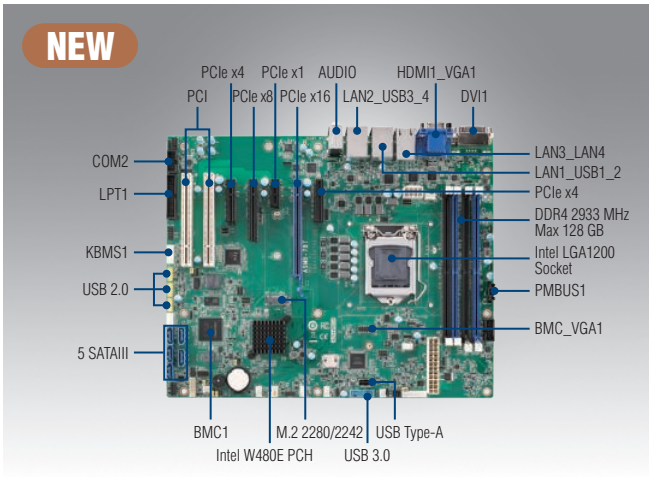
ASMB-787

LGA 1200 Intel® Xeon® W & 10th Gen. Core™ ATX Server Board with 4 x DDR4, 5 x PCIe, 2 x PCI, 4 x USB 3.2, 5 x SATA 3, Quad/Dual LANs, and IPMI



CE FCC

Features

- LGA 1200 Intel® Xeon® W & 10th Gen. Core™ i9/i7/i5/i3 processors with W480E chipset
- DDR4 2933/2666/2400 MHz ECC/Non-ECC UDIMM up to 128 GB
- One PCIe x16 link (or two x8 link), two PCIe x4, and one PCIe x1 slots
- Triple displays - DVI-D, VGA, and HDMI 2.0 ports
- Five SATA 3 ports and four x USB 3.2 ports
- One M.2 2280/2242 (SATA / PCIe compatible)
- Rackmount optimized placement with positive air flow design
- 0 ~ 60 °C (32 ~ 140 °F) ambient operating temperature range

Note: Supported OS including Windows 10 (64-bit) and Server 2019 (64-bit) have been validated.

Vertrieb durch AMC
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Specifications

Form Factor		ATX form factor					
Processor System	Socket	Intel® LGA 1200					
	CPU type	Intel® Xeon® W-1270x/W-1290x and 10th Generation Core™ i3/i5/i7/i9 series (TDP up to 125W)					
Core Logic	Chipset	Intel W480E chipset					
Memory	Total slots	4 x (Dual Channel)					
	Max. capacity	128 GB					
	Memory type	DDR4 ECC/Non-ECC 2933/2666/2400 MHz UDIMM (288-pin)*					
	Memory size	4 GB, 8 GB, 16 GB, 32GB					
Expansion Slots	Total PCI/PCIe slots	7					
	Slot location 1	PCI slot					
	Slot location 2	PCI slot					
	Slot location 3	PCIe x4 slot (Gen3 x4 link)					
	Slot location 4	PCIe x8 slot (Gen3 x8 link)					
	Slot location 5	PCIe x1					
	Slot location 6	PCIe x16 slot (Gen3 x8 or x16 link)					
	Slot location 7	PCIe x4 slot (Gen3 x4 link)					
Graphics	Controller	Intel® HD Graphics**					
	VRAM	1 GB maximum shared memory with 2 GB and above system memory installed					
Storage	SATA controller	Intel® W480E: 8 SATA 3 6 Gb/s ports with Intel Rapid Storage Technology support (for Windows only) (Supports software RAID 0, 1, 10 & 5)					
	SAS controller	-					
Networking	Interface	10/100/1000 Mbps					
	Controller	GbE LAN1: Intel® I219; GbE LAN 2~4: Intel I210-AT					
	Connector	RJ-45 x 2 for G2 version; RJ-45 x 4 for G4 version					
Onboard I/O Connector	Printer Port connector	1					
	PSU connector	24-pin SSI power connector + 8-pin SSI 12V power connector					
	USB connector	1 x USB 3.2 Gen 1 (2 ports), 3 x USB 2.0 (6 ports), 1 x USB Type-A					
	M.2 connector	1 x M.2 2280/2242 (PCIe/SATA)					
	Fan header	5 x (4-pin)					
	SMBus	1					
	Chassis intruder	1					
	Front LAN LED	2					
	Serial port header	2 x (RS-232)					
	Audio connector	1 x (ALC 892)					
	PS/2 KB/Mouse	1 x (Optional PS/2 KB/Mouse cable and bracket required)					
Rear I/O Connector	External serial port	- (via COM cable in the package)					
	External USB port	4 x (USB 3.2 Gen 2)					
	VGA port	1 x (Resolution up to 1920 x 1200 @ 60 Hz)					
	DVI port	1 x (Resolution up to 1920 x 1200 @ 60 Hz)					
	HDMI port	1 x (Resolution up to 4096 x 2160 @ 60 Hz)					
	RJ-45	2 x for G2 version; 4 for G4 version					
	Audio connector	2 x (Mic-in, Line-out)					
	PS/2 KB/Mouse	-					
Watchdog Timer	Output	System reset					
	Interval	Programmable 1 ~ 255 sec					
Power Requirement	Power On	3.3 V	5 V	12 V	12V_8P	$5V_{SB}$	-12 V
	(Xeon W-1290E 3.5GHz DDR4 2666 32G*4)	1.69A	1.68A	0.31A	9.25A	0.1A	0.01A
Environment		Operating			Non-operating		
	Temperature	0 ~ 60° C, depends on CPU speed and cooler solution			-40 ~ 85° C		
	Humidity	0% ~ 95%			5% ~ 95% (Non condensing)		
Physical Characteristics	Dimensions	304.8 x 244 mm (12 x 9.6 in)					

* ECC will not be supported when paired with Core i5/i7/i9 processors.
** Some Xeon processors have no graphic support. Please check Intel specification for processor graphics availability.

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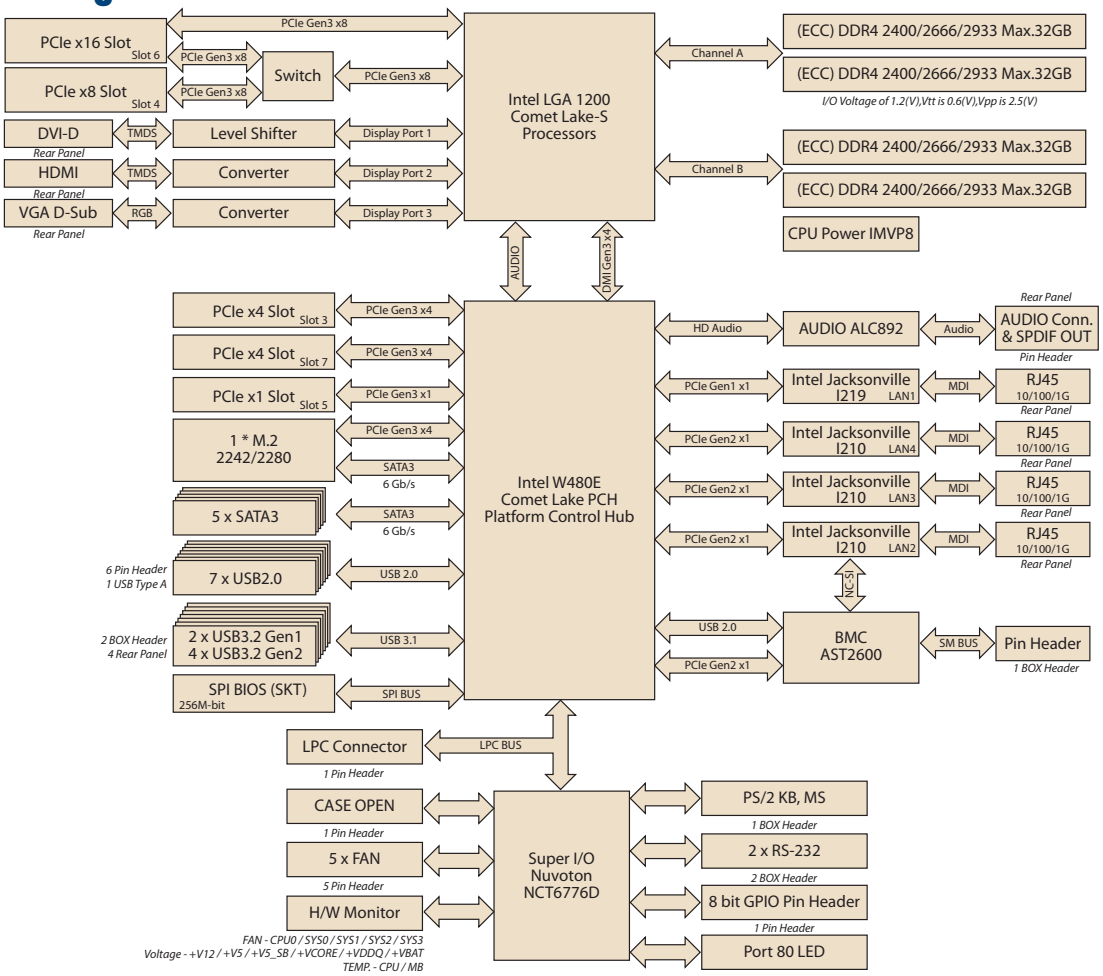
Block Diagram



Ordering Information

Part Number	Chipset	Memory	Display	LAN	SATAIII	IPMI
ASMB-787G2-00A1	W480E	DDR4 Non-ECC/ECC UDIMM	VGA + DVI-D + HDMI	2	5	-
ASMB-787G4-00A1 (Available in Q2/2021)	W480E	DDR4 Non-ECC/ECC UDIMM	VGA + DVI-D + HDMI	4	5	Y

Packing List

Part Number	Description	Quantity
2041B78700	Startup manual	x 1
1700003194	SATA data cables	x 1
1700019381	SATA data cable (right angle)	x 1
1700022749-11	SATA power cables	x 2
1700001788	COM1 cable	x 1
1960088021T001	I/O shield	x 1
1700031684-01	JFP1 cable	x 1

I/O View

ASMB-787G4-00A1

ASMB-787G2-00A1

Optional Accessories

Part Number	Description
1700029038-01	BMC VGA cable with bracket (35 cm / 13.7 in, for G4 SKU)

Note: If you need BMC KVM function, please select this cable.

Part Number	Description
1960049408N001	LGA 1200 CPU heatsink for 1U chassis
1960067860N001	LGA 1200 CPU cooler for 2U/4U chassis (CPU 125W)
1960052651N021	LGA 1200 CPU cooler for 2U/4U chassis (CPU under 95W)
1960088060T001	1U I/O shield for ASMB-586/587/786/787
1700008809	Printer port cable kit (25 cm / 9.84 in)
1700020294-01	Printer port cable kit (42 cm / 16.5 in)
1701090401	Single port RS-232 cable with bracket (40 cm / 15.7 in)
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
1700020277-01	Dual port USB 3.0 cable with bracket (30 cm/ 11.8 in)
1700019268-11	Cable for onboard KBMS1 connector (35 cm/ 13.7 in)
1960063434N000	Cable bracket for 1700019268-11 (4U)
PCA-COM232-00A1E	4 ports RS-232 module to LPC connector
PCA-COM485-00A1E	4 ports RS-485 module to LPC connector
PCA-TPM-00B1E	TPM 2.0 Module by LPC

Note: Users need to purchase ASMB-787's proprietary CPU cooler from Advantech Other brands' CPU coolers may NOT be compatible with ASMB-787.

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