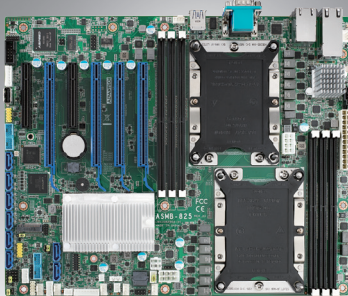


ASMB-825

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



CE FCC

Features

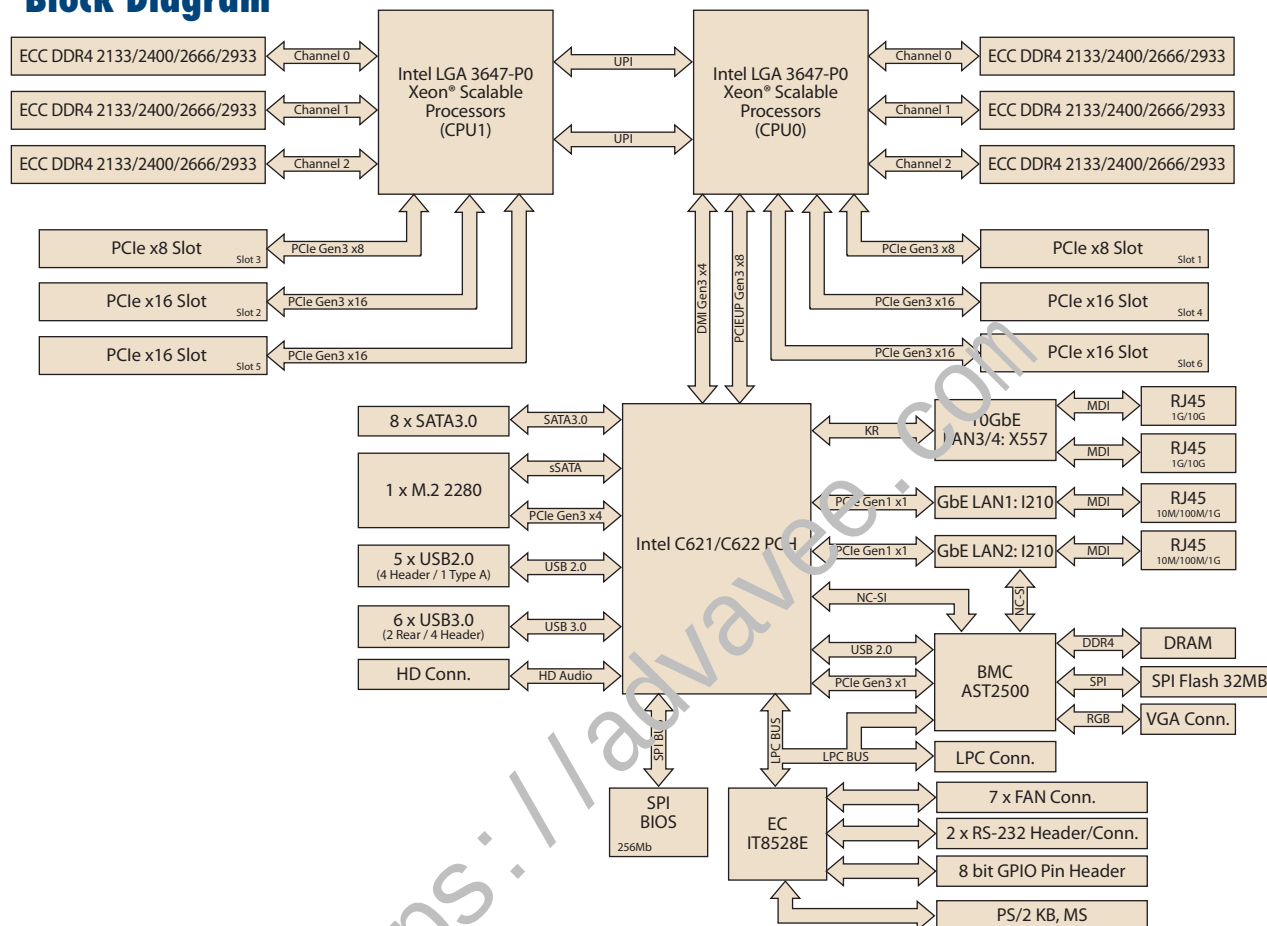
- ATX server board with dual Xeon® Scalable processors
- DDR4 2933 MHz RDIMM up to 768GB, support Intel Optane DC Persistent Memory
- Four PCIe x16 slots (Gen3) and two PCIe x8 (Gen3)
- Intel® X557-AT2 dual 10GbE ports
- Eight SATA3.0 and one M.2 connectors (SATA / PCIe compatible)
- 0 ~ 40 °C ambient 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							
Memory	Total slots	6 (1 DIMM per channel)							
	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							
	PS/2 Keyboard/Mouse header	1							
	Serial port header	1							
Rear I/O Connector	External serial port	1							
	External USB port	2 (USB3.0)							
	VGA port	1							
	RJ-45	4 (LAN2 and LAN3 shared with BMC)							
Management Solution	Software	Advantech remote monitoring utility							
	Out of band remote management	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-8251-00A1E	C621	6 x DDR4 RDIMM/LRDIMM	2/-	Yes	AST 2500
ASMB-825T2-00A1E	C622	6 x DDR4 RDIMM/LRDIMM	2/2	Yes	AST 2500
ASMB-825T2-00A1U	C622	6 x DDR4 RDIMM/LRDIMM. 2/2	YES	AST2500	

Packing List

Part Number	Description	Quantity
2066825100	Driver CD	x 1
2006825110	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
1960076488T001	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 by LPC
1960081155N011	LGA-3647 narrow CPU heatsink for 1U chassis (85W)
1960088272T001	LGA-3647 narrow CPU cooler for 2U/4U chassis (150W)
1700002204	Dual port USB 2.0 cable (27 cm / 10.6 in) with bracket
1700008461	Four port USB 2.0 cable (30.5 cm / 12 in) with bracket
1700028292-01	Dual port USB 3.2 (Gen1) cable (30 cm / 11.8 in) with bracket
1701090401	Single port RS-232 COM cable (40 cm / 15.7 in) with bracket
1700019268-11	Cable for onboard KBMS1 connector (35 cm / 13.7 in)
1960063434N000	Cable bracket for 1700019268-11
1960082348N000	1U chassis IO shield

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

I/O View



ASMB-825T2-00A1E


ASMB-8251-00A1E
ASMB-8251-00A1E