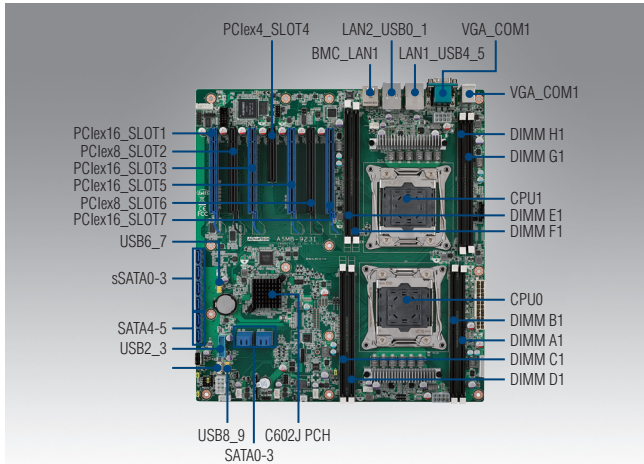


# ASMB-923

**Dual LGA 2011-R3 Intel® Xeon® E5-2600 v3/v4 EATX Server Board with 8 DDR4, 4 PCIe x16+ 2 PCIe x8, 4 USB 3.0, IPMI**



## Features

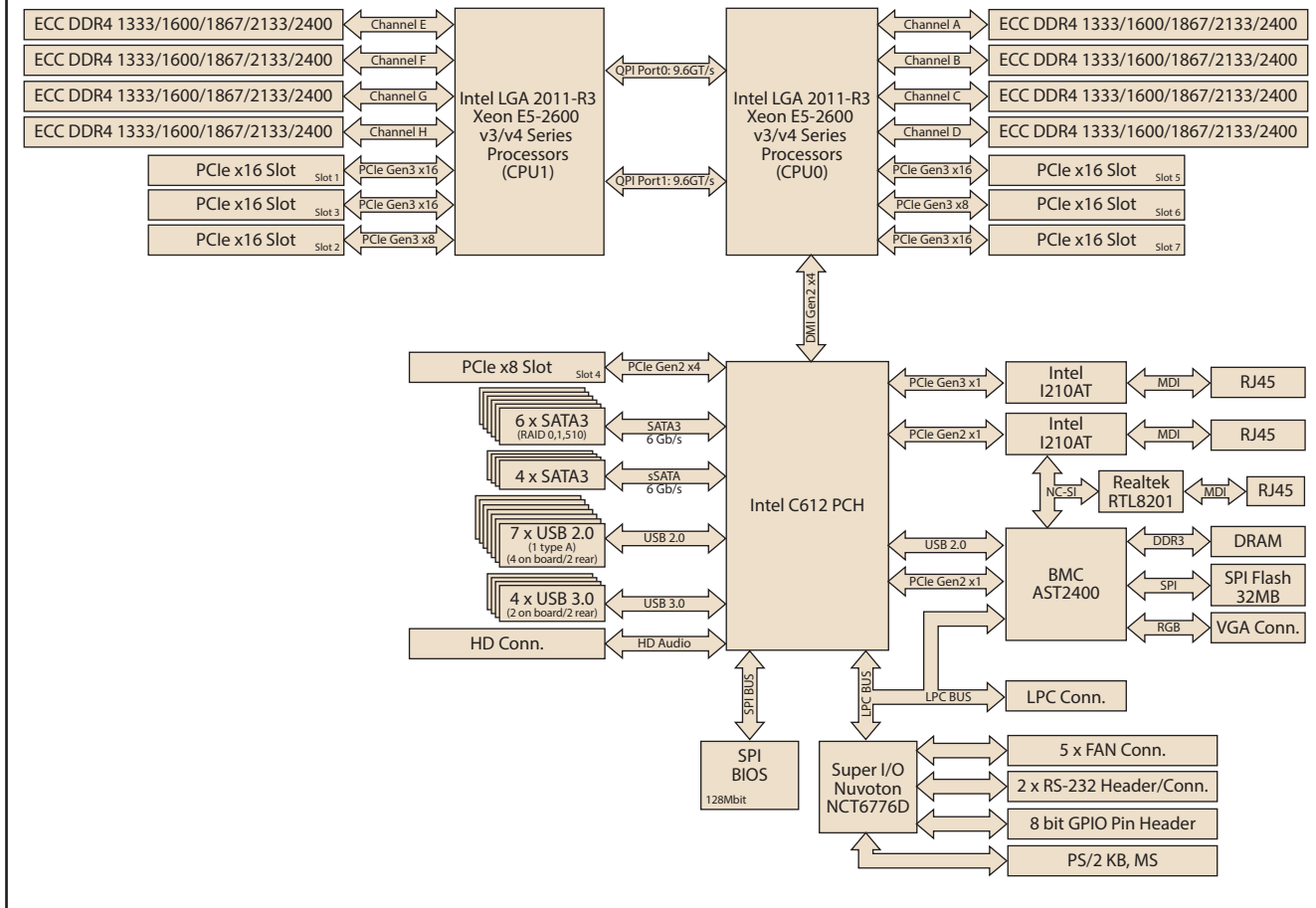
- EATX Server Board with dual Xeon® E5-2600 v3/v4 processor, 8 DIMMs 256 GB memory capacity
- DDR4 2400 MHz RDIMM up to 256 GB
- Four PCIe x16 slots (Gen3) + two PCIe x8 slots (Gen3.0) and one PCIe x4 (Gen2.0)
- 0 ~ 40 °C ambient operation temperature range



## Specifications

|                          |                               |  |       |        |       |                            |
|--------------------------|-------------------------------|--|-------|--------|-------|----------------------------|
| Form Factor              |                               | Extended ATX form factor   |       |        |       |                            |
| Processor System         | Socket                        | Intel LGA 2011-R3  |       |        |       |                            |
|                          | CPU type                      | Intel® Xeon® E5-2600 v3/v4 dual processor (CPU cooler should be purchased separately and TDP up to 160W)<br>Intel® Xeon® E5-1600 v3/v4 Series (1S conditional support, please contact to Advantech application engineer) |       |        |       |                            |
| Core Logic               | Chipset                       | Intel C612 chipset   |       |        |       |                            |
|                          | Total slots                   | 8 (Quad Channel)   |       |        |       |                            |
| Memory                   | Capacity                      | Maximum 256 GB ECC RDIMM   |       |        |       |                            |
|                          | Memory type                   | DDR4 ECC-REG 2400/2133/1866/1600/1333 MHz DIMM   |       |        |       |                            |
|                          | Memory size                   | 1 GB, 2 GB, 4 GB, 8 GB, 16 GB, 32 GB   |       |        |       |                            |
| Expansion Slots          | Total PCI/PCI-X/PCIe slots    | 7  |       |        |       |                            |
|                          | Slot location 1               | PCIe x16 slot (x16 link), signal from CPU1   |       |        |       |                            |
|                          | Slot location 2               | PCIe x16 slot (x8 link), signal from CPU1  |       |        |       |                            |
|                          | Slot location 3               | PCIe x16 slot (x16 link), signal from CPU1   |       |        |       |                            |
|                          | Slot location 4               | PCIe x8 slot (x4 link), signal from PCH  |       |        |       |                            |
|                          | Slot location 5               | PCIe x16 slot (x16 link), signal from CPU0   |       |        |       |                            |
|                          | Slot location 6               | PCIe x16 slot (x8 link), signal from CPU0  |       |        |       |                            |
| Graphics                 | VGA                           | Aspeed AST2400/1400 64 MB  |       |        |       |                            |
|                          | IDE controller                | -  |       |        |       |                            |
| Storage                  | SATA controller               | Intel C610: 10 SATA3 6 Gb/s ports Intel Rapid Storage Technology (for Windows only)<br>(SATA0-SATA5 and sSATA0-sSATA3 Supports software RAID 0, 1, 10 & 5)   |       |        |       |                            |
|                          | SAS controller                | -  |       |        |       |                            |
| Networking               | GbE LAN                       | 2 x Intel I210AT   |       |        |       |                            |
| Onboard I/O Connectors   | Floppy connector              | -  |       |        |       |                            |
|                          | 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 4 USB port), 1* Type-A , 1* USB3.0 20pin header (supports 2*USB 3.0 port)  |       |        |       |                            |
|                          | 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        |                               | 4 (2*USB2.0 + 2*USB3.0)  |       |        |       |                            |
| VGA port                 |                               | 1  |       |        |       |                            |
| RJ-45                    |                               | 3 (1 port dedicated for IPMI function)   |       |        |       |                            |
| PS/2 KB/mouse            |                               | 1  |       |        |       |                            |
| Infiniband               |                               | -  |       |        |       |                            |
| Management Solution      | Software                      | -  |       |        |       |                            |
|                          | Out of band remote management | Yes (ASMB-923I 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                       |
|                          |                               | 1.69A  | 1.00A | 17.42A | 0.05A | 0.01A                      |
| Environment              |                               | Operating  |       |        |       | Non-operating              |
|                          |                               | Temperature  |       |        |       | -40 ~ 85 °C                |
|                          |                               | Humidity   |       |        |       | 10% ~ 95% (Non condensing) |
| Physical Characteristics | Dimension (L x H)             | 304.8 x 330.2 mm (12" x 13")   |       |        |       |                            |

## Block Diagram



## Ordering Information

| Part Number     | Chipset | Memory     | GbE LAN | IPMI | VGA Chip |
|-----------------|---------|------------|---------|------|----------|
| ASMB-923-00A1E  | C612    | DDR4 RDIMM | 2       | -    | AST 1400 |
| ASMB-923I-00A1E | C612    | DDR4 RDIMM | 2       | Yes  | AST 2400 |

## Packing List

| Part Number    | Description         | Quantity |
|----------------|---------------------|----------|
| 2066923I01     | Driver CD           | x 1      |
| 2006923I10     | Startup manual      | x 1      |
| 1700003194     | SATA data cables    | x 2      |
| 1703150102     | SATA power cables   | x 2      |
| 1700019748     | CPU power cable(8P) | x 2      |
| 1960052312T010 | I/O shield          | x 1      |

## Optional Accessories

| Part Number     | Description   |
|-----------------|---|
| PCA-AUDIO-HDA1E | HD Audio-card                                       |
| PCA-TPM-00B1E   | TPM 2.0 Module by LPC                               |
| 1960057226N001  | LGA-2011 square CPU heatsink for 1U chassis (95W)   |
| 1960055362N001  | LGA-2011 square CPU cooler for 2U/4U chassis (145W) |
| 1960065684N001  | LGA-2011 square CPU cooler for 4U chassis (160W)    |
| 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                         |
| 19Z0000406T000  | 1U chassis IO shield                                |
| 968EMLSAP2      | SUSIAccess Pro 3.0                                  |

## I/O View



ASMB-923-00A1E



ASMB-923I-00A1E