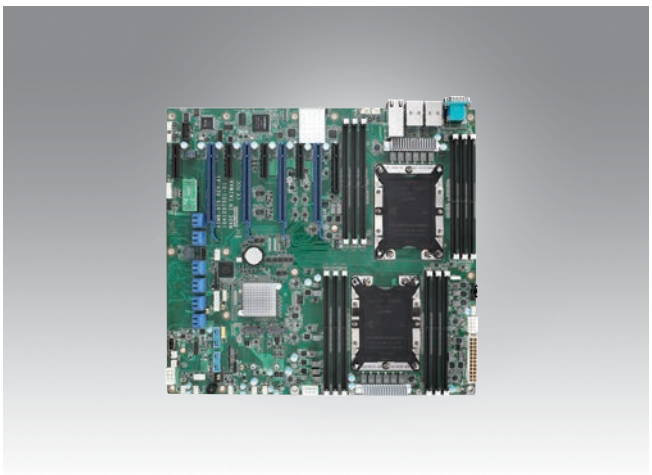
ASMB-975

Dual LGA 3647-P0 Intel® Xeon® Scalable Proprietary Server Board with 12 DDR4, 4 PCIe x16 + 1 PCIe x8+4 PCIe x4, 14 SATA3.0, 8 USB3.0, Dual 10GbE, IPMI



Features

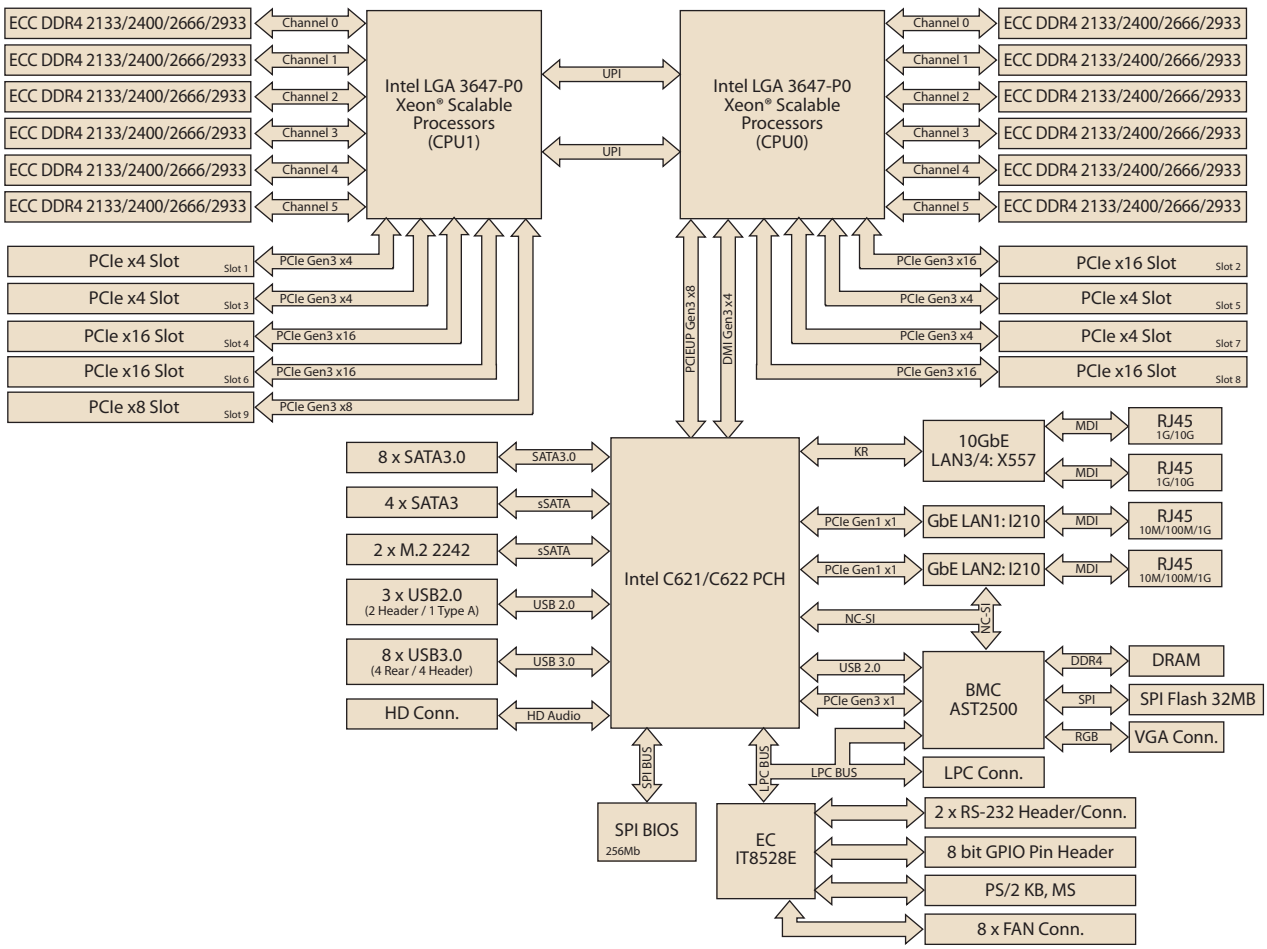
- Proprietary server board with dual Xeon® Scalable processors
- DDR4 2933MHz RDIMM up to 1.5TB, support Intel Optane DC Persistent Memory
- 14 SATA3.0 connectors (including two M.2 2242)
- Four PCIe x16 slots (Gen3) for double-deck cards
- Intel® X557-AT2 dual 10GbE ports
- 0 ~ 40 °C ambient operating temperature range

Specifications

Form Factor		Proprietary (14.1" x 13")						
Processor System	Socket	Intel LGA 3647-P0						
	CPU type	Intel Xeon 1st and 2nd Gen Scalable dual processors (CPU cooler should be purchased separately and TDP up to 205W)						
Core Logic	Chipset	Intel C621/C622 chipset						
Memory	Total slots	12 (1 DIMM per channel)						
	Capacity	Maximum 1.5TB ECC LRDIMM Maximum 1.5TB ECC 3DS RDIMM Maximum 2TB 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 PCIe slots	9						
	Slot location 1	PCIe x4 slot (x4 link), signal from CPU1						
	Slot location 2	PCIe x16 slot (x16 link), signal from CPU0						
	Slot location 3	PCIe x4 slot (x4 link), signal from CPU1						
	Slot location 4	PCIe x16 slot (x16 link), signal from CPU1						
	Slot location 5	PCIe x4 slot (x4 link), signal from CPU0						
	Slot location 6	PCIe x16 slot (x16 link), signal from CPU1						
	Slot location 7	PCIe x4 slot (x4 link), signal from CPU0						
	Slot location 8	PCIe x16 slot (x16 link), signal from CPU0						
	Slot location 9	PCIe x8 slot (x8 link), signal from CPU1						
Graphics	VGA	Aspeed AST 2500/2510						
Storage	SATA controller	Intel C621/C622: 12 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	2 x USB2.0 ports (two onboard headers) + 4 x USB3.0 ports (two onboard headers) + 1 x Type-A USB2.0 port						
	Fan header	8 (6 for system fan + 2 for CPU fan)						
	M.2	2 x M.2 2242 M key (SATA)						
	SMBus	1						
	Chassis intrusion	1						
	Front LAN LED	2						
	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)						
	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-975I/ASMB-975T2)						
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	8P_1
	(205W CPU@2.5GHz DDR4 2400 8G*12)	1.4A	6.8A	0.1A	0.1A	0A	20.1A	20.5A
Environment		Operating				Non-operating		
	Temperature	0 ~ 40 °C, depends on CPU speed and cooler solution				-40 ~ 85 °C		
	Humidity	10% ~ 95%				10% ~ 95% (Non condensing)		
Physical Characteristics	Dimension (L x H)	358.1 x 330.2 mm (14.1" x 13")						

*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-975-00A1	C621	12 x DDR4 RDIMM/LRDIMM	2/-	-	AST 2510
ASMB-975I-00A1	C621	12 x DDR4 RDIMM/LRDIMM	2/-	Yes	AST 2500
ASMB-975T2-00A1	C622	12 x DDR4 RDIMM/LRDIMM	2/2	Yes	AST 2500

Packing List

Part Number	Description	Quantity
2066975I00	Driver CD	x 1
2001097500	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 3
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)
1960081603N111	LGA-3647 narrow CPU cooler for 4U chassis (205W)
1700028025-01	Dual port USB 2.0 cable (45 cm / 17.7 in) with bracket
1700028042-01	Four port USB 2.0 cable (45 cm / 17.7 in) with bracket
1700028024-01	Dual port USB 3.2 (Gen1) cable (45 cm/ 17.7 in) with bracket
1701090401	Single port RS-232 COM cable (40 cm / 15.7 in) with bracket

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

I/O View

ASMB-975T2-00A1

ASMB-975-00A1
ASMB-975I-00A1