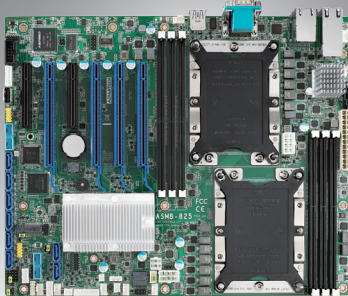


ASMB-825

Dual LGA 3647-P0 Intel® Xeon® Scalable ATX Server Board with 6 DDR4, 4 PCIe x16 + 2 PCIe x8, 8 SATA3.0, 6 USB3.0, Dual 10GbE, IPMI



Features

- ATX server board with dual Xeon® Scalable processors
- DDR4 2933 MHz RDIMM up to 768GB, support Intel Optane DC Persistent Memory
- Four PCIe x16 slots (Gen3) and two PCIe x8 (Gen3)
- Intel® X557-AT2 dual 10GbE ports
- Eight SATA3.0 and one M.2 connectors (SATA / PCIe compatible)
- 0 ~ 40 °C ambient operating temperature range

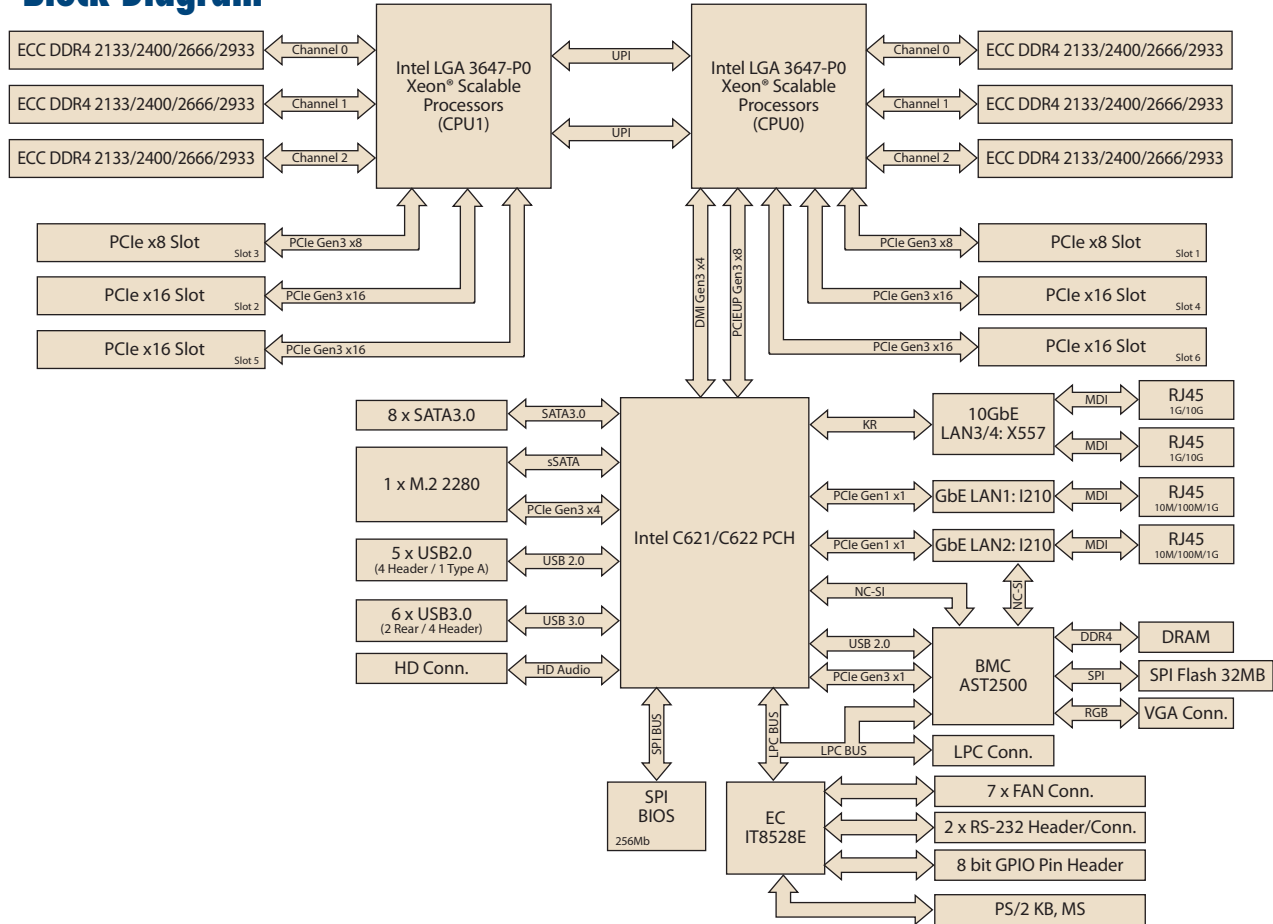


Specifications

| | | |
|--------------------------|----------------------------------|--|
| Form Factor | ATX form factor | |
| Processor System | Socket | Intel LGA 3647 |
| | CPU type | Intel Xeon 1st and 2nd Gen Scalable dual processors (CPU cooler should be purchased separately and TDP up to 150W) |
| Core Logic | Chipset | Intel C621/C622 chipset |
| | Total slots | 6 (1 DIMM per channel) |
| Memory | Capacity | Maximum 768GB ECC LRDIMM |
| | | Maximum 768GB ECC 3DS RDIMM |
| | | Maximum 1TB Intel Optane DC Persistent Memory in memory mode |
| | Memory type | DDR4 2133/2400/2666/2933MHz RDIMM, LRDIMM* |
| | Memory size | 4GB, 8GB, 16GB, 32GB, 64GB, 128GB |
| Expansion Slots | Total PCI/PCI-X/PCIe slots | 6 |
| | Slot location 1 | PCIe x8 slot (x8 link), signal from CPU0 |
| | Slot location 2 | PCIe x16 slot (x16 link), signal from CPU1 |
| | Slot location 3 | PCIe x8 slot (x8 link), signal from CPU1 |
| | Slot location 4 | PCIe x16 slot (x16 link), signal from CPU0 |
| | Slot location 5 | PCIe x16 slot (x16 link), signal from CPU1 |
| | Slot location 6 | PCIe x16 slot (x16 link), signal from CPU0 |
| Graphics | VGA | Aspeed AST 2500/2510 |
| Storage | SATA controller | Intel C621/C622: 8 x SATA3.0 (6 Gb/s) support software RAID 0,1,5,10 |
| Networking | GbE/10GbE LAN | 2 x Intel I210AT / Intel X557-AT2 (dual 10GbE ports) |
| Onboard I/O Connector | PSU connector | 24-pin SSI power connector + 2 x 8-pin SSI 12 V power connector + 4-pin SSI 12 V power connector |
| | USB connector | 4 x USB2.0 ports (two onboard headers) + 4 x USB3.0 ports (two onboard headers) + 1 x Type-A USB2.0 port |
| | Fan header | 7 x 4-pin (5 for system + 2 for CPU) |
| | M.2 | 1 x M.2 2280 B+M key (SATA and PCIe) |
| | SMBus | 1 |
| | Chassis intrusion | 1 |
| | Front LAN LED | 1 |
| | Audio Header | 1 |
| Rear I/O Connector | PS/2 Keyboard/Mouse header | 1 |
| | Serial port header | 1 |
| | External serial port | 1 |
| | External USB port | 2 (USB3.0) |
| | VGA port | 1 |
| Management Solution | RJ-45 | 4 (LAN2 and LAN3 shared with BMC) |
| | Software | Advantech remote monitoring utility |
| Monitoring | Out of band remote management | Yes (ASMB-825I & ASMB-825T2) |
| | CPU temperature | Yes |
| Watchdog Timer | System Monitoring | Yes |
| | Output | System reset |
| Power Requirement | Interval | Programmable 1 ~ 255 sec/min |
| | Power On | 3.3V 5V 12V 5Vsb -12V 12V_8P_0 12V_8P_1 |
| | (150W CPU@2.6GHz DDR4 2400 8G*6) | 1.3A 4.3A 0.7A 0.3A 0A 21.6A 17.5921A |
| Environment | Operating | Non-operating |
| | Temperature | 0 ~ 40 °C, depends on CPU speed and cooler solution -40 ~ 85 °C |
| | Humidity | 10 ~ 95% |
| Physical Characteristics | Dimension (L x H) | 304.8 x 244 mm (12" x 9.6") |

*2933MHz memory is supported by the 82xx and 62xx series processors

Block Diagram



Ordering Information

| Part Number | Chipset | Memory | GbE/10GbE LAN | IPMI | Graphics |
|------------------|---------|-----------------------|---------------|------|----------|
| ASMB-825-00A1E | C621 | 6 x DDR4 RDIMM/LRDIMM | 2/- | - | AST 2510 |
| ASMB-825I-00A1E | C621 | 6 x DDR4 RDIMM/LRDIMM | 2/- | Yes | AST 2500 |
| ASMB-825T2-00A1E | C622 | 6 x DDR4 RDIMM/LRDIMM | 2/2 | Yes | AST 2500 |

Packing List

| Part Number | Description | Quantity |
|----------------|----------------------|----------|
| 2066825I00 | Driver CD | x 1 |
| 2006825I10 | 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 |
| 1960076489T000 | 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 by LPC |
| 1960081155N001 | LGA-3647 narrow CPU heatsink for 1U chassis (85W) |
| 1960088272T001 | LGA-3647 narrow CPU cooler for 2U/4U chassis (150W) |
| 1700002204 | Dual port USB 2.0 cable (27 cm / 10.6 in) with bracket |
| 1700008461 | Four port USB 2.0 cable (30.5 cm / 12 in) with bracket |
| 1700028292-01 | Dual port USB 3.2 (Gen1) cable (30 cm/ 11.8 in) with bracket |
| 1701090401 | Single port RS-232 COM cable (40 cm / 15.7 in) with bracket |
| 1700019268-11 | Cable for onboard KBMS1 connector (35 cm/ 13.7 in) |
| 1960063434N000 | Cable bracket for 1700019268-11 |
| 1960082348N000 | 1U chassis IO shield |

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

I/O View



ASMB-825T2-00A1E



ASMB-825-00A1E
ASMB-825I-00A1E