PERFORMANCE

Processor

Processor Family
Up to one AMD Ryzen™ Threadripper PRO 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 3945WX</td>
<td>12</td>
<td>24</td>
<td>4.0GHz</td>
<td>4.3GHz</td>
<td>6MB L2 / 64MB L3</td>
<td>DDR4-Up to 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-Up to 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-Up to 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-Up to 3200</td>
<td>-</td>
</tr>
</tbody>
</table>

Processor Sockets
1x Socket sWRX4

Operating System
- Windows® 10 Pro 64
- Ubuntu Linux LTS
- No operating system

Graphics

Discrete Graphics Support
Supports up to two NVIDIA® Quadro RTX 8000 with NVLink

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</td>
<td>None</td>
</tr>
<tr>
<td>Quadro P1000</td>
<td>4GB GDDR5</td>
<td>50W</td>
<td>4x miniDP</td>
<td>None</td>
</tr>
<tr>
<td>Quadro P2200</td>
<td>5GB GDDR5</td>
<td>75W</td>
<td>4x DP</td>
<td>None</td>
</tr>
<tr>
<td>Quadro RTX 4000</td>
<td>8GB GDDR6</td>
<td>160W</td>
<td>3x DP, 1x VirtualLink</td>
<td>None</td>
</tr>
<tr>
<td>Quadro RTX 5000</td>
<td>16GB GDDR6</td>
<td>265W</td>
<td>4x DP, 1x VirtualLink</td>
<td>NVLink</td>
</tr>
<tr>
<td>Quadro RTX 6000</td>
<td>24GB GDDR6</td>
<td>295W</td>
<td>4x DP, 1x VirtualLink</td>
<td>NVLink</td>
</tr>
<tr>
<td>Quadro RTX 8000</td>
<td>48GB GDDR6</td>
<td>295W</td>
<td>4x DP, 1x VirtualLink</td>
<td>NVLink</td>
</tr>
<tr>
<td>Quadro GV100</td>
<td>32GB HBM2</td>
<td>250W</td>
<td>4x DP</td>
<td>NVLink</td>
</tr>
<tr>
<td>NVIDIA RTX A6000</td>
<td>48 GB GDDR6</td>
<td>300W</td>
<td>4x DP</td>
<td>None</td>
</tr>
</tbody>
</table>

Monitor Support
Supports multiple displays via discrete graphics

Chipset
AMD WRX80

Memory

Memory Type
DDR4-3200 RDIMM ECC

Memory Slots
8 DIMM sockets with 8 channels

Memory Protection
ECC
Max Memory
Up to 1TB (with 8 x 128GB DDR4-3200 RDIMMs)

Notes:
• 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 5x 3.5” SATA HDD + 9x M.2 SSD
• 3.5” HDD up to 4TB each
• M.2 SSD up to 2TB each

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>

Storage Type

<table>
<thead>
<tr>
<th>Disk Type</th>
<th>Interface</th>
<th>RPM</th>
<th>Offering</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.5” 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 3.0 NVMe</td>
<td>-</td>
<td>256GB/512GB/1TB/2TB</td>
</tr>
<tr>
<td>M.2 PCIe SSD</td>
<td>PCIe 4.0 NVMe</td>
<td>-</td>
<td>256GB/512GB/1TB</td>
</tr>
</tbody>
</table>

Removable Storage

Optical Support
Optional one 9.0mm optical drive, DVD-ROM or DVD±RW

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

Multi-Media

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

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

Mechanical

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
• Four PCIe 4.0 x16
• Two PCIe 4.0 x8

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

Optional Ethernet
Additional Ethernet options via PCIe adapter

WLAN + Bluetooth™
• No WLAN and Bluetooth
• Intel® Wireless-AC 9260, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1

Ports
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)

Notes:
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;

Rear Ports
• 2x USB 2.0
• 4x USB 3.2 Gen 2
• 2x PS/2 ports (keyboard/mouse)
• 1x Ethernet (10GbE RJ-45)
• 1x microphone (3.5mm)
• 1x line-in (3.5mm)
• 1x line-out (3.5mm)
Notes:
• For video ports on discrete graphics, please see graphics section

Optional Rear Ports
1x serial

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

Chassis Intrusion Switch
Chassis intrusion switch

BIOS Security
• Power-on password
• Administrator password

MANAGEABILITY

System Management
AMD Pro Manageability

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

SERVICE

Warranty
Base Warranty
3-year limited onsite service (with 9x5 NBD, for most models)

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

- EPEAT™ Silver
- ENERGY STAR® 8.0 (On model 30E00006US)
- GREENGUARD®
- RoHS compliant

ISV Certifications

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