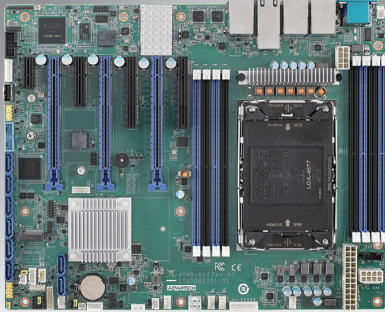


ASMB-817

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



Features

- LGA4677 ATX server board with 4th Gen. Intel Xeon® Scalable processor
- DDR5 4400/4800 MHz RDIMM up to 2TB (8 DIMMs) supports Intel® Optane™ Persistent Memory
- Features 3x PCIe x16, 2x PCIe x8, 1x PCIe x4, and 1x PCIe x1
- Intel® X710 dual 10GbE ports
- Eight SATA 3 and one M.2 connectors (SATA/PCIe compatible)
- 0 ~ 60 °C/ 32 ~ 140 °F ambient operating temperature range

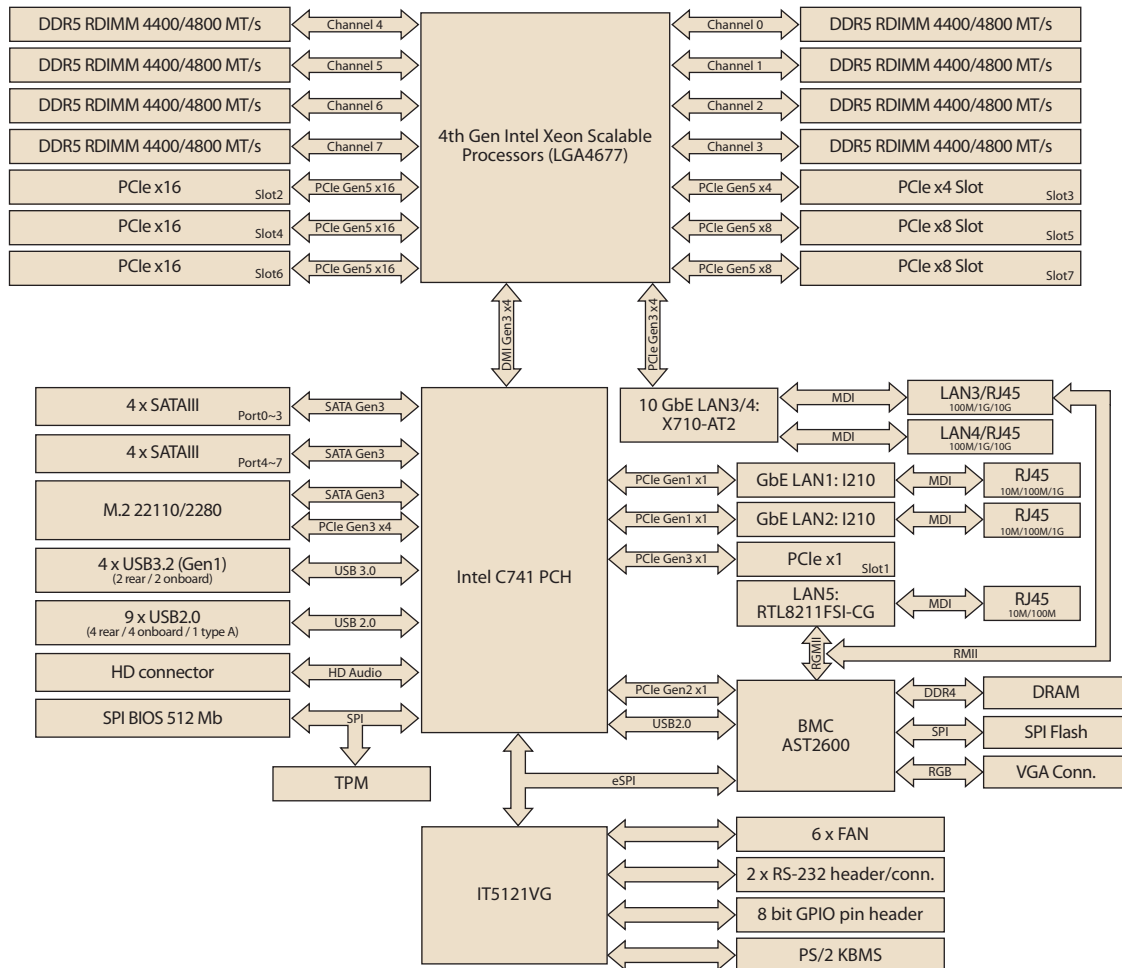
CE FCC

Specifications

Form Factor	ATX form factor	
Processor System	Socket	Intel LGA4677 (Socket E)
	CPU type	4th Gen Intel Xeon Scalable processors (CPU cooler should be purchased separately*)
Core Logic	Chipset	Intel C741 chipset
Memory	Total slots	8x (1 DIMM per channel)
	Capacity	Maximum 2TB ECC RDIMM
	Memory type	DDR5 ECC-REG 4400/4800 MHz RDIMM, supports Intel® Optane™ Persistent Memory
	Memory size	16GB, 32GB, 64GB, 128GB, 256GB
Expansion Slots	Total PCI/PCI-X/PCIe slots	7
	Slot location 1	PCIe x1 slot (x1 link), signal from PCH
	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 open end (x8 link), signal from PCH
	Slot location 6	PCIe x16 slot (x16 link), signal from CPU, CXL support
Graphics	VGA	Aspeed AST2600
	Storage	SATA controller: Intel® C741: 8 x SATA 3 (6 Gb/s), support software RAID 0,1,5,10 SAS controller: -
Networking	GbE/10GbE LAN	2 x Intel® I210AT / Intel® X710-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 USB 2.0 ports (two onboard headers) + 2 x USB 3.2 Gen1 ports (one onboard header) + 1 x Type-A USB 2.0 port
	Fan header	6 x 4-pin (5 for system + 1 for CPU)
	M.2	1 x M.2 2280/22110 B+M key (SATA and PCIe)
	SMBus	1
	Chassis Intrusion	1
	Front LAN LED	1
	Audio Header	1
Rear I/O Connector	PS/2 KB/Mouse	1
	Serial port header	1
	External serial port	1
	External USB port	2x (USB 3.2 Gen1) + 4x USB (2.0)
	VGA port	1
Management Solution	RJ-45	5x (1 port dedicated for IPMI function)
	PS/2 KB/mouse	-
Monitoring	Software	-
	Out of band remote management	Yes
Watchdog Timer	CPU temperature	Yes
	System Monitoring	Yes
Power Requirement	Output	System reset
	Interval	Programmable 1 ~ 255 sec/min
Environment	Power On	3.3V 5V 5Vsb 12V 12V_8P
	(225W CPU @1.5GHz 4800 64G*8)	1.239A 1.314A 0.7A 0.052A 20.833A
Physical Characteristics	Operating	Non-operating
	Temperature	0 ~ 60 °C/32 ~ 140 °F, depends on CPU speed and cooling solution
Physical Characteristics	Humidity	-40 ~ 85 °C/-40 ~ 185 °F
	Dimension (L x H)	10% ~ 95% (Non condensing)
		304 x 244 mm (12" x 9.6")

*CPU power design support up to 225W TDP. Please consider extended air thermal solution while using CPU > 205W TDP.

Block Diagram



Ordering Information

Part Number	Chipset	Memory	GbE/10GbE LAN	IPMI	Graphics
ASMB-817T2-00A1	C741	DDR5 RDIMM	2/2	Yes	AST2600
ASMB-817I-00A1	C741	DDR5 RDIMM	2/-	Yes	AST2600

Packing List

Part Number	Description	Quantity
2042081700	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 1
1960076488T001	I/O shield	x 1
1651003739-01	LGA4677 CPU carrier - E1B	x 1

Optional Accessories

Part Number	Description
PCA-AUDIO-HDB1E	HD Audio-card
PCA-TPMSPI-00A1	TPM 2.0 Module by SPI
1970005575T001	LGA-4677 narrow CPU heatsink for 1U chassis (185W)
1970005860N000	LGA-4677 narrow CPU cooler for 2U/4U chassis (205W)
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
1960082347T001	1U chassis I/O shield
1700031684-01	Front panel convert cable

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

I/O View



ASMB-817T2-00A1



ASMB-817I-00A1