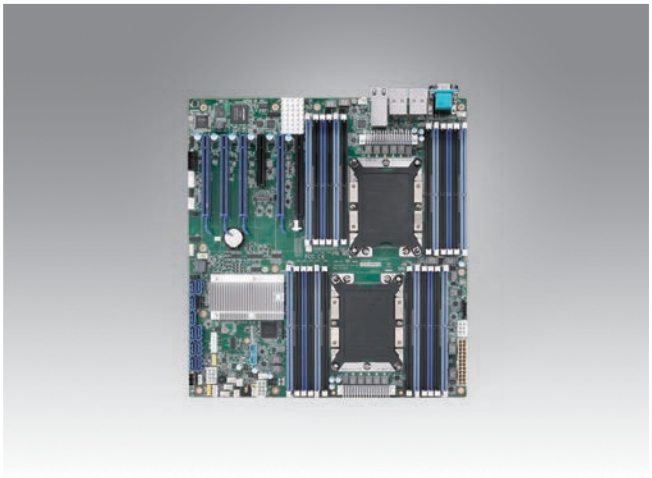
ASMB-935

Dual LGA3647-P0 Intel® Xeon® Scalable EATX Server Board with 24 DDR4, 5 PCIe x16 + 1 PCIe x8, 10 SATA3.0, 6 USB3.0, Dual 10GbE, IPMI



Features

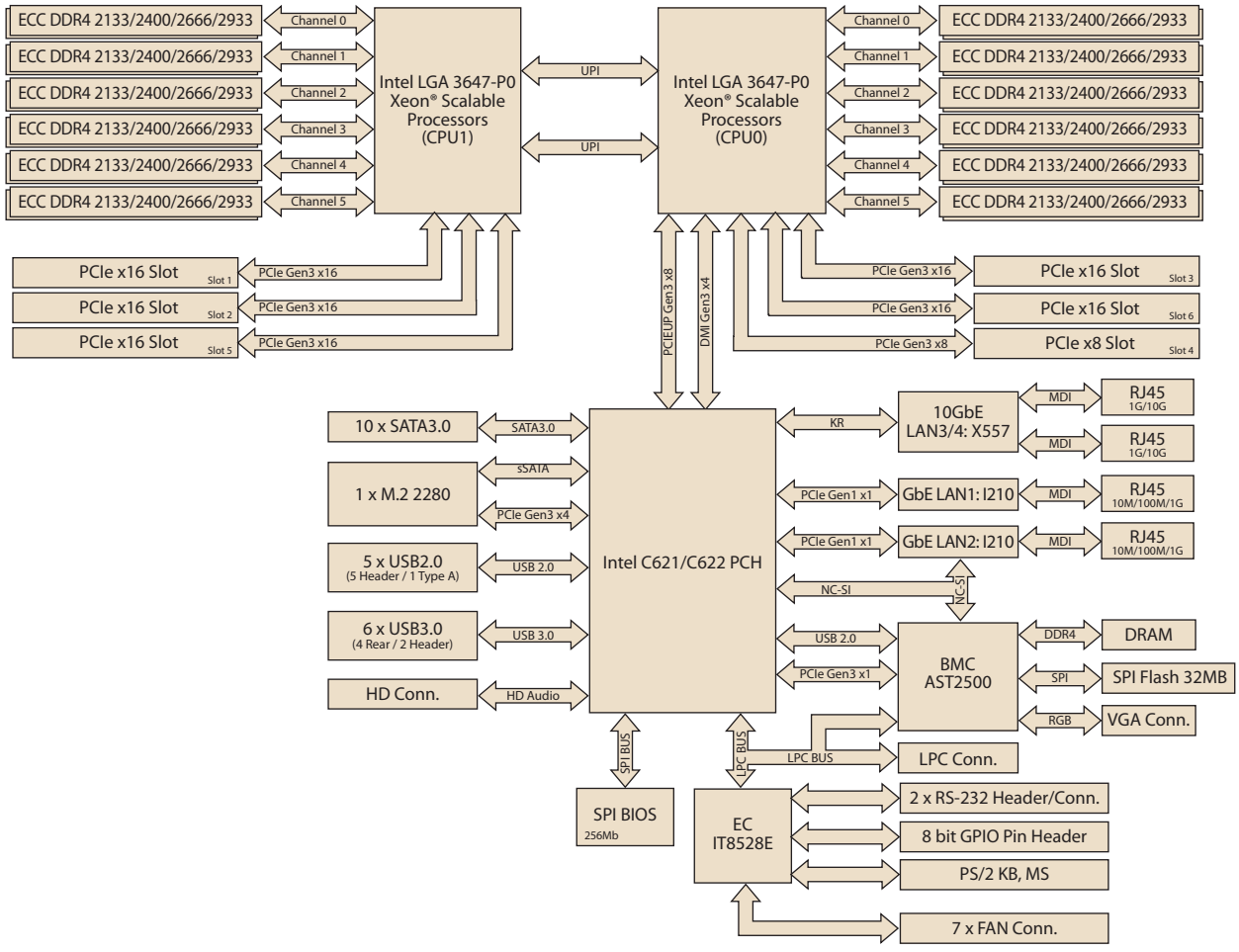
- EATX server board with dual Xeon Scalable processors
- DDR4 2933 MHz RDIMM up to 3TB, support Intel Optane DC Persistent Memory
- Five PCIe x16 (Gen3) and one PCIe x8 (Gen3) for three double-deck cards
- Intel® X557-AT2 dual 10GbE ports
- Ten SATA3.0 and six USB3.0 ports
- One M.2 2280 (SATA / PCIe compatible)
- 0 ~ 40 °C ambient operating temperature range

Specifications

Form Factor		EATX form factor						
Processor System	Socket	Intel LGA3647						
	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 C620 Series						
Memory	Total slots	24 (2 DIMM per channel)						
	Capacity	Maximum 3TB ECC LRDIMM Maximum 3TB ECC 3DS RDIMM Maximum 2TB Intel Optane DC Persistent Memory in memory mode						
	Memory type	DDR4 2133/2400/2666MHz RDIMM, LRDIMM (2DPC) DDR4 2133/2400/2666/2933MHz RDIMM, LRDIMM (1DPC)*						
	Memory size	4GB, 8GB, 16GB, 32GB, 64GB, 128GB						
Expansion Slots	Total PCIe slots	6						
	Slot location 1	1 x PCIe x16 slot (x16 link), signal from CPU1						
	Slot location 2	1 x PCIe x16 slot (x16 link), signal from CPU1						
	Slot location 3	1 x PCIe x16 slot (x16 link), signal from CPU0						
	Slot location 4	1 x PCIe x8 slot (x8 link), signal from CPU0						
	Slot location 5	1 x PCIe x16 slot (x16 link), signal from CPU1						
	Slot location 6	1 x PCIe x16 slot (x16 link), signal from CPU0						
Graphics	VGA	ASPEED AST2500/2510						
Storage	SATA controller	Intel C621/C622: 10 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 for ASMB-935T2 sku only)						
Onboard I/O Connector	PSU connector	24-pin SSI power connector + 3 x 8-pin SSI 12 V power connector						
	USB connector	4 x USB2.0 ports (two onboard headers) + 2 x USB3.0 ports (one onboard headers) + 1 x Type-A USB2.0 port						
	Fan header	7 x 4pin (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	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						
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
	(205W CPU@2.5GHz DDR4 2400 32G*24)	6.8A	5.1A	0A	0.2A	0A	21.5A	23.2A
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)	304.8 x 330.2 mm (12" x 13")						

*2933MHz memory is supported by the 82xx and 62xx series processors with 12DIMM in 1 DPC configuration

Block Diagram



Ordering Information

Part Number	Chipset	Memory	GbE/10GbE LAN	IPMI	Graphics
ASMB-935I-00A1	C621	24 x DDR4 RDIMM/LRDIMM	2/-	Yes	AST2500
ASMB-935T2-00A1	C622	24 x DDR4 RDIMM/LRDIMM	2/2	Yes	AST2500

Packing List

Part Number	Description	Quantity
2061093500	Driver CD	x 1
2001093500	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)
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
1960082347T001	1U chassis IO shield

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

I/O View

ASMB-935T2-00A1

ASMB-935I-00A1