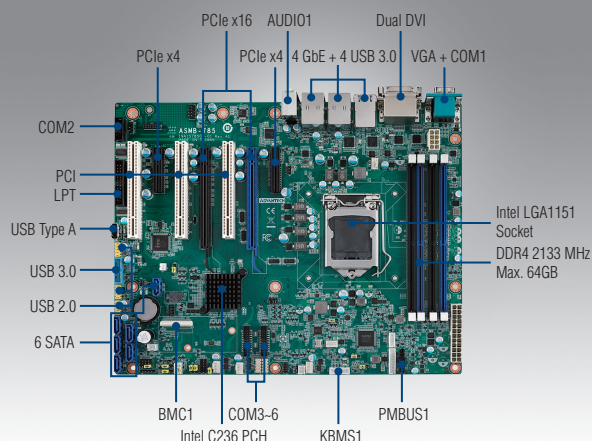


ASMB-785

LGA 1151 Intel® Xeon® E3 v5/v6 & 6th/7th Generation Core™ ATX Server Board with 4 DDR4, 4 PCIe, 3 PCI, 6 USB 3.0, 6 COM, 6 SATA3, Quad/Dual LANs, IPMI



Features

- Supports LGA 1151 Intel® Xeon® E3-1200 v5/v6 and 6th/7th Generation Core™ i7/i5/i3 processors
- DDR4 2400/2133/1866/1600/1333 MHz ECC/Non-ECC UDIMM up to 64 GB
- One Gen 3.0 PCIe x16 link (or two PCIe x16 slots with x8 link), two PCIe x4, and three PCI slots
- Triple display - two DVI-D and one VGA ports
- Supports up to ten RS-232 or six RS-232 and four RS-422/485 ports
- Rackmount optimized placement with positive air flow design
- 0 ~ 60 °C ambient operation temperature range

Note: Intel Xeon E3 v6 & 7th Core processors only support Windows 10 (64-bit) and Server 2016 (64-bit).



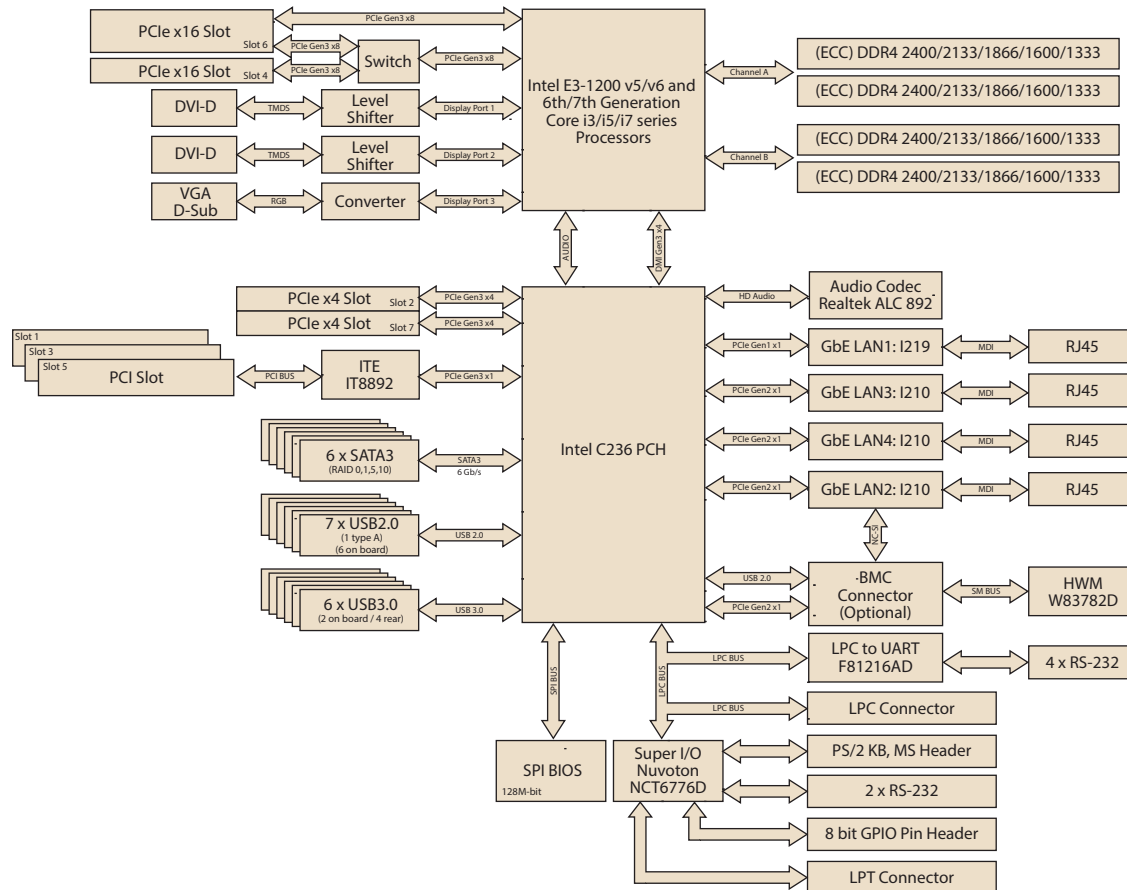
Specifications

Form Factor	ATX form factor	
Processor System	Socket	Intel LGA 1151
	CPU type	Intel® Xeon® E3-1200 v5/v6 and 6th/7th Generation Core™ i3/i5/i7 series (TDP up to 91W)
Core Logic	Chipset	Intel C236 chipset
Memory	Total slots	4 (Dual Channel)
	Max. capacity	64 GB
	Memory type	DDR4 ECC/Non-ECC 2400/2133/1866/1600 MHz UDIMM (288-pin)*
	Memory size	4 GB, 8 GB, 16 GB
Expansion Slots	Total PCI/PCI-X/PCIe slots	7
	Slot location 1	PCI
	Slot location 2	PCIe x4 slot (Gen3 x4 link)
	Slot location 3	PCI
	Slot location 4	PCIe x16 slot (Gen3 x8 link)
	Slot location 5	PCI
	Slot location 6	PCIe x16 slot (Gen3 x8 or x16 link)
Graphics	Slot location 7	PCIe x4 slot (Gen3 x4 link)
	Controller	Intel HD Graphics**
Storage	VRAM	1 GB maximum shared memory with 2 GB and above system memory installed
	SATA controller	Intel C236: 6 SATA3 6 Gb/s ports with Intel Rapid Storage Technology support (for Windows only) (Supports software RAID 0, 1, 10 & 5)
Networking	SAS controller	-
	Interface	10/100/1000 Mbps
	Controller	GbE LAN1: Intel I219; GbE LAN 2-4: Intel I210-AT
	Connector	RJ-45 x 2 for G2 version; RJ-45 x 4 for G4 version
Onboard I/O Connector	Printer Port connector	1
	PSU connector	24-pin SSI power connector + 8-pin SSI 12V power connector
	USB connector	1 USB 3.0 (2 ports), 3 USB 2.0 (6 ports), 1 USB Type-A
	Fan header	5 (4-pin)
	SMBus	1
	Chassis intruder	1
	Front LAN LED	2
	Serial port header	2 (support 4 RS-232 ports) + 1 (support 1 RS-232 port)
	Audio connector	1 (ALC 892)
	PS/2 KB/Mouse	1
Rear I/O Connector	External serial port	1
	External USB port	4 (USB 3.0)
	VGA port	1
	DVI	2
	Display port	-
	RJ-45	2 for G2 version; 4 for G4 version
	Audio connector	2 (Mic-in, Line-out)
	PS/2 KB/Mouse	-
Watchdog Timer	Output	System reset
	Interval	Programmable 1 ~ 255 sec
Power Requirement	Power On	Intel® Xeon® E3-1275 v5 3.60GHz; DDR4 8G x 4
		3.3 V 5 V 12 V 12V_8P 5 Vsb -12 V
Environment		0.96A 1.58A 0.32A 7.21A 0.11A 0.06A
		Operating Non-operating
	Temperature	0 ~ 60 °C (32 ~ 140 °F)
		-40 ~ 85 °C (-40 ~ 185 °F)
Physical Characteristics	Humidity	Depends on CPU speed and cooler solution
		10 ~ 95% 10 ~ 95% (Non-condensing)
	Dimension (L x H)	304.8 x 244 mm (12" x 9.6")

* ECC memory support or not depends on Intel processor specification.

** Some Xeon processors have no graphic support. Please check Intel specification for processor graphics availability.

Block Diagram



Ordering Information

Part Number	Chipset	Memory	LAN	USB 3.0	DVI	SATAIII	IPMI	PCI Slots	MADE IN
ASMB-785G2-00A1E	C236	DDR4 Non-ECC/ECC UDIMM	2	6	2	6	Optional	3	China
ASMB-785G4-00A1E	C236	DDR4 Non-ECC/ECC UDIMM	4	6	2	6	Optional	3	China
ASMB-785G4-01A1	C236	DDR4 Non-ECC/ECC UDIMM	4	6	2	6	Optional	0	China
ASMB-785G2-00A1U	C236	DDR4 Non-ECC/ECC UDIMM	2	6	2	6	Optional	3	Taiwan
ASMB-785G4-00A1U	C236	DDR4 Non-ECC/ECC UDIMM	4	6	2	6	Optional	3	Taiwan

* ASMB-785G4-01A1 is designed for 1U/2U chassis with riser.

Packing List

Part Number	Description	Quantity
2061S78502	Driver CD	x 1
2006S78510	Startup manual	x 1
1700003194	SATA data cables	x 1
1700019381	SATA data cable (right angle)	x 1
1700022749-11	SATA power cables	x 2
1970000996T010	I/O shield	x 1

I/O View



ASMB-785G2-00A1E



ASMB-785G4-00A1E

Optional Accessories

Part Number	Description
1700002204	Dual port USB 2.0 cable (27 cm) with bracket
1700008461	Four port USB 2.0 cable (30.5 cm) with bracket
1960052651N021	LGA 1151/1150/1155 CPU cooler for 2U/4U and wallmount chassis
1960049408N001	LGA 1151/1150/1155 CPU heatsink for 1U chassis
1920001156T010	1U I/O shield
1700008809	Printer port cable kit (25 cm)
1700020294-01	Printer port cable kit (42 cm)
1701090401	Single port RS-232 cable with bracket (40 cm)
1700008762	Dual port RS-232 cable with bracket (22.5 cm)
1700026254-01	Dual port RS-232 cable for COM3_4 & COM5_6 connector (45cm)
1700020277-01	Dual port USB 3.0 cable with bracket (30 cm)
1700019268-11	Keyboard & mouse cable (35 cm)
1960063434N000	Cable bracket for 1700019268-11(4U)
PCA-COM232-00A1E	4 ports RS-232 module to LPC connector
PCA-COM485-00A1E	4 ports RS-485 module to LPC connector
IPMI-1000-00A2E	IPMI 2.0 Module
PCA-TPM-00B1E	TPM 2.0 Module by LPC

Note 1: Purchasing ASMB-785's proprietary CPU cooler from Advantech is a must. Other brands' CPU coolers are NOT compatible with ASMB-785.

Note 2: COM module or TPM module can be installed when the slot-2 & 3 are not occupied.

