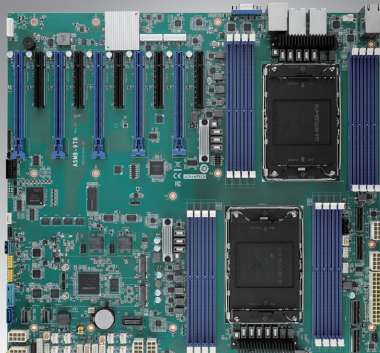


ASMB-978

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.

Specifications

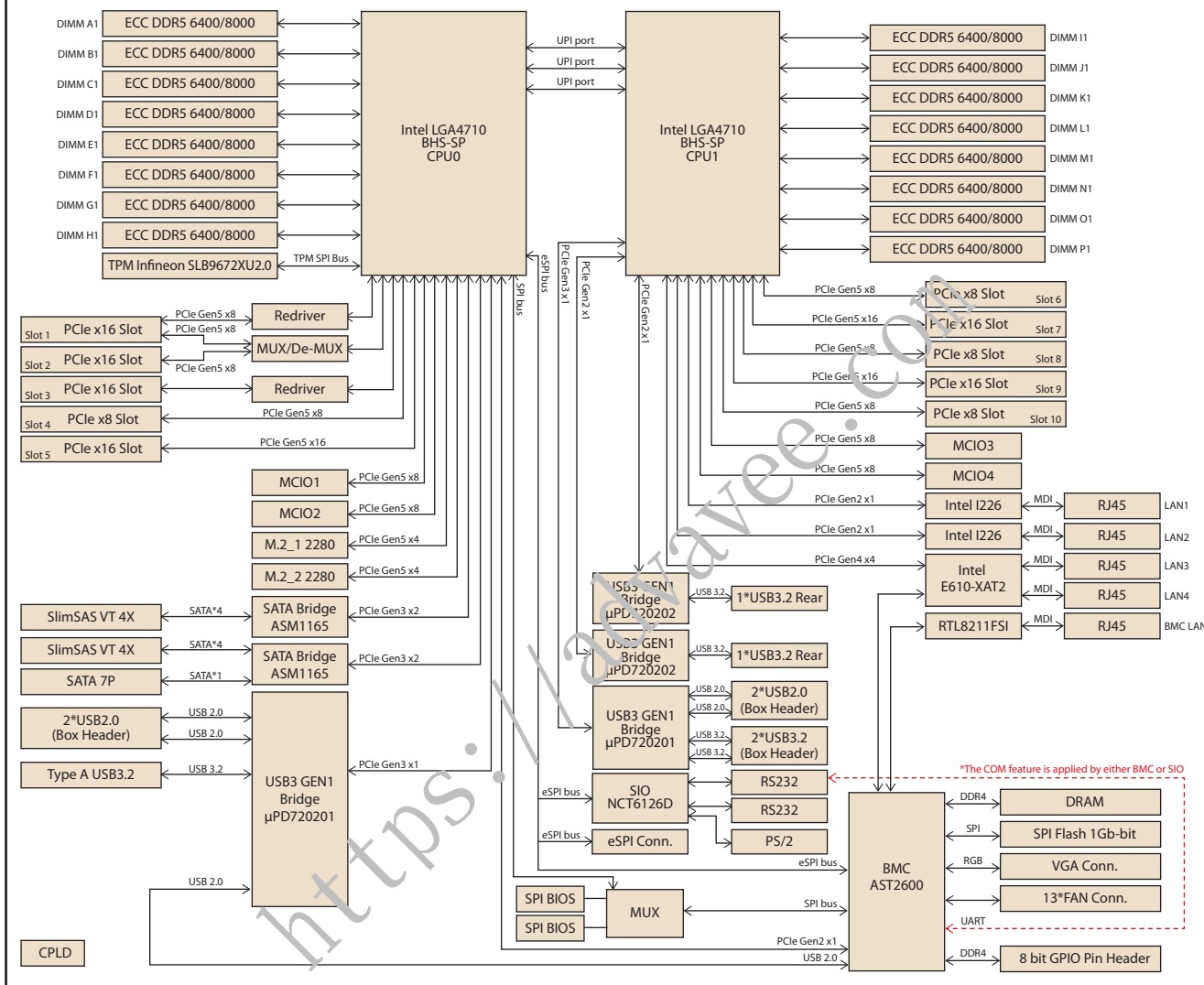
CE FCC

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			
Memory	Total slots	16x (1 DIMM per channel)			
	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)			
Expansion Slots	Total PCIe slots	10			
	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 x8 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			
	SAS controller	-			
Networking	GbE LAN	2 x Intel® I226AT (2.5GbE)/ Intel® E610-XAT2 (dual 10GbE ports			
Onboard I/O	PSU connector	24-pin SSI power connector + 8-pin SSI 12 V power connector			
	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)			
Rear I/O Connector	Audio Header	1 x (ALC 888S)			
	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)			
Management Solution	Software	-			
	Out of band remote management	Yes			
	CPU temperature	Yes			
Monitoring	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
					0.15 A
Environment	Temperature	Operating			Non-operating
		0 ~ 60 °C, depends on CPU speed and cooler solution			-40 ~ 85 °C
Watchdog Timer	Humidity	40 °C @ 95% RH Non-condensing			60 °C @ 95% RH Non-condensing
Physical Characteristics	Output	System reset			
	Interval	Programmable 1 ~ 255 sec/min			
Physical Characteristics	Dimensions (L x H)	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

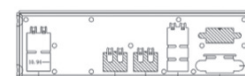
Optional Accessories

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