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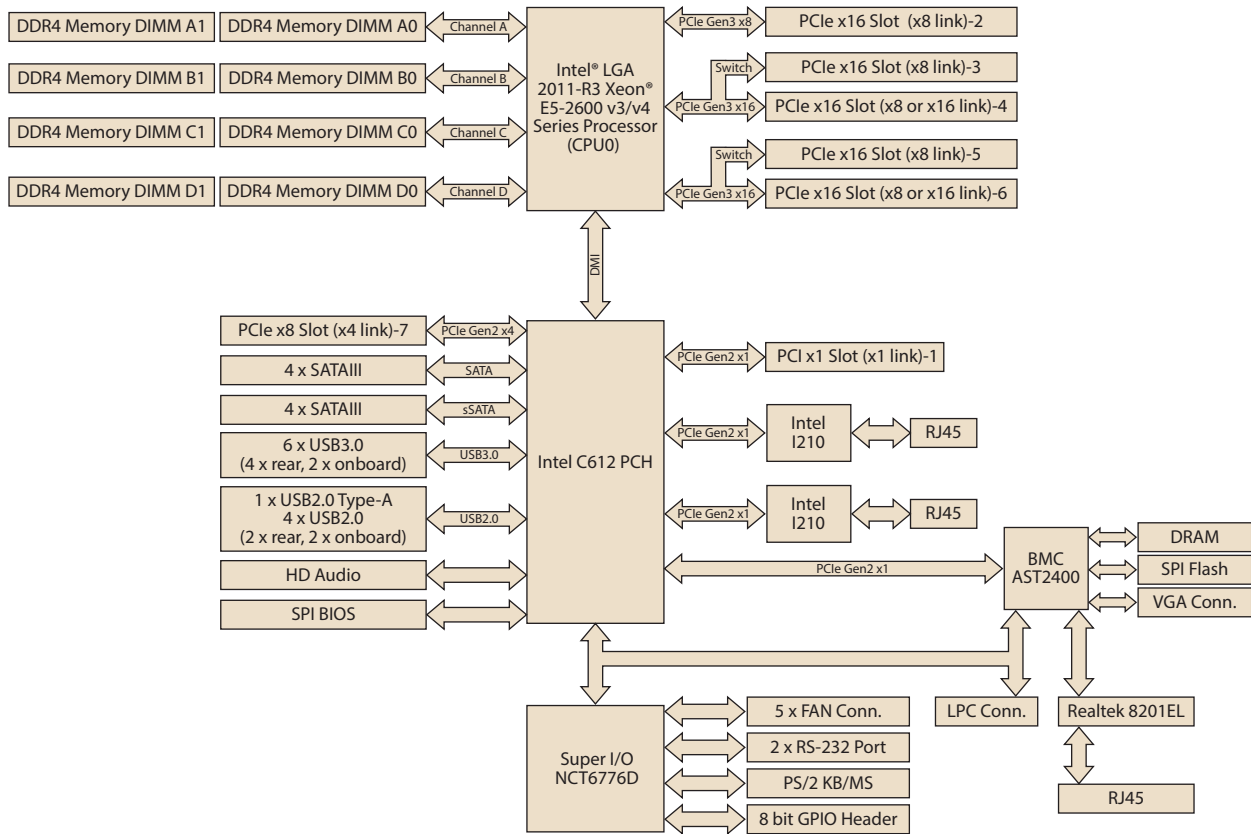

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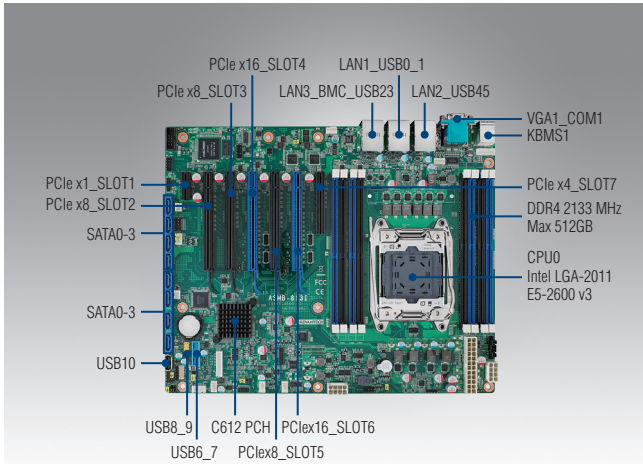
Features

- ATX Server Board with Intel® Xeon® E5-2600 v3/v4 processor
- Eight DDR4 2400 MHz RDIMM up to 256 GB and support DDR4 NVDIMM
- Seven PCIe expansion slots: five PCIe x8 (or two x16 and one x8), one PCIe x4 and one PCIe x1
- 0 ~ 60 °C ambient operation 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 Series (CPU cooler should be purchased separately and TDP up to 160W) Intel® Xeon® E5-1600 v3/v4 Series Intel® Core™ i7 6850K/6900K/6950X
Core Logic	Chipset	Intel C612 chipset
Memory	Total slots	8 (Quad Channel)
	Capacity	Maximum 256 GB ECC RDIMM
	Memory type	DDR4 ECC-REG 2400/2133/1866/1600 MHz DIMM and NVDIMM (working with Xeon E5) DDR4 ECC/Non-ECC 2400/2133/1866/1600 MHz UDIMM (working with Core i7 only)
	Memory size	4 GB, 8 GB, 16 GB, 32 GB
Expansion Slots	Total PCI/PCI-X/PCIe slots	7
	Slot location 1	PCIe x1 slot (Gen2 x1 link), signal from PCH
	Slot location 2	PCIe x16 slot (Gen3 x8 link)
	Slot location 3	PCIe x16 slot (Gen3 x8 link)
	Slot location 4	PCIe x16 slot (Gen3 x16 link or x8 link when Slot 3 is occupied)
	Slot location 5	PCIe x16 slot (Gen3 x8 link)
	Slot location 6	PCIe x16 slot (Gen3 x16 link or x8 link when Slot 5 is occupied)
	Slot location 7	PCIe x8 slot (Gen2 x4 link), signal from PCH
Graphics	VGA	Aspeed AST2400/1400 64 MB
Storage	IDE controller	-
	SATA controller	Intel C612: 8 SATA3 6 Gb/s ports Intel Rapid Storage Technology (for Windows only) (SATA0-SATA3 and sSATA0-sSATA3 support software RAID 0, 1, 10 & 5)
	SAS controller	-
Networking	GbE LAN	2 x Intel I210AT
Onboard I/O Connectors	LPC connector	1
	PSU connector	24-pin SSI power connector + 8-pin SSI 12 V power connector + 8-pin SSI 12 V power connector
	USB connector	2 (supports 2 x USB3.0 ports and 2 x USB2.0 ports) + 1 x Type-A
	Fan header	5 x 4-pin
	SMBus	1
	Chassis intruder	1
	Front LAN LED	2
	Audio Header	1
	Serial port header	1
Rear I/O Connectors	External serial port	1
	External USB port	6 (4 x USB3.0 + 2 x USB2.0)
	VGA port	1
	RJ-45	3 (1 port dedicated for IPMI function)
	PS/2 KB/mouse	1
Management Solution	Software	-
	Out of band remote management	Yes (ASMB-813I SKU only)
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
		1.53A	0.92A	12.21A	0.04A	0.04A

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")				

Block Diagram

DDR4 Memory DIMM A1	DDR4 Memory DIMM A0	Channel A		PCIe Gen3 x8	PCIe x16 Slot (x8 link)-2
DDR4 Memory DIMM B1	DDR4 Memory DIMM B0	Channel B	Intel® LGA 2011-R3 Xeon® E5-2600 v3/v4 Series Processor (CPU0)	Switch	PCIe x16 Slot (x8 link)-3
DDR4 Memory DIMM C1	DDR4 Memory DIMM C0	Channel C		PCIe Gen3 x16	PCIe x16 Slot (x8 or x16 link)-4
DDR4 Memory DIMM D1	DDR4 Memory DIMM D0	Channel D		Switch / PCIe Gen3 x16	PCIe x16 Slot (x8 link)-5 / PCIe x16 Slot (x8 or x16 link)-6

DMI

- PCIe x8 Slot (x4 link)-7 — PCIe Gen2 x4
- 4 x SATAIII — SATA
- 4 x SATAIII — sSATA
- 6 x USB3.0 (4 x rear, 2 x onboard) — USB3.0
- 1 x USB2.0 Type-A / 4 x USB2.0 (2 x rear, 2 x onboard) — USB2.0
- HD Audio
- SPI BIOS

Intel C612 PCH

- PCIe Gen2 x1 — PCI x1 Slot (x1 link)-1
- PCIe Gen2 x1 — Intel I210 — RJ45
- PCIe Gen2 x1 — Intel I210 — RJ45
- PCIe Gen2 x1 — BMC AST2400 — DRAM / SPI Flash / VGA Conn.

Super I/O NCT6776D
- 5 x FAN Conn.
- 2 x RS-232 Port
- PS/2 KB/MS
- 8 bit GPIO Header

LPC Conn.

Realtek 8201EL — RJ45

Ordering Information

Part Number	Chipset	Memory	GbE LAN	IPMI	VGA Chip
ASMB-813-00A1E	C612	8 x DDR4 RDIMM	2	-	AST 1400
ASMB-813I-00A1E	C612	8 x DDR4 RDIMM	2	Yes	AST 2400

Packing List

Part Number	Description	Quantity
2061813I01	Driver CD	x 1
2001813I10	Startup manual	x 1
1700003194	SATA data cables	x 2
1700022749-11	SATA power cables	x 2
1700019748	CPU power cable(8P)	x 2
1960048321T020	I/O shield	x 1

Optional Accessories

Part Number	Description
ASMB-RF3X8-21A1E	2U Riser Card (2 x PCI-X + 1 x PCIe x8)
PCA-AUDIO-HDA1E	HD Audio-card
PCA-TPM-00B1E	TPM 2.0 Module by LPC
1960065593N001	LGA-2011 CPU heatsink narrow type for 1U chassis (TDP up to 130W)
1960063011N001	LGA-2011 CPU cooler narrow type for 2U/4U chassis (TDP up to 130W)
1700002204	Dual port USB cable (27 cm) with bracket
1700008461	Four port USB cable (30.5 cm) with bracket
1701090401	COM port cable with bracket
1700020277-01	Dual port USB 3.0 cable (30 cm) with bracket
19Z0000811N000	1U chassis IO shield
968EMLSAP2	SUSIAccess Pro 3.0

I/O View

ASMB-813-00A1E

ASMB-813I-00A1E