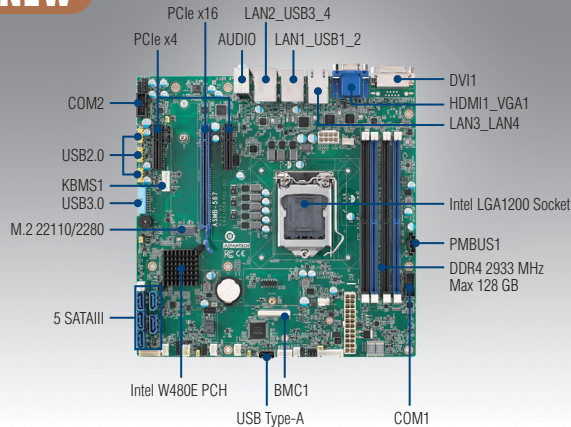


# ASMB-587

**LGA 1200 Intel® Xeon® W & 10th Gen. Core™ MicroATX Server Board with 4 x DDR4, 3 x PCIe, 6 x USB 3.2, 5 x SATA3, Quad/Dual LANs, and IPMI**

**NEW**



CE FCC

## Features

- LGA 1200 Intel® Xeon® W and 10th Gen. Core™ i9/i7/i5/i3 processor with W480E chipset
- DDR4 ECC/Non-ECC 2933/2666/2400 MHz UDIMM up to 128 GB
- One PCIe x16 and 2 x PCIe x4 slots
- Triple displays - DVI-D, VGA, and HDMI 2.0 ports
- Five SATA 3 ports and six USB 3.2 ports
- One M.2 22110/2280 (SATA / PCIe compatible)
- 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.

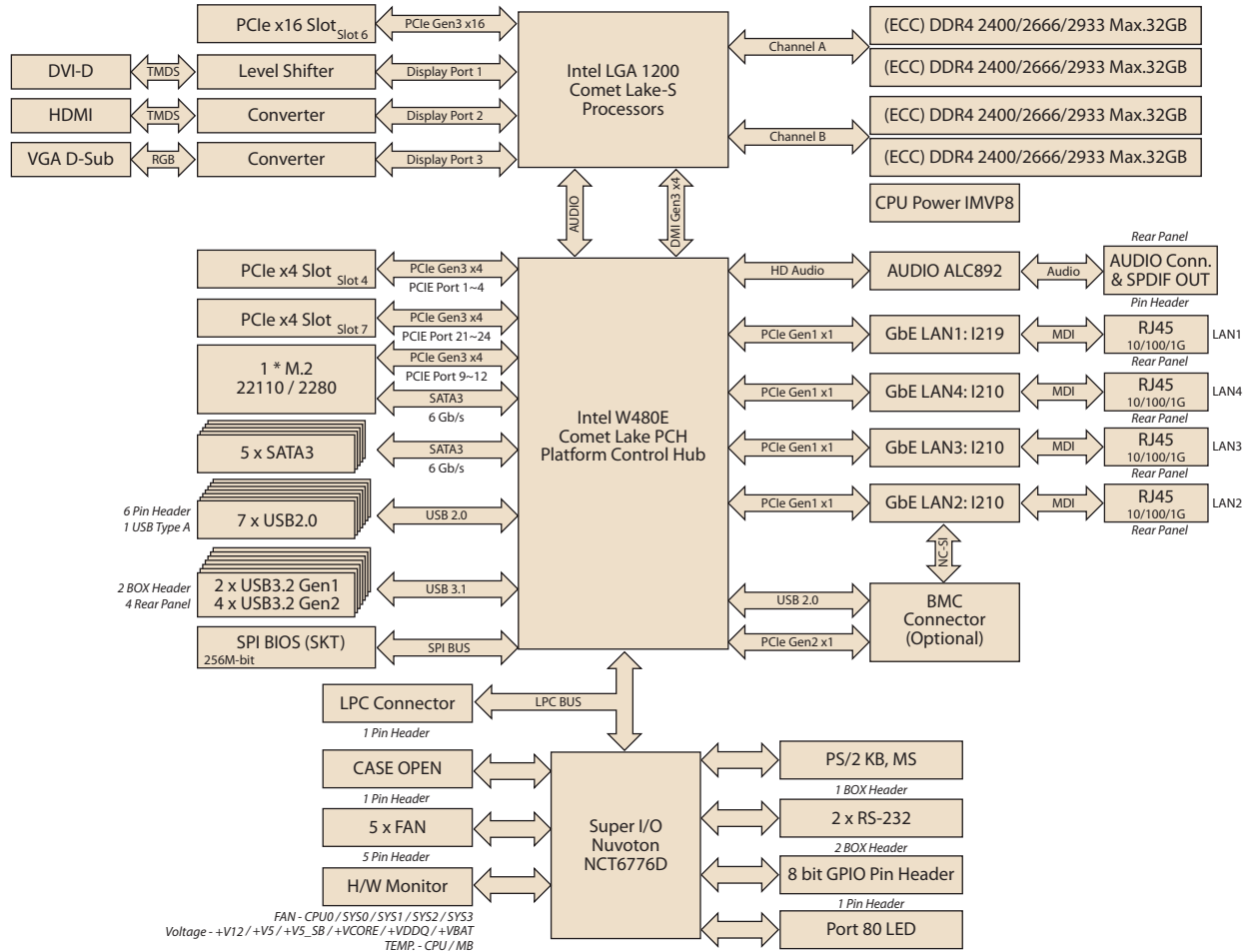
## Specifications

Form Factor		Micro ATX form factor					
Processor System	Socket	Intel® LGA 1200					
	CPU type	Intel® Xeon® W-1270x/W-1290x and 10th Gen. Core™ i3/i5/i7/i9 series processors (TDP up to 125W)					
Core Logic	Chipset	Intel® W480E chipset					
Memory	Total slots	4 (Dual Channel)					
	Capacity	Maximum 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 PCIe slots	3					
	Slot location 1	-					
	Slot location 2	-					
	Slot location 3	-					
	Slot location 4	PCIe x4 slot (Gen3 x4 link)					
	Slot location 5	-					
	Slot location 6	PCIe x16 slot (Gen3 x16 link)					
Graphics	Slot location 7	PCIe x4 slot (Gen3 x4 link)					
	Controller	Intel® HD Graphics**					
Storage	VRAM	1 GB maximum shared memory with 2 GB and above system memory installed					
	SATA controller	Intel® W480E: 5 SATA3 6Gb/s ports with Rapid Storage Technology support (for Windows only) (Supports software RAID 0, 1, 10 & 5)					
Networking	SAS controller	-					
	GbE LAN	1 x Intel® I219LM + 3 x Intel® I210AT					
Onboard I/O Connector	LPT connector	-					
	PSU connector	24-pin SSI power connector + 8-pin SSI 12 V 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 22110/2280 (PCIe/SATA)					
	Fan header	5 x (4-pin)					
	SBMBus	1					
	Chassis intrusion	1					
	Front LAN LED	2					
	Serial port header	2 x (RS-232)					
	Audio Header	1 x (ALC 892)					
Rear I/O Connector	PS/2 KB/Mouse	1 x (Optional PS/2 KB/Mouse cable and bracket required)					
	External serial port	1 (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	1 x (Resolution up to 4096 x 2160 @ 60 Hz)					
	RJ-45	4					
	PS/2 KB/mouse	-					
Power Requirement	Audio	2 x (Mic-in , Line-out)					
	Power On	3.3 V	5 V	12 V	12V_8P	5 V <sub>SB</sub>	-12 V
	(Xeon W-1290E 3.5GHz DDR4 2666 32G*4)	0.75A	1.43A	0.66A	7.08A	0.13A	0.1A
	Environment	Operating	Non-operating				
		Temperature	0 ~ 60 °C, depends on CPU speed and cooler solution				
	Watchdog Timer	Humidity	-40 ~ 85 °C				
		Output	40 °C @ 95% RH Non-condensing				
Physical Characteristics	Interval	60 °C @ 95% RH Non-condensing					
	Dimensions	System reset					
	Interval	Programmable 1 ~ 255 sec/min					
	Dimensions	Programmable 1 ~ 255 sec/min					
	Dimensions	244 x 244 mm (9.6 x 9.6 in)					

\* ECC will not be supported when paired with Core i5/i7/i9 processors.

\*\* Some Xeon processors have no graphics support. Please check Intel® specification for processor graphics availability.

### Block Diagram



FAN - CPU0 / SYS0 / SYS1 / SYS2 / SYS3  
 Voltage - +V12 / +V5 / +VS\_SB / +VCORE / +VDDQ / +VBAT  
 TEMP - CPU / MB

### Ordering Information

Part Number	Chipset	Memory	Display	LAN	SATAIII	IPMI
ASMB-587G2-00A1	W480E	DDR4 ECC/Non-ECC UDIMM	VGA + DVI-D + HDMI	2	5	Optional
ASMB-587G4-00A1	W480E	DDR4 ECC/Non-ECC UDIMM	VGA + DVI-D + HDMI	4	5	Optional

### Packing List

Part Number	Description	Quantity
2041058700	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
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
1700002204	Dual port USB 2.0 cable (27 cm / 10.6 in) with bracket
1700008461	Four ports USB 2.0 cable (30.5 cm / 12 in) with bracket
1700031926-11	Dual port USB 3.0 cable (30 cm / 11.8 in) with bracket
1701090401	Single port RS-232 cable (40 cm / 15.7 in) for COM2 connector
1700019268-11	Cable for onboard KBMS1 connector (35 cm / 13.7 in)
1960063434N000	Cable bracket for 1700019268-11
IPMI-2000L-00A1	IPMI Module
PCA-COM232-00A1E	4 x ports RS-232 module connect to LPC connector
PCA-COM485-00A1E	4 x ports RS-422/485 module connect to LPC connector
PCA-TPM-00B1E	TPM 2.0 Module by LPC

Note: Users need to purchase ASMB-587's proprietary CPU cooler from Advantech Other brands' CPU coolers may NOT be compatible with ASMB-587.

### I/O View



ASMB-587G4-00A1



ASMB-587G2-00A1