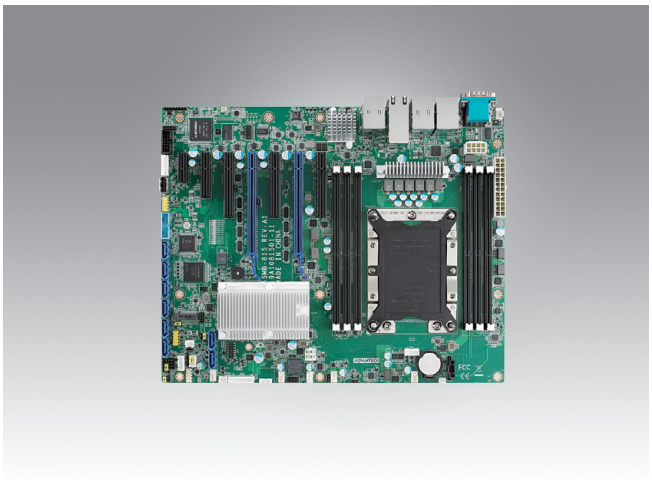
ASMB-815

LGA 3647-P0 Intel® Xeon® Scalable ATX Server Board with 6 DDR4, 5 PCIe x8 or 2 PCIe x16 and 1 PCIe x8, 8 SATA3.0, 6 USB3.0, Dual 10GbE, IPMI



Features

- ATX server board with Xeon® Scalable processors
- DDR4 2933MHz RDIMM up to 768GB, support Intel Optane DC Persistent Memory
- Five PCIe x8 or two PCIe x16 and 1 PCIe x8
- Intel® X557-AT2 dual 10GbE ports
- Eight SATA3.0 and one M.2 connectors (SATA / PCIe compatible)
- 0 ~ 60 °C ambient operating temperature range

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CE FCC

Specifications

Form Factor		ATX form factor					
Processor System	Socket	Intel LGA 3647					
	CPU type	Intel Xeon 1st and 2nd Gen Scalable processors (CPU cooler should be purchased separately and TDP up to 205W)					
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	7					
	Slot location 1	PCIe x1 slot (x1 link), signal from PCH					
	Slot location 2	PCIe x4 slot (x4 link), signal from PCH					
	Slot location 3	PCIe x8 slot (0 or x8 link), signal from CPU					
	Slot location 4	PCIe x16 slot (x8 or x16 link), signal from CPU					
	Slot location 5	PCIe x8 slot (0 or x8 link), signal from CPU					
	Slot location 6	PCIe x16 slot (x8 or x16 link), signal from CPU					
	Slot location 7	PCIe x8 slot (x8 link), signal from CPU					
Graphics	VGA	Aspeed AST 2500/2510					
Storage	SATA controller	Intel C621/C622: 8 x SATA3.0 (6 Gb) support software RAID 0,1,5,10					
	SAS controller	-					
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 + 1 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) + 2 x USB3.0 ports (one onboard header) + 1 x Type-A USB2.0 port					
	Fan header	6 x 4-pin (5 for system + 1 for CPU)					
	M.2	1 x M.2 2280 B+M key (SATA and PCIe)					
	SMBus	1					
	Chassis intruder	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	4 (USB3.0) + 2 USB (2.0)					
	VGA port	1					
	RJ-45	5 (1 port dedicated and 1 port shared with BMC)					
	PS/2 Keyboard/Mouse	-					
	Infiniband	-					
Management Solution	Software	-					
	Out of band remote management	Yes (ASMB-815I & ASMB-815T2 SKUs)					
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
	(205W CPU@2.5GHz DDR4 2400 4G*6)	2.77127A	7.00549A	0.57829A	0.132880A	0.063951A	17.5801A
Environment		Operating			Non-operating		
	Temperature	0 ~ 60 °C, depends on CPU speed and cooler solution			-40 ~ 85 °C		
	Humidity	10% ~ 95%			10% ~ 95% (Non condensing)		
Physical Characteristics	Dimension (L x H)	304.8 x 244 mm (12" x 9.6")					

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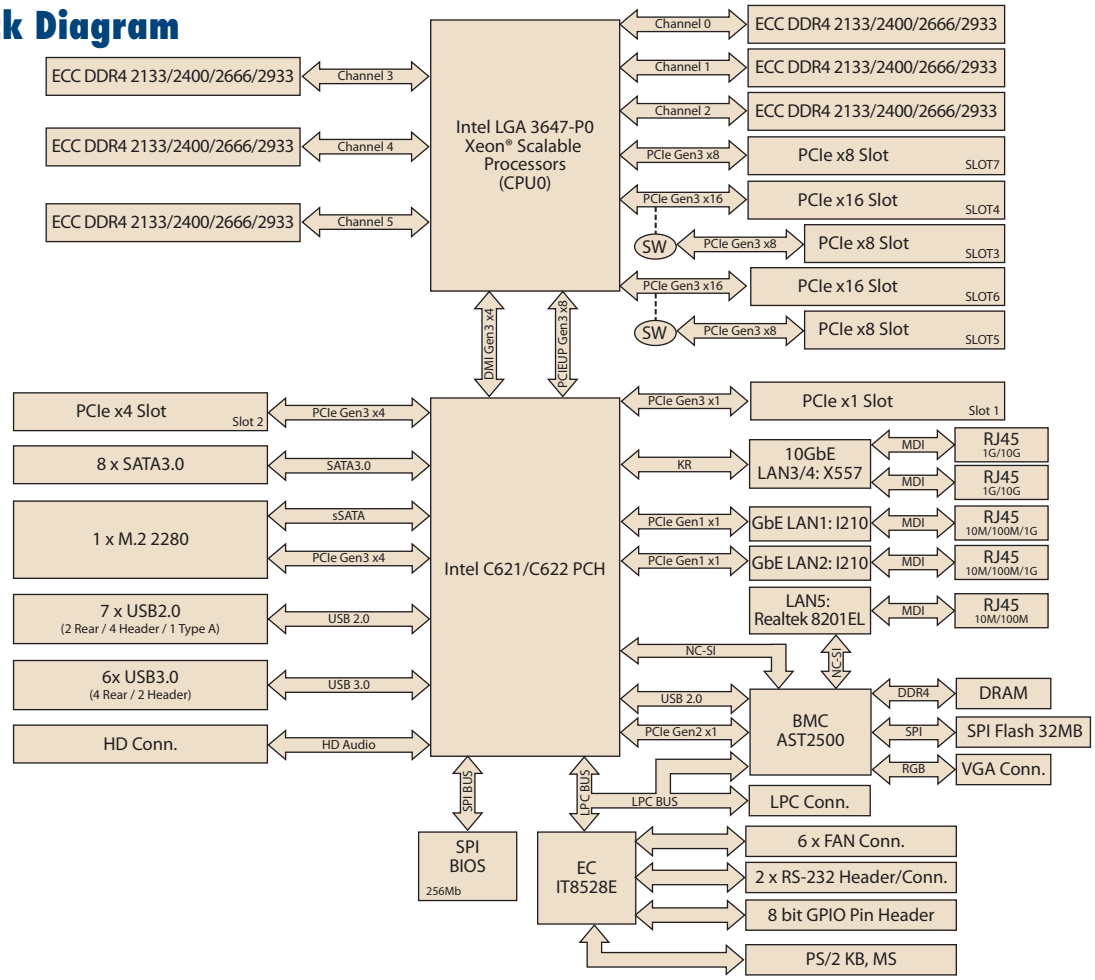
Block Diagram



Ordering Information

Part Number	Chipset	Memory	GbE/10GbE LAN	IPMI	Graphics
ASMB-815-00A1E	C621	6 x DDR4 RDIMM/LRDIMM	2/-	-	AST 2510
ASMB-815I-00A1E	C621	6 x DDR4 RDIMM/LRDIMM	2/-	Yes	AST 2500
ASMB-815T2-00A1E	C622	6 x DDR4 RDIMM/LRDIMM	2/2	Yes	AST 2500

Packing List

Part Number	Description	Quantity
2066815I00	Driver CD	x 1
2006815I10	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
1960076488T000	I/O shield	x 1
1651003167-01	LGA3647 CPU clip	x 1

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)
1960081603N101	LGA-3647 narrow CPU cooler for 4U chassis (205W)
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
1960082347T000	For 1U chassis IO shield

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

I/O View

ASMB-815T2-00A1E

ASMB-815I-00A1E

ASMB-815-00A1E