



Please contact FAE support for below orange blocks

Ampere CPU for Altra and Altra 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 Altra Max CPU M128-30	Altra Max					128	3.0 GHz	3.0 GHz	250	DDR4-3200	
Ampere Altra Max CPU M128-28	Altra Max					128	2.8 GHz	2.8 GHz	230	DDR4-3200	
Ampere Altra Max CPU M128-26	Altra Max					128	2.6 GHz	2.6 GHz	190	DDR4-3200	
Ampere Altra Max CPU M112-30	Altra Max					112	3.0 GHz	3.0 GHz	240	DDR4-3200	
Ampere Altra Max CPU M96-30	Altra Max					96	3.0 GHz	3.0 GHz	220	DDR4-3200	
Ampere Altra Max CPU M96-28	Altra Max					96	2.8 GHz	2.8 GHz	190	DDR4-3200	
Ampere Altra CPU Q80-33	Altra					80	3.25 GHz	3.25 GHz	250	DDR4-3200	max : 3250 MHz
Ampere Altra CPU Q80-30	Altra					80	3.0 GHz	3.0 GHz	210	DDR4-3200	
Ampere Altra CPU Q80-28	Altra					80	2.8 GHz	2.8 GHz	175	DDR4-3200	
Ampere Altra CPU Q80-26	Altra					80	2.6 GHz	2.6 GHz	150	DDR4-3200	
Ampere Altra CPU Q72-30	Altra					72	3.0 GHz	3.0 GHz	195	DDR4-3200	
Ampere Altra CPU Q64-33	Altra					64	3.2 GHz	3.2 GHz	220	DDR4-3200	max : 3250 MHz
Ampere Altra CPU Q64-30	Altra					64	3.0 GHz	3.0 GHz	180	DDR4-3200	
Ampere Altra CPU Q64-26	Altra					64	2.6 GHz	2.6 GHz	125	DDR4-3200	
Ampere Altra CPU Q64-22	Altra					64	2.2 GHz	2.2 GHz	95	DDR4-3200	
Ampere Altra CPU Q32-17	Altra					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	
MTA9ASF1G72PZ-3G2R1VI	DDR4	Micron	8GB	Micron	1Rx8	1.2v	3200MHz	ECC Registered	19	288-pin	
CT32G4RFD4266.36FD1	DDR4	CRUCIAL	32GB	Micron	2Rx4	1.2v	2666MHz	ECC Registered	19	288-pin	
GT32G4RFD4266-2G6D1.001	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-2G9E1TI	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-2G9E1TI	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 T4	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-3G2E1TI	DDR4	Micron	16GB	Micron-Montage	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	
MTA36ASF4G72PZ-3G2E7VI	DDR4	Micron	32GB	Micron-IDT	2Rx4	1.2v	3200MHz	ECC Registered	22	288-pin	
MTA36ASF8G72PZ-3G2E1VI	DDR4	Micron	64GB	Micron-IDT	2Rx4	1.2v	3200MHz	ECC Registered	22	288-pin	
MTA18ASF4G72PDZ-3G2E1TI	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-3G2F1TI	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-CWEBQ	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-CWEBQ	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-CAEBQ	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	

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	FW
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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					
SSDPE2KX010T8 DC P4510 Series	U.2	Intel	2.5"	SFF8639(NVMe)	1.0TB	PCIe 3.1 x4, NVMe					FW: VDV10131
MZWLL3T2HAJQ 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					
MZWLJ3T8HBS PM1733 Series	U.2	Samsung	2.5"	SFF8639(NVMe)	3.84TB	PCIe Gen4 x4					
MZQLB1T9HAJR-00007 Samsung PM983 Series	U.2	Samsung	2.5"	SFF8639(NVMe)	1.92TB	PCIe Gen3 x4					
MZQLB3T8HALS-00007 Samsung PM983 Series	U.2	Samsung	2.5"	SFF8639(NVMe)	3.84TB	PCIe Gen3 x4					
MZQLZ960HCJR-00A07 Samsung PM9A3 Series	U.2	Samsung	2.5"	SFF8639(NVMe)	960GB	PCIe Gen4 x4					
MZQLZ3T8HCLS-00A07 Samsung PM9A3 Series	U.2	Samsung	2.5"	SFF8639(NVMe)	3.84TB	PCIe Gen4 x4					
MZQLZ7T8HBLA-00A07 Samsung PM9A3 Series	U.2	Samsung	2.5"	SFF8639(NVMe)	7.68TB	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 PM983 Serie	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 PM983 Series	M.2	Samsung	22110	PCIe(NVMe)	1.92TB	PCIe Gen3 x4					
MZ1LB960HAJQ-00007 Samsung PM983 Series	M.2	Samsung	22110	PCIe(NVMe)	960GB	PCIe Gen3 x4					
MZ1L21T9HCLS-00A07 Samsung PM9A3 Series	M.2	Samsung	22110	PCIe(NVMe)	1.92TB	PCIe Gen4 x4					
MZ1L23T8HBLA-00A07 Samsung PM9A3 Series	M.2	Samsung	22110	PCIe(NVMe)	3.84TB	PCIe Gen4 x4					
MZ1B3T8HMLA-00007 Samsung PM983 Series	M.2	Samsung	22110	PCIe(NVMe)	3.84TB	PCIe Gen3 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	-
CMT4034	PCIe	Gigabyte	22110	PCIe(NVMe)	4	PCIe Gen3 x16	-

LAN Cards

Product Name	Connector	System Interface Type	# of Ports	Data Rate	Note
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GIGABYTE LAN Cards

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 only for slot 4 or 6. Need to set BIOS x4+x4+x4+x4 Firmware 14.25.17 (UEFI)
CLN4314	RJ-45	PCIe Gen2 x4	Quad	1Gb/s per port	INTEL i350-AM4	
CLN4D40	SFP28	PCIe Gen3 x8	Dual	25Gb/s per port	Broadcom BCM57414	Firmware version: 224.0.158.0/pkg 224.1.102.0
CLN4M34	SFP28	PCIe Gen3 x16	Quad	10Gb/s per port	Mellanox ConnectX-4 Lx	Firmware version: 14.32.10.10 / 14.25.17

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	QSFP28	PCIe Gen3 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 Cards							
BCM957414AA142CC	SFP28	PCIe Gen3 x8	Dual	25Gb/s per port	BCM57414	Firmware version: 223.0.161.0/pkg 223.1.96.0	
BCM957504-P425G	SFP28	PCIe Gen4 x16	Quad	25Gb/s per port	BCM57504	Firmware version: 225.0.144.0/pkg 225.1.95.0	
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					