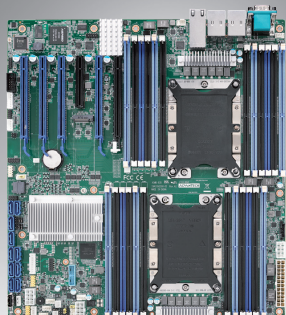


ASMB-935

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



CE FCC

Features

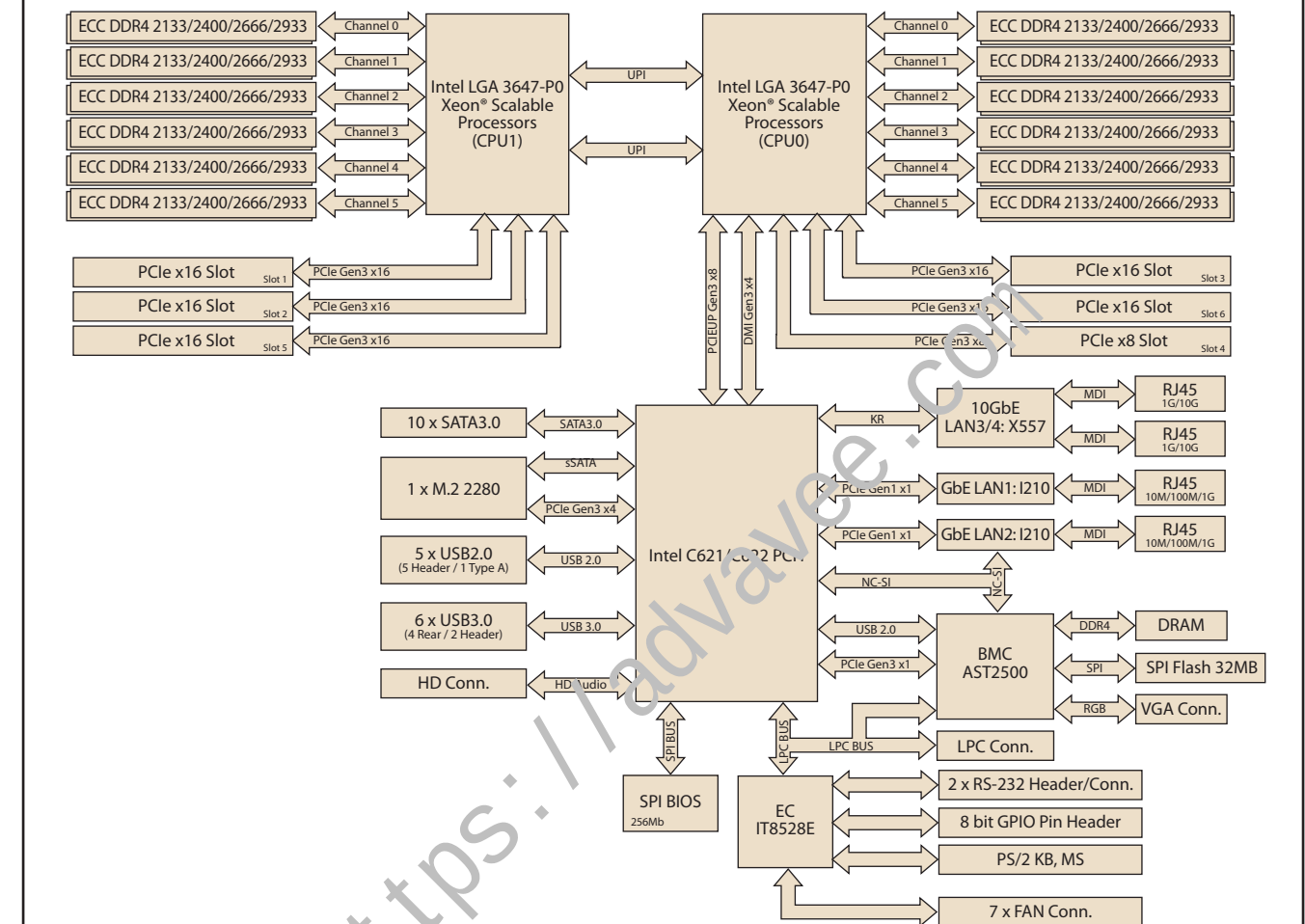
- EATX server board with dual Xeon Scalable processors
- DDR4 2933 MHz RDIMM up to 3TB, support Intel Optane DC Persistent Memory
- Five PCIe x16 (Gen3) and one PCIe x8 (Gen3) for three double-deck cards
- Intel® X557-AT2 dual 10GbE ports
- Ten SATA3.0 and six USB3.0 ports
- One M.2 2280 (SATA / PCIe 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 2DS RDIMM
		Maximum 2TB Intel Optane DC Persistent Memory in memory mode
	Memory type	DDR4 2133/2400/2666/2933MHz RDIMM, LRDIMM (2DPC)
Expansion Slots	Memory size	DDR4 2133/2400/2666/2933MHz RDIMM, LRDIMM (1DPC)*
	Total PCIe slots	4GB, 8GB, 16GB, 32GB, 64GB, 128GB
		6
		1 x PCIe x16 slot (x16 link), signal from CPU1
		1 x PCIe x16 slot (x16 link), signal from CPU1
		1 x PCIe x16 slot (x16 link), signal from CPU0
		1 x PCIe x8 slot (x8 link), signal from CPU0
Graphics	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
Storage	VGA	ASPEED AST2500/2510
Networking	SATA controller	Intel C621/C622: 10 x SATA3.0 (6 Gb/s) support software RAID 0,1,5,10
	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
Rear I/O Connector	Audio Header	1
	PS/2 Keyboard/Mouse header	1
	Serial port header	1
	External serial port	1
	External USB port	4 (USB3.0)
Management Solution	VGA port	1
	RJ-45	4 (LAN2 and LAN3 shared with BMC)
Monitoring	Software	Advantech remote monitoring utility
	Out of band remote management	Yes
Watchdog Timer	CPU temperature	Yes
	System Monitoring	Yes
Power Requirement	Output	System reset
	Interval	Programmable 1 ~ 255 sec/min
Environment	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
Physical Characteristics	Operating	Non-operating
	Temperature	0 ~ 40 °C, depends on CPU speed and cooler solution -40 ~ 85 °C
	Humidity	10% ~ 95% 10% ~ 95% (Non condensing)
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
ASMB-935T2-00A1U	C622	24 x DDR4 RDIMM/L RDIMM	2/2	Yes	AST2500

Packing List Optional Accessories

Part Number	Description	Quantity	Part Number	Description
2061093500	Driver CD	x 1	PCA-AUDIO-HDB1E	HD Audio-card
2001093500	Startup manual	x 1	PCA-TPM-00B1E	TPM 2.0 Module by LPC
1700003194	SATA data cables	x 2	1960081155N011	LGA-3647 narrow CPU heatsink for 1U chassis (85W)
1700022749-11	SATA power cables	x 2	1960088272T001	LGA-3647 narrow CPU cooler for 2U/4U chassis (150W)
1700019748	CPU power cable	x 2	1960081603N111	LGA-3647 narrow CPU cooler for 4U chassis (205W)
1930008089	Screw for M.2 device	x 2	1700028025-01	Dual port USB 2.0 cable (45 cm / 17.7 in) with bracket
1960076488T001	I/O shield	x 1	1700028042-01	Four port USB 2.0 cable (45 cm / 17.7 in) with bracket
1651003167-01	LGA3647 CPU clip	x 2	1700028024-01	Dual port USB 3.2 (Gen1) cable (45 cm/ 17.7 in) with bracket

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
196082347T001	1U chassis I/O shield

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

Part Number	Description
196008234/1001	1U chassis I/O shield

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



ASMB-935T2-00A1 ASMB-935I-00A1



ASMB-935T2-00A1 ASMB-935I-00A1