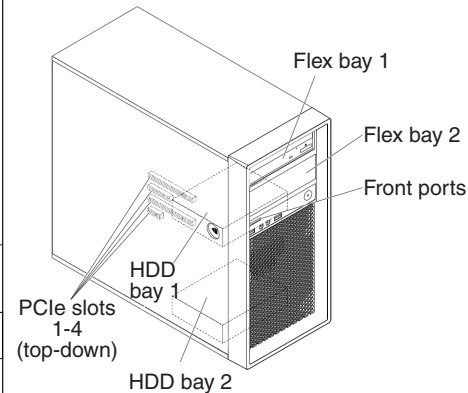


ThinkStation P410 Platform Specifications

Product Specifications Reference (PSREF)

Components	Specification																																																																																																						
Chipset	Intel C612 Platform Controller Hub (PCH)																																																																																																						
System mgmt	Intel Active Management Technology 9																																																																																																						
Processor	Up to one 140W Intel Xeon E5-1600 v4 family processors. Some Intel Xeon E5-2600 v4 processors are also available:																																																																																																						
	E5-2637 v4	4C/3.5GHz/15MB/135W/DDR4-2400																																																																																																					
	E5-2623 v4	4C/2.6GHz/10MB/85W/DDR4-2133																																																																																																					
	E5-2620 v4	8C/2.1GHz/20MB/85W/DDR4-2133																																																																																																					
	E5-1680 v4	8C/3.4GHz/20MB/140W/DDR4-2400 333																																																																																																					
	E5-1660 v4	8C/3.2GHz/20MB/140W/DDR4-2400																																																																																																					
	E5-1650 v4	6C/3.6GHz/15MB/140W/DDR4-2400																																																																																																					
	E5-1630 v4	4C/3.7GHz/10MB/140W/DDR4-2400																																																																																																					
	E5-1620 v4	4C/3.5GHz/10MB/140W/DDR4-2400																																																																																																					
E5-1607 v4	4C/3.1GHz/10MB/140W/DDR4-2133																																																																																																						
E5-1603 v4	4C/2.8GHz/10MB/140W/DDR4-2133																																																																																																						
Coprocessor	None																																																																																																						
Memory DIMM slots	4 DIMM sockets. 4-channel capable. RDIMM. ECC. DDR4-2400																																																																																																						
Memory capacity	128GB (32GB x 4)																																																																																																						
Graphics	Two PCIe 3.0 x16 slots, up to two NVIDIA Quadro M4000, or up to one Quadro P5000																																																																																																						
Supporting Graphics and GPU computing	<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>19.5W</td> <td>2xDVI-I SL/2xDP</td> <td></td> </tr> <tr> <td>NVS 510</td> <td>192</td> <td>2GB</td> <td>35W</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 K420</td> <td>192</td> <td>2GB</td> <td>41W</td> <td>DVI-I DL+DP</td> <td></td> </tr> <tr> <td>Quadro K620</td> <td>384</td> <td>2GB</td> <td>45W</td> <td>DVI-I DL+DP</td> <td></td> </tr> <tr> <td>Quadro K1200</td> <td>512</td> <td>4GB</td> <td>45W</td> <td>4xmini DP</td> <td></td> </tr> <tr> <td>Quadro M2000</td> <td>768</td> <td>4GB</td> <td>75W</td> <td>4xDP</td> <td></td> </tr> <tr> <td>Quadro M4000</td> <td>1664</td> <td>8GB</td> <td>120W</td> <td>4xDP</td> <td></td> </tr> <tr> <td>Quadro M5000</td> <td>2048</td> <td>8GB</td> <td>150W</td> <td>DVI-I DL+4xDP</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>40W</td> <td>4xminiDP</td> <td></td> </tr> <tr> <td>Quadro P1000</td> <td>640</td> <td>4GB</td> <td>47W</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>105W</td> <td>4xDP</td> <td>SLI</td> </tr> <tr> <td>Quadro P5000</td> <td>2560</td> <td>16GB</td> <td>180W</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	19.5W	2xDVI-I SL/2xDP		NVS 510	192	2GB	35W	4xmini DP		NVS 810	1024	4GB	68W	8xmini DP		Quadro K420	192	2GB	41W	DVI-I DL+DP		Quadro K620	384	2GB	45W	DVI-I DL+DP		Quadro K1200	512	4GB	45W	4xmini DP		Quadro M2000	768	4GB	75W	4xDP		Quadro M4000	1664	8GB	120W	4xDP		Quadro M5000	2048	8GB	150W	DVI-I DL+4xDP		Quadro P400	256	2GB	30W	3xminiDP		Quadro P600	384	2GB	40W	4xminiDP		Quadro P1000	640	4GB	47W	4xminiDP		Quadro P2000	1024	5GB	75W	4xDP		Quadro P4000	1792	8GB	105W	4xDP	SLI	Quadro P5000	2560	16GB	180W	DVI-D DL+4xDP	
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Disk drive controller	RAID 0, 1, 5, 10 with onboard SATA controller in chipset, SATA 6Gb/s. Optional RAID 0, 1, 10 with optional LSI 9340-8i PCIe adapter, 12Gb/s SAS and SATA, optional upgrade to RAID 5 is available																																																																																																						
Drive Bays	Two external 5.25" flex bays, two internal 3.5" bays. Up to one 9.5mm optical plus four 3.5"/2.5" disk drives plus three M.2 PCIe SSD (see right)																																																																																																						
Supporting storage	3.5" HDD, 7.2K SATA6Gbs	500GB/1TB/2TB/3TB/4TB/6TB, 1TB/2TB hybrid																																																																																																					
	2.5" HDD, 10K SAS12Gbs	300GB/600GB																																																																																																					
	2.5" SSD, SATA6Gbs	180GB/240GB/256GB/480GB/512GB with OPAL, 256GB/512GB/1TB without OPAL																																																																																																					
	PCIe SSD, M.2 via PCIe 3.0 x4 adapter	256GB/512GB/1TB, NVMe																																																																																																					
Flex connector	None																																																																																																						
Network interfaces	One onboard gigabit ethernet, Intel I218LM, supports Wake-on-LAN. Optional discrete ethernet adapters are available																																																																																																						
HD Audio	Realtek ALC662 codec																																																																																																						
TPM	TCG 1.2-compliant																																																																																																						
Power supply	One fixed 450 watts, autosensing, 92%, 80 PLUS Platinum qualified																																																																																																						
Front ports	Two USB 3.0, microphone (3.5mm), headphone (3.5mm)																																																																																																						
Rear ports	Two USB 2.0, four USB 3.0, one ethernet (RJ-45), three analog audio ports (line-in, line-out, mic-in)																																																																																																						

Components	Specification	
Additional ports	Supports the following optional ports: Two IEEE 1394 (one on rear and one on front flex module) via PCIe adapter, up to one adapter per system. Two rear USB 3.0 per PCIe adapter, up to three adapters per system. One rear Thunderbolt via PCIe adapter, or two front Thunderbolt (on flex module) via PCIe adapter, front and rear Thunderbolt cannot be intermixed. One rear serial via cable, up to one per system. One front eSATA (on flex module), or one rear eSATA via cable and PCIe slot bracket, up to one eSATA port per system	
Media reader	9-in-1 USB 2.0 card reader. Optional 29-in-1 USB 2.0 card reader on flex module	
Mechanical	<ul style="list-style-type: none"> 6.89"W x 16.77"D x 14.8"H 175mm W x 426mm D x 376mm H 30.86 lb (14kg) max configuration 25-liter 	
Environmental specification	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): 0-10000ft (0-3048m)
	Humidity - operating	10%-80%, non-condensing
	Humidity - storage (with package)	10%-90%, non-condensing
	RoHS-compliant, GREENGUARD on all models. EPEAT Gold rating, ENERGY STAR 6.1 qualified on selected models.	
Base warranty	1 or 3-year limited onsite service with 9x5/NBD	
ISV certifications	Please visit www.thinkworkstations.com/isv-certifications/	



Expansion slots

Slot 1	PCIe 3.0 x16, full length, full height
Slot 2	PCIe 3.0 x8, full length, full height
Slot 3	PCIe 3.0 x16, full length, full height
Slot 4	PCIe 2.0 x4, half length, full height

Drive Bays

HDD bay 1	3.5", for one 3.5"/2.5" drive
HDD bay 2	3.5", for one 3.5"/2.5" drive
Flex bay 1	HH optical, or 3.5" HDD bay via optional conversion kit, or slim optical+3.5" HDD bay kit via optional conversion kit, or flex module
Flex bay 2	HH optical, or 3.5" HDD bay via optional conversion kit, or slim optical+3.5" HDD bay kit via optional conversion kit, or flex module

Note:

- HDD bay 2 is not available when one Quadro M5000, two Quadro M4000, or two NVS 810 are used.
- Flex module supports one or more of the following options: 9.5mm optical/29-in-1 USB 2.0 reader/one front IEEE 1394/one front eSATA/two front Thunderbolt. Up to one flex module is supported per system.
- Up to one slim optical+3.5" HDD bay kit is supported per system.