

ThinkStation P520 30BE008TGE

Product
ThinkStation P520

Region
WE

Country
Germany

Machine Type
30BE

TopSeller
TopSeller

Processor
Xeon W-2125 4C/8T/4.0GHz/8.25MB/120W/DDR4-2666

Memory
2x 16GB RDIMM DDR4-2666 ECC

Discrete Graphics Card
1x NVIDIA Quadro RTX 4000 8GB 3x DP 1x VirtualLink

Monitor Cable
None

Storage Controller
Onboard Intel SATA RSTe Controller

M.2 SSD RAID Controller
RAID 0/1

Internal Disk
1x 512GB SSD 2.5" SATA6Gb/s Opal

M.2 SSD Drive
None

PCIe SSD Adapter
None

Optical
1x HH DVD±RW

Media Reader
SD Reader

HD Audio
Onboard Realtek ALC662

WLAN + Bluetooth
None

Available Networking Port
1x GbE RJ-45

Chassis Intrusion Switch
None

Cover Lock
Lock Kit with Common Key

Optional 1394 Port
None

Optional Parallel Port
None

Optional Thunderbolt Port
None

Optional Serial Port
1x Serial

Optional USB Port
None

Optional eSATA Port
None

Keyboard
USB Traditional Keyboard

Mouse
USB Calliope Mouse

Power Supply
Fixed 900W Platinum

Diagnostic
None

System Management
Intel AMT 11

Operating System
Windows 10 Pro 64 for Workstations

Bundled Software
None

Base Warranty
3-year, Onsite

Upsell Service Bundles
None

Global
No

End of Support
2025-07-12

Announce Date
2019-06-12



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ThinkStation P520 Platform Specifications

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 Family	Up to one 140W Intel Xeon W family processor: <ul style="list-style-type: none">Up to 18 cores at 2.3 GHzUp to 4.0 GHz with 4 coresUp to 24.75 MB cacheUp to DDR4-2666 memory speed						
Processor Sockets	1x FCLGA2066						
Chipset	Intel C422 Chipset						
Memory Sockets	8 DIMM sockets with 4 channels						
Memory Types	DDR4-2666 RDIMM						
Memory Capacity	256GB with 8 x 32GB 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 / NVlink	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	
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: <ul style="list-style-type: none">2x half-height optical drives2x 5.25" 9.0mm optical drives1x 5.25" 9.0mm optical drive + 2x 3.5"/2.5" SATA SSD/HDD1x 3.5"/2.5" SATA SSD/HDD with Front Access Storage Enclosure1x flex module for the following options:<ul style="list-style-type: none">Tray 1: 9.0mm opticalTray 2: 15-in-1 USB 3.0 reader, 2x Thunderbolt, or 4-digit diagnostic displayPort 1 and 2: Front USB 3.0 Type-C or eSATA2x 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: <ul style="list-style-type: none"> One fixed 690W, autosensing, 92%, 80 PLUS Platinum qualified One fixed 900W, autosensing, 92%, 80 PLUS Platinum qualified 	
Media reader	SD USB 2.0 card reader on most models. Optional UHS-II 15-in-1 USB 3.0 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 3.0 (includes one 11W charging), 1x combo audio/microphone jack (3.5mm)	
Rear ports	2x USB 2.0, 4x USB 3.0, 1x RJ-45, 3x analog audio ports (line-in, line-out, mic-in), 2x PS/2	
Optional ports	Supports the following optional ports: Front: <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 Rear: <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 Internal: <ul style="list-style-type: none"> 1x internal USB 3.0 port 	
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
Environmental Certifications	Humidity - storage (with package)	10%~90%, non-condensing
	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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