

Please contact FAE support for below orange blocks

Ampere CPU for Ultra and Ultra max											
Product Name	Core Name	Q-Spec	Stepping	Cache	System Bus	# of Cores	Processor Base Frequency	Max Frequency	TDP	Memory Types	Note
Ampere CPU											
Ampere Ultra Max CPU M128-30	Ultra Max				25 GT/s	128	2.8 GHz	3.0 GHz	250	DDR4-3200	
Ampere Ultra Max CPU M128-28	Ultra Max				25 GT/s	128	2.8 GHz	2.8 GHz	230	DDR4-3200	
Ampere Ultra Max CPU M128-26	Ultra Max				25 GT/s	128	2.6 GHz	2.6 GHz	190	DDR4-3200	
Ampere Ultra Max CPU M112-30	Ultra Max				25 GT/s	112	3.0 GHz	3.0 GHz	240	DDR4-3200	
Ampere Ultra Max CPU M96-30	Ultra Max				25 GT/s	96	3.0 GHz	3.0 GHz	220	DDR4-3200	
Ampere Ultra Max CPU M96-28	Ultra Max				25 GT/s	96	2.8 GHz	2.8 GHz	190	DDR4-3200	
Ampere Ultra CPU Q80-33	Ultra				25 GT/s	80	3.0 GHz	3.3 GHz	250	DDR4-3200	
Ampere Ultra CPU Q80-30	Ultra				25 GT/s	80	2.8 GHz	3.0 GHz	210	DDR4-3200	
Ampere Ultra CPU Q80-28	Ultra				25 GT/s	80	2.6 GHz	2.8 GHz	185	DDR4-3200	
Ampere Ultra CPU Q80-26	Ultra				25 GT/s	80	2.4 GHz	2.6 GHz	150	DDR4-3200	
Ampere Ultra CPU Q72-30	Ultra				25 GT/s	72	2.8 GHz	3.0 GHz	195	DDR4-3200	
Ampere Ultra CPU Q64-33	Ultra				25 GT/s	64	3.0 GHz	3.3 GHz	220	DDR4-3200	
Ampere Ultra CPU Q64-30	Ultra				25 GT/s	64	2.8 GHz	3.0 GHz	180	DDR4-3200	
Ampere Ultra CPU Q64-26	Ultra				20 GT/s	64	2.4 GHz	2.6 GHz	125	DDR4-3200	
Ampere Ultra CPU Q64-22	Ultra				16 GT/s	64	2.0 GHz	2.2 GHz	95	DDR4-3200	
Ampere Ultra CPU Q32-17	Ultra				16 GT/s	32	1.7 GHz	1.7 GHz	65	DDR4-3200	
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	Note
RDIMM											
MTA36ASF4G72PZ-3G2E2	DDR4	Micron	16GB	Micron-Rambus	2Rx4	1.2v	3200MHz	ECC Registered	24	288-pin	
M393A4G43AB3-CWE	DDR4	Samsung	32GB	Samsung-IDT	2Rx8	1.2v	3200MHz	ECC Registered	22	288-pin	
M393A2K40CB2-CTD6Q	DDR4	Samsung	16GB	Samsung-Montage	1Rx4	1.2v	2666MHz	ECC Registered	19	288-pin	
M393A8K40B22-CWD6Q	DDR4	Samsung	64GB	Samsung	2S2Rx4	1.2v	2666MHz	ECC Registered	19	288-pin	
M393A8G40MB2-CTD7Q	DDR4	Samsung	64GB	Samsung-IDT	2Rx4	1.2v	2666MHz	ECC Registered	19	288-pin	
CT32G4RFD4266.36FD1	DDR4	CRUCIAL	32GB	Micron	2Rx4	1.2v	2666MHz	ECC Registered	19	288-pin	
CT32G4RFD4266-2G6D1.001	DDR4	CRUCIAL	32GB	Micron	2Rx4	1.2v	2666MHz	ECC Registered	19	288-pin	
CT32G4RFD4266-2G6H1.001	DDR4	CRUCIAL	32GB	Micron	2Rx4	1.2v	2666MHz	ECC Registered	19	288-pin	
HMA84GR7AFR4N-VKT3	DDR4	SKhynix	32GB	SKhynix-Montage	2Rx4	1.2v	2666MHz	ECC Registered	19	288-pin	
M393A2K43DB2-CVFBQ	DDR4	Samsung	16GB	Samsung-IDT	2Rx8	1.2v	2933MHz	ECC Registered	21	288-pin	
M393A4K40DB2-CVFBQ	DDR4	Samsung	32GB	Samsung-IDT	2Rx4	1.2v	2933MHz	ECC Registered	21	288-pin	
M393A8G40AB2-CVFBY	DDR4	Samsung	64GB	Samsung-IDT	2Rx4	1.2v	2933MHz	ECC Registered	21	288-pin	
M393A2K43EB3-CWEBQ	DDR4	Samsung	16GB	Samsung-IDT	2Rx8	1.2v	3200MHz	ECC Registered	22	288-pin	
CT16G4RFD8293.18FE1	DDR4	CRUCIAL	16GB	Micron	2Rx8	1.2v	2933MHz	ECC Registered	21	288-pin	
MTA9ASF2G72PZ-2G9E1UI	DDR4	Micron	16GB	Micron-Rambus	1Rx8	1.2v	2933MHz	ECC Registered	21	288-pin	
CT32G4RFD4293-2G9E2.001	DDR4	CRUCIAL	32GB	Micron	2Rx4	1.2v	2933MHz	ECC Registered	21	288-pin	
MTA36ASF4G72PZ-2G9E2TG	DDR4	Micron	32GB	Micron-Montage	2Rx4	1.2v	2933MHz	ECC Registered	21	288-pin	
MTA18ASF4G72PDZ-2G9E1T1	DDR4	Micron	32GB	Micron-Montage	2Rx8	1.2v	2933MHz	ECC Registered	21	288-pin	
MTA18ASF4G72PDZ-3G2F1UI	DDR4	Micron	32GB	Micron-Rambus	2Rx8	1.2v	3200MHz	ECC Registered	22	288-pin	
MTA36ASF8G72PZ-2G9E1T1	DDR4	Micron	64GB	Micron-Montage	2Rx4	1.2v	2933MHz	ECC Registered	21	288-pin	
HMA82GR7CJR8N-WM T4	DDR4	SKhynix	16GB	SKhynix-Montage	2Rx8	1.2v	2933MHz	ECC Registered	21	288-pin	
HMA84GR7CJR4N-WM TG	DDR4	SKhynix	32GB	SKhynix-IDT	2Rx4	1.2v	2933MHz	ECC Registered	21	288-pin	
HMAA8GR7MJR4N-WM T4	DDR4	SKhynix	64GB	SKhynix-Montage	2Rx4	1.2v	2933MHz	ECC Registered	21	288-pin	
KSM29RD8/16HDR	DDR4	Kingston	16GB	SKhynix-Rambus	2Rx8	1.2v	2933MHz	ECC Registered	21	288-pin	
KSM29RD4/32HDR	DDR4	Kingston	32GB	SKhynix-Rambus	2Rx4	1.2v	2933MHz	ECC Registered	21	288-pin	
NT16GA72D8PBX3P-IX	DDR4	Nanya	16GB	Nanya-IDT	2Rx8	1.2v	2933MHz	ECC Registered	21	288-pin	
NT32GA72D4NBX3P-IX	DDR4	Nanya	32GB	Nanya-Montage or IDT	2Rx4	1.2v	2933MHz	ECC Registered	21	288-pin	
HMA82GR7DJR8N-XN T8	DDR4	SKhynix	16GB	SKhynix-Rambus	2Rx8	1.2v	3200MHz	ECC Registered	22	288-pin	
HMA82GR7DJR8N-XN TG	DDR4	SKhynix	16GB	SKhynix-IDT	2Rx8	1.2v	3200MHz	ECC Registered	22	288-pin	
HMA84GR7DJR4N-XN T4	DDR4	SKhynix	32GB	SKhynix-Montage	2Rx4	1.2v	3200MHz	ECC Registered	22	288-pin	
HMAA8GR7AJR4N-XN TG	DDR4	SKhynix	64GB	SKhynix-IDT	2Rx4	1.2v	3200MHz	ECC Registered	22	288-pin	
CT16G4RFD832A-3G2E1.001	DDR4	Crucial	16GB	Micron-Rambus	2Rx8	1.2v	3200MHz	ECC Registered	22	288-pin	
MTA9ASF2G72PZ-3G2E1T1	DDR4	Micron	16GB	Micron-Montage	1Rx8	1.2v	3200MHz	ECC Registered	22	288-pin	
MTA18ASF4G72PDZ-3G2B2T1	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	
MTA36ASF4G72PZ-3G2E7V1	DDR4	Micron	32GB	Micron-IDT	2Rx4	1.2v	3200MHz	ECC Registered	22	288-pin	
MTA36ASF8G72PZ-3G2E1V1	DDR4	Micron	64GB	Micron-IDT	2Rx4	1.2v	3200MHz	ECC Registered	22	288-pin	
MTA18ASF4G72PDZ-3G2E1T1	DDR4	Micron	32GB	Micron	2Rx8	1.2v	3200MHz	ECC Registered	22	288-pin	
MTA18ASF2G72PDZ-3G2J3	DDR4	Micron	16GB	Micron	2Rx8	1.2v	3200MHz	ECC Registered	22	288-pin	
MTA18ASF4G72PZ-3G2F1T1	DDR4	Micron	32GB	Micron	1Rx4	1.2v	3200MHz	ECC Registered	22	288-pin	
M393A2K43DB3-CWEBQ	DDR4	Samsung	16GB	Samsung-IDT	2Rx8	1.2v	3200MHz	ECC Registered	22	288-pin	
M393A2K40DB3-CWEGQ	DDR4	Samsung	16GB	Samsung-Rambus	1Rx4	1.2v	3200MHz	ECC Registered	22	288-pin	
M393A4K40DB3-CWECQ	DDR4	Samsung	32GB	Samsung-Montage	2Rx4	1.2v	3200MHz	ECC Registered	22	288-pin	

M393A4K40DB3-CWEBO	DDR4	Samsung	32GB	Samsung-IDT	1Rx4	1.2v	3200MHz	ECC Registered	22	288-pin	
M393A4K40DB3-CWEGQ	DDR4	Samsung	32GB	Samsung-Rambus	2Rx4	1.2v	3200MHz	ECC Registered	22	288-pin	
M393A8G40AB2-CWEBO	DDR4	Samsung	64GB	Samsung-IDT	2Rx4	1.2v	3200MHz	ECC Registered	22	288-pin	
M393A8G40AB2-CWECO	DDR4	Samsung	64GB	Samsung-Montage	1Rx4	1.2v	3200MHz	ECC Registered	22	288-pin	
M393AAG40M32-CAEBO	DDR4	Samsung	128GB	Samsung	2S2Rx4	1.2v	3200MHz	ECC Registered	22	288-pin	
M393A4K40EB3-CWE	DDR4	Samsung	32GB	Samsung	2Rx4	1.2v	3200MHz	ECC Registered	22	288-pin	
M393A4G43BB4-CWEBY	DDR4	Samsung	32GB	Samsung-IDT	1Rx4	1.2v	3200MHz	ECC Registered	22	288-pin	
M393A8G40BB4-CWE	DDR4	Samsung	64GB	Samsung	2Rx4	1.2v	3200MHz	ECC Registered	22	288-pin	
KSM32RS8/16MER	DDR4	Kingston	16GB	Micron-Rambus	1Rx8	1.2v	3200MHz	ECC Registered	22	288-pin	
KSM32RD4/32HDR	DDR4	Kingston	32GB	SKhynix-Rambus	1Rx4	1.2v	3200MHz	ECC Registered	22	288-pin	
KSM32RS4/32MER	DDR4	Kingston	32GB	Micron-Rambus	1Rx4	1.2v	3200MHz	ECC Registered	22	288-pin	
AD4R3200716G22-BHYA	DDR4	ADATA	16GB	SKhynix-Montage	1Rx8	1.2v	3200MHz	ECC Registered	22	288-pin	
MTA36ASF4G72PZ-3G2R1UI	DDR4	Micron	32GB	Micron-Rambus	1Rx4	1.2v	3200MHz	ECC Registered	22	288-pin	
MTA18ASF2G72PDZ-3G2R1UI	DDR4	Micron	16GB	Micron-Rambus	2Rx8	1.2v	3200MHz	ECC Registered	22	288-pin	
MTA18ASF2G72PDZ-3G2R1VI	DDR4	Micron	16GB	Micron-IDT	2Rx8	1.2v	3200MHz	ECC Registered	22	288-pin	
MTA18ASF2G72PDZ-3G2R1TI	DDR4	Micron	16GB	Micron-Rambus	2Rx8	1.2v	3200MHz	ECC Registered	22	288-pin	

HDD / U.2 / M.2 (SATS/ SAS HDD may need RAID Card support and please check if the model support NVMe)

Product Name	Type	Vendor	Form Factor	Format	Capacity	Interface Speed	Series	Cache	RPM	Encryption	Note
U.2 NVME SSD											
SSDPE2KE032T801 P4610 Series	U.2	Intel	2.5"	SFF8639(NVMe)	3.2TB	PCIe Gen3 x4					
SSDPE2KX020T801 P4510 Series	U.2	Intel	2.5"	SFF8639(NVMe)	2TB	PCIe Gen3 x4					
SSDPE2KX010T801 P4510 Series	U.2	Intel	2.5"	SFF8639(NVMe)	1TB	PCIe 3.1 x4, NVMe					
SSDPE2KX040T8 P4510 Series	U.2	Intel	2.5"	SFF8639(NVMe)	4TB	PCIe 3.1 x4, NVMe					
MZWL3T2HAJQ PM1725b Series	U.2	Samsung	2.5"	SFF8639(NVMe)	3.2TB	PCIe Gen3 x4					
MZQLW1T9HMJP PM963 Series	U.2	Samsung	2.5"	SFF8639(NVMe)	1.92TB	PCIe Gen3 x4					
MZ-QLB1T9N 983 DCT Series	U.2	Samsung	2.5"	SFF8639(NVMe)	1.92TB	PCIe Gen3 x4					
MZWLJ3T8HBLR PM1733 Series	U.2	Samsung	2.5"	SFF8639(NVMe)	3.84TB	PCIe Gen4 x4					
MZQLB1T9HAJR-00007 Samsung Pm983	U.2	Samsung	2.5"	SFF8639(NVMe)	1.92TB	PCIe Gen3 x4					
MZQLB3T8HALS-00007 Samsung Pm983	U.2	Samsung	2.5"	SFF8639(NVMe)	3.84TB	PCIe Gen3 x4					
MZQL2960HCJR-00A07 Samsung PM9A3	U.2	Samsung	2.5"	SFF8639(NVMe)	960GB	PCIe Gen4 x4					
MZQL23T8HCLS-00A07 Samsung PM9A3	U.2	Samsung	2.5"	SFF8639(NVMe)	3.84TB	PCIe Gen4 x4					
MTFDHBE1T6TDG 7300 Max Series	U.2	Micron	2.5"	SFF8639(NVMe)	1.6TB	PCIe Gen3 x4					
KCD51LUG960G CD5 Series	U.2	KIOXIA	2.5"	SFF8639(NVMe)	960GB	PCIe Gen3 x4					
PS5012-E12	U.2	PHISON	2.5"	SFF8639(NVMe)	1.92TB	PCIe Gen3 x4					
MZ-QLB960NE Samsung 883	U.2	Samsung	2.5"	SFF8639(NVMe)	960GB	PCIe Gen3 x4					

U.3 NVME SSD

KCM61RUL3T84 CM6-R Series	U.3	KIOXIA	2.5"	SFF8639(NVMe)	3.84TB	PCIe Gen4 x4					
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M.2 NVME SSD

MTFDHGB3T8TDF 3840GB 7300 Pro Series	M.2	Micron	22110	PCIe(NVMe)	3840GB	PCIe Gen3 x4					
Phison PS5016-E16 & PS5019-E19	M.2	Gigabyte	2280	PCIe(NVMe)	1TB	PCIe Gen4 x4					
MZ1LB1T9HALS-00007 Samsung 983	M.2	Samsung	22110	PCIe(NVMe)	1.92TB	PCIe Gen3 x4					
MZ1LB960HAJQ-00007 Samsung Pm983	M.2	Samsung	22110	PCIe(NVMe)	960GB	PCIe Gen3 x4					
MZ1L21T9HCLS-00A07 Samsung Pm9A3	M.2	Samsung	22110	PCIe(NVMe)	1.92TB	PCIe Gen4 x4					
MZ1L23T8HBLA-00A07 Samsung Pm9A3	M.2	Samsung	22110	PCIe(NVMe)	3.84TB	PCIe Gen4 x4					

M.2 Expansion PCIe Card

Product Name	Type	Vendor	Form Factor	Interface	Max. Channels	Interface Speed	Note
CMT4032	PCIe	Gigabyte	22110	PCIe(NVMe)	2	PCIe Gen3 x8	-

GPGPU Card (GPGPU server only)

Product Name	Processor Cores	Memory Bandwidth (GB/sec)	VRAM	OpenGL	Microsoft DirectX	Graphics Card Power (W)	NVIDIA SLI / AMD CrossFire Ready	Note
A100 (Ampere)	6912	1935 GB/s	80GB			300 W		Without the CPU of Ultra Max series
H100 (Ampere)	16896	2000 GB/s	80GB			350 W		

RAID Cards

Product Name	RAID-on-Chip Controller	Host Bus Type	Internal Ports	Internal Connectors	External Ports	External Connectors	Data Transfer Rates	Note	Support type	RAID
LSI RAID Controller Cards										
MegaRAID 9560-16i	SAS3916 Tri-Mode RAID-on-Chip (ROC)	PCIe Gen4 x8	16	2 x8 SlimSAS SFF-8654	-	-	Up to 12Gb/s per port		U.2	Hardware RAID
MegaRAID 9560-8i	SAS3908 Tri-Mode RAID-on-Chip (ROC)	PCIe Gen4 x8	8	1 x8 SlimSAS SFF-8654	-	-	Up to 12Gb/s per port		U.2	Hardware RAID Firmware package : 52.21.0-4428

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 Need update v25 ARM-HII Firmware
CLN4312	RJ-45	PCIe Gen2 x4	Dual	1Gb/s per port	Intel® I350-AM2
CLN4C42	SFP28	PCIe Gen3 x16	Dual	25Gb/s per port	Mellanox ConnectX-4 Need update ARM-HII Firmware Firmware 14.25.17 (UEFI)

CLN4C44	SFP28	PCIe Gen3 x16	Quad	25Gb/s per port	Mellanox ConnectX-4	Need update ARM-HII Firmware Need to set BIOS x4+x4+x4+x4 Firmware 14.25.17 (UEFI)
Intel_1GbE						
Intel® Ethernet Converged Network Adapter I350-T2V2	RJ-45	PCIe Gen2 x4	Dual	1Gb/s per port		
Mellanox ConnectX						
MCX4121A-ACAT	SFP28	PCIe Gen3 x8	Dual	25Gb/s per port	Mellanox ConnectX-4 Lx EN	UEFI ARM Disabled
MCX621102AN-ADAT	SFP28	PCIe Gen4 x8	Dual	25Gb/s per port	Mellanox ConnectX-6 Dx EN	
MCX623105AN-CDAT	QSFP56	PCIe Gen4 x16	Single	100Gb/s per port	Mellanox ConnectX®-6 Dx No Crypto, No Secure Boot	
MCX623106AN-CDAT	QSFP56	PCIe Gen4 x16	Dual	100Gb/s per port	Mellanox ConnectX®-6 Dx No Crypto, No Secure Boot	
MCX623106AC-CDAT	QSFP56	PCIe Gen4 x16	Dual	100Gb/s per port	Mellanox ConnectX®-6 Dx With Crypto, With Secure Boot	
Mellanox VPI Adapter Cards						
MCX653106A-HDAT	QSFP56	PCIe Gen4 x16	Dual	200Gb/s per port	Mellanox ConnectX-6 Ex VPI (InfiniBand)	
MCX653105A-HDAT	QSFP56	PCIe Gen4 x16	Single	200Gb/s per port	Mellanox ConnectX-6 Ex VPI (InfiniBand)	
MCX653105A-ECAT	QSFP56	PCIe Gen4 x16	Single	100Gb/s per port	Mellanox ConnectX-6 Ex VPI (InfiniBand)	
MCX456A-ECAT	QSFP56	PCIe Gen4 x16	Dual	100Gb/s per port	Mellanox ConnectX-4 VPI (InfiniBand)	
MCX354A-FCBT	QSFP	PCIe Gen3 x8	Dual	FDR and 40/56GbE	Mellanox ConnectX®-3 VPI	
Broadcom						
BCM957414A4142CC	SFP28	PCIe Gen3 x8	Dual	25Gb/s per port	BCM57414	Firmware version: 223.0.161.0/pkg 223.1.96.0
(Mellanox) NVIDIA BlueField-2 DPU Cards						
MBF2M345A-HESOT	QSFP56	PCIe Gen4 x16	Single	200Gb/s per port	E-Series/ 2.0GHz	
USB Device						
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			
NU EBC113	Blue-ray	NU				
NU ESW863 8X SLIM	DVD	NU				
Verico Evolution Lite S 16GB	Flash	Verico	16G			
NA317U+	Device	ineo				
S1-DS3-Plus	Device	CyberSLIM				
MB981U3-1S	Device	ICYDOCK				
i310-SB3(6G)	Device	STARDOM				