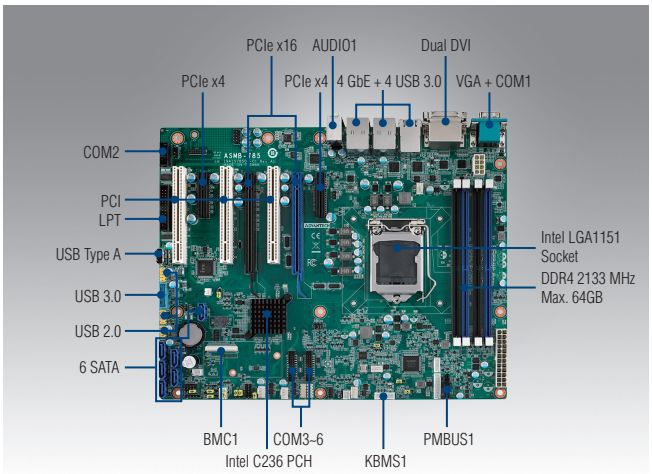
ASMB-785

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



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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)
	Slot location 7	PCIe x4 slot (Gen3 x4 link)
Graphics	Controller	Intel HD Graphics**
	VRAM	1 GB maximum shared memory with 2 GB and above system memory installed
Storage	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)
	SAS controller	-
Networking	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
		0.96A / 1.58A / 0.32A / 7.21A / 0.11A / 0.06A
Environment		Operating / Non-operating
	Temperature	0 ~ 60 °C (32 ~ 140 °F) Depends on CPU speed and cooler solution / -40 ~ 85 °C (-40 ~ 185 °F)
	Humidity	10 ~ 95% / 10 ~ 95% (Non-condensing)
Physical Characteristics	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.

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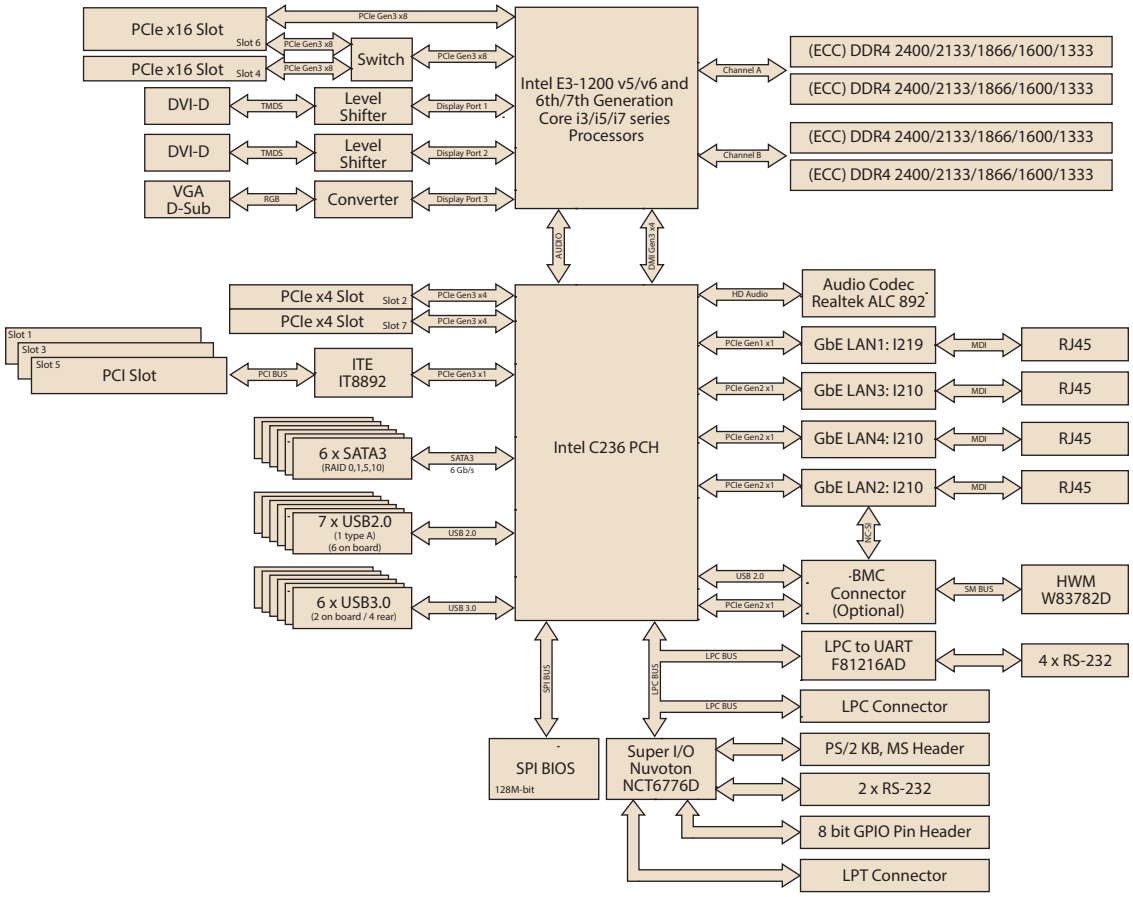
Block Diagram



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
19Z0000996T010	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
19Z0001156T010	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.