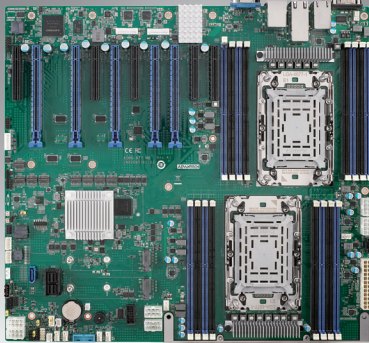


# ASMB-977

**Dual LGA4677 4th Gen Intel® Xeon® Scalable Server Board with 16x DDR5, 5 x PCIe x16, 9 x SATA3, 4 x USB 3.2 (Gen 1), Dual 10GbE, and IPMI**



CE FCC

## Features

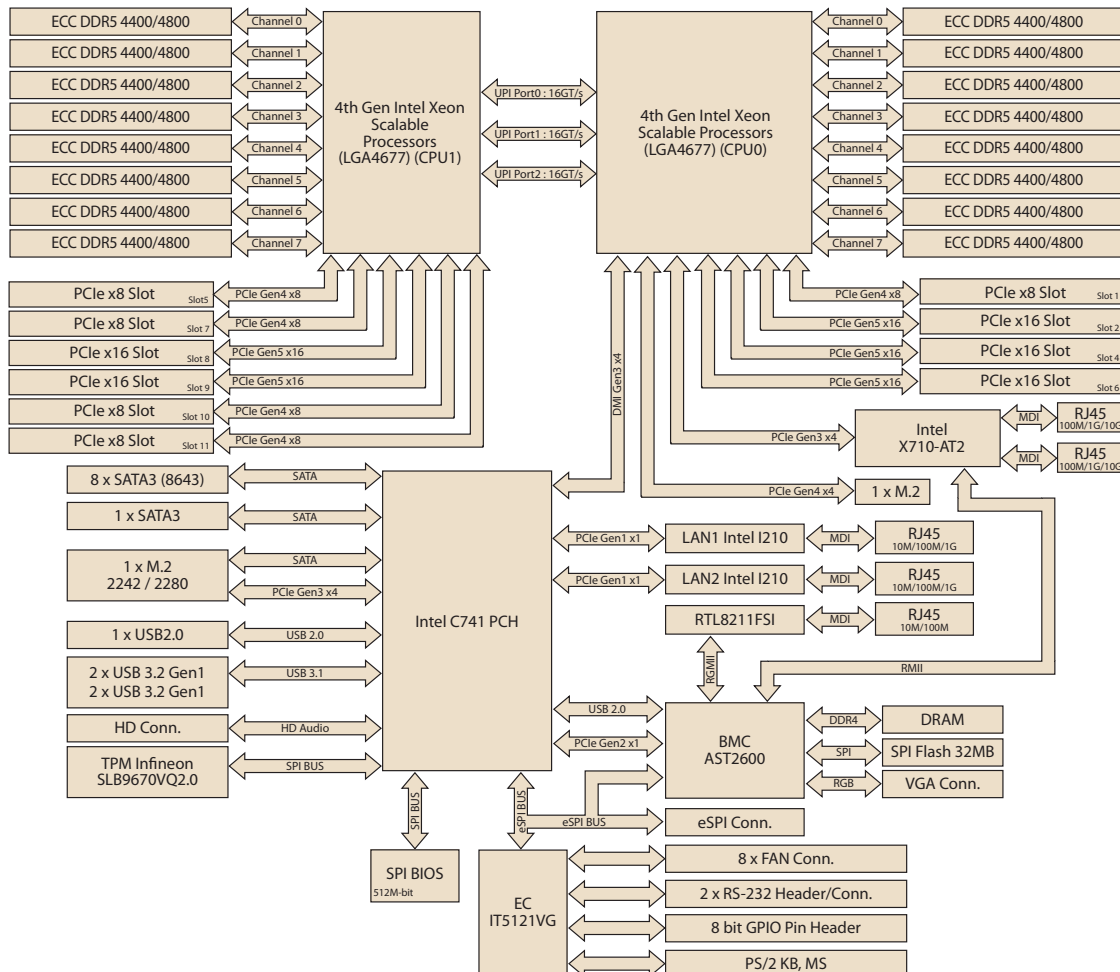
- LGA4677 server board with 4th Gen Intel® Xeon® scalable processor
- DDR5 4800 MHz RDIMM up to 4TB (16 DIMMS), and Intel® Optane™ support
- 5 x PCIe x16 and 5 x PCIe x8
- Intel® X710-AT2 dual 10GbE ports
- 9 x SATA3 and 2x M.2 connectors (SATA/PCIe compatible)
- 0 ~ 40 °C ( 32 ~ 104 °F) ambient operating temperature range

## Specifications

Form Factor		Proprietary
Processor System	Socket	Dual Intel® LGA4677
	CPU type	4th Gen Intel Intel® Xeon® Scalable processors(CPU cooler should be purchased separately and TDP up to 205W*)
Core Logic	Chipset	Intel® C741 chipset
Memory	Total slots	16 (1 DIMM per channel)
	Capacity	Maximum 4TB ECC RDIMM
	Memory type	DDR5 ECC-REG 3200/3600/4000/4400/4800 MHz RDIMM, support Intel® Optane™ Persistent Memory
	Memory size	16GB, 32GB, 64GB, 128GB, 256GB
Expansion Slots	Total PCIe slots	10
	Slot location 1	PCIe x 8 slot (x8 link), signal from CPU0 (Gen4)
	Slot location 2	PCIe x 16 slot (x16 link), signal from CPU0 (Gen5)
	Slot location 3	N/A
	Slot location 4	PCIe x 16 slot (x16 link), signal from CPU0 (Gen5)
	Slot location 5	PCIe x 8 slot (x8 link), signal from CPU1 (Gen4)
	Slot location 6	PCIe x 16 slot (x16 link), signal from CPU0 (Gen5)
	Slot location 7	PCIe x 8 slot (x8 link), signal from CPU1 (Gen4)
	Slot location 8	PCIe x 16 slot (x16 link), signal from CPU1 (Gen5)
	Slot location 9	PCIe x 16 slot (x16 link), signal from CPU1 (Gen5)
	Slot location 10	PCIe x 8 slot (x8 link), signal from CPU1 (Gen4)
Slot location 11	PCIe x 8 slot (x8 link), signal from CPU1 (Gen4)	
Graphics	VGA	Aspeed AST 2600
Storage	SATA controller	Intel® C741: 8 x SATA3.0 (6 Gb/s) via Mini SAS HD (SFF-8643), 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	PSU connector	24-pin SSI power connector + 6 x 8-pin SSI 12 V power connector
	USB connector	2 x USB 3.2 Gen 1 ports (one onboard header) + 1 x Type-A USB 2.0 port
	Fan header	7 x 4-pin (2 for CPU + 5 for system) + 2 x 8-pin (for external rear fan)
	M.2	1 x M.2 2242/2280 B+M key (SATA and PCIe) + 1 x M.2 2242/2280 B+M key (PCIe)
	SMBus	1
	Chassis intrusion	1
	Front LAN LED	1
	Audio Header	1
	PS/2 Keyboard/Mouse header	1
Serial port header	1	
Rear I/O Connector	External serial port	1
	External USB port	2 (USB 3.2 Gen. 1)
	VGA port	1
	RJ-45	5 (1 port dedicated for IPMI function) for T2 SKU/3 (1 port dedicated for IPMI function) for I SKU
	PS/2 KB/mouse	-
	Infiniband	-
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/min
Power Requirements	Power On	3.3V      5V      12V      5Vsb      -12V      8P_CPU0      8P_CPU1
	(205W CPU@1.6GHz DDR5 4800 64G*16)	2.43A      1.76A      18.12A      1.54A      0A      16.29A      13.91A
		Operating      Non-operating
Environment	Temperature	0 ~ 40 °C (32 ~ 104 °F), depends on CPU speed and cooler solution      -40 ~ 85 °C (-40 ~ 185 °F)
	Humidity	10% ~ 95%      10% ~ 95% (Non condensing)
Physical Characteristics	Dimensions (L x H)	380 x 349.5 mm (14.96" x 13.76")

\*CPU power design supports up to 225W TDP. Please consider additional air thermal solution while using CPU > 205W TDP.

## Block Diagram



## Ordering Information

Part Number	Chipset	Memory	GbE/10GbE LAN	IPMI	Graphics
ASMB-9771-00A1	C741	16 x DDR5 RDIMM	2/-	Yes	AST 2600
ASMB-977T2-00A1	C741	16 x DDR5 RDIMM	2/2	Yes	AST 2600

## Packing List

Part Number	Description	Quantity
2042097700	Startup manual	x 1
1700003194	SATA data cables	x 1
1700022749-11	SATA power cables	x 1
1700019748	CPU power cable	x 2
1930005673-11	Screw for M.2 device	x 1
1960093947T002	I/O shield	x 1
1651003739-01	LGA4677 CPU carrier - E1B	x 2

## Optional Accessories

Part Number	Description
PCA-AUDIO-HDB1E	HD Audio-card
1970005276T001	LGA4677 CPU cooler for 2U/4U chassis (205W)
1700028024-01	Dual port USB USB 3.2 (Gen1) cable (45 cm/17.7") with bracket
1701090401	COM port cable with bracket
1700019268-11	PS/2 port cable (35 cm/13.7")
1960063434N000	Cable bracket for 1700019268-11

Note:

1. PCA-AUDIO-HDB1E is not compatible with 3U chassis.
2. Select SATA cable (SFF-8643) from HPC chassis datasheet or contact sales representative.

## I/O View



ASMB-9771-00A1



ASMB-977T2-00A1