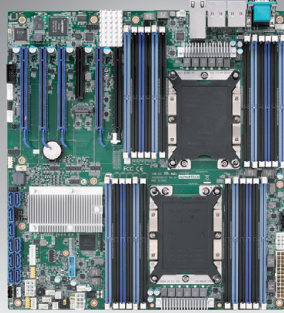


# ASMB-935

**Dual LGA3647-PO Intel® Xeon® Scalable EATX Server Board with 24 DDR4, 5 PCIe x16 + 1 PCIe x8, 10 SATA3.0, 6 USB3.0, Dual 10GbE, IPMI**



## Features

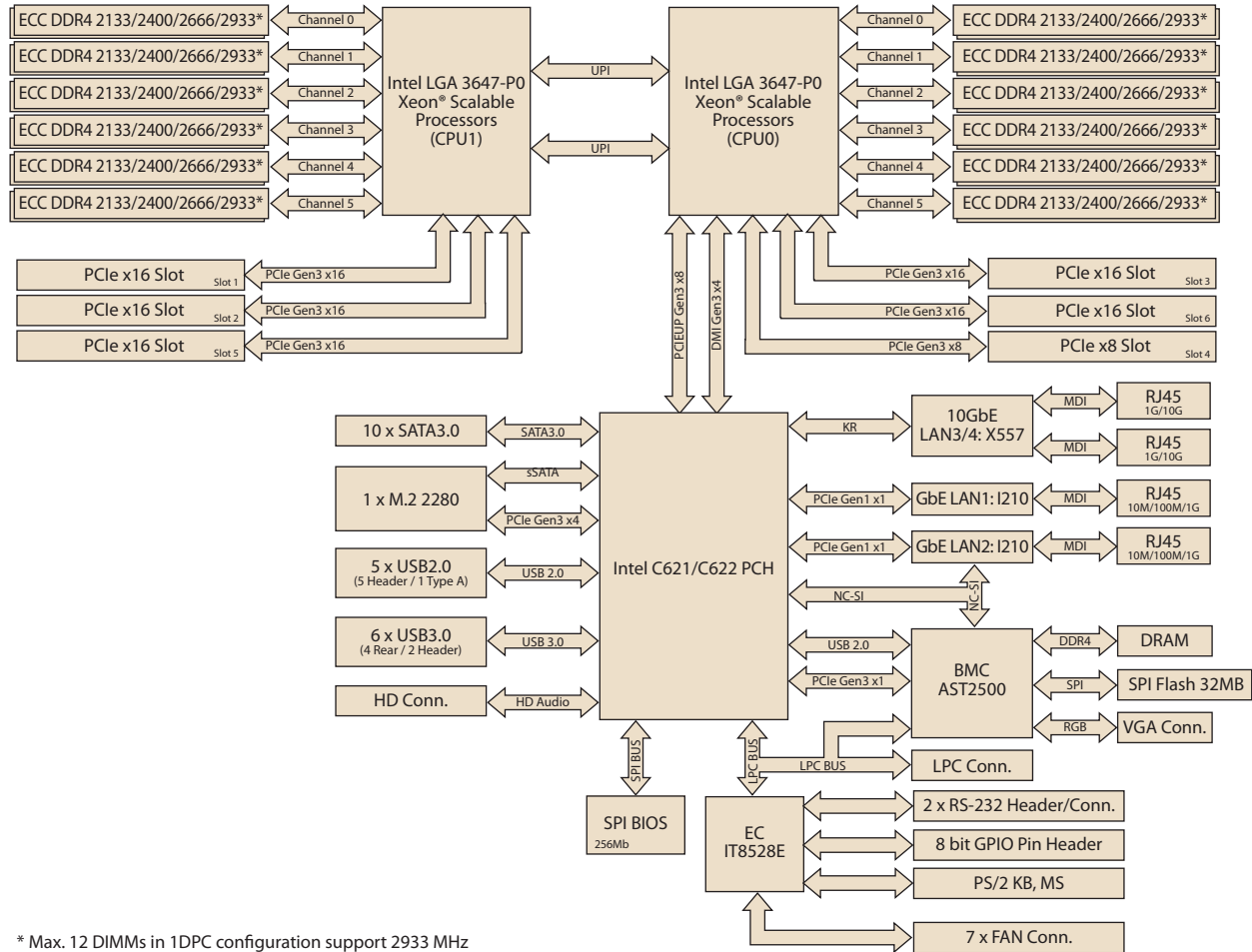
- EATX server board with dual Xeon Scalable processors
- DDR4 2933 MHz RDIMM up to 3TB, support Intel Optane DC Persistent Memory
- Five PCIe x16 (Gen3) and one PCIe x8 (Gen3) for three double-deck cards
- Intel® X557-AT2 dual 10GbE ports
- Ten SATA3.0 and six USB3.0 ports
- One M.2 2280 (SATA / PCIe compatible)
- 0 ~ 40 °C ambient operating temperature range



## Specifications

|                          |   |  |
|--------------------------|---|--|
| Form Factor              |   | EATX form factor   |
| Processor System         | Socket  | Intel LGA3647  |
|                          | CPU type  | Intel Xeon 1st and 2nd Gen Scalable dual processors (CPU cooler should be purchased separately and TDP up to 205W) |
| Core Logic               | Chipset   | Intel C620 Series  |
| Memory                   | Total slots   | 24 (2 DIMM per channel)  |
|                          | Capacity  | Maximum 3TB ECC LRDIMM   |
|                          |   | Maximum 3TB ECC 3DS RDIMM  |
|                          |   | Maximum 2TB Intel Optane DC Persistent Memory in memory mode   |
| Memory type              | DDR4 2133/2400/2666MHz RDIMM, LRDIMM (2DPC)<br>DDR4 2133/2400/2666/2933MHz RDIMM, LRDIMM (1DPC) |  |
| Memory size              | 4GB, 8GB, 16GB, 32GB, 64GB, 128GB   |  |
| Expansion Slots          | Total PCIe slots  | 6  |
|                          | Slot location 1   | 1 x PCIe x16 slot (x16 link), signal from CPU1   |
|                          | Slot location 2   | 1 x PCIe x16 slot (x16 link), signal from CPU1   |
|                          | Slot location 3   | 1 x PCIe x16 slot (x16 link), signal from CPU0   |
|                          | Slot location 4   | 1 x PCIe x8 slot (x8 link), signal from CPU0   |
|                          | 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                 | VGA   | ASPEED AST2500/2510  |
| Storage                  | SATA controller   | Intel C621/C622: 10 x SATA3.0 (6 Gb/s) support software RAID 0,1,5,10  |
|                          | SAS controller  | -  |
| Networking               | GbE/10GbE LAN   | 2 x Intel I210AT + Intel X557-AT2 (dual 10GbE ports for ASMB-935T2 sku only)                                       |
| Onboard I/O Connector    | PSU connector   | 24-pin SSI power connector + 3 x 8-pin SSI 12 V power connector  |
|                          | USB connector   | 4 x USB2.0 ports (two onboard headers) + 2 x USB3.0 ports (one onboard headers) + 1 x Type-A USB2.0 port           |
|                          | Fan header  | 7 x 4pin (5 for system + 2 for CPU)  |
|                          | M.2   | 1 x M.2 2280 B+M key (SATA and PCIe)   |
|                          | SMBus   | 1  |
|                          | Chassis intruder  | 1  |
|                          | Front LAN LED   | 1  |
|                          | Audio Header  | 1  |
|                          | PS/2 Keyboard/Mouse header  | 1  |
| Serial port header       | 1   |  |
| Rear I/O Connector       | External serial port  | 1  |
|                          | External USB port   | 4 (USB3.0)   |
|                          | VGA port  | 1  |
|                          | RJ-45   | 4 (LAN2 and LAN3 shared with BMC)  |
|                          | PS/2 Keyboard/Mouse   | -  |
|                          | Infiniband  | -  |
| Management Solution      | Software  | -  |
|                          | Out of band remote management   | Yes  |
| 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      12V_8P_0      12V_8P_1  |
|                          | (205W CPU@2.5GHz DDR4 2400 32G*24)  | 6.77A      5.11A      0.04A      0.17A      0.01A      21.49A      23.19A  |
| Environment              | Operating   | Non-operating  |
|                          | Temperature   | 0 ~ 40 °C, depends on CPU speed and cooler solution  |
|                          | Humidity  | 10% ~ 95%  |
| Physical Characteristics | Dimension (L x H)   | 304.8 x 330.2 mm (12" x 13")   |

### Block Diagram



### Ordering Information

| Part Number     | Chipset | Memory                 | GbE/10GbE LAN | IPMI | Graphics |
|-----------------|---------|------------------------|---------------|------|----------|
| ASMB-935I-00A1  | C621    | 24 x DDR4 RDIMM/LRDIMM | 2/-           | Yes  | AST2500  |
| ASMB-935T2-00A1 | C622    | 24 x DDR4 RDIMM/LRDIMM | 2/2           | Yes  | AST2500  |

### Packing List

| Part Number    | Description          | Quantity |
|----------------|----------------------|----------|
| 2061093500     | Driver CD            | x 1      |
| 2001093500     | Startup manual       | x 1      |
| 1700003194     | SATA data cables     | x 2      |
| 1700022749-11  | SATA power cables    | x 2      |
| 1700019748     | CPU power cable      | x 2      |
| 1930008089     | Screw for M.2 device | x 2      |
| 1960076488T000 | I/O shield           | x 1      |
| 1651003167-01  | LGA3647 CPU clip     | x 2      |

### Optional Accessories

| Part Number     | Description   |
|-----------------|---|
| PCA-AUDIO-HDB1E | HD audio card                                       |
| PCA-TPM-00B1E   | TPM 2.0 module                                      |
| 1960081155N001  | LGA-3647 narrow CPU heatsink for 1U chassis (85W)   |
| 1960088272T001  | LGA-3647 narrow CPU cooler for 2U/4U chassis (150W) |
| 1960081603N101  | LGA-3647 narrow CPU cooler for 4U chassis (205W)    |
| 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        |
| 1701090401      | COM port cable with bracket                         |
| 1960082347T000  | For 1U chassis IO shield                            |

Note: PCA-AUDIO-HDB1E is not compatible with Advantech 3U chassis.

### I/O View



ASMB-935T2-00A1



ASMB-935I-00A1