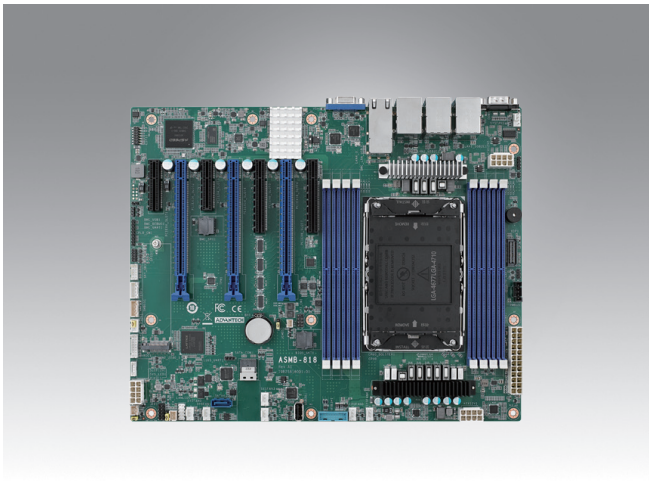
ASMB-818

6th Gen Intel® Xeon® Scalable ATX Server Board with 8 x DDR5, 3 x PCIe x16, 5 SATA 3.0, 4 x USB 3.2 (Gen1), 1 x M.2, Dual 10GbE, and IPMI



CE FCC

Features

- LGA4710 ATX server board with 6th Gen. Xeon® Scalable processor, TDP up to 350W
- DDR5 6400 MT/s RDIMM up to 2TB (8 DIMMs), also supports MRDIMM
- Three PCIe x16 (Gen 5) + one PCIe x8 (Gen 5), or two PCIe x16 (Gen 5) + three PCIe x8 (Gen 5)
- Intel® X710 dual 10GbE ports
- Five SATA 3 and one M.2 connectors (PCIe x4)
- 0 ~ 60°C (32 ~ 140°F) ambient operating temperature range

Specifications

Form Factor		ATX form factor
Processor System	Socket	Intel LGA4710
	CPU type	Intel 6th Generation Xeon Scalable processors (CPU cooler should be purchased separately*)
Core Logic	Chipset	-
Memory	Total slots	8 (1 DIMM per channel)
	Capacity	Maximum 2TB ECC RDIMM
	Memory type	DDR5 ECC-REG 6400 MT/s RDIMM, 8000 MT/s MRDIMM
	Memory size	16GB, 32GB, 64GB, 128GB, 256GB
Expansion Slot	Total PCI/PCI-X/PCIe slots	7
	Slot location 1	PCIe x4 slot (x4 link), signal from CPU
	Slot location 2	PCIe x16 slot (x16 link), signal from CPU, CXL support
	Slot location 3	PCIe x4 slot (x4 link), signal from CPU
	Slot location 4	PCIe x16 slot (x16 link), signal from CPU, CXL support
	Slot location 5	PCIe x8 slot (0 or x8 link), signal from CPU
	Slot location 6	PCIe x16 slot (x8 or x16 link), signal from CPU, CXL support
	Slot location 7	PCIe x8 slot (x8 link), signal from CPU
Graphics	VGA	Aspeed AST2600
Storage	SATA controller	Asmedia ASM1165: 4 x SATA3.0 (6 Gb/s) via SlimSAS, 1 x SATA3.0 (6Gb/s)
	SAS controller	-
Networking	2.5GbE	2 x Intel® I226LM
	10GbE	2 x Intel® X710-AT2
Onboard I/O connector	PSU connector	24-pin SSI power connector + 3 x 8-pin SSI 12 V power connector
	USB connector	3, 2 x USB 3.2 Gen1 (one onboard header) + 1 x USB 2.0 (one Type A)
	M.2 connector	1 x M.2 2280 M key (PCIe)
	Fan header	7 x 4pin (6 for system + 1 for CPU)
	SMBus	1
	Chassis intrusion	1
	Front LAN LED	1
	Serial port header	-
	Audio header	-
	PS/2 KB/Mouse	-
Rear I/O Connector	External serial port	1
	External USB port	6, 2 x USB 3.2 Gen1 + 4 x USB 2.0
	VGA port	1
	DVI port	-
	HDMI port	-
	DP port	-
	RJ-45	5 (1 port dedicated for IPMI function)
	Audio connector	-
	PS/2 KB/Mouse	-
	Infiniband	-

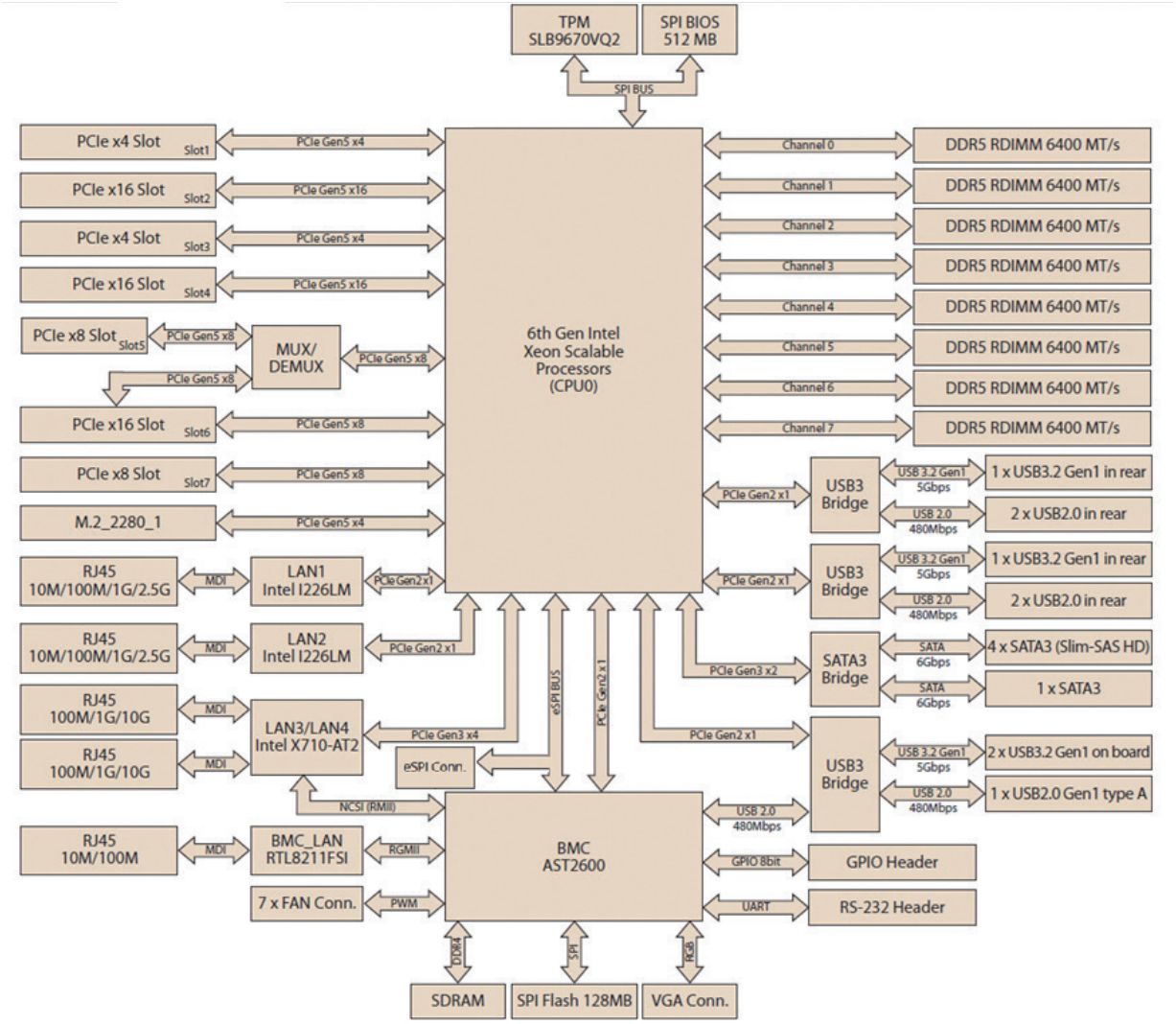
* CPU power design support up to 350W TDP

All product specifications are subject to change without notice.

Specifications (Cont.)

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					
Power Requirement	Power On (CPU/ DDR spec TBD)	3.3 V	5 V	12 V	5 VSB	-12 V	12 V_8P
Environment		Operating			Non-operating		
	Temperature	0 ~ 60°C (32 ~ 140°F), depending on CPU speed and cooler solution			-40 ~ 85 °C/-40 ~ 185 °F		
	Humidity	40 °C @ 95% RH Non-condensing			60 °C@95% RH Non-condensing		
Physical Characteristics	Dimensions	304.8 x 244 mm (12" x 9.6")					

Block Diagram



Ordering Information

Part Number	Chipset	Memory	2.5GbE/ 10GbE LAN	IPMI	Graphics
ASMB-818T2-00A1U	-	8 x DDR5 RDIMM	2/2	Yes	AST2600
ASMB-818T2-00A1	-	8 x DDR5 RDIMM	2/2	Yes	AST2600
ASMB-818I-00A1	-	8 x DDR5 RDIMM	2/-	Yes	AST2600

Packing List

Part Number	Description	Quantity
2042081800	Startup manual	1
1700003194	SATA data cables	1
1700022749-11	SATA power cables	1
1700019748	CPU power cable	2
1930005673-11	Screw for M.2 device	1
1960116401T011	I/O shield	1
1960109237N010	PCIe I/O support	1
1651003851-01	LGA-4710 CPU carrier - E2A (XCC)	1
1651003850-01	LGA-4710 CPU carrier - E2B (MCC)	1
1700031926-11	Front panel convert cable	1

Optional Accessories

Part Number	Description
1970005575T001	LGA-4710/4677 narrow CPU heatsink for 1U chassis (150W)
1970005860N000	LGA-4710/4677 narrow CPU cooler for 2U/4U chassis (270W)
1970005933N001	LGA-4710/4677 tower CPU cooler for 4U chassis (350W)
1700028292-01	Dual port USB 3.2 (Gen1) cable (30 cm/11.8 in) with bracket
1960120063N001	For 1U chassis I/O shield

Note:
1. Select SATA cable from HPC chassis datasheet or contact sales representative.

I/O View



ASMB-818T2-00A1



ASMB-818I-00A1