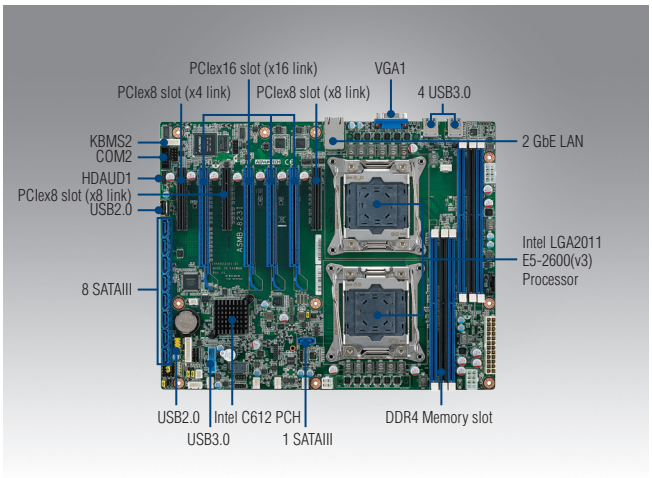
ASMB-823

Dual LGA 2011-R3 Intel® Xeon® E5-2600 v3/v4 ATX Server Board with 6 DDR4, 4 PCIe x16, 6 USB 3.0, SATA3, Dual LAN, IPMI



Features

- ATX server board with dual Xeon® E5-2600 v3/v4 processors
- DDR4 2400 MHz RDIMM up to 192 GB
- Four PCIe x16 slots (Gen3), two PCIe x8 (Gen3) and one PCIe x4 (Gen2) slots
- Nine SATA3 ports and six USB 3.0 ports
- 0 ~ 40 °C ambient operating temperature range

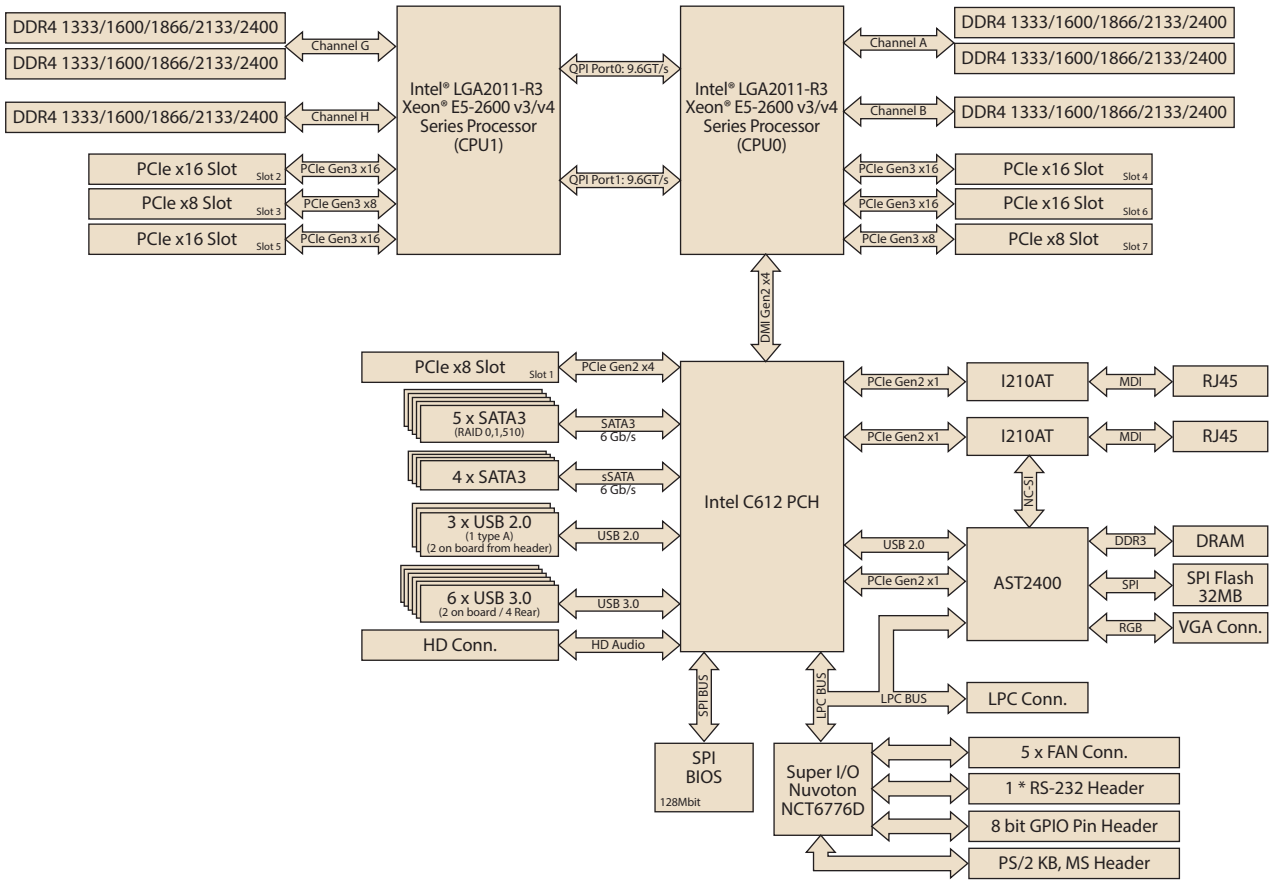
Quiet vmware READY CE FCC

Specifications

Form Factor		ATX form factor
Processor System	Socket	Intel LGA 2011-R3
	CPU type	Intel® Xeon® E5-2600 v3/v4 dual processor (CPU cooler should be purchased separately and TDP up to 160W) Intel® Xeon® E5-1600 v3/v4 Series (1S conditional support, please contact to Advantech application engineer)
Core Logic	Chipset	Intel C612 chipset
Memory	Total slots	6 (Quad Channel)
	Capacity	Maximum 192 GB ECC RDIMM
	Memory type	DDR4 ECC-REG 2400/2133/1866/1600/1333 MHz DIMM
	Memory size	1 GB, 2 GB, 4 GB, 8 GB, 16 GB, 32 GB
Expansion Slots	Total PCI/PCI-X/PCIe slots	7
	Slot location 1	PCIe x8 slot (x4 link), signal from PCH
	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
	Slot location 7	PCIe x8 slot (x8 link), signal from CPU0
Graphics	VGA	Aspeed AST2400/1400 64 MB
Storage	IDE controller	-
	SATA controller	Intel C610: 9 SATA3 6 Gb/s ports Intel Rapid Storage Technology (for Windows only) (SATA0-SATA4 supports software RAID 0, 1, 10 & 5)
	SAS controller	-
Networking	GbE LAN	2 x Intel I210AT
Onboard I/O Connector	Floppy 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 (in one header) + 2 x USB3.0 ports (in one header) + 1*Type-A USB2.0 ports
	Fan header	5 x 4-pin (2 for CPU + 3 for SYS)
	SMBus	1
	Chassis intruder	1
	Front LAN LED	2
	Audio Header	1
	Serial port header	1
Rear I/O Connector	External serial port	-
	External USB port	4 (USB 3.0)
	VGA port	1
	RJ-45	2 (one sharing IPMI function)
	PS/2 KB/mouse	1 (by onboard connector)
	Infiniband	-
Management Solution	Software	-
	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
		1.67A / 0.85A / 18.11A / 0.05A / 0.004A
Environment		Operating / Non-operating
	Temperature	0 ~ 40 °C, depends on CPU speed and cooler solution / -40 ~ 85 °C
	Humidity	10% ~ 90% / 10% ~ 95% (Non condensing)
Physical Characteristics	Dimension (L x H)	304.8 x 244 mm (12" x 9.6")

All product specifications are subject to change without notice.

Block Diagram



Ordering Information

Part Number	Chipset	Memory	GbE LAN	IPMI	Graphics
ASMB-823-00A1E	C612	DDR4 RDIMM	2	-	AST 1400
ASMB-823I-00A1E	C612	DDR4 RDIMM	2	Yes	AST 2400

Packing List

Part Number	Description	Quantity
2066823I01	Driver CD	x 1
2006823I10	Startup manual	x 1
1700003194	SATA data cables	x 2
1700022749-11	SATA power cables	x 2
1700019748	CPU power cable	x 2
19Z0000777T000	I/O shield	x 1

I/O View

ASMB-823I-00A1E
ASMB-823-00A1E

Optional Accessories

Part Number	Description
PCA-AUDIO-HDA1E	HD Audio-card
PCA-TPM-00B1E	TPM 2.0 Module by LPC
1960057226N001	LGA2011 square CPU heatsink for 1U chassis (95W)
1960055362N001	LGA2011 square CPU cooler for 2U/4U chassis (145W)
1960065684N011	LGA2011 square CPU cooler for 4U chassis (160W)*
1700019127	FAN connector extended cable 1*4P-2.54/1*4P-2.54 35cm
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 cable (35 cm)
1960063434N000	Cable bracket for 1700019268-11
19Z0000806T000	1U chassis IO shield
PCA-COM232-00A1E	4 ports RS-232 module connect to LPC connector
PCA-COM485-00A1E	4 ports RS-422/485 module connect to LPC connector
968EMLSAP2	SUSIAccess Pro 3.0

Note : Purchasing ASMB-823's proprietary CPU cooler from Advantech is a must. The 160W cooler for 4U chassis has option of CPUFAN1 cable 1700019127 when length is an issue.