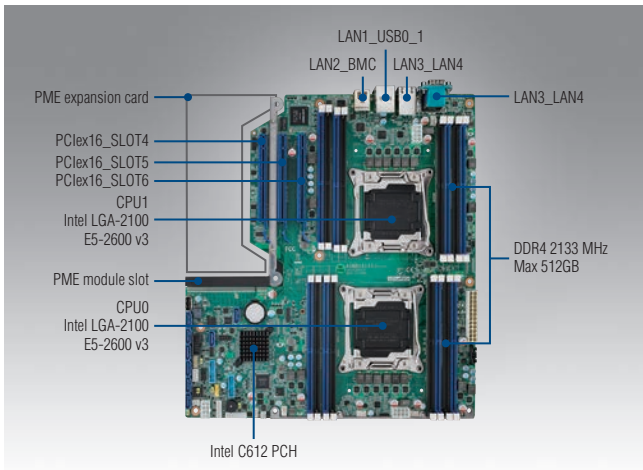


# ASMB-913

**Dual LGA 2011-R3 Intel® Xeon® E5-2600 v3/v4 EATX Server Board with 16 DDR4 DIMM, 3 PCIe x16, 6 USB 3.0, PME Support, IPMI**



## Features

- EATX server board with dual Xeon® E5-2600 v3/v4 processor
- 16 x DDR4 2400 MHz RDIMM up to 512 GB
- Three PCIe x16 slot(Gen3.0) and PME expansion slot
- PME expansion cards supporting list is on page 9-32
- 0 ~ 40 °C ambient operating temperature range

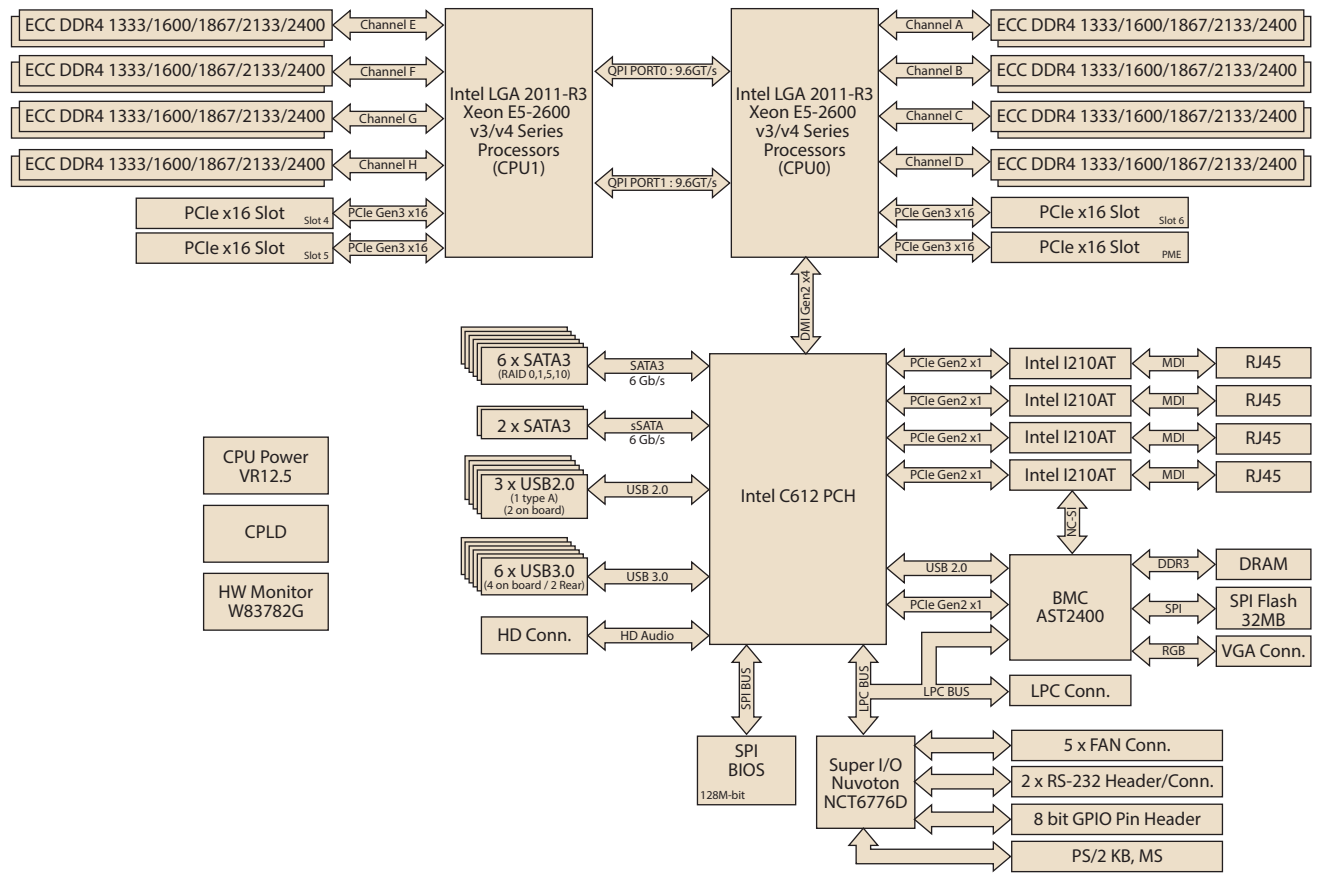
Note: ASMB-913I could enable PME slot when processor is installed in CPU0 socket.



## 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                                                                                                                                                                                                       |      |       |                            |
| Memory                   | Total slots                   | 16 (Quad Channel)                                                                                                                                                                                                        |      |       |                            |
|                          | Capacity                      | Maximum 512 GB ECC RDIMM                                                                                                                                                                                                 |      |       |                            |
|                          | Memory type                   | DDR4 ECC-REG 2400/2133/1866/1600 MHz DIMM                                                                                                                                                                                |      |       |                            |
|                          | Memory size                   | 4 GB, 8 GB, 16 GB, 32 GB                                                                                                                                                                                                 |      |       |                            |
| Expansion Slots          | Total PCI/PCI-X/PCIe slots    | 6                                                                                                                                                                                                                        |      |       |                            |
|                          | Slot location 1               | Fit to PME daughter board                                                                                                                                                                                                |      |       |                            |
|                          | Slot location 2               | Fit to PME daughter board                                                                                                                                                                                                |      |       |                            |
|                          | Slot location 3               | Fit to PME daughter board                                                                                                                                                                                                |      |       |                            |
|                          | Slot location 4               | 1 x PCIe x16 slot (x16 link), signal from CPU1                                                                                                                                                                           |      |       |                            |
|                          | Slot location 5               | 1 x PCIe x16 slot (x16 link), signal from CPU1                                                                                                                                                                           |      |       |                            |
|                          | Slot location 6               | 1 x PCIe x16 slot (x16 link), signal from CPU0                                                                                                                                                                           |      |       |                            |
| Graphics                 | Slot location 7               | -                                                                                                                                                                                                                        |      |       |                            |
|                          | VGA                           | Aspeed AST2400/1400 64 MB                                                                                                                                                                                                |      |       |                            |
| Storage                  | IDE controller                | -                                                                                                                                                                                                                        |      |       |                            |
|                          | SATA controller               | Intel C612: 8 SATA3 6 Gb/s ports Intel Rapid Storage Technology (for Windows only)<br>(SATA0-SATA5 and sSATA0-sSATA1 Supports software RAID 0, 1, 10 & 5)                                                                |      |       |                            |
|                          | SAS controller                | -                                                                                                                                                                                                                        |      |       |                            |
| Networking               | GbE LAN                       | 4 x Intel I210AT                                                                                                                                                                                                         |      |       |                            |
| Onboard I/O Connector    | 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 , 2* USB3.0 20pin header (supports 4*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                                                                                                                                                                                                                        |      |       |                            |
|                          | External serial port          | 1                                                                                                                                                                                                                        |      |       |                            |
| Rear I/O Connector       | External USB port             | 2 (USB3.0)                                                                                                                                                                                                               |      |       |                            |
|                          | VGA port                      | 1                                                                                                                                                                                                                        |      |       |                            |
|                          | RJ-45                         | 4 (one sharing IPMI function)                                                                                                                                                                                            |      |       |                            |
|                          | PS/2 KB/mouse                 | -                                                                                                                                                                                                                        |      |       |                            |
|                          | Infiniband                    | -                                                                                                                                                                                                                        |      |       |                            |
|                          | Software                      | -                                                                                                                                                                                                                        |      |       |                            |
| Management Solution      | Out of band remote management | Yes (ASMB-913I 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                       |
|                          |                               | 1.4A                                                                                                                                                                                                                     | 0.5A | 23.2A | -12V                       |
| Environment              |                               | Operating                                                                                                                                                                                                                |      |       | Non-operating              |
|                          |                               | 0 ~ 40 °C, depends on CPU speed and cooler solution                                                                                                                                                                      |      |       | -40 ~ 85 °C                |
|                          |                               | 10% ~ 95%                                                                                                                                                                                                                |      |       | 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 | Graphics |
|-----------------|---------|-----------------|---------|------|----------|
| ASMB-913-00A1E  | C612    | 16 x DDR4 RDIMM | 2       | -    | AST 1400 |
| ASMB-913I-00A1E | C612    | 16 x DDR4 RDIMM | 4       | Yes  | AST 2400 |

## Packing List

| Part Number    | Description         | Quantity |
|----------------|---------------------|----------|
| 2061913I01     | Driver CD           | x 1      |
| 2001913I10     | Startup manual      | x 1      |
| 1700003194     | SATA data cables    | x 2      |
| 1703150102     | SATA power cables   | x 2      |
| 1700019748     | CPU power cable(8P) | x 2      |
| 19Z0000995T100 | I/O shield          | x 1      |

## I/O View



ASMB-913-00A1E



ASMB-913I-00A1E

## Optional Accessories

| Part Number      | Description                                                    |
|------------------|----------------------------------------------------------------|
| ASMB-FF3P8-12A1E | PME card with 1 PCIe x8 slot and 1 PCIe x4 slot and 1 PCI slot |
| ASMB-FF3PX-12A1E | PME card with 2 PCI-X and 1 PCI slots                          |
| ASMB-FF20F-02A1E | PME card with 2 PCIe x16 slots                                 |
| ASMB-FF208-02A1E | PME card with 2 PCIe x 8 slots                                 |
| PCA-AUDIO-HDA1E  | HD Audio-card                                                  |
| PCA-TPM-00B1E    | TPM 2.0 Module by LPC                                          |
| 1960057226N001   | LGA-2011 CPU heatsink for 1U chassis (95W)                     |
| 1960055362N001   | LGA-2011 square CPU cooler for 2U/4U chassis (145W)            |
| 1960065684N011   | LGA-2011 square CPU cooler for 4U chassis (160W)               |
| 1700019127       | FAN connector extended cable 1*4P-2.54/1*4P-2.54 35cm          |
| 1700028025-01    | Dual port USB cable (45 cm) with bracket                       |
| 1700028042-01    | Four port USB cable (45 cm) with bracket                       |
| 1700028024-01    | Dual port USB 3.0 cable (45 cm) with bracket                   |
| 1700019268-11    | PS/2 cable (35 cm)                                             |
| 1701090401       | COM port cable with bracket                                    |
| 19Z0001086T000   | 1U chassis IO shield                                           |
| 968EMLSAP2       | SUSIAccess Pro 3.0                                             |