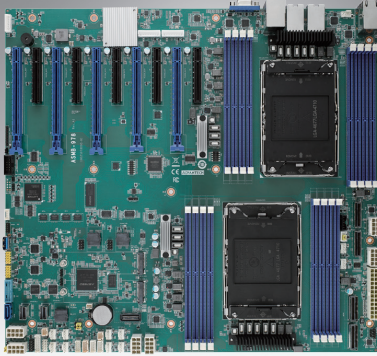


ASMB-978

Dual Intel® 6th Gen Xeon® Scalable Server Board with 16x DDR5, 10x PCIe, 2.5GbE/10GbE, and IPMI

Preliminary



Features

- LGA4710 server board with Dual 6th Gen Intel® Xeon® Scalable processors with TDP up to 350W.
- 16x DDR5 6400 MHz RDIMM up to 4TB total capacity, including support for MCRDIMM
- Features 5x PCIe x16 and 4x PCIe x8
- Integrated 2x 2.5GbE and 2x 10GbE LAN ports
- Nine SATA 3 and two M.2 connectors (SATA/PCIe compatible)
- 0 ~ 40 °C (32 ~ 104 °F) ambient operating temperature range

Note: Supported OS including Windows 10/ 11 (64-bit) and Server 2025 (64-bit) have been validated.

CE FCC

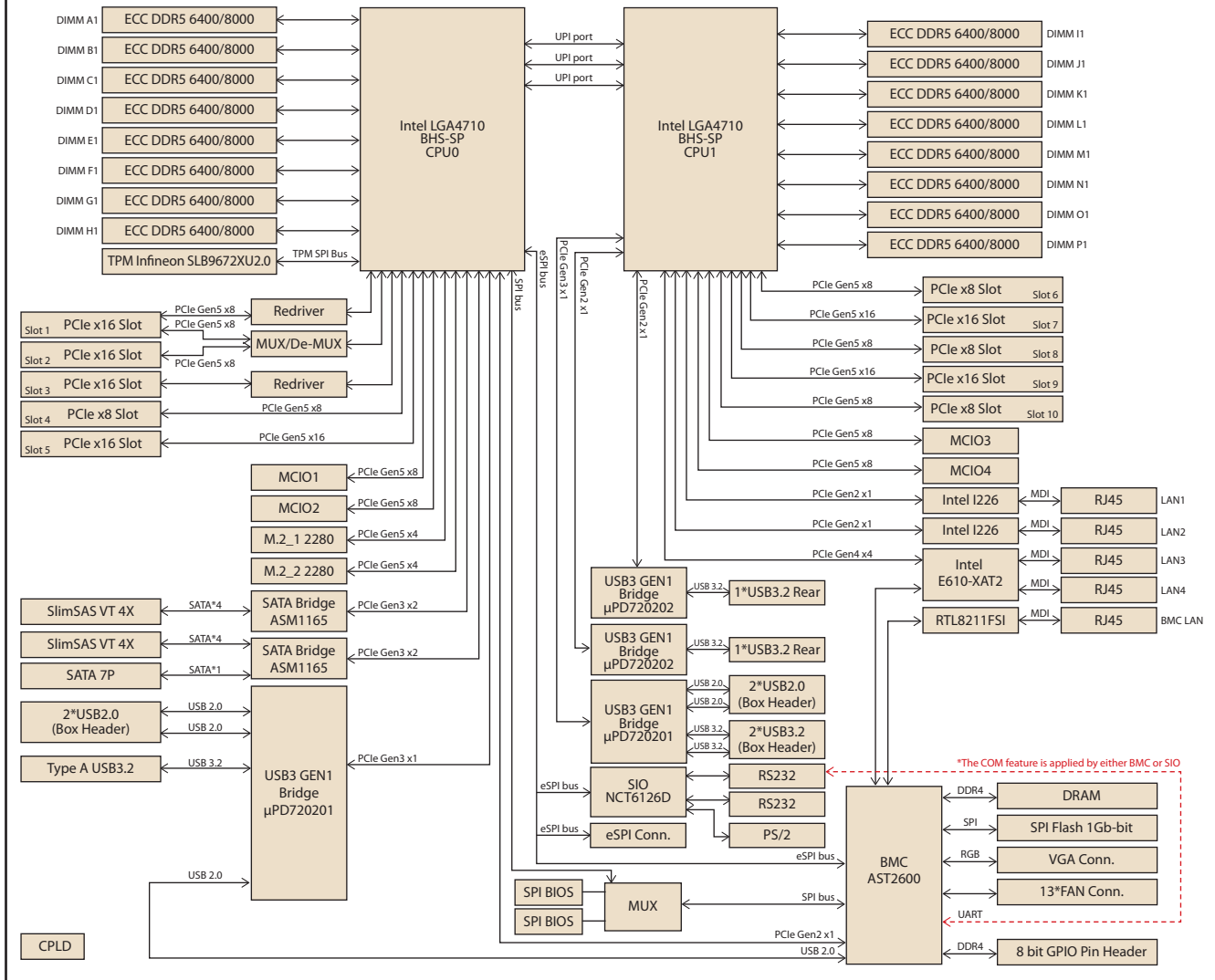
Specifications

| | | | | | |
|--------------------------------------|---|---|--------|--------|-------------------------------|
| Form Factor | Proprietary Size: 382.54 x 352.5 mm (15.06" x 13.87") | | | | |
| Processor System | Socket | Dual Intel® LGA4710 | | | |
| | CPU type | Intel 6th Gen. Xeon® Scalable Dual processor (CPU cooler should be purchased separately*) | | | |
| Core Logic | Chipset | none chipset | | | |
| | Total slots | 16x (1 DIMM per channel) | | | |
| Memory | Capacity | Maximum 4TB ECC RDIMM | | | |
| | Memory type | DDR5 ECC-REG 6400 MHz RDIMM, MCRDIMM | | | |
| | Memory size | 16GB, 32GB, 64GB, 128GB, 256GB (The supported Memory Density are 16Gb and 24Gb) | | | |
| | Total PCIe slots | 10 | | | |
| Expansion Slots | Slot location 1 | PCIe x 16 slot (Gen5 x16 link or x8 switch to Slot2), signal from CPU0, CXL support** | | | |
| | Slot location 2 | PCIe x 8 slot (Gen5 x8 link or x0 switch to Slot1), signal from CPU0, CXL support** | | | |
| | Slot location 3 | PCIe x 16 slot (Gen5 x16 link), signal from CPU0, CXL support** | | | |
| | Slot location 4 | PCIe x 8 slot (Gen5 x8 link), signal from CPU0, CXL support** | | | |
| | Slot location 5 | PCIe x 16 slot (Gen5 x16 link), signal from CPU0, CXL support** | | | |
| | Slot location 6 | PCIe x 8 slot (Gen5 x8 link), signal from CPU1, CXL support** | | | |
| | Slot location 7 | PCIe x 16 slot (Gen5 x16 link), signal from CPU1, CXL support** | | | |
| | Slot location 8 | PCIe x 8 slot (Gen5 x8 link), signal from CPU1, CXL support** | | | |
| | Slot location 9 | PCIe x 16 slot (Gen5 x16 link), signal from CPU1, CXL support** | | | |
| | Slot location 10 | PCIe x 8 slot (Gen5 x8 link), signal from CPU1, CXL support** | | | |
| Graphics | VGA | Aspeed AST 2600 | | | |
| Storage | SATA controller | 8 x SATA3.0 (6 Gb/s) via SlimSAS, support software RAID 0,1,5,10 1 x SATA3.0 (6 Gb/s) | | | |
| | SAS controller | - | | | |
| Networking | GbE LAN | 2 x Intel® I226AT (2.5GbE)/ Intel® E610-XAT2 (dual 10GbE ports | | | |
| | PSU connector | 24-pin SSI power connector + 8-pin SSI 12 V power connector | | | |
| Onboard I/O | USB connector | 2 x USB 3.2 Gen 1 ports (via BOX header) + 2 x USB 2.0 Gen 1 ports (via pin header) + 1 x Type-A USB 2.0 port | | | |
| | M.2 connector | 2 x M.2 2280 (PCIe Gen5 x 4) | | | |
| | Fan header | 10 x (4-pin) | | | |
| | SMBus | 1 | | | |
| | Chassis intrusion | 1 | | | |
| | Front LAN LED | 2 | | | |
| | Serial port header | 4, 2 x RS-232 dual-port (2 ports) | | | |
| | Audio Header | 1 x (ALC 888S) | | | |
| Rear I/O Connector | PS/2 KB/Mouse | - | | | |
| | External serial port | 1 (via COM cable in the package) | | | |
| | External USB port | 2 x (USB 3.2 Gen 2) | | | |
| | VGA port | 1 x (Resolution up to 1920 x 1200 @ 60 Hz) | | | |
| | HDMI | 1 x (Resolution up to 4096 x 2160 @ 60 Hz) | | | |
| | Display Port | 2 x (Resolution up DP* with DSC to 8K60 Hz 30bpp) | | | |
| | RJ-45 | 5 (1 port dedicated for IPMI function) | | | |
| | PS/2 KB/mouse | - | | | |
| Management Solution | Audio | 2 x (Mic-in , Line-out) | | | |
| | Software | - | | | |
| Monitoring | Out of band remote management | Yes | | | |
| | CPU temperature | Yes | | | |
| | System monitoring | Yes | | | |
| Power Requirements | Power On (CPU/ DDR spec TBD) | 3.3 V | 5 V | 12 V | 12V_8P |
| | | 0.76 A | 0.92 A | 0.03 A | 4.82 A |
| Environment | Temperature | Operating | | | 5 VSB |
| | | 0 ~ 60 °C, depends on CPU speed and cooler solution | | | 4.82 A |
| | | Non-operating | | | 0.15 A |
| Watchdog Timer | Humidity | 40 °C @ 95% RH Non-condensing | | | -40 ~ 85 °C |
| | | 60 °C @ 95% RH Non-condensing | | | 60 °C @ 95% RH Non-condensing |
| Physical Characteristics | Dimensions (L x H) | System reset | | | |
| | | Programmable 1 ~ 255 sec/min | | | |
| 382.54 x 352.5 mm (15.06 x 13.87 in) | | | | | |

*CPU power design support up to 350W TDP.

**CXL 1.1 Type 1 and Type 2 device.

Block Diagram



Ordering Information

| Part Number | Memory | 2.5GbE/ 10GbE LAN | IPMI | Graphics | COO |
|-----------------|------------------------|-------------------|------|----------|-------|
| ASMB-978T2-00A1 | DDR5 ECC/Non-ECC UDIMM | 2/2 | YES | AST2600 | China |
| ASMB-978I-00A1 | DDR5 ECC/Non-ECC UDIMM | 2/- | YES | AST2600 | China |

Packing List

| Part Number | Description | Quantity |
|----------------|----------------------------------|----------|
| | Startup manual | x 1 |
| 1700003194 | SATA data cables | x 1 |
| 1700022749-11 | SATA power cables | x 1 |
| 1700019748 | CPU power cable | x 1 |
| 1700019414 | COM cable | x 1 |
| 1930008738 | Screw for M.2 device | x 2 |
| 1960116717T001 | I/O shield | x 1 |
| 1960109237N010 | PCIe I/O support | x 1 |
| 1651003851-01 | LGA-4710 CPU carrier - E2A (XCC) | x 2 |
| 1651003850-01 | LGA-4710 CPU carrier - E2B (MCC) | x 2 |
| 1700031926-11 | Front panel convert cable | x 1 |

Optional Accessories

| Part Number | Description |
|----------------|--|
| 1970005860N000 | LGA-4710/4677 narrow CPU cooler for 2U chassis |
| 1970005933N001 | LGA-4710/4677 tower CPU cooler for 4U chassis |
| 1700028024-01 | Dual port USB 3.2 (Gen1) cable (45 cm/ 17.7 in) with bracket |

I/O View



ASMB-978T2-00A1



ASMB-978I-00A1