

# ThinkStation P720 30BA001K--

Region	Power Supply
WE	Fixed 690W Platinum
Machine Type	Optional Ports
30BA	None
TopSeller	Front Diagnostic LED
TopSeller	None
Processor	Keyboard / Mouse
2x Xeon Silver 4114	USB / USB Opt
10C/2.2GHz/13.75MB/85W/DDR4-2400	Operating System
Graphics	Windows 10 Pro 64
Open	Warranty
Memory	3-year, Onsite
4x 8GB RDIMM DDR4-2666 ECC	Global
Storage Controller	No
Integrated Intel SATA	End of Support
M.2 RAID Upgrade	Oct 26, 2023
None	Ann Date (mm/yy)
Disks	09/17
None	<b>Note:</b> Country Code "US" is for United States, "++" is for EMEA countries (e.g. AD - Saudi, Arabia, AT - Austria, BM - Bulgaria, etc.), "xx" is for EAST countries (e.g. BM - Bulgaria, CX - Hungary, CY - Cyprus, etc.), and "***" is for MEA countries (e.g. AD - Saudi, Arabia, ED - Egypt, EQ - Sweden, etc.). Please be aware that the EMEA/ EAST/MEA models listed above might not be available in all countries
M.2 Drives	
1x 512GB SSD M.2 PCIe Opal, Onboard	
Optical	
1x HH DVD±RW	
Media Reader	
9-in-1	
Additional Networking	
None	



This publication was developed for products and services offered in the United States and E.M.E.A countries. Lenovo may not offer the products, services or features discussed in this document in other countries. Lenovo may withdraw an offering at any time. Information is subject to change without notice. Consult your local representative for information on offerings available in your area. Lenovo reserves the right to change specifications or other product information without notice. Lenovo is not responsible for photographic or typographical errors. Lenovo provides this publication "as is" without warranty of any kind, either express or implied, including the implied warranties of merchantability or fitness for a particular purpose.



<http://psref.lenovo.com>

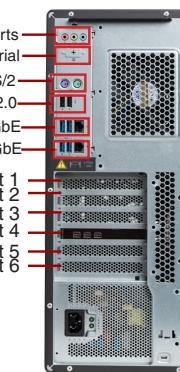
Visit psref website for the latest version of Product Specifications Reference.

© Lenovo, 2018. All rights reserved.



Components	Specification																																																																								
Form factor	36L Tower																																																																								
Dimensions	175mm/6.89" W x 485mm/19.1" D x 446mm/17.6" H (with feet)																																																																								
Weight	Maximum configuration: 52.25 lb (23.7kg)																																																																								
Processor	Up to two 150W Intel Xeon Scalable family processors, Bronze, Silver, Gold, or Platinum. Up to 26 cores at 2.0GHz, up to 3.6GHz with 4 cores. Two processors are connected with two UPI (Ultra Path Interconnect) links up to 10.4GT/s																																																																								
Chipset	Intel C621 Chipset																																																																								
Memory	Up to 12 DIMM sockets. Each processor supports up to 6 DIMM sockets with 6 channels. RDIMMs. DDR4-2666																																																																								
Memory capacity	Up to 384GB with 12 x 32GB RDIMMs and two processors																																																																								
Memory protection	ECC																																																																								
Graphics	<p>Up to three PCIe 3.0 x16 slots depending on the processors installed (see Expansion slots section). Up to one NVIDIA Quadro P6000, or up to two Quadro P5000, Quadro P4000, or NVS 810, other graphics adapters under 75W up to 3,900W PSU is needed. Supports the following graphics adapters:</p> <table border="1"> <thead> <tr> <th>Adapter</th><th>Cores</th><th>Memory</th><th>Power</th><th>Connector</th><th>SLI</th></tr> </thead> <tbody> <tr> <td>NVS 310</td><td>48</td><td>1GB</td><td>19.5W</td><td>2xDP</td><td></td></tr> <tr> <td>NVS 315</td><td>48</td><td>1GB</td><td>19.3W</td><td>2xDVI-I SL/2xDP</td><td></td></tr> <tr> <td>NVS 510</td><td>192</td><td>2GB</td><td>33.4W</td><td>4xmini DP</td><td></td></tr> <tr> <td>NVS 810</td><td>1024</td><td>4GB</td><td>68W</td><td>8xmini DP</td><td></td></tr> <tr> <td>Quadro P400</td><td>256</td><td>2GB</td><td>30W</td><td>3xminiDP</td><td></td></tr> <tr> <td>Quadro P600</td><td>384</td><td>2GB</td><td>45W</td><td>4xminiDP</td><td></td></tr> <tr> <td>Quadro P1000</td><td>640</td><td>4GB</td><td>50W</td><td>4xminiDP</td><td></td></tr> <tr> <td>Quadro P2000</td><td>1024</td><td>5GB</td><td>75W</td><td>4xDP</td><td></td></tr> <tr> <td>Quadro P4000</td><td>1792</td><td>8GB</td><td>120W</td><td>4xDP</td><td></td></tr> <tr> <td>Quadro P5000</td><td>2560</td><td>16GB</td><td>180W</td><td>DVI-D DL+4xDP</td><td>SLI</td></tr> <tr> <td>Quadro P6000</td><td>3840</td><td>24GB</td><td>250W</td><td>DVI-D DL+4xDP</td><td></td></tr> </tbody> </table>	Adapter	Cores	Memory	Power	Connector	SLI	NVS 310	48	1GB	19.5W	2xDP		NVS 315	48	1GB	19.3W	2xDVI-I SL/2xDP		NVS 510	192	2GB	33.4W	4xmini DP		NVS 810	1024	4GB	68W	8xmini DP		Quadro P400	256	2GB	30W	3xminiDP		Quadro P600	384	2GB	45W	4xminiDP		Quadro P1000	640	4GB	50W	4xminiDP		Quadro P2000	1024	5GB	75W	4xDP		Quadro P4000	1792	8GB	120W	4xDP		Quadro P5000	2560	16GB	180W	DVI-D DL+4xDP	SLI	Quadro P6000	3840	24GB	250W	DVI-D DL+4xDP	
Adapter	Cores	Memory	Power	Connector	SLI																																																																				
NVS 310	48	1GB	19.5W	2xDP																																																																					
NVS 315	48	1GB	19.3W	2xDVI-I SL/2xDP																																																																					
NVS 510	192	2GB	33.4W	4xmini DP																																																																					
NVS 810	1024	4GB	68W	8xmini DP																																																																					
Quadro P400	256	2GB	30W	3xminiDP																																																																					
Quadro P600	384	2GB	45W	4xminiDP																																																																					
Quadro P1000	640	4GB	50W	4xminiDP																																																																					
Quadro P2000	1024	5GB	75W	4xDP																																																																					
Quadro P4000	1792	8GB	120W	4xDP																																																																					
Quadro P5000	2560	16GB	180W	DVI-D DL+4xDP	SLI																																																																				
Quadro P6000	3840	24GB	250W	DVI-D DL+4xDP																																																																					
Storage controllers	<p>Integrated Intel SATA AHCI/RAID controller in chipset, 6Gbps SATA, RAID 0/1/10/5. Integrated Intel PCIe host in processor for M.2 PCIe NVMe drives, optional RAID 0/1/10 with Intel NVMe RAID upgrade basic, optional RAID 0/1/10/5 with Intel NVMe RAID upgrade premium.</p> <p>Optional Broadcom 9440-8i, PCIe adapter, 12Gbps, SATA/SAS, RAID 0/1/10/5. Or optional Broadcom 9460-16i with 4GB DDR4 memory and SuperCap, PCIe adapter, 12Gbps, SATA/SAS, RAID 0/1/10/5/6</p>																																																																								
5.25" flex bay	<p>Two 5.25" flex bays, supports the following options:</p> <ul style="list-style-type: none"> <li>Up to two half-height optical drives.</li> <li>Up to two 5.25" slim ODD cages, each supports one 9.0mm optical drive.</li> <li>Up to one 5.25" slim ODD and HDD cage for one 9.0mm optical drive plus one 3.5" or 2.5" SATA disk.</li> <li>Up to one Front Access Storage Enclosure for one 3.5" or 2.5" SATA disk.</li> <li>Up to one flex module for one or more of the following options: 9.0mm optical/ 15-in-1 USB 3.0 reader/front eSATA/front Thunderbolt/4-digit diagnostic display</li> </ul> <p><i>Note: Only one can be supported from 15-in-1 reader, Thunderbolt, and 4-digit display</i></p>																																																																								
Disk drive bays	<p>Up to four internal 3.5" drive bays. Two standard, two optional. Each bay supports one 3.5" or 2.5" SATA/SAS disk (SAS disk support needs 9440-8i or 9460-16i). Selected models supports four internal 3.5" dual drive bays, each bay supports one 3.5" HDD plus one 2.5" SATA SSD, or two 2.5" SATA/SAS disks.</p> <p>Supports up to four 2.5" U.2 SSD on selected models.</p> <p>Up to two 2.5" or 3.5" SATA disk drives on 5.25" flex bays via one 5.25" Front Access Storage Enclosure plus one 5.25" slim ODD and HDD cage</p>																																																																								
M.2 slots	<p>Up to 9 x M.2 PCIe NVMe SSD:</p> <ul style="list-style-type: none"> <li>Two onboard M.2 slots.</li> <li>Up to one full height, full length PCIe 3.0 x16 adapter, supports four M.2 slots.</li> <li>Up to three PCIe 3.0 x4 adapters, each adapter supports one M.2 slot</li> </ul> <p><i>Note: Supports RAID 0/1 on onboard M.2 disks and RAID 0/1/10/5 on quad M.2 PCIe x16 adapter, NVMe RAID upgrade is needed</i></p>																																																																								
Internal storage	<table border="1"> <tr> <td>HDD 7.2K 3.5" SATA6Gbps</td> <td>1TB/2TB/4TB/6TB</td> </tr> <tr> <td>SSD 2.5" SATA6Gbps</td> <td>256GB Opal/512GB Opal/1TB Opal/2TB Opal</td> </tr> <tr> <td>M.2 PCIe NVMe, PCIe 3.0 x4</td> <td>256GB Opal/512GB Opal/1TB Opal</td> </tr> </table>	HDD 7.2K 3.5" SATA6Gbps	1TB/2TB/4TB/6TB	SSD 2.5" SATA6Gbps	256GB Opal/512GB Opal/1TB Opal/2TB Opal	M.2 PCIe NVMe, PCIe 3.0 x4	256GB Opal/512GB Opal/1TB Opal																																																																		
HDD 7.2K 3.5" SATA6Gbps	1TB/2TB/4TB/6TB																																																																								
SSD 2.5" SATA6Gbps	256GB Opal/512GB Opal/1TB Opal/2TB Opal																																																																								
M.2 PCIe NVMe, PCIe 3.0 x4	256GB Opal/512GB Opal/1TB Opal																																																																								
Media reader	9-in-1 USB 2.0 card reader on most models. Optional UHS-II 15-in-1 USB 3.0 reader on flex module																																																																								
Network interfaces	Integrated two-port gigabit ethernet (Intel i219LM and i210AT), supports Wake-on-LAN on both two ports. Optional PCIe ethernet or wireless adapters are available																																																																								

Components	Specification																								
Security features	Power-on and admin password. Trusted Platform Module, TCG 2.0 compliant, switch to 1.2 via UEFI setting. Chassis intrusion switch. Optional access panel lock, Kensington lock, and pad lock																								
Systems management	Intel Active Management Technology 11. Front panel warning LED. ThinkStation Diagnostics for Windows. Photo-audio transfer with Lenovo PC Diagnostics for Android and iOS. Optional front 4-digit diagnostic display on flex module																								
Base warranty	1 or 3-year limited onsite service with 9x5/NBD																								
HD Audio	Realtek ALC662 codec																								
Front ports	Four USB 3.0 (includes one 11W charging), one combo audio/microphone jack (3.5mm)																								
Rear ports	Two USB 2.0, four USB 3.0, two ethernet (RJ-45), three analog audio ports (line-in, line-out, mic-in), two PS/2																								
Optional ports	Supports the following optional ports: <ul style="list-style-type: none"> <li>Optional COM port</li> <li>Two USB Type-C ports via PCIe adapter, USB 3.1 gen 2. One 15W, one 5W</li> <li>Two Thunderbolt ports (USB Type-C) on flex module, one of two ports supports video-out.</li> <li>One eSATA on flex module</li> <li>One internal USB 3.0 port</li> </ul>																								
Power supply	<p>One fixed 690W or 900W, autosing, 92%, 80 PLUS Platinum qualified</p> <table border="1"> <tr> <td>Temperature - operating</td> <td>50 °F to 95 °F (10 °C to 35 °C)</td> </tr> <tr> <td>Temperature - non operating (no package)</td> <td>14 °F to 140 °F (-10 °C to 60 °C)</td> </tr> <tr> <td>Temperature - non operating (with package)</td> <td>-40 °F to 140 °F (-40 °C to 60 °C)</td> </tr> <tr> <td>Altitude - operating</td> <td>(Unpressurized): 0-1000ft (0-3048m)</td> </tr> <tr> <td>Humidity - operating</td> <td>10%-80%, non-condensing</td> </tr> <tr> <td>Humidity - storage (with package)</td> <td>10%-90%, non-condensing</td> </tr> </table>	Temperature - operating	50 °F to 95 °F (10 °C to 35 °C)	Temperature - non operating (no package)	14 °F to 140 °F (-10 °C to 60 °C)	Temperature - non operating (with package)	-40 °F to 140 °F (-40 °C to 60 °C)	Altitude - operating	(Unpressurized): 0-1000ft (0-3048m)	Humidity - operating	10%-80%, non-condensing	Humidity - storage (with package)	10%-90%, non-condensing												
Temperature - operating	50 °F to 95 °F (10 °C to 35 °C)																								
Temperature - non operating (no package)	14 °F to 140 °F (-10 °C to 60 °C)																								
Temperature - non operating (with package)	-40 °F to 140 °F (-40 °C to 60 °C)																								
Altitude - operating	(Unpressurized): 0-1000ft (0-3048m)																								
Humidity - operating	10%-80%, non-condensing																								
Humidity - storage (with package)	10%-90%, non-condensing																								
Environmental specification	<p>RoHS-compliant. GREENGUARD. EPEAT Gold rating and ENERGY STAR 6.1 qualified on following models:</p> <table border="1"> <tr> <td>Model</td> <td>30BA0007US</td> <td>30BA0008US</td> </tr> <tr> <td>Processor</td> <td>2 x Intel Xeon Silver 4110</td> <td>2 x Intel Xeon Gold 5122</td> </tr> <tr> <td>Memory</td> <td>2 x 8GB RDIMM DDR4-2666 ECC</td> <td>2 x 8GB RDIMM DDR4-2666 ECC</td> </tr> <tr> <td>Disks</td> <td>2x1TB HDD 7.2K 3.5" SATA6Gbps</td> <td>2 x 256GB SSD 2.5" SATA6Gbps Opal</td> </tr> <tr> <td>Graphics</td> <td>NVIDIA Quadro P4000 8GB</td> <td>NVIDIA Quadro P4000 8GB</td> </tr> <tr> <td>Optical</td> <td>HH DVD±RW</td> <td>HH DVD±RW</td> </tr> <tr> <td>PSU</td> <td>690W</td> <td>900W</td> </tr> <tr> <td>OS</td> <td>Win10 Pro 64</td> <td>Win10 Pro 64</td> </tr> </table>	Model	30BA0007US	30BA0008US	Processor	2 x Intel Xeon Silver 4110	2 x Intel Xeon Gold 5122	Memory	2 x 8GB RDIMM DDR4-2666 ECC	2 x 8GB RDIMM DDR4-2666 ECC	Disks	2x1TB HDD 7.2K 3.5" SATA6Gbps	2 x 256GB SSD 2.5" SATA6Gbps Opal	Graphics	NVIDIA Quadro P4000 8GB	NVIDIA Quadro P4000 8GB	Optical	HH DVD±RW	HH DVD±RW	PSU	690W	900W	OS	Win10 Pro 64	Win10 Pro 64
Model	30BA0007US	30BA0008US																							
Processor	2 x Intel Xeon Silver 4110	2 x Intel Xeon Gold 5122																							
Memory	2 x 8GB RDIMM DDR4-2666 ECC	2 x 8GB RDIMM DDR4-2666 ECC																							
Disks	2x1TB HDD 7.2K 3.5" SATA6Gbps	2 x 256GB SSD 2.5" SATA6Gbps Opal																							
Graphics	NVIDIA Quadro P4000 8GB	NVIDIA Quadro P4000 8GB																							
Optical	HH DVD±RW	HH DVD±RW																							
PSU	690W	900W																							
OS	Win10 Pro 64	Win10 Pro 64																							
ISV certifications	Please visit <a href="http://www.thinkworkstations.com/isv-certifications/">www.thinkworkstations.com/isv-certifications/</a>																								



Slot 1 (CPU2)	PCIe 3.0 x16, full height, full length, 75W
Slot 2 (CPU1)	PCIe 3.0 x16, full height, full length, 75W, double-width
Slot 3 (CPU1)	PCIe 3.0 x8, full height, full length, 25W, open ended
Slot 4 (CPU1)	PCIe 3.0 x16, full height, full length, 75W, double-width
Slot 5	PCI, full height, full length, 25W
Slot 6 (PCH)	PCIe 3.0 x4, full height, half length, 25W, open ended

900W PSU supports two 6+2-pin aux power connectors.  
690W PSU supports one 6+2-pin aux power connector.

*Note: All expansion cards are optional*

# ThinkStation P720



Lenovo™