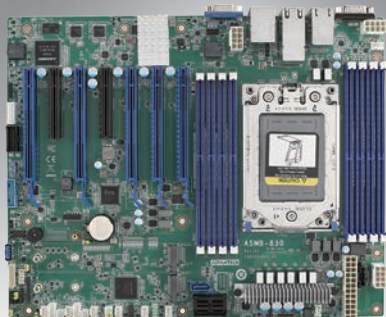


ASMB-830

LGA 4094 AMD® EPYC™ 7002/7003 ATX Server Board with 8x DDR4, 5x PCIe 4.0 x16 + 2x PCIe 4.0 x8, 9x SATA 3, 5x USB 3.2 (Gen1), Dual 10GbE, and IPMI



CE FCC

Features

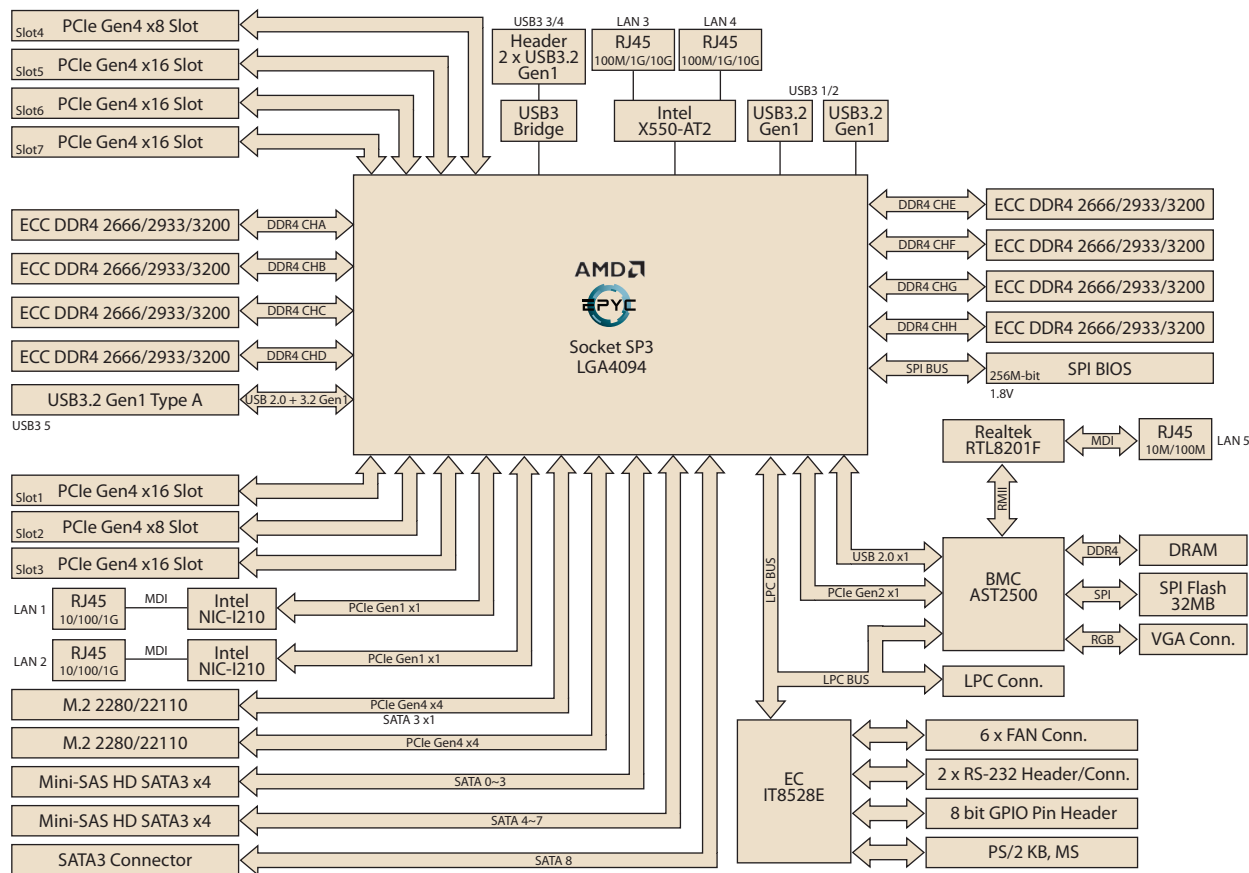
- LGA 4094 (Socket SP3) ATX server board with AMD EPYC™ 7002/7003 processor
- DDR4 3200 MHz RDIMM up to 128GB per DIMM
- Features 5x PCIe 4.0 x16, 2x PCIe 4.0 x8
- Intel® X550 dual 10GbE ports
- Eight (via SFF-8643 connector) + one SATA 3 and two M.2 connectors (SATA/PCIe 4.0 compatible)
- 0 ~ 60 °C/ 32 ~ 140 °F ambient operating temperature range

Specifications

Form Factor	ATX form factor					
Processor System	Socket	AMD LGA 4094 (Socket SP3)				
	CPU type	AMD EPYC™ 7002/7003 processors (CPU cooler should be purchased separately*)				
Memory	Total slots	8x (1 DIMM per channel)				
	Capacity	Maximum 128GB ECC-REG per DIMM				
	Memory type	DDR4 ECC-REG 2666/2933/3200 MHz RDIMM/LRDIMM				
	Memory size	8 GB, 16 GB, 32 GB, 64 GB, 128GB (LRDIMM)				
Expansion Slots	Total PCI/PCI-X/PCIe slots	7				
	Slot location 1	PCIe x16 slot (Gen4 x16 link)				
	Slot location 2	PCIe x8 slot (Gen4 x8 link)				
	Slot location 3	PCIe x16 slot (Gen4 x16 link)				
	Slot location 4	PCIe x8 slot (Gen4 x8 link)				
	Slot location 5	PCIe x16 slot (Gen4 x16 link)				
	Slot location 6	PCIe x16 slot (Gen4 x16 link)				
Graphics	VGA	ASPEED AST2500				
	SATA controller	AMD EPYC™ CPU integrated: Eight (via Mini-SAS HD SFF-8643) + one SATA3				
Storage	SAS controller	-				
	SATA controller	-				
Networking	GbE/10GbE LAN	2 x Intel® I210AT / Intel® X550-AT2 (dual 10GbE ports)				
Onboard I/O Connector	PSU connector	24-pin SSI power connector + 3 x 8-pin SSI 12 V power connector				
	USB connector	4 x USB 3.2 Gen1 ports (two onboard headers) + 1 x Type-A USB 3.2 Gen1 port				
	Fan header	6 x 4-pin (5 for system + 1 for CPU)				
	M.2	1 x M.2 2280/22110 (PCIe Gen4 / SATA) + 1 x M.2 2280/22110 (PCIe Gen4 only)				
	SMBus	1				
	chassis intrusion	1				
	Front LAN LED	1				
	PS/2 KB/Mouse header	1				
Rear I/O Connector	Serial port header	1				
	External serial port	1				
	External USB port	2x (USB 3.2 Gen1)				
	VGA port	1				
	RJ-45	5x (1 port dedicated for IPMI function)				
Management Solution	Software	-				
	Out of band remote management	Yes				
Monitoring	CPU temperature	Yes				
	System Monitoring	Yes				
Watchdog Timer	Output	System reset				
	Interval	Programmable 1 ~ 255 sec/min				
Power Requirement	Power On	3.3V	5V	12V	5Vsb	12V_8P_0 12V_8P_1
	(225W CPU@2.0GHz DDR4-2666 32G*8)	1.782A	1.704A	1.379A	0.142A	16.978A 8.227A
Environment		Operating			Non-operating	
	Temperature	0 ~ 60 °C/32 ~ 140 °F, depends on CPU speed and cooling solution			-40 ~ 85 °C/-40 ~ 185 °F	
	Humidity	10% ~ 95%			10% ~ 95% (Non condensing)	
Physical Characteristics	Dimension (L x H)	304 x 244 mm (12 x 9.6 in)				

*CPU power design support up to 225W TDP. Please consider extended air thermal solution while using CPU > 180W TDP

Block Diagram



Ordering Information

Part Number	Memory	GbE/10GbE LAN	IPMI	Graphics
ASMB-830I-00A1	DDR4 ECC-REG DIMM	2/-	Yes	AST 2500
ASMB-830T2-00A1	DDR4 ECC-REG DIMM	2/2	Yes	AST 2500

Packing List

Part Number	Description	Quantity
2042083000	Startup manual	x 1
1700003194	SATA data cables	x 1
1700022749-11	SATA power cables	x 1
1700019748	CPU power cable	x 2
1930008738	Screw for M.2 device	x 2
1960093947T002	I/O Shield	x 1
1700031926-11	Front panel convert cable	x 1

Optional Accessories

Part Number	Description
PCA-TPM-00B1E	TPM 2.0 Module by LPC
1970004815N001	LGA 4094 CPU cooler for 1U chassis (180W)
1970004817N001	LGA 4094 CPU cooler for 2U/4U chassis (225W)
1700028292-01	Dual port USB 3.2 Gen1 cable (30 cm/11.8 in) with bracket
1701090401	COM port cable (40 cm/15.7 in) with bracket
1700019268-11	PS/2 port cable (35 cm/13.77 in)
1960063434N000	Cable bracket for 1700019268-11
1960106191N001	For 1U chassis I/O shield

Note:
1. Select SATA cable (SFF-8643) from HPC chassis datasheet or contact sales representative.

I/O View



ASMB-830I-00A1



ASMB-830T2-00A1