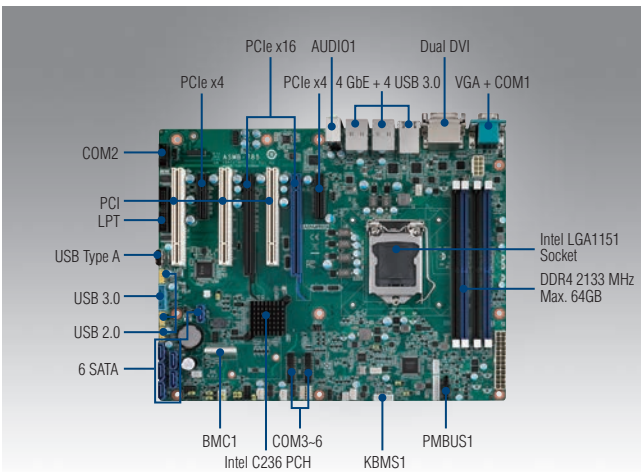


ASMB-785

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).



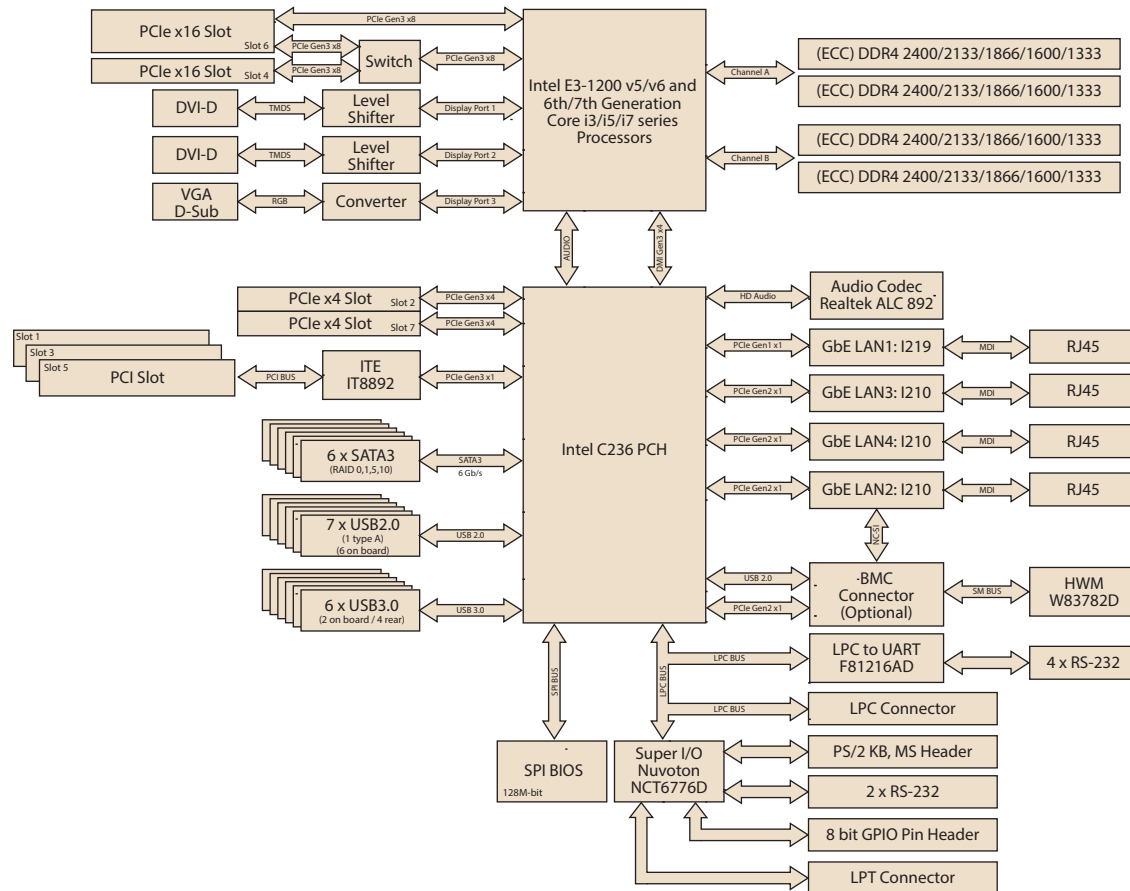
Specifications

| | | |
|--------------------------|----------------------------|--|
| 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 | 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 intrusion | 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 | Operating | 0 ~ 60 °C (32 ~ 140 °F) |
| | | Depends on CPU speed and cooler solution |
| Physical Characteristics | Dimension (L x H) | Non-operating |
| | | 10 ~ 95% -40 ~ 85 °C (-40 ~ 185 °F) |
| | | 10 ~ 95% (Non-condensing) |
| | | 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 |
|------------------|---------|------------------------|-----|---------|-----|---------|----------|-----------|
| ASMB-785G2-00A1E | C236 | DDR4 Non-ECC/ECC UDIMM | 2 | 6 | 2 | 6 | Optional | 3 |
| ASMB-785G4-00A1E | C236 | DDR4 Non-ECC/ECC UDIMM | 4 | 6 | 2 | 6 | Optional | 3 |

Packing List

| Part Number | Description | Quantity |
|----------------|-------------------------------|----------|
| 2061S78502 | Driver CD | x 1 |
| 2006S78510 | Startup manual | x 1 |
| 1700003194 | SATA data cable | x 1 |
| 1700019381 | SATA data cable (right angle) | x 1 |
| 1700022749-11 | SATA power cables | x 2 |
| 19Z0000996T010 | I/O shield | x 1 |

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 for COM3_4 & COM5_6 connector (22.5 cm) |
| 1700026254-01 | Dual port RS-232 cable for COM3_4 & COM5_6 connector (45cm) |
| 1700028292-01 | 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-1000-00B1 | IPMI 2.0 Module |
| PCA-TPM-00B1E | TPM 2.0 Module by LPC |

I/O View



ASMB-785G2-00A1E



ASMB-785G4-00A1E

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.