

**"R292-4S0" Qualification Vender List**

**Please contact FAE support for below orange blocks**

Intel CPU										
Product Name	Code Name	Q-Spec	Stepping	Cache	System Bus	# of Cores	Processor Base Frequency	Max Turbo Frequency	TDP	Memory Types

CooperLake - Intel 3rd Generation Xeon Scalable Family

Intel® Xeon® Processor Platinum 8353H	CooperLake	QU93	A1	24.75MB	10.4 GT/s	18	2.5 GHz	3.8 GHz	150W	DDR4-3200
Intel® Xeon® Processor Gold 6348H	CooperLake	QU8Y	A1	33MB	10.4 GT/s	24	2.3 GHz	4.2 GHz	165W	DDR4-2933
Intel® Xeon® Processor Gold 6330H	CooperLake	QV7C	A1	33MB	10.4 GT/s	24	2.0 GHz	3.7 GHz	150W	DDR4-2933
Intel® Xeon® Processor Gold 6328HL	CooperLake	QU90	A1	22MB	10.4 GT/s	16	2.8 GHz	4.3 GHz	165W	DDR4-2933
Intel® Xeon® Processor Gold 5318H	CooperLake	QUYP	A1	24.75MB	10.4 GT/s	18	2.5 GHz	3.8 GHz	150W	DDR4-2667

**Memory (Memory actually maximum frequency will follow memory controller's spec of CPU you used)**

Product Name	Memory Type	Module Supplier	Size	Chip Brand	Rank	Voltage	Data Transfer Rate	Error Correction	CAS Latency	Pins
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RDIMM

CT32G4RFD4266-2G6H1.001	DDR4	CRUCIAL	32GB	Micron	2Rx4	1.2v	2666MHz	ECC Registered	19	288-pin
MTA36ASF4G72PZ-2G6H1QG	DDR4	CRUCIAL	32GB	Micron	2Rx4	1.2v	2666MHz	ECC Registered	19	288-pin
MTA18ASF2G72PDZ-3G2R1UI	DDR4	Micron	16GB	Micron-Rambus	2Rx8	1.2v	3200MHz	ECC Registered	22	288-pin
HMAA8GR7CJR4N-XN T4	DDR4	SKhynix	64GB	SKhynix-Montage	2Rx4	1.2v	3200MHz	ECC Registered	22	288-pin
HMAA8GR7CJR4N-XN TG	DDR4	SKhynix	64GB	SKhynix-IDT	2Rx4	1.2v	3200MHz	ECC Registered	22	288-pin
HMAA8GR7CJR4N-XN T8	DDR4	SKhynix	64GB	SKhynix-Rambus	2Rx4	1.2v	3200MHz	ECC Registered	22	288-pin
MTA9ASF2G72PZ-3G2F1UI	DDR4	Micron	16GB	Micron-Rambus	1Rx8	1.2v	3200MHz	ECC Registered	22	288-pin
MTA18ASF4G72PDZ-3G2B2TI	DDR4	Micron	32GB	Micron-Montage	2Rx8	1.2v	3200MHz	ECC Registered	22	288-pin
MTA36ASF4G72PZ-3G2J3UI	DDR4	Micron	32GB	Micron-Rambus	2Rx4	1.2v	3200MHz	ECC Registered	22	288-pin
MTA18ASF4G72PDZ-3G2F1VI	DDR4	Micron	32GB	Micron-IDT	2Rx8	1.2v	3200MHz	ECC Registered	22	288-pin
MTA18ASF4G72PDZ-3G2F1UI	DDR4	Micron	32GB	Micron-Rambus	2Rx8	1.2v	3200MHz	ECC Registered	22	288-pin
MTA18ASF4G72PZ-3G2F1TI	DDR4	Micron	32GB	Micron-Montage	1Rx4	1.2v	3200MHz	ECC Registered	22	288-pin
MTA18ASF4G72PZ-3G2F1UI	DDR4	Micron	32GB	Micron-Rambus	1Rx4	1.2v	3200MHz	ECC Registered	22	288-pin
KSM32RS8/16MER	DDR4	Kingston	16GB	Micron-Rambus	1Rx8	1.2v	3200MHz	ECC Registered	22	288-pin
KSM32RS4/32MER	DDR4	Kingston	32GB	Micron-Rambus	1Rx4	1.2v	3200MHz	ECC Registered	22	288-pin
MTA18ASF2G72PZ-3G2R1UI	DDR4	Micron	16GB	Micron-Rambus	1Rx4	1.2v	3200MHz	ECC Registered	22	288-pin
MTA36ASF4G72PZ-3G2R1UI	DDR4	Micron	32GB	Micron-Rambus	2Rx4	1.2v	3200MHz	ECC Registered	22	288-pin
MTA36ASF4G72PZ-3G2J3UI	DDR4	Micron	32GB	Micron-Rambus	2Rx4	1.2v	3200MHz	ECC Registered	22	288-pin

MTA36ASF8G72PZ-3G2F1VI	Micron	DDR4	64GB	Micron-IDT	2Rx4	1.2v	3200MHz	ECC Registered	22	288-pin
Intel Optane™ Persistent Memory 200 Series (Barlow PASS) <b>Due to thermal limitaiton, please mark as orange color if test pass</b>										
NMB1XBD128GQS QVSN	DDR-T	Intel	128GB				3200MHz			288-pin
NMB1XBD256GQS QVSP	DDR-T	Intel	256GB				3200MHz			288-pin
NMB1XBD512GQS QVSP	DDR-T	Intel	512GB				3200MHz			288-pin
<b>Seagate HDD (SAS HDD may need RAID Card support)</b>										
Product Name	Type	Vendor	Form Factor	Format	Capacity	Interface Speed	Series	Cache	RPM	Encryption
Seagate Enterprise Capacity 2.5 HDD										
ST1000NX0313	SATA	Seagate	2.5"	512e	1TB	6Gb/s	Exos 7E2000 (Enterprise Capacity V.3)	128MB	7200	N/A
ST2000NX0253	SATA	Seagate	2.5"	512E	2TB	6Gb/s	Exos 7E2000 (Enterprise Capacity V.3)	128MB	7200	N/A
ST2000NX0243	SATA	Seagate	2.5"	4Kn	2TB	6Gb/s	Exos 7E2000 (Enterprise Capacity V.3)	128MB	7200	N/A
<b>SATA/SAS SSD</b>										
Product Name	Type	Vendor	Form Factor	Interface	Capacity	Interface Speed	FW			Note
SATA/SAS SSD										
SSDSC2KB240GZ	Solidigm	SSD	2.5"	SATA	240GB	6Gb/s	D3-S4520 Series			
SSDSC2KB480GZ	Solidigm	SSD	2.5"	SATA	480GB	6Gb/s	D3-S4520 Series			
SSDSC2KG019TZ	Solidigm	SSD	2.5"	SATA	1.92TB	6Gb/s	D3-S4620 Series			
SSDSC2KG038TZ	Solidigm	SSD	2.5"	SATA	3.84TB	6Gb/s	D3-S4620 Series			
MTFDDAK1T9TGA-1BC1ZABYY	Micron	SSD	2.5"	SATA	1.92TB	6Gb/s	5400 PRO			
MTFDDAK1T9TDN-1AT1ZABYY (5200 MAX)	SSD	Micron	2.5"	SATA	1.92TB	6Gb/s				
MTFDDAK3T8TDS-1AW1ZABYY (5300 PRO)	SSD	Micron	2.5"	SATA	3.84TB	6Gb/s				
MTFDDAK1T9TDS-1AW1ZABYY (5300 PRO)	SSD	Micron	2.5"	SATA	1.92TB	6Gb/s				
MZ-7LH1T9NE 883 DCT Series	SSD	Samsung	2.5"	SATA	1.92TB	6Gb/s				
SSDSC2KG019T8 D3-S4610 Series	SSD	Intel	2.5"	SATA	1.92TB	6Gb/s				
SSDSC2KB019T8 D3-S4510 Series	SSD	Intel	2.5"	SATA	1.92TB	6Gb/s				
SSDSC2KB019TZ D3-S4520 Series	SSD	Intel	2.5"	SATA	1.92TB	6Gb/s				
XA960LE10063	SSD	Seagate	2.5"	SATA	960GB	6Gb/s				
XA480LE10063	SSD	Seagate	2.5"	SATA	480GB	6Gb/s				
RHK61RSE960G	SSD	Toshiba	2.5"	SATA	960GB	6Gb/s				
SSB240GTLGC-D2-SME520GBT ESM1220 Series	SSD	Phison	2.5"	SATA	240GB	6Gb/s				
SSB480GTLGC-D2-SME520GBT ESM1220 Series	SSD	Phison	2.5"	SATA	480GB	6Gb/s				
SSB960GTLGC-D2-SME520GBT ESM1220 Series	SSD	Phison	2.5"	SATA	960GB	6Gb/s				
SSB1K9GTLGC-D2-SME520GBT ESM1220 Series	SSD	Phison	2.5"	SATA	1.92TB	6Gb/s				

SSB1K9GTLWCW-D2-SME1720GBT ESM1720 Series	SSD	Phison	2.5"	SATA	1.92TB	6Gb/s			
SSB480GTLWCW-D2-SME1720GBT ESM1720 Series	SSD	Phison	2.5"	SATA	480GB	6Gb/s			
SSB960GTLWCW-D2-SME1720GBT ESM1720 Series	SSD	Phison	2.5"	SATA	960GB	6Gb/s			
SSB240GTLWCW-D2-ESW1710GBT ESW1710 Series	SSD	Phison	2.5"	SATA	240GB	6Gb/s			
SSB480GTLWCW-D2-ESW1710GBT ESW1710 Series	SSD	Phison	2.5"	SATA	480GB	6Gb/s			
SSB960GTLWCW-D2-ESW1710GBT ESW1710 Series	SSD	Phison	2.5"	SATA	960GB	6Gb/s			
MZ7L31T9HBNA-00A07 PM897 Series	SSD	Samsung	2.5"	SATA	1.92TB	6Gb/s			
MZ7L3480HCHQ-00A07 PM893 Series	SSD	Samsung	2.5"	SATA	480GB	6Gb/s			
MZ7L33T8HBLT-00A07 PM893 Series	SSD	Samsung	2.5"	SATA	3.84TB	6Gb/s			

**PCIe SSD**

Product Name	Type	Vendor	Form Factor	Interface	Capacity	Interface Speed	Note		
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PCIe SSD

SSDPEDKX040T701 P4500 Series PCIe Gen3 x4 4TB	PCIe	Intel	PCI-E 3.0	PCIe(NVMe)	4TB	Gen3 x4			
Samsung PM1725b MZPLL3T2HAJQ PCIe Gen3 x8 3.2TB	PCIe	Samsung	PCI-E 3.0	PCIe(NVMe)	3.2TB	Gen3 x8			
Netlist N1951 E3 NS1951AH33T2 Gen3 x8 3.2TB	PCIe	Netlist	PCI-E 3.0	PCIe(NVMe)	3.2TB	-			

**U.2**

Product Name	Type	Vendor	Form Factor	Interface	Capacity	Interface Speed	Note		
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U.2 (VROC support)

SSDPE2KE032T801 P4610 Series	U.2	Intel	2.5"	SFF8639(NVMe)	3.2TB	Gen3 x4			
SSDPE2KX020T801 P4510 Series	U.2	Intel	2.5"	SFF8639(NVMe)	2TB	Gen3 x4			

U.2

WUS4C6432DSP3X Ultrastar DC SN840 Series	U.2	WD	2.5"	SFF8639(NVMe)	3.2TB	PCIe Gen3 x4			
MTFDHBE3T8TDF 7300 Pro Series	U.2	Micron	2.5"	SFF8639(NVMe)	3.84TB	Gen3 x4			
SSDPE2KE032T801 P4610 Series	U.2	Intel	2.5"	SFF8639(NVMe)	3.2TB	Gen3 x4			
SSDPE2KX020T801 P4510 Series	U.2	Intel	2.5"	SFF8639(NVMe)	2TB	Gen3 x4			
MTFDHAL3T2TDR 9300 Max Series	U.2	Micron	2.5"	SFF8639(NVMe)	3.2TB	PCIe Gen3 x4			
MZ-QLB1T9N 983 DCT Series	U.2	Samsung	2.5"	SFF8639(NVMe)	1.92TB	Gen3 x4			
KCD51LUG960G CD5 Series	U.2	Toshiba	2.5"	SFF8639(NVMe)	960GB	Gen3 x4			
PWFX100 3.2TB	U.2	PHISON	2.5"	SFF8639(NVMe)	3.2TB	PCIe Gen3 x4			

U.3

SSDPE2KE032T801 P4610 Series	U.2	Intel	2.5"	SFF8639(NVMe)	3.2TB	Gen3 x4			
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**M.2**

Product Name	Type	Vendor	Form Factor	Interface	Capacity	Interface Speed	Note		
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M.2

IM2P33F8-512GD	M.2	ADATA	2280	PCIe(NVMe)	512GB	PCIe Gen3 x4			
IM2P33F8-256GD1	M.2	ADATA	2280	PCIe(NVMe)	256GB	PCIe Gen3 x4			
IM2P33F8-512GD1	M.2	ADATA	2280	PCIe(NVMe)	512GB	PCIe Gen3 x4			
MZVPV512HDGL	M.2	Samsung	2280	PCIe(NVMe)	512GB	PCIe Gen3 x4			
MTFDHBA960TDF 960GB 7300 Pro Series	M.2	Micron	2280	PCIe(NVMe)	960GB	PCIe Gen3 x4			

**Graphics Card (GPGPU server & Workstation server only)**

Product Name	Processor Cores	Memory Bandwidth (GB/sec)	VRAM	OpenGL	Microsoft DirectX	Graphics Card Power (W)	NVIDIA SLI / AMD CrossFire Ready	Note
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NVIDIA Tesla (<http://www.nvidia.com/object/tesla-supercomputing-solutions.html>)

V100S (VOLTA)	5120	1134 GB/s	32GB			250 W	-	(Maximum support 4pcs GPGPU )
A100 (Ampere)	6912	1555 GB/s	40GB			250 W	-	(Maximum support 4pcs GPGPU )
A40 (Ampere)	10752	696 GB/s	48GB			300W	-	(Maximum support 4pcs GPGPU )
A10 (Ampere)	9216	600 GB/s	24GB			150 W	-	(Maximum support 4pcs GPGPU )

T4 (TURING)	2560	320 GB/s	16GB			70 W	-	(Maximum support 4pcs GPGPU )
NVIDIA Quadro ( <a href="http://www.nvidia.com/object/quadro-desktop-gpus.html">http://www.nvidia.com/object/quadro-desktop-gpus.html</a> )								
RTX 6000 Active	4608	624GB/s	24GB			260 W		(Maximum support 4pcs GPGPU )
RTX A6000 (Ampere) Active	10752	768GB/s	48GB			300 W		(Maximum support 4pcs GPGPU )

**RAID Cards**

Model	RAID-on-Chip Controller	Host Bus Type	Internal Ports	Internal Connectors	External Ports	External Connectors	Data Transfer Rates	Note
GIGABYTE Storage Cards								
CRA3338	LSI SAS 3008	PCIe- x8 Gen3 x8 bus	8	2 xMini-SAS HD for 8x SAS	-	-	12Gb/s ports	
CSA3548	LSI SAS 3008	PCIe- x8 Gen3 x8 bus	-	-	8	2 x external Mini-SAS HD SFF8644	12Gb/s ports	
CRA4448	LSI SAS 3108	PCIe- x8 Gen3 x8 bus	8	2 x internal Mini-SAS HD SFF8643	-	-	12Gb/s ports	

LSI RAID Controller Cards

MegaRAID SAS 9460-16i without Tri-mode	SAS3516 dual-core RAID-on-Chip (ROC)	x8 lane PCI Express® 3.1	8	4 x Mini-SAS HD SFF-8643	-	-	12Gb/s SAS 3.0	
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LSI Host Bus Adapters (HBAs)

LSI SAS 9400-16i without Tri-mode	SAS3416	x8 lane PCI Express® 3.1	16	4 x Mini-SAS HD SFF-8643	-	-	12Gb/s SAS 3.0	
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Microsemi RAID Cards

SmartRAID 3154-16i	PM8236	8-Lane PCIe Gen3	16	4 x Internal, SFF-8643	-	-	12 Gb/s per port	
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Microsemi Host Bus Adapters

SmartHBA 2100-8i	PM8222	8-Lane PCIe Gen3	8	2 x Internal, SFF-8643	-	-	12 Gb/s per port	
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**LAN Cards**

Product Name	Connector	System Interface Type	# of Ports	Data Rate	Note
GIGABYTE LAN Cards					
CLN4B20	RJ-45	PCIe Gen3 x8	Dual	10Gb/s per port	Broadcom BCM57416
CLN4A10	RJ-45	PCIe Gen3 x8	Dual	1Gb/s per port	Broadcom BCM5720L
CLNCD42	SFP28	OC <sup>®</sup> PCIe Gen3 x8	Dual	25Gb/s per port	Broadcom BCM57414 / Support <b>OC<sup>®</sup> 3.0</b>
CLNCB22	RJ-45	OC <sup>®</sup> PCIe Gen3 x8	Dual	10Gb/s per port	Broadcom BCM57416 / Support <b>OC<sup>®</sup> 3.0</b>
CLNCA12	RJ-45	OC <sup>®</sup> PCIe Gen2 x2	Dual	1Gb/s per port	Broadcom BCM5720 / Support <b>OC<sup>®</sup> 3.0</b>
CLN4832	SFP+	PCIe Gen2 x8	Dual	10Gb/s per port	INTEL 82599ES
CLN4312	RJ-45	PCIe Gen2 x4	Dual	1Gb/s per port	INTEL i350-AM2
CLN4314	RJ-45	PCIe Gen2 x4	Quad	1Gb/s per port	INTEL i350-AM4
CLN4D40	SFP28	PCIe x8 Gen3 x8	Dual	25Gb/s per port	Broadcom BCM57414
CLN4751	SFP28	PCIe x8 Gen3 x8	Single	40Gb/s per port	INTEL XL710
CLN4752	QSFP+	PCIe x8 Gen3 x8	Dual	40Gb/s per port	INTEL XL710
CLN4222	RJ-45	PCIe x8 Gen3 x4	Dual	10Gb/s per port	INTEL X550-AT2

Intel\_10GbE

Intel® Ethernet Network Adapter X722-DA4	SFP+	PCIe v3.0 (8.0 GT/s)	Quad	10Gb/s per port	
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Intel\_25GbE

Intel® Ethernet Network Adapter XXV710-DA2	SFP28	PCIe v3.0 (8.0 GT/s)	Dual	25Gb/s per port	
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Intel\_40GbE

Intel® Ethernet Converged Network Adapter XL710-QDA2	QSFP+	PCIe v3.0 (8.0 GT/s)	Dual	40Gb/s per port	
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Mellanox ConnectX

MCX515A-CCAT	QSFP28	PCIe Gen3 x16	Single	100Gb/s per port	Mellanox ConnectX-5 EN
MCX4121A-ACAT	SFP28	PCIe Gen3 x8	Dual	25Gb/s per port	Mellanox ConnectX-4 Lx EN
MCX516A-CCAT	QSFP28	PCIe Gen3 x16	Dual	100Gb/s per port	Mellanox ConnectX-5 EN
MCX4121A-ACAT	SFP28	PCIe Gen3 x8	Dual	25Gb/s per port	Mellanox ConnectX-4 Lx EN
Mellanox VPI Adapter Cards					
MCX555A-ECAT	QSFP28	PCIe 3.0 x16	Single	100Gb/s per port	Mellanox ConnectX-5 VPI (InfiniBand)
Qlogic LAN Adapters					
QL45611HLCU	QSFP28	PCIe x16 Gen3 x16	Single	100Gb/s per port	
QLE3442-RJ-CK	RJ-45	PCIe x8 Gen3 x8	Dual	10Gb/s per port	
Broadcom (Emulex) Ethernet Networking Adapters					
BCM957414A4142C	SFP28	PCIe 3.0 x8	Dual	25Gb/s per port	BCM57414
<b>USB Device</b>					
Product Name	Type	Vendor	Capacity	Note	
USB 3.0					
PURE CLASSIC X176B1FWBO75	HDD	Gigabyte	500G		
GoFlex STAA500305	HDD	Seagate	500G		
TOSHIBA CANVIO BASIC	HDD	Toshiba	500G		
NA317U+	Device	ineo			
SST-TS13	Device	Silver Stone			
S1-DS3-Plus	Device	CyberSLIM			
MB981U3-1S	Device	ICYDOCK			
i310-SB3(6G)	Device	STARDOM			