

ThinkStation P520c Platform Specifications

Form factor	25L Tower						
Dimensions	175mm/6.89" W x 426mm/16.77" D x 376mm/14.8" H (with feet)						
Weight	Maximum configuration: 31.97 lb (14.5kg)						
Processor Support	Processor	# of Cores	# of Threads	Base Frequency	Cache	TDP	Memory Types
	Xeon W-2245	8	16	3.9GHz	16.5MB	155W	DDR4-2933
	Xeon W-2235	6	12	3.8GHz	8.25MB	130W	DDR4-2933
	Xeon W-2225	4	8	4.1GHz	8.25MB	105W	DDR4-2933
	Xeon W-2223	4	8	3.6GHz	8.25MB	120W	DDR4-2666
	Xeon W-2195	18	36	2.3GHz	24.75MB	140W	DDR4-2666
	Xeon W-2175	14	28	2.5GHz	19MB	140W	DDR4-2666
	Xeon W-2155	10	20	3.3GHz	13.75MB	140W	DDR4-2666
	Xeon W-2145	8	16	3.7GHz	11MB	140W	DDR4-2666
	Xeon W-2135	6	12	3.7GHz	8.25MB	140W	DDR4-2666
	Xeon W-2133	6	12	3.6GHz	8.25MB	140W	DDR4-2666
	Xeon W-2125	4	8	4.0GHz	8.25MB	120W	DDR4-2666
	Xeon W-2123	4	8	3.6GHz	8.25MB	120W	DDR4-2666
	Xeon W-2104	4	4	3.2GHz	8.25MB	120W	DDR4-2400
Xeon W-2102	4	4	2.9GHz	8.25MB	120W	DDR4-2400	
Processor Sockets	1x FCLGA2066						
Chipset	Intel C422 Chipset						
Memory Sockets	4 DIMM sockets with 4 channels						
Memory Types	DDR4-2666 RDIMM or DDR4-2933 RDIMM						
Memory Capacity	256GB with 4 x 64GB RDIMMs						
Memory Protection	ECC						
Expansion slots	Slot 1 (CPU)	PCIe 3.0 x16, full height, full length, 75W,					
	Slot 2 (CPU)	PCIe 3.0 x8, full height, full length, 25W, open ended					
	Slot 3 (CPU)	PCIe 3.0 x16, full height, full length, 75W					
	Slot 4 (PCH)	PCIe 3.0 x4, full height, half length, 25W, open ended					
Discrete Graphics Offering	Graphics	Memory	Power	Connector	SLI / NVlink	Max Qty	
	NVS 810	4GB DDR3	68W	8xmini DP	-	1	
	Quadro P400	2GB GDDR5	30W	3xminiDP	-	2	
	Quadro P600	2GB GDDR5	45W	4xminiDP	-	2	
	Quadro P620	2GB GDDR5	40W	4x miniDP	-	2	
	Quadro P1000	4GB GDDR5	50W	4xminiDP	-	2	
	Quadro P2000	5GB GDDR5	75W	4xDP	-	2	
	Quadro P4000	8GB GDDR5	120W	4xDP	-	2	
	Quadro P5000	16GB GDDR5X	180W	DVI-D DL+4xDP	-	1	
	Quadro RTX 4000	8GB GDDR6	160W	3xDP, 1xVirtualLink	-	1	
Quadro RTX 5000	16GB GDDR6	265W	4xDP, 1xVirtualLink	-	1		
Storage Controller	Storage Controller	Type	Interface	RAID	Cache		
	Onboard Intel RSTe	Std	SATA 6Gb/s	0/1/10/5	-		
	9440-8i PCIe	Opt	SAS 12Gb/s, SATA 6Gb/s	0/1/10/5	-		
	NVMe Basic	Opt	PCIe NVMe	0/1/10	-		
	NVMe for Intel SSD	Opt	PCIe NVMe	0/1/10/5	-		
Storage Support	Disk Type	Interface	RPM	Offering	Max Qty		
	3.5" SATA HDD	SATA 6Gb/s	7.2K	1TB/2TB/4TB/6TB	4		
	2.5" SATA HDD	SATA 6Gb/s	7.2K	500GB/500GB FIPS	4		
	2.5" SATA SSD	SATA 6Gb/s		256GB/512GB/1TB/2TB	4		
	2.5" SAS HDD	SAS 12Gb/s	10K	300GB/600GB	4		
	M.2 PCIe SSD	PCIe NVMe		256GB/512GB/1TB/2TB	5		

Storage Bays	Bay Type	Maximum Drives Qty
	M.2 slot	5x M.2 SSD (2 onboard, 3 via PCIe to M.2 adapter)
	Flex Bay	2 flex bays. Supports the following: <ul style="list-style-type: none"> • 2x half-height optical drives • 2x 5.25" 9.0mm optical drives • 1x 5.25" 9.0mm optical drive + 2x 3.5"/2.5" SATA SSD/HDD • 1x 3.5"/2.5" SATA SSD/HDD with Front Access Storage Enclosure • 1x flex module for the following options: <ul style="list-style-type: none"> Tray 1: 9.0mm optical Tray 2: 15-in-1 USB 3.1 Gen 1 reader, 2x Thunderbolt, or 4-digit diagnostic display Port 1 and 2: Front USB 3.1 Gen 1 Type-C or eSATA • 2x M.2 SSD with 2x Front Removable Drive Enclosures
Disk bay	Up to 2x 3.5"/2.5" disks with 2 disk bays	
Power supply	One of the following: <ul style="list-style-type: none"> • One fixed 500W, autosensing, 92%, 80 PLUS Platinum qualified • One fixed 625W, autosensing, 92%, 80 PLUS Platinum qualified 	
Media reader	USB 2.0 9-in-1 card reader on most models. Optional UHS-II 15-in-1 USB 3.1 Gen 1 reader on flex module	
Network interfaces	Integrated one gigabit ethernet (Intel i219LM), supports Wake-on-LAN. Optional PCIe ethernet or wireless adapters are available	
WLAN + Bluetooth	Optional Intel Wireless-AC 8265, 2x2, 2.4GHz/5GHz, 802.11ac, Bluetooth 4.2, up to 867Mbps	
Security features	Power-on and admin password. Trusted Platform Module, TCG 2.0 compliant, switch to 1.2 via UEFI setting. Optional access panel lock, Kensington lock	
Intel vPro	Intel vPro technology supported. vPro requires Wireless-AC 8265 if Wi-Fi is needed	
Intel AMT	Intel Active Management Technology 11	
Diagnostic	ThinkStation Diagnostics for Windows. 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	2x USB 3.1 Gen 1, microphone (3.5mm), headphone (3.5mm)	
Rear ports	2x USB 2.0, 4x USB 3.1 Gen 1, 1x RJ-45, 3x analog audio ports (line-in, line-out, mic-in), 2x PS/2	
Optional ports	Supports the following optional ports:	
	<p>Front:</p> <ul style="list-style-type: none"> • 2x Thunderbolt ports (USB Type-C) on flex module, one of two ports supports video-out • 1x eSATA on flex module • 1x USB Type-C on flex module, USB 3.1 Gen 1 <p>Rear:</p> <ul style="list-style-type: none"> • 1x COM port • 2x USB Type-C ports via PCIe adapter, USB 3.1 gen 2. One 15W, one 5W <p>Internal:</p> <ul style="list-style-type: none"> • 1x internal USB 3.1 Gen 1 port 	
Environmental specification	Temperature - operating	50 °F to 95 °F (10 °C to 35 °C)
	Temperature - storage (no pack-age)	14 °F to 140 °F (-10 °C to 60 °C)
	Temperature - storage (with pack-age)	-40 °F to 140 °F (-40 °C to 60 °C)
	Altitude - operating	(Unpressurized): -50ft-10000ft (-15.2m-3048m)
	Humidity - operating	10%~80%, non-condensing
	Humidity - storage (with package)	10%~90%, non-condensing
Environmental Certifications	RoHS-compliant. GREENGUARD. EPEAT Silver rating. ENERGY STAR 8.0 qualified on selected models	
ISV certifications	Please visit www.thinkworkstations.com/isv-certifications/	

Note:
1. Depending on many factors, actual data transfer speed mentioned on this page may be lower than theoretical speed.
2. Any questions or advice on ThinkStation PSREF, please contact [ThinkStation PSREF developer](mailto:ThinkStation_PSREF_developer)