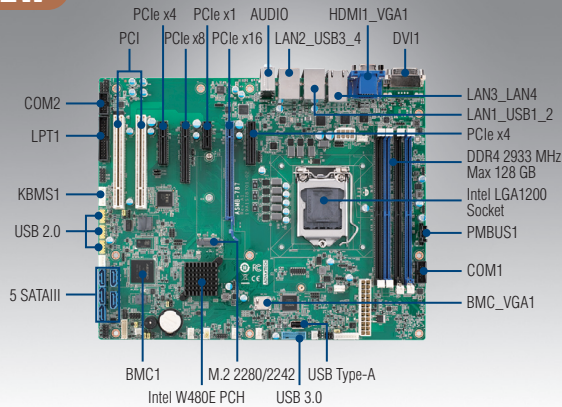


ASMB-787

LGA 1200 Intel® Xeon® W & 10th Gen. Core™ ATX Server Board with 4 x DDR4, 5 x PCIe, 2 x PCI, 6 x USB 3.2, 5 x SATA 3, Quad/Dual LANs, and IPMI

NEW



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 six 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.

CE FCC

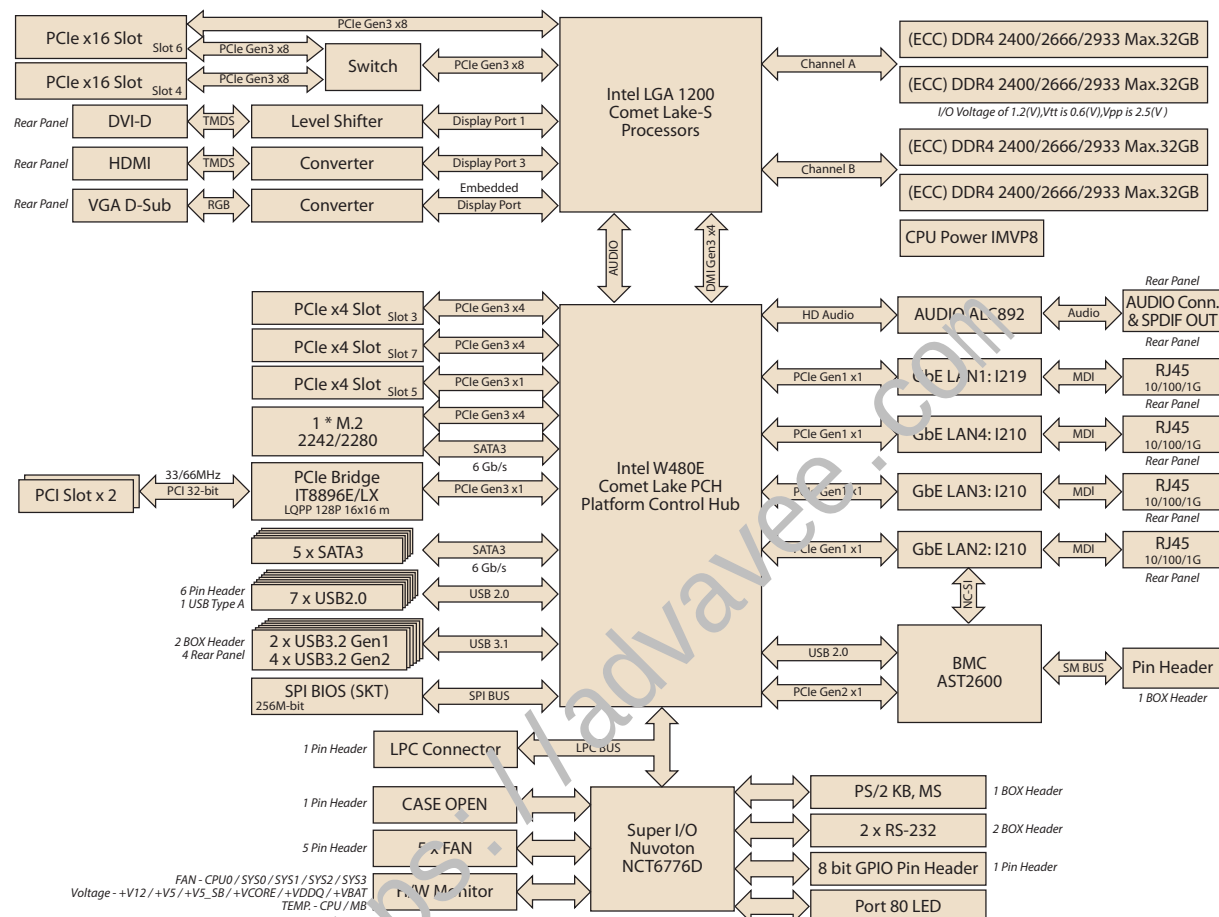
Specifications

Form Factor	Socket	ATX form factor
Processor System	CPU type	Intel® LGA 1200
Core Logic	Chipset	Intel® Xeon® W-1270x/W-1290x and 10th Generation Core™ i3/i5/i7/i9 series (TDP up to 125W)
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 x16 slot (Gen3 x8 or x16 link)
	Slot location 6	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: 5 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
Onboard I/O Connector	Connector	RJ-45 x 2 for G2 version; RJ-45 x 4 for G4 version
	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 intrusion	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 5 V _{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	Temperature	Operating 0 ~ 60 °C, depends on CPU speed and cooler solution
	Humidity	Non-operating -40 ~ 85 °C 40 °C @ 95% RH Non-condensing 60 °C @ 95% RH 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.

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	W480F	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 2
1700022749-11	SATA power cables	x 2
1700001788	COM1 cable	x 1
1960088021T001	I/O shield	x 1
1700031926-11	JFP1 cable	x 1
1930008364	Screw for M.2 device	x 1

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
1960067860N001	LGA 1200 CPU cooler for 2U/4U chassis (CPU 125W)
1960052651N021	LGA 1200 CPU cooler for 2U/4U chassis (CPU under 95W)
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 COM cable (40 cm / 15.7 in) with bracket
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 3.0 cable (30 cm/ 11.8 in) with bracket
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.

I/O View



ASMB-787G4-00A1



ASMB-787G2-00A1