USB 2.0</td>
</tr>
<tr>
<td>11.</td>
<td>4x USB 3.2 Gen 2</td>
</tr>
<tr>
<td>12.</td>
<td>Ethernet (10GbE RJ-45)</td>
</tr>
</tbody>
</table>

**Notes:**
- Ports with * are only available on selected models
**PERFORMANCE**

**Processor**

**Processor Family**
Up to one AMD Ryzen™ Threadripper PRO 5000 or 3000 Series Processor

**Processor**

<table>
<thead>
<tr>
<th>Processor Name</th>
<th>Cores</th>
<th>Threads</th>
<th>Base Frequency</th>
<th>Max Frequency</th>
<th>Cache</th>
<th>Memory Support</th>
<th>Processor Graphics</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMD Ryzen Threadripper PRO 5945WX</td>
<td>12</td>
<td>24</td>
<td>4.1GHz</td>
<td>4.5GHz</td>
<td>6MB L2 / 64MB L3</td>
<td>DDR4-3200</td>
<td>-</td>
</tr>
<tr>
<td>AMD Ryzen Threadripper PRO 5955WX</td>
<td>16</td>
<td>32</td>
<td>4.0GHz</td>
<td>4.5GHz</td>
<td>8MB L2 / 64MB L3</td>
<td>DDR4-3200</td>
<td>-</td>
</tr>
<tr>
<td>AMD Ryzen Threadripper PRO 5965WX</td>
<td>24</td>
<td>48</td>
<td>3.8GHz</td>
<td>4.5GHz</td>
<td>12MB L2 / 128MB L3</td>
<td>DDR4-3200</td>
<td>-</td>
</tr>
<tr>
<td>AMD Ryzen Threadripper PRO 5975WX</td>
<td>32</td>
<td>64</td>
<td>3.6GHz</td>
<td>4.5GHz</td>
<td>16MB L2 / 128MB L3</td>
<td>DDR4-3200</td>
<td>-</td>
</tr>
<tr>
<td>AMD Ryzen Threadripper PRO 5995WX</td>
<td>64</td>
<td>128</td>
<td>2.7GHz</td>
<td>4.5GHz</td>
<td>32MB L2 / 256MB L3</td>
<td>DDR4-3200</td>
<td>-</td>
</tr>
<tr>
<td>AMD Ryzen Threadripper PRO 3945WX</td>
<td>12</td>
<td>24</td>
<td>4.0GHz</td>
<td>4.3GHz</td>
<td>6MB L2 / 64MB L3</td>
<td>DDR4-3200</td>
<td>-</td>
</tr>
<tr>
<td>AMD Ryzen Threadripper PRO 3955WX</td>
<td>16</td>
<td>32</td>
<td>3.9GHz</td>
<td>4.3GHz</td>
<td>8MB L2 / 64MB L3</td>
<td>DDR4-3200</td>
<td>-</td>
</tr>
<tr>
<td>AMD Ryzen Threadripper PRO 3975WX</td>
<td>32</td>
<td>64</td>
<td>3.5GHz</td>
<td>4.2GHz</td>
<td>16MB L2 / 128MB L3</td>
<td>DDR4-3200</td>
<td>-</td>
</tr>
<tr>
<td>AMD Ryzen Threadripper PRO 3995WX</td>
<td>64</td>
<td>128</td>
<td>2.7GHz</td>
<td>4.2GHz</td>
<td>32MB L2 / 256MB L3</td>
<td>DDR4-3200</td>
<td>-</td>
</tr>
</tbody>
</table>

**Processor Sockets**
1x Socket SP3

**Operating System**

**Operating System**

- Windows® 11 Pro 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Ubuntu Linux LTS
- Red Hat Enterprise Linux 8.5 (certified only, for detailed and latest information, please visit [Red Hat Certified Hardware](#))
- No operating system

**Graphics**

**Discrete Graphics Support**

Supports up to two NVIDIA® Quadro® RTX 8000 with NVLink, two NVIDIA RTX A6000 with NVLink, or two AMD Radeon™ PRO W6800

**Discrete Graphics Offering**

<table>
<thead>
<tr>
<th>Graphics</th>
<th>Memory</th>
<th>Power</th>
<th>Connector</th>
<th>SLI / NVLink</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quadro P620</td>
<td>2GB GDDR5</td>
<td>40W</td>
<td>4x miniDP 1.4</td>
<td>None</td>
</tr>
<tr>
<td>Quadro P1000</td>
<td>4GB GDDR5</td>
<td>50W</td>
<td>4x miniDP 1.4</td>
<td>None</td>
</tr>
<tr>
<td>Quadro P2200</td>
<td>5GB GDDR5</td>
<td>75W</td>
<td>4x DP 1.4</td>
<td>None</td>
</tr>
<tr>
<td>NVIDIA T400 4GB</td>
<td>4GB GDDR6</td>
<td>40W</td>
<td>3x miniDP 1.4</td>
<td>None</td>
</tr>
<tr>
<td>NVIDIA T600</td>
<td>4GB GDDR6</td>
<td>40W</td>
<td>4x miniDP 1.4</td>
<td>None</td>
</tr>
<tr>
<td>NVIDIA T1000</td>
<td>4GB GDDR6</td>
<td>50W</td>
<td>4x miniDP 1.4</td>
<td>None</td>
</tr>
<tr>
<td>NVIDIA T1000 8GB</td>
<td>8GB GDDR6</td>
<td>50W</td>
<td>4x miniDP 1.4</td>
<td>None</td>
</tr>
<tr>
<td>------------------</td>
<td>----------</td>
<td>-----</td>
<td>--------------</td>
<td>------</td>
</tr>
<tr>
<td>Quadro RTX 4000</td>
<td>8GB GDDR6</td>
<td>160W</td>
<td>3x DP 1.4, 1x VirtualLink</td>
<td>None</td>
</tr>
<tr>
<td>Quadro RTX 5000</td>
<td>16GB GDDR6</td>
<td>265W</td>
<td>4x DP 1.4, 1x VirtualLink</td>
<td>NVLink</td>
</tr>
<tr>
<td>Quadro RTX 6000</td>
<td>24GB GDDR6</td>
<td>295W</td>
<td>4x DP 1.4, 1x VirtualLink</td>
<td>NVLink</td>
</tr>
<tr>
<td>Quadro RTX 8000</td>
<td>48GB GDDR6</td>
<td>295W</td>
<td>4x DP 1.4, 1x VirtualLink</td>
<td>NVLink</td>
</tr>
<tr>
<td>NVIDIA RTX A2000 12GB</td>
<td>12GB GDDR6</td>
<td>70W</td>
<td>4x miniDP 1.4a</td>
<td>None</td>
</tr>
<tr>
<td>NVIDIA RTX A4000</td>
<td>16GB GDDR6 with ECC</td>
<td>140W</td>
<td>4x DP 1.4a</td>
<td>None</td>
</tr>
<tr>
<td>NVIDIA RTX A4500</td>
<td>20GB GDDR6 with ECC</td>
<td>200W</td>
<td>4x DP 1.4</td>
<td>NVLink</td>
</tr>
<tr>
<td>NVIDIA RTX A5000</td>
<td>24GB GDDR6 with ECC</td>
<td>230W</td>
<td>4x DP 1.4a</td>
<td>NVLink</td>
</tr>
<tr>
<td>NVIDIA RTX A5500</td>
<td>24GB GDDR6 with ECC</td>
<td>230W</td>
<td>4x DP 1.4a</td>
<td>NVLink</td>
</tr>
<tr>
<td>NVIDIA RTX A6000</td>
<td>48GB GDDR6 with ECC</td>
<td>300W</td>
<td>4x DP 1.4a</td>
<td>NVLink</td>
</tr>
<tr>
<td>Quadro GV100</td>
<td>32GB HBM2</td>
<td>250W</td>
<td>4x DP 1.4</td>
<td>NVLink</td>
</tr>
<tr>
<td>AMD Radeon Pro WX 3200</td>
<td>4GB GDDR5</td>
<td>50W</td>
<td>4x miniDP 1.4</td>
<td>-</td>
</tr>
<tr>
<td>AMD Radeon Pro W5500</td>
<td>8GB GDDR6</td>
<td>125W</td>
<td>4x DP 1.4</td>
<td>-</td>
</tr>
<tr>
<td>AMD Radeon Pro W5700</td>
<td>8GB GDDR6</td>
<td>205W</td>
<td>5x miniDP 1.4, 1x USB-C®</td>
<td>-</td>
</tr>
<tr>
<td>AMD Radeon PRO W6400</td>
<td>4GB GDDR6</td>
<td>50W</td>
<td>2x DP 1.4</td>
<td>-</td>
</tr>
<tr>
<td>AMD Radeon PRO W6600</td>
<td>8GB GDDR6</td>
<td>130W</td>
<td>4x DP 1.4</td>
<td>-</td>
</tr>
<tr>
<td>AMD Radeon PRO W6800</td>
<td>32GB GDDR6 with ECC</td>
<td>250W</td>
<td>6x miniDP 1.4a</td>
<td>-</td>
</tr>
<tr>
<td>AMD Radeon Pro VII</td>
<td>16GB HBM2</td>
<td>250W</td>
<td>6x DP 1.4</td>
<td>-</td>
</tr>
</tbody>
</table>

**Monitor Support**

Monitor Support
Supports multiple displays via discrete graphics, the number of maximum monitors supported depends on the graphic card in use

**Chipset**

Chipset
AMD WRX80

**Memory**

Max Memory[^32]
Up to 1TB (8x 128GB DDR4-3200 RDIMMs)

Memory Type
DDR4-3200 RDIMM ECC

Memory Slots
8 DDR4 DIMM slots, 8 channels capable

Memory Protection
ECC

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. System memory temporarily supports up to 512GB (8x 64GB or 4x 128GB) with AMD Ryzen Threadripper Pro 5000 series processors.

**Storage**

Storage Support[^3]
Up to 5x 3.5" SATA HDD + 11x M.2 SSD
- 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 2TB

Storage Type[^**][^2]

[^3]: Lenovo
does not support 32GB or 64GB memory modules.
[^32]: The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.
[^3]: Lenovo
does not support 32GB or 64GB memory modules.
[^**][^2]: Lenovo
does not support 32GB or 64GB memory modules.
<table>
<thead>
<tr>
<th>Disk Type</th>
<th>Interface</th>
<th>RPM</th>
<th>Offering</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.5&quot; SATA HDD</td>
<td>SATA 6Gb/s</td>
<td>7.2K</td>
<td>1TB / 2TB / 4TB</td>
</tr>
<tr>
<td>M.2 PCIe SSD</td>
<td>PCIe NVMe*, PCIe 3.0</td>
<td>-</td>
<td>256GB / 512GB / 1TB / 2TB</td>
</tr>
<tr>
<td>M.2 PCIe SSD</td>
<td>PCIe NVMe, PCIe 4.0</td>
<td>-</td>
<td>256GB / 512GB / 1TB / 2TB / 4TB</td>
</tr>
</tbody>
</table>

### Storage Controllers

<table>
<thead>
<tr>
<th>Storage Controller</th>
<th>Type</th>
<th>Interface</th>
<th>RAID</th>
<th>Cache</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrated NVMe controller</td>
<td>Standard</td>
<td>PCIe NVMe</td>
<td>0/1/10/5</td>
<td>None</td>
</tr>
<tr>
<td>Integrated SATA controller</td>
<td>Standard</td>
<td>SATA 6.0Gb/s</td>
<td>0/1/10/5</td>
<td>None</td>
</tr>
</tbody>
</table>

**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. 4TB M.2 SSD is for onboard M.2 slots only

### Removable Storage

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

**Card Reader**
- 15-in-1 card reader
- No card reader

### Multi-Media

**Audio Chip**
High Definition (HD) Audio, Realtek® ALC4050H codec

**Speakers**
Single speaker

### Power Supply

**Power Supply**

<table>
<thead>
<tr>
<th>Power</th>
<th>Type</th>
<th>Efficiency</th>
<th>Key Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>1000W</td>
<td>Fixed</td>
<td>92%</td>
<td>Autosensing, 80 PLUS Platinum qualified</td>
</tr>
</tbody>
</table>

### DESIGN

**Form Factor**
Tower (33L)

**Dimensions (WxDxH)**
165 x 460 x 446 mm (6.5 x 18.1 x 17.6 inches, with feet)

**Weight**
24 kg (52.91 lbs, maximum configuration)

**Bays**
- 2x 3.5" disk bay (standard)
- 3x 3.5" disk bay (optional):
  - 2 bays come with 3rd disk or Storage Bay Upgrade Kit
  - 1 bay via flex bay

**Flex Bays**
1x flex bay, supports one of the following:
- Front Access Storage Enclosure
- 5.25" Slim ODD and HDD cage

**M.2 Slots**
Up to 11x M.2 SSD:
• 2 via onboard slots
• 8 via Quad M.2 to PCIe adapters (only supports PCIe 3.0 SSD)
• 1 via Single M.2 to PCIe adapter (only supports PCIe 3.0 SSD)

**Expansion Slots**
- Two PCIe 4.0 x8
- Four PCIe 4.0 x16

**Expansion Slots Offering**
- Slot 1: PCIe 4.0 x16, full height, full length, by CPU
- Slot 2: PCIe 4.0 x8, full height, full length, by CPU
- Slot 3: PCIe 4.0 x16, full height, full length, by CPU
- Slot 4: PCIe 4.0 x16, full height, full length, by CPU
- Slot 5: PCIe 4.0 x16, full height, full length, by CPU
- Slot 6: PCIe 4.0 x8, full height, full length, by IOH

---

**CONNECTIVITY**

**Network**

**Onboard Ethernet**
10 GbE Ethernet, Marvell AQtion AQN-107, 1x 10GbE RJ-45

**Optional Ethernet**
One additional Ethernet adapter support, up to two additional 10 GbE ports
- Gigabit Ethernet, Intel® I350-T4, 4x RJ-45, PCIe x4
- Gigabit Ethernet, Intel X550-T2, 2x RJ-45, PCIe x4
- Gigabit Ethernet, Broadcom BCM5719, 4x RJ-45, PCIe x4
- Gigabit Ethernet, Broadcom BCM5720, 2x RJ-45, PCIe x1
- 10 Gigabit Ethernet, Intel X710-DA2, 2x SFP+, PCIe x8
- 10 Gigabit Ethernet, Marvell AQtion AQN-107, 1x RJ-45, PCIe x4

**WLAN + Bluetooth®[1]**
- Intel Wireless-AC 9260, 802.11ac Dual Band 2x2 Wi-Fi® + Bluetooth 5.1
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1
- 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**
- 1x USB 3.2 Gen 2
- 1x USB 3.2 Gen 2 (Always On and fast charge)
- 2x USB-C 3.2 Gen 2
- 1x headphone / microphone combo jack (3.5mm)

**Rear Ports[2]**
- 2x USB 2.0
- 4x USB 3.2 Gen 2
- 2x PS/2 ports (keyboard / mouse)
- 1x Ethernet (10GbE RJ-45)
- 1x line-in (3.5mm)
- 1x line-out (3.5mm)
- 1x microphone (3.5mm)

**Optional Rear Ports***
- 2x USB-C 3.2 Gen 2 (support data transfer, via 2-port USB-C expansion card, PCIe x4)
- 1x Thunderbolt™ 3
- 1x serial

**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;
SECURITY & PRIVACY

Security

Security Chip
Discrete TPM 2.0, TCG certified

Physical Locks
• (Optional) Access Panel Lock Kit with Common Key
• (Optional) Access Panel Lock Kit with Unique Key
• Kensington® Security Slot™, 3 x 7 mm

Chassis Intrusion Switch
Chassis intrusion switch

BIOS Security
• Administrator password
• Power-on password

MANAGEABILITY

System Management

System Management[1][2]
AMD Pro Manageability

Notes:
1. Intel vPro offers a superset of DASH’s defined capabilities.
2. Intel vPro offers a superset of DASH’s defined capabilities.

Diagnostic

Diagnostic
• Photo-audio transfer with Lenovo PC Diagnostics for Android™ and iOS
• ThinkStation® Diagnostics for Windows
• Front 4-digit diagnostic
• Lenovo UEFI Bootable Diagnostics

SERVICE

Warranty

Base Warranty[1]
3-year limited onsite service

Notes:

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™ Silver
• ENERGY STAR® 8.0 (on model 30E00006US)
• GREENGUARD®
• RoHS compliant

ISV Certifications

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

• 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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