

"H23N-H60" Qualification Vender List Ver:2.0											
Intel CPU											
Product Name	Code Name	Q-Spec	Stepping	Cache	System Bus	# of Cores	Processor Base Frequency	Max Turbo Frequency	TDP	Memory Types	Processor Graphics
Intel® Xeon® Processor E5-2600v3 series											
Intel® Xeon® Processor E5-2698v3 (40M Cache, 2.30 GHz)	Haswell-EP	Q GN2	C1	40 MB	9.6 GT/s	16	2.3 GHz	3.6 GHz	135 W	DDR4-1600/1866/2133	None
Intel® Xeon® Processor E5-2695v3 (35M Cache, 2.30 GHz)	Haswell-EP	Q GN4	C1	35 MB	9.6 GT/s	14	2.3 GHz	3.3 GHz	120 W	DDR4-1600/1866/2133	None
Intel® Xeon® Processor E5-2690v3 (30M Cache, 2.60 GHz)	Haswell-EP	Q GNY	M1	30 MB	9.6 GT/s	12	2.6 GHz	3.5 GHz	135 W	DDR4-1600/1866/2133	None
Intel® Xeon® Processor E5-2683v3 (35M Cache, 2.00 GHz)	Haswell-EP	Q GN5	C1	35 MB	9.6 GT/s	14	2 GHz	3 GHz	120 W	DDR4-1600/1866/2133	None
Intel® Xeon® Processor E5-2680v3 (30M Cache, 2.50 GHz)	Haswell-EP	Q GNZ	M1	30 MB	9.6 GT/s	12	2.5 GHz	3.3 GHz	120 W	DDR4-1600/1866/2133	None
Intel® Xeon® Processor E5-2670v3 (30M Cache, 2.30 GHz)	Haswell-EP	Q GP2	M1	30 MB	9.6 GT/s	12	2.3 GHz	3.1 GHz	120 W	DDR4-1600/1866/2133	None
Intel® Xeon® Processor E5-2667v3 (20M Cache, 3.20 GHz)	Haswell-EP	Q GSQ	R2	20 MB	9.6 GT/s	8	3.2 GHz	3.6 GHz	135 W	DDR4-1600/1866/2133	None
Intel® Xeon® Processor E5-2660v3 (25M Cache, 2.60 GHz)	Haswell-EP	Q GP1	M1	25 MB	9.6 GT/s	10	2.6 GHz	3.3 GHz	105 W	DDR4-1600/1866/2133	None
Intel® Xeon® Processor E5-2650Lv3 (30M Cache, 1.80 GHz)	Haswell-EP	Q GPB	M1	30 MB	9.6 GT/s	12	1.8 GHz	2.5 GHz	65 W	DDR4-1600/1866/2133	None
Intel® Xeon® Processor E5-2650v3 (25M Cache, 2.30 GHz)	Haswell-EP	Q GPL	M1	25 MB	9.6 GT/s	10	2.3 GHz	3 GHz	105 W	DDR4-1600/1866/2133	None
Intel® Xeon® Processor E5-2643v3 (20M Cache, 3.40 GHz)	Haswell-EP	Q GSR	R2	20 MB	9.6 GT/s	6	3.4 GHz	3.7 GHz	135 W	DDR4-1600/1866/2133	None
Intel® Xeon® Processor E5-2640v3 (20M Cache, 2.60 GHz)	Haswell-EP	Q GSF	R2	20 MB	8 GT/s	8	2.6 GHz	3.4 GHz	90 W	DDR4-1600/1866	None
Intel® Xeon® Processor E5-2637v3 (15M Cache, 3.50 GHz)	Haswell-EP	Q GSP	R2	15 MB	9.6 GT/s	4	3.5 GHz	3.7 GHz	135 W	DDR4-1600/1866/2133	None
Intel® Xeon® Processor E5-2630Lv3 (20M Cache, 1.80 GHz)	Haswell-EP	Q GST	R2	20 MB	8 GT/s	8	1.8 GHz	2.9 GHz	55 W	DDR4-1600/1866	None
Intel® Xeon® Processor E5-2630v3 (20M Cache, 2.40 GHz)	Haswell-EP	Q GXZ	R2	20 MB	8 GT/s	8	2.4 GHz	3.2 GHz	85 W	DDR4-1600/1866	None
Intel® Xeon® Processor E5-2623v3 (10M Cache, 3.00 GHz)	Haswell-EP	Q GSS	R2	10 MB	8 GT/s	4	3 GHz	3.5 GHz	105 W	DDR4-1600/1866	None
Intel® Xeon® Processor E5-2620v3 (15M Cache, 2.40 GHz)	Haswell-EP	Q GSH	R2	15 MB	8 GT/s	6	2.4 GHz	3.2 GHz	85 W	DDR4-1600/1866	None
Intel® Xeon® Processor E5-2609v3 (15M Cache, 1.90 GHz)	Haswell-EP	Q GPN	M1	15 MB	6.4 GT/s	6	1.9 GHz	None	85 W	DDR4-1600	None
Intel® Xeon® Processor E5-2603v3 (15M Cache, 1.60 GHz)	Haswell-EP	Q GSK	R2	15 MB	6.4 GT/s	6	1.6 GHz	None	85 W	DDR4-1600	None
Intel® Xeon® Processor E5-2600v4 series											
Intel® Xeon® Processor E5-2603v4	Broadwell-EP	Q KEV	R0			6	1.7 GHz		85W		
Intel® Xeon® Processor E5-2608Lv4	Broadwell-EP	Q KF4	R0			8	1.6 GHz		50W		
Intel® Xeon® Processor E5-2609v4	Broadwell-EP	Q KEW	R0			8	1.7 GHz		85W		
Intel® Xeon® Processor E5-2618Lv4	Broadwell-EP	Q KF9	R0			10	2.2 GHz		75W		
Intel® Xeon® Processor E5-2620v4	Broadwell-EP	Q KES	R0			8	2.1 GHz		85W		
Intel® Xeon® Processor E5-2628Lv4	Broadwell-EP	Q K9B	M0			12	1.9 GHz		75W		
Intel® Xeon® Processor E5-2630Lv4	Broadwell-EP	Q KEX	R0			10	1.8 GHz		55W		
Intel® Xeon® Processor E5-2630v4	Broadwell-EP	Q KET	R0			10	2.2 GHz		85W		

Intel® Xeon® Processor E5-2637v4	Broadwell-EP	Q KEY	R0			4	3.5 GHz		135W		
Intel® Xeon® Processor E5-2640v4	Broadwell-EP	Q KEU	R0			10	2.4 GHz		90W		
Intel® Xeon® Processor E5-2643 v4	Broadwell-EP	QKEZ	R0			6	3.4GHz		135W		
Intel® Xeon® Processor E5-2648Lv4	Broadwell-EP	Q K9C	M0			14	1.8 GHz		75W		
Intel® Xeon® Processor E5-2650Lv4	Broadwell-EP	Q K93	M0			14	1.7 GHz		65W		
Intel® Xeon® Processor E5-2650v4	Broadwell-EP	Q K8Y	M0			12	2.2 GHz		105W		
Intel® Xeon® Processor E5-2658v4	Broadwell-EP	Q K9A	M0			14	2.3 GHz		105W		
Intel® Xeon® Processor E5-2660v4	Broadwell-EP	Q K8Z	M0			14	2.0 GHz		105W		
Intel® Xeon® Processor E5-2667 v4	Broadwell-EP	QKF0	R0			8	3.2 GHz		135W		
Intel® Xeon® Processor E5-2680v4	Broadwell-EP	Q K92	M0			14	2.4 GHz		120W		
Intel® Xeon® Processor E5-2683v4	Broadwell-EP	Q K7K	B0			16	2.1 GHz		120W		
Intel® Xeon® Processor E5-2690v4	Broadwell-EP	Q K8X	M0			14	2.6 GHz		135W		
Intel® Xeon® Processor E5-2695v4	Broadwell-EP	QK3E	B0			18	2.1 GHz		120W		
Intel® Xeon® Processor E5-2698v4	Broadwell-EP	Q K7M	B0			20	2.2 GHz		135W		

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

CT8G4RFD8213.18FA1	DDR4	CRUCIAL	8GB	Micron	2R	1.2v	2133MHz	ECC Registered	15	288-pin	
KVR21R15D4/16	DDR4	Kingston	16GB	SKhynix	2R	1.2v	2133MHz	ECC Registered	15	288-pin	
T4D6R10S62000	DDR4	TeamGroup	8GB	Samsung	1R X4	1.2v	2133MHz	ECC Registered	15	288-pin	
T4E1R10S62000	DDR4	TeamGroup	16GB	Samsung	2R X4	1.2v	2133MHz	ECC Registered	15	288-pin	
HMA42GR7MFR4N-TF TD	DDR4	HYNIX	16GB	SKhynix	2R	1.2v	2133MHz	ECC Registered	15	288-pin	
CT16G4RFD824A.18FB1	DDR4	Crucial	16GB	Micron	2R X8	1.2v	2400MHz	ECC Registered	17	288-pin	
CT16G4RFD424A.36FB1	DDR4	Crucial	16GB	Micron	2R X4	1.2v	2400MHz	ECC Registered	17	288-pin	
CT16G4RFS424A.18FB1	DDR4	Crucial	16GB	Micron	1RX4	1.2v	2400MHz	ECC Registered	17	288-pin	
CT8G4RFS424A.18FB1	DDR4	Crucial	8GB	Micron	1RX4	1.2v	2400MHz	ECC Registered	17	288-pin	
CT8G4RFS824A.2G3B1	DDR4	Crucial	8GB	Micron	1R X8	1.2v	2400MHz	ECC Registered	17	288-pin	Just test this DIMM to cover
MTA9ASF1G72PZ-2G3B1MG	DDR4	Micron	8GB	Micron-Monta	1R X8	1.2v	2400MHz	ECC Registered	17	288-pin	Same as above
TR432G24D417	DDR4	V-color	32GB		2Rx4	1.2v	2400MHz	ECC Registered		288-pin	
TR416G24S417	DDR4	V-color	16GB		1Rx4	1.2v	2400MHz	ECC Registered		288-pin	
M4R0-8GSSBCSJ	DDR4	Innodisk	8GB		2Rx8	1.2v	2400MHz	ECC Registered		288-pin	
CT32G4RFD424A.2G3B1	DDR4	Crucial	32GB	Micron	2R X4	1.2v	2400MHz	ECC Registered	17	288-pin	Just test this DIMM to cover
CT32G4RFD424A.36FB1	DDR4	Crucial	32GB	Micron	2R X4	1.2v	2400MHz	ECC Registered	17	288-pin	Same as above
MTA36ASF4G72PZ-2G3B1MG	DDR4	Micron	32GB	Micron	2R X4	1.2v	2400MHz	ECC Registered	17	288-pin	Same as above

LRDIMM											
Product Name	Memory Type	Module Supplier	Size	Chip Brand	Rank	Voltage	Data Transfer Rate	Error Correction	CAS Latency	Pins	Note
HMAA8GL7AMR4N-UHTE	DDR4	SKhynix	64GB	SKhynix	4DRx4	1.2v	2400MHz	ECC Unbuffer	17	288-pin	
M386A8K40BM1-CRC4Q M	DDR4	Samsung	64GB	Samsung	4DRx4	1.2v	2400MHz	ECC Unbuffer	17	288-pin	
CT32G4LFD424A.2G3B1	DDR4	Crucial	32GB	Micron	2R X4	1.2v	2400MHz	ECC Registered	17	288-pin	Just test this DIMM to cover
MTA36ASF4G72LZ-2G3B1MG	DDR4	Micron	32GB	Micron	2R X4	1.2v	2400MHz	ECC Registered	17	288-pin	Same as above
Seagate HDD (SAS HDD may need RAID Card support)											
Product Name	Type	Vendor	Form Factor	Format	Capacity	Interface Speed	Series	Cache	RPM	Encryption	FW
Seagate Enterprise Capacity 2.5 HDD											
ST9250610NS	SATA	Seagate	2.5"	N/A	250GB	6Gb/s	Constellation 2	64MB	7200	N/A	SN02
ST1000NX0313	SATA	Seagate	2.5"	N/A	2TB	6Gb/s	Constellation 2	128MB	7200	N/A	
ST2000NX0243	SATA	Seagate	2.5"	N/A	2TB	6Gb/s	Constellation 2	128MB	7200	N/A	
ST2000NX0403	SATA	Seagate	2.5"	512n	2TB	6Gb/s	Enterprise Capacity V.3	128MB	7200	N/A	
ST1000NX0423	SATA	Seagate	2.5"	512n	1TB	6Gb/s	Enterprise Capacity V.3	128MB	7200	N/A	
SSD											
Product Name	Type	Vendor	Form Factor	Interface	Capacity	Interface Speed	FW	Note			
Hard drive											
SHSS37A/240G	SSD	Kingston	SATA	2.5"	240GB	6Gb/s					
SSDPEDMD400G4	SSD	Intel	NVMe	PCI-E 3.0	400GB	-					
SSDPEDME400G4	SSD	Intel	NVMe	PCI-E 3.0	400GB	-					
SSDPE2ME012T4	SSD	Intel	NVMe	2.5"	1.2TB	-					
XF1212-1A0512	SSD	Seagate	SATA	2.5"	480GB						
ASR1010SS-480GM	SSD	ADATA	SATA	2.5"	480GB	6Gb/s					
SDLF1CRR-019T-1HA1	SSD	SanDisk	2.5"	SATA	1.92TB	6Gb/s	ZR07				
GIGABYTE Storage Cards											
CRA3338	LSI SAS 3208	PCIe- x8 Gen3 x8 bus	2	Mini-SAS for 8x SAS	-	-	12Gb/s ports				
CSA6548	LSI SAS 3008	Mezzanine	-	-	8	2 x	12Gb/s ports				
CSA6648	LSI SAS 3008	Mezzanine	8	2 x internal	-	-	12Gb/s ports				
RA200-8	LSI SAS 2308	PCIe- x8	8	2 x Mini-SAS	-	-	6Gb/s ports				
RA201-A	LSI SAS 2208	PCIe- x8	8	2 x Mini-SAS	-	-	6Gb/s ports				
GC-MSLZ2	LSI SAS 2008	PCIe- x8	8	2 x Mini-SAS	-	-	6Gb/s ports				
LSI Host Bus Adapters (HBAs)											
LSI SAS 9300-8e	LSI SAS3008	x8 lane PCI Express® 3.0	-	-	8	2 mini-SAS HD SFF8644	12Gb/s SAS 3.0 compliant				
U.2											
Product Name	Type	Vendor	Form Factor	Interface	Capacity	Interface Speed	FW	Note			
Hard drive											
Techman XC100E55	SSD	Techman	NVMe	2.5"	1.6TB						

Hard Drive SATA DOM											
Product Name	Type	Vendor	Capacity	Flash Type	Max. Channels	FW	Max. Power Consumption	Note			
DESSL-64GM41BC1SCB	Vertical	INNODISK	64GB	MLC	1	0.734W (5V x 146.9mA)					
DESML-64GM41BCADCB	Vertical	INNODISK	64GB	MLC	2	0.815W (5V x 163mA)					
DESSH-64GM41BC1SCB	Horizontal	INNODISK	64GB	MLC							
LAN Cards											
Product Name	Connector	System Interface Type	# of Ports	System Interface Type	Data rate	Note					
GIGABYTE LAN Cards											
GC-MLIZS	SFP+	Mezzanine Gen2 x8	Dual		10Gb/s per port	INTEL 82599					
GC-MLIZS	SFP+	Mezzanine Gen2 x8	Dual		10Gb/s per port	INTEL 82599					
GC-MLIZ	RJ-45	Mezzanine Gen2 x8	Dual		10Gb/s per port	INTEL X540					
GC-MLBZ1	SFP+	PCIe x8 Gen2 x8	Dual		10Gb/s per port	Broadcom BCM57810S					
GC-MNXE20	SFP+	PCIe x8 Gen3 x8	Dual		10Gb/s per port	Mellanox ConnectX-3					
GC-MNXE21	SFP+	PCIe x8 Gen3 x8	Dual		10Gb/s per port	Mellanox ConnectX-3					
CLN4831	SFP+	PCIe x8 Gen2 x8	Single		10Gb/s per port	INTEL 82599EN					
CLN4832	SFP+	PCIe x8 Gen2 x8	Dual		10Gb/s per port	INTEL 82599ES					
CLN4522	RJ-45	PCIe x8 Gen2 x8	Dual		10Gb/s per port	INTEL X540					
CLN4751	QSFP+	PCIe x8 Gen3 x8	Single		40Gb/s per port	INTEL XL710					
CLN4752	QSFP+	PCIe x8 Gen3 x8	Dual		40Gb/s per port	INTEL XL710					
CLN4312	RJ-45	PCIe x4 Gen2 x4	Dual		40Gb/s per port	INTEL i350-AM4					
CLN4314	RJ-45	PCIe x4 Gen2 x4	Quad		40Gb/s per port	INTEL i350-AM4					
Intel_GbE											
Intel® Ethernet Server Adapter I350-T4	RJ-45	PCIe v2.1 (5.0GT/s)	Quad		1Gb/s per port						
Intel_10GbE											
Intel® Ethernet Converged Network Adapter X520-DA2	SFP+	PCIe v2.0 (5.0GT/s)	Dual		10Gb/s per port						
Solarflare Onload Server Adapters											
SFN6122E	SFP+	5.9W	Dual		5.0GT/s (Gen2)						
Emulex Ethernet Networking Adapters											
OCe14101-NX	SFP+	-	Single		PCIe 3.0 x8	10Gb/s per port					
OCe14102-NX	SFP+	-	Dual		PCIe 3.0 x8	10Gb/s per port					
Qlogic Fibre Channel Adapters											
QLE3442-CU-CK	SFP+	PCIe x8 Gen3 x8	Dual		10Gb/s per port						
QLE3442-RJ-CK	RJ-45	PCIe x8 Gen3 x8	Dual		10Gb/s per port						
Transceiver / AOC / DAC											
Product Name / Product Number	Speed	Form Factor	Length	Connector type	nominal optical wavelength (nm)	Note					

Transceiver						
Formerica TAS-A1NH1-P11	10Gb	SFP+	N/A	LC	850	
UMEC PDGSFPPTLNS01	10Gb/1Gb	SFP+	N/A	LC	850	
Avago AFBR-709DMZ	10G/1G	SFP+	N/A	LC	850	
Direct Attach Copper (DAC)						
FCI 10110818-3030LF	10Gb	SFP+	3M	N/A	850	
FCI 10110818-3010LF	10Gb	SFP+	1M	N/A	850	
安富利 586710005	10Gb	SFP+	10M	N/A	850	
安富利 586710004	10Gb	SFP+	7M	N/A	850	
MOLEX 747529004	10Gb	SFP+	10M	N/A	850	
MOLEX 747524501	10Gb	SFP+	5M	N/A	850	
Active Optical Cables (AOC)						
Formerica TAS-A1NH8-XAE03	10Gb	SFP+	3M	N/A	850	
Avago AFBR-7CER03Z	10Gb	SFP+	3M	N/A	850	
Avago AFBR-7CER07Z	10Gb	SFP+	7M	N/A	850	
USB Device						
Product Name	Type	Vendor	Capacity	Note		
USB 3.0						
GoFlex STAA500305	HDD	Seagate	500G			
TOSHIBA CANVIO BASIC	HDD	Toshiba	500G			
NU EBC113	Blue-ray	NU				
NU ESW863 8X SLIM	DVD	NU				
SILICON POWER BLAZE B10 16GB	Flash	SILICON	16G			
ADATA SUPERIOR S102 PRO 8GB	Flash	ADATA	8G			
S1-DS3 TURBO	Device	CyberSLIM				