

ThinkStation P520 30BFS6HA00

Product

ThinkStation P520

Region

LA

Country/Region

Mexico

Machine Type

30BF

TopSeller

No

Processor

Intel Xeon W-2123 4C/8T/3.6GHz/8.25MB/120W/DDR4-2666

Discrete Graphics

1x NVIDIA Quadro P2000 5GB

Chipset

Intel C422

Memory

1x 8GB RDIMM DDR4-2666 ECC

HDD Controller

Onboard Intel RSTe SATA

M.2 SSD RAID Controller

RAID 0/1

Internal Disk Drive

1x 1TB HDD 7200rpm 3.5" SATA6Gb/s

M.2 SSD Drive

None

PCIe SSD Adapter

None

Optical

1x HH DVD±RW

Media Reader

SD Reader

Ethernet

1x GbE RJ-45

WLAN + Bluetooth

Intel 8265 11ac, 2x2 + BT4.2

Optional Front Ports

None

Optional Rear Ports

None

Optional Internal Ports

None

Chassis Intrusion Switch

None

Cover Lock

None

Keyboard

USB Calliope Keyboard, Black, Spanish (LA)

Mouse

USB Calliope Mouse

Power Supply

690W Platinum Fixed

Diagnostic

None

System Management

Intel vPro with AMT 11

Operating System

Windows 10 Pro 64 for Workstations, Spanish

Bundled Software

None

Base Warranty

3-year, Onsite

Bundled Service

None

EAN / UPC / JAN**End of Support**

N/A

Announce Date

2019-08-19

Recommended Services**Best**

5Y Premier Support Upgrade from 3Y Onsite (5WSOT36128)

Better

4Y Premier Support Upgrade from 3Y Onsite (5WSOT36122)

Good

3Y Premier Support Upgrade from 3Y Onsite (5WSOU26649)



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ThinkStation P520 Platform Specifications - I of II

Product Specifications Reference (PSREF)

Form factor	33L Tower						
Dimensions	165mm/6.5" W x 460mm/18.1" D x 440mm/17.3" H (with feet)						
Weight	Maximum configuration: 52.91 lb (24kg)						
Processor Support	Processor	# of Cores	# of Threads	Base Frequency	Cache	TDP	Memory Types
	Xeon W-2295	18	36	3.0GHz	24.75MB	165W	DDR4-2933
	Xeon W-2275	14	28	3.3GHz	19.25MB	165W	DDR4-2933
	Xeon W-2265	12	24	3.5GHz	19.25MB	165W	DDR4-2933
	Xeon W-2255	10	20	3.7GHz	19.25MB	165W	DDR4-2933
	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	8 DIMM sockets with 4 channels						
Memory Types	DDR4-2666 RDIMM or DDR4-2933 RDIMM						
Memory Capacity	512GB with 8 x 64GB DDR4-2933 RDIMMs						
Memory Protection	ECC						
Expansion slots	Slot 1 (CPU)	PCIe 3.0 x8, full height, full length, 25W, open ended					
	Slot 2 (CPU)	PCIe 3.0 x16, full height, full length, 75W, double-width					
	Slot 3 (PCH)	PCIe 3.0 x4, full height, half length, 25W, open ended					
	Slot 4 (CPU)	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					
Discrete Graphics Offering	Graphics	Memory	Power	Connector	SLI / NV-link	Max Qty	
	NVS 810	4GB DDR3	68W	8xmini DP		2	
	Quadro P400	2GB GDDR5	30W	3xminiDP		2	
	Quadro P600	2GB GDDR5	45W	4xminiDP		2	
	Quadro P620	2GB GDDR5	40W	4xminiDP		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	SLI	2	
	Quadro P6000	24GB GDDR5X	250W	DVI-D DL+4xDP		1	
	Quadro RTX 4000	8GB GDDR6	160W	3xDP, 1xVirtualLink		2	
	Quadro RTX 5000	16GB GDDR6	265W	4xDP, 1xVirtualLink		1	
	Quadro RTX 6000	24GB GDDR6	295W	4xDP, 1xVirtualLink		1	
	Quadro RTX 8000	48GB GDDR6	295W	4xDP, 1xVirtualLink		1	
	Quadro GP100	16GB HBM2	235W	1xDVI-D DL, 4xDP	NVLink	2	
	Quadro GV100	32GB HBM2	250W	4xDP		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			
	9460-16i PCIe	Opt	SAS 12Gb/s, SATA 6Gb/s	0/1/10/5/6	4GB DDR4, SuperCap		
	NVMe Basic	Opt	PCIe NVMe	0/1/10			
	NVMe Premium	Opt	PCIe NVMe	0/1/10/5			
	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	6
	2.5" SATA HDD	SATA 6Gb/s	7.2K	500GB/500GB FIPS	6
	2.5" SATA SSD	SATA 6Gb/s		256GB/512GB/1TB/2TB	6
	M.2 PCIe SSD	PCIe NVMe		256GB/512GB/1TB/2TB	9
	PCIe AIC SSD	PCIe NVMe		480GB	2 (1 when quad M.2 adapter used)
Storage Bays	Bay Type	Maximum Drives Qty			
	M.2 slot	9x M.2 SSD (2 onboard, 7 via PCIe to M.2 adapter)			
	Flex Bay	2 flex bays. Supports the following: • 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: • 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 4x 3.5" or 2.5" disks with 4 disk bays (2 bays standard, 2 bays optional)			
	Max Storage	Supports up to 9x M.2 SSD + 6x 3.5" HDD/6x 2.5" SATA disks/4x 2.5" SAS HDD + 1x PCIe AIC SSD. All HDD: 36TB using 6x 3.5" HDD All SSD: 30.48TB using 6x 2.5" SATA SSD, 9x M.2 SSD, and 1x PCIe AIC SSD			
Power supply	Supports one of the following: • One fixed 690W, autosensing, 92%, 80 PLUS Platinum qualified • One fixed 900W, 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, and pad 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	Front panel warning LED. ThinkStation Diagnostics for Windows. Photo-audio transfer with Lenovo PC Diag-nostics 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	4x USB 3.1 Gen 1 (includes one 11W charging), 1x combo audio/microphone jack (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	Front: • 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 Rear: • 1x COM port • 2x USB Type-C ports via PCIe adapter, USB 3.1 gen 2. One 15W, one 5W Internal: • 1x internal USB 3.1 Gen 1 port				

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ThinkStation P520 Platform Specifications - II of II

Environmental specification	Temperature - operating	50 °F to 95 °F (10 °C to 35 °C)
	Temperature - storage (no package)	14 °F to 140 °F (-10 °C to 60 °C)
	Temperature - storage (with package)	-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 6.1 qualified on model 30BE0008US and 30BE0009US	
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. To support the maximum expandability, 900W power supply may be needed.
3. Any questions or advice on ThinkStation PSREF, please contact [ThinkStation PSREF developer](#)



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