

ASMB-781

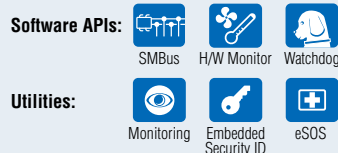
LGA1155 Intel® Xeon® E3/Core™ i3 ATX Server Board with VGA, 2 GbE, DDR3, SATA III

Preliminary



Features

- Supports Embedded Intel® Xeon® E3/ Core™ i3 processor with C206 chipset
- Dual Channel DDR3 ECC/Non-ECC 1066/1333 MHz unbuffered DIMM, Max. 32 GB
- Supports 2 x PCIe x16 (x8 link) double-deck expansion cards
- Supports 2 x SATA 6.0 Gb/s, Quad LAN (optional), TPM (optional)
- Supports Embedded software APIs and utilities

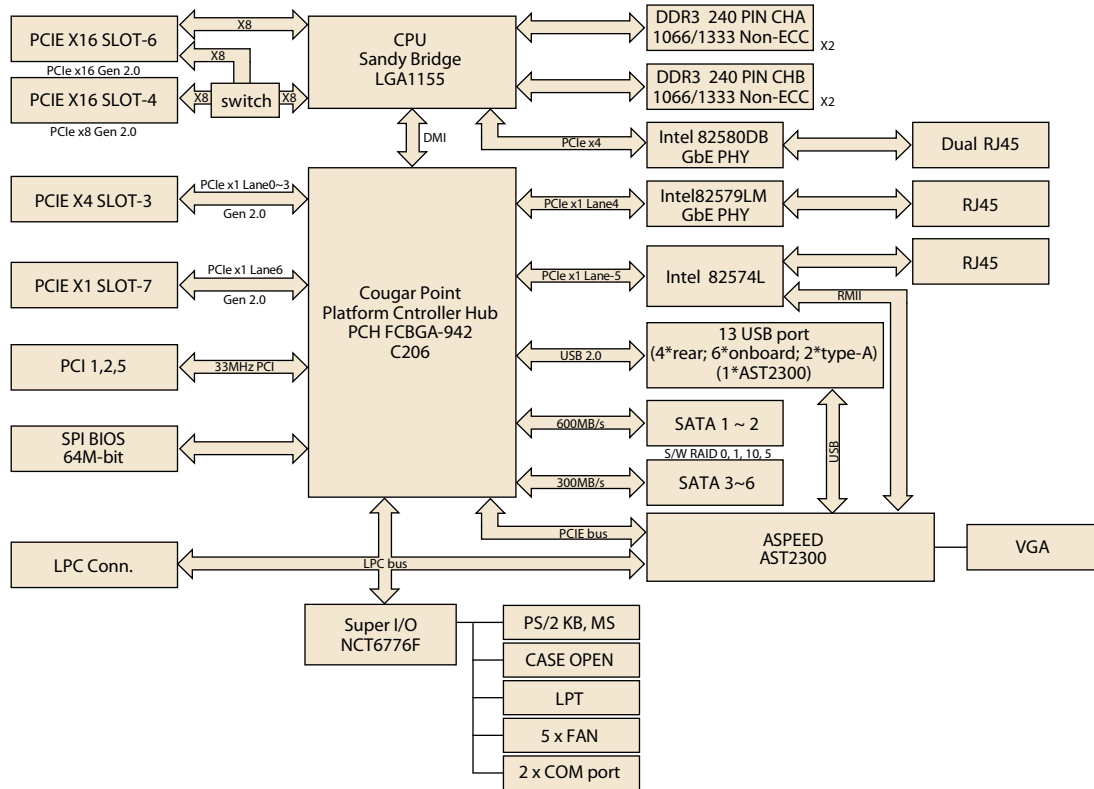


Note: eSOS needs ODM BIOS available by request.

Specifications

Form Factor	ATX form factor						
Processor System	CPU	Xeon E3-1275	Xeon E3-1225	i3-2120	PentiumG850	Celeron G540	
	Cores/Thread	4/8	4/4	2/4	2/2	2/2	
	Speed	3.4	3.1	3.3	2.9	2.5	
	L3 Cache	8 MB	6 MB	3 MB	3 MB	2 MB	
	Socket	LGA 1155					
	Chipset	Intel C206 chipset					
Memory	BIOS	AMI 64 Mbit SPI (UEFI)					
	Technology	Dual Channel DDR3 ECC/Non-ECC 1066/1333 MHz					
	Max. Capacity	32 GB					
Expansion Slots (SSI location #)	Socket	4 x 240-pin DIMM					
	Memory size	1 GB, 2 GB, 4 GB, 8 GB					
	PCI 32-bit/33 MHz	3 slots					
	PCIe x 1 (Gen2) 500 MB/s per direction	1 slot					
Graphics	PCIe x 4 (Gen2) 2.0 GB/s per direction	1 slot					
	PCIe x16 (Gen2) 8 GB/s per direction	2 slot(Auto switch to x8 link if slot 4 is occupied)					
	Controller	ASPEED AST-1300/2300					
Storage	VRAM	DDR3 512 Mbit (64 MB)					
	IDE controller	-					
	SATA controller	Intel C206: 4 SATA2 3 Gb/s ports, 2 SATA3 6Gb/s Intel Matrix Storage (for Windows only) (Supports software RAID 0, 1, 10 & 5)					
Ethernet	SAS controller	-					
	Interface	10/100/1000 Mbps					
	Controller	GbE LAN1: Intel 82579LM; GbE LAN2: Intel 82574L; GbE LAN3/4: Intel 82580DB (Optional)					
Internal Connectors	Connector	RJ-45 x 4 for G4 version					
	Floppy connector	-					
	PSU connector	24-pin SSI power connector + 8-pin SSI 12 V power connector					
	USB connector	3 (supports 6 USB port), 2* Type-A					
	Fan header	5 x 4pin					
	SMBus	1					
	Chassis intruder	1					
	Front LAN LED	2					
Rear I/O Connectors	Serial port header	1 (RS-232)					
	External serial port	1 (RS-232), COM1 don't support wake on modem					
	External USB port	4					
	VGA port	1					
	RJ-45	2 for G2 version, 4 for G4 version					
	PS/2 KB/mouse	2					
Watchdog Timer	Infiniband	-					
	Output Interval	System reset Programmable 1 ~ 255 sec/min					
Power Requirement	Max. load	3.3 V	5 V	12 V	V12_8P	5 Vsb	-V12
		2.74 A	1.12 A	0.08 A	4.86 A	1.81 A	0.01 A
Environment	Temperature	Operating			Non-operating		
		0 ~ 60° C (32 ~ 140° F)			-40 ~ 85° C (-40 ~ 185° F)		
		Depends on CPU speed and cooler solution					
Physical Characteristics	Humidity	0% ~ 90%			5% ~ 95% (Non-condensing)		
		Dimensions	304.8 x 244 mm (12" x 9.6")				

Board Diagram



Ordering Information

Part Number	Chipset	Memory	LAN	IPMI
ASMB-781G2-00A1E	C206	DDR3 ECC/Non-ECC	2	-
ASMB-781G4-00A1E	C206	DDR3 ECC/Non-ECC	4	Yes

Packing List

Part Number	Description	Quantity
2066078100	Driver CD	x 1
2006078110	Startup manual	x 1
1700003194	SATA data cables	x 2
1703150102	SATA power cables	x 2
1960052312T000	I/O shield	x 1

Bracket View



ASMB-781G4



ASMB-781G2

Optional Accessories

Part Number	Description
1700002204	Dual port USB cable (27 cm) with bracket
1700008461	Four port USB cable (30.5 cm) with bracket
1960047669N001	LGA1155/1156 CPU cooler for 4U and wallmount chassis
1960052651N001	LGA1155/1156 CPU cooler for 2U and rackmount chassis
1960053207N001	LGA1155/1156 CPU cooler for 1.5U
1700008809	Printer port cable kit
1701090401	COM port cable with bracket
PCA-AUDIO-HDA1E	HD Audio-card

Note: Purchasing ASMB-781's proprietary CPU cooler from Advantech is a must. Other brands' CPU coolers are NOT compatible with ASMB-781.