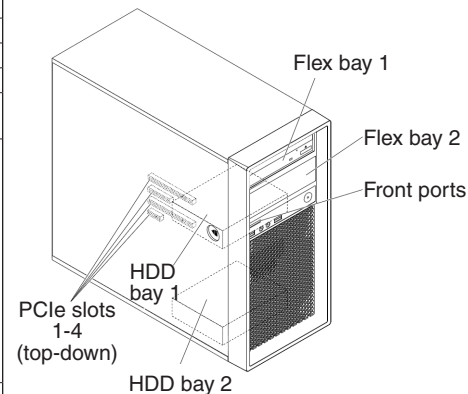


ThinkStation P410 Platform Specifications

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 M5000					
Supporting Graphics and GPU computing	Adapter	Cores	Memory	Power	SLI	Connector***
	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	
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, 1TB/2TB hybrid				
	2.5" HDD, 10K SAS12Gbs	300GB/600GB				
	2.5" SSD, SATA6Gbs	180GB/240GB/256GB/480GB 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)					
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					

Components	Specification											
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 											
	<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): 0-10000ft (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): 0-10000ft (0-3048m)	Humidity - operating	10%-80%, non-condensing	Humidity - storage (with package)
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Humidity - operating	10%-80%, non-condensing											
Humidity - storage (with package)	10%-90%, non-condensing											
Environmental specification	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											



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:
 1. HDD bay 2 is not available when one Quadro M5000, two Quadro M4000, or two NVS 810 are used.
 2. 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.
 3. Up to one slim optical+3.5" HDD bay kit is supported per system.

For the list of ISV certifications, please visit www.thinkworkstations.com/isv-certifications
 For a list of all supported options, please visit https://download.lenovo.com/pccbbs/options_iso/ocm_april_2016.xlsx sheet