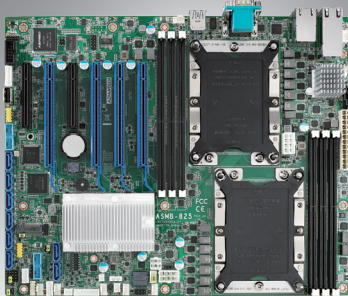


# ASMB-825

**Dual LGA 3647-P0 Intel® Xeon® Scalable ATX Server Board with 6 DDR4, 4 PCIe x16 + 2 PCIe x8, 8 SATA3.0, 6 USB3.0, Dual 10GbE, IPMI**



## Features

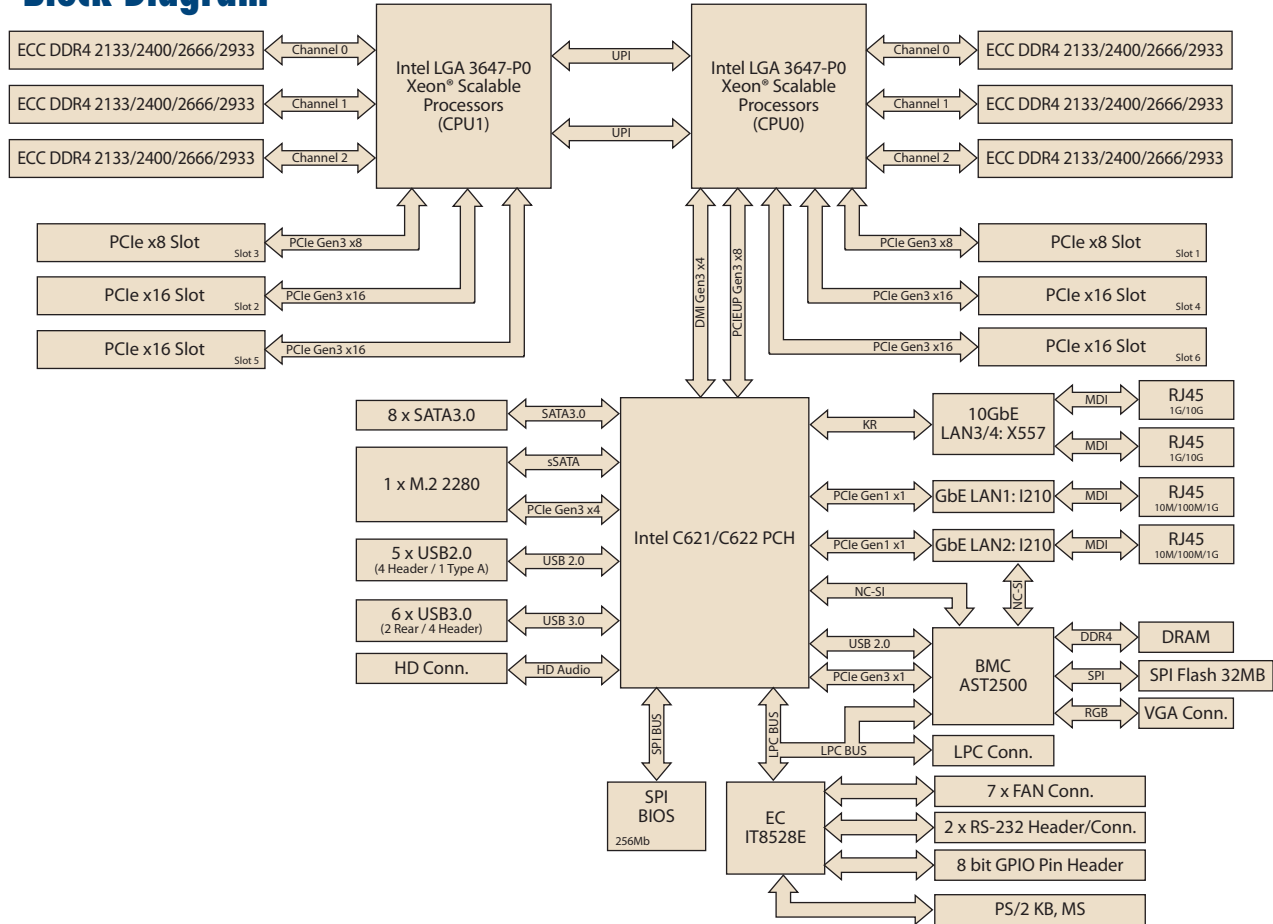
- ATX server board with dual Xeon® Scalable processors
- DDR4 2933 MHz RDIMM up to 768GB, support Intel Optane DC Persistent Memory
- Four PCIe x16 slots (Gen3) and two PCIe x8 (Gen3)
- Intel® X557-AT2 dual 10GbE ports
- Eight SATA3.0 and one M.2 connectors (SATA / PCIe compatible)
- 0 ~ 40 °C ambient operating temperature range

## Specifications

Form Factor	ATX form factor	
Processor System	Socket	Intel LGA 3647
	CPU type	Intel Xeon 1st and 2nd Gen Scalable dual processors (CPU cooler should be purchased separately and TDP up to 150W)
Core Logic	Chipset	Intel C621/C622 chipset
	Total slots	6 (1 DIMM per channel)
Memory	Capacity	Maximum 768GB ECC LRDIMM
		Maximum 768GB ECC 3DS RDIMM
		Maximum 1TB Intel Optane DC Persistent Memory in memory mode
	Memory type	DDR4 2133/2400/2666/2933MHz RDIMM, LRDIMM*
	Memory size	4GB, 8GB, 16GB, 32GB, 64GB, 128GB
Expansion Slots	Total PCI/PCI-X/PCIe slots	6
	Slot location 1	PCIe x8 slot (x8 link), signal from CPU0
	Slot location 2	PCIe x16 slot (x16 link), signal from CPU1
	Slot location 3	PCIe x8 slot (x8 link), signal from CPU1
	Slot location 4	PCIe x16 slot (x16 link), signal from CPU0
	Slot location 5	PCIe x16 slot (x16 link), signal from CPU1
	Slot location 6	PCIe x16 slot (x16 link), signal from CPU0
Graphics	VGA	Aspeed AST 2500/2510
Storage	SATA controller	Intel C621/C622: 8 x SATA3.0 (6 Gb/s) support software RAID 0,1,5,10
Networking	GbE/10GbE LAN	2 x Intel I210AT / Intel X557-AT2 (dual 10GbE ports)
Onboard I/O Connector	PSU connector	24-pin SSI power connector + 2 x 8-pin SSI 12 V power connector + 4-pin SSI 12 V power connector
	USB connector	4 x USB2.0 ports (two onboard headers) + 4 x USB3.0 ports (two onboard headers) + 1 x Type-A USB2.0 port
	Fan header	7 x 4-pin (5 for system + 2 for CPU)
	M.2	1 x M.2 2280 B+M key (SATA and PCIe)
	SMBus	1
	Chassis intrusion	1
	Front LAN LED	1
	Audio Header	1
Rear I/O Connector	PS/2 Keyboard/Mouse header	1
	Serial port header	1
	External serial port	1
	External USB port	2 (USB3.0)
	VGA port	1
Management Solution	Software	4 (LAN2 and LAN3 shared with BMC)
	Out of band remote management	Advantech remote monitoring utility Yes (ASMB-825I & ASMB-825T2)
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      12V_8P_0      12V_8P_1
	(150W CPU@2.6GHz DDR4 2400 8G*6)	1.3A      4.3A      0.7A      0.3A      0A      21.6A      17.5921A
Environment	Operating	Non-operating
	Temperature	0 ~ 40 °C, depends on CPU speed and cooler solution      -40 ~ 85 °C
	Humidity	10 ~ 95%
Physical Characteristics	Dimension (L x H)	304.8 x 244 mm (12" x 9.6")

\*2933MHz memory is supported by the 82xx and 62xx series processors

### Block Diagram



### Ordering Information

Part Number	Chipset	Memory	GbE/10GbE LAN	IPMI	Graphics
ASMB-825-00A1E	C621	6 x DDR4 RDIMM/LRDIMM	2/-	-	AST 2510
ASMB-825I-00A1E	C621	6 x DDR4 RDIMM/LRDIMM	2/-	Yes	AST 2500
ASMB-825T2-00A1E	C622	6 x DDR4 RDIMM/LRDIMM	2/2	Yes	AST 2500

### Packing List

Part Number	Description	Quantity
2066825I00	Driver CD	x 1
2006825I10	Startup manual	x 1
1700003194	SATA data cables	x 2
1700022749-11	SATA power cables	x 2
1700019748	CPU power cable	x 2
1930008089	Screw for M.2 device	x 2
1960076489T000	I/O shield	x 1
1651003167-01	LGA3647 CPU clip	x 2

### Optional Accessories

Part Number	Description
PCA-AUDIO-HDB1E	HD audio card
PCA-TPM-00B1E	TPM 2.0 module
1960081155N001	LGA-3647 narrow CPU heatsink for 1U chassis (85W)
1960088272T001	LGA-3647 narrow CPU cooler for 2U/4U chassis (150W)
1700002204	Dual port USB cable (27 cm) with bracket
1700008461	Four port USB cable (30.5 cm) with bracket
1700020277-01	Dual port USB 3.0 cable (30 cm) with bracket
1701090401	COM port cable (40 cm) with bracket
1700019268-11	PS/2 port cable (35 cm)
1960063434N000	Cable bracket for 1700019268-11
1960082348N000	1U chassis I/O shield

Note: PCA-AUDIO-HDB1E is not compatible with Advantech 3U chassis.

### I/O View



ASMB-825T2-00A1E



ASMB-825-00A1E  
ASMB-825I-00A1E