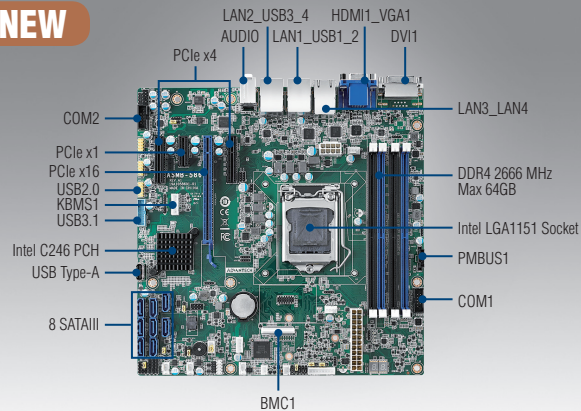


# ASMB-586

**LGA 1151 Intel® Xeon® E & 8th/9th Generation Core™ MicroATX Server Board with 4 DDR4, 4 PCIe, 6 USB 3.1, 8 SATA3, Quad/Dual LANs, IPMI**

**NEW**



## Features

- LGA 1151 Intel® Xeon® E and 8th/9th generation Core™ i7/i5/i3 processors with C246 chipset
- DDR4 ECC/Non-ECC 2666/2400/2133 MHz UDIMM up to 128GB
- One PCIe x16, two PCIe x4 and one PCIe x1 slots
- Triple displays - DVI-D, VGA and HDMI 2.0 ports
- Eight SATA3 ports and six USB 3.1 ports
- 0 ~ 60° C ambient operating temperature range

Note: Supported OS including Windows 10 (64-bit) and Server 2016/2019 (64-bit) have been validated.

CE FCC

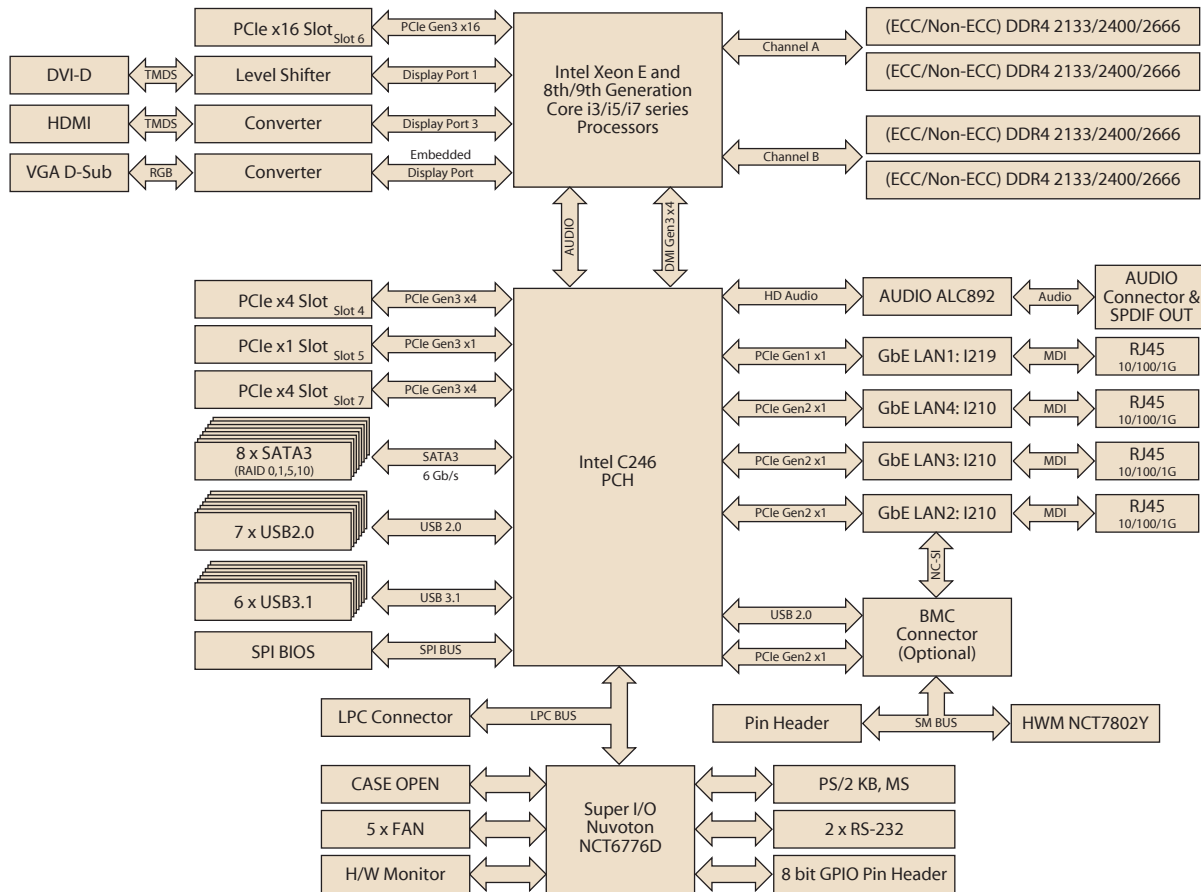
## Specifications

Form Factor	Micro ATX form factor							
Processor System	Socket	Intel LGA 1151						
	CPU type	Intel® Xeon® E-21xx/E-22xx and 8th/9th Gen Core™ i3/i5/i7 series processors (TDP up to 95W)						
Core Logic	Chipset	Intel C246 chipset						
	Total slots	4 (Dual Channel)						
Memory	Capacity	Maximum 128 GB						
	Memory type	DDR4 ECC/Non-ECC 2666/2400/2133 MHz UDIMM (288-pin)*						
	Memory size	4 GB, 8 GB, 16 GB, 32GB						
Expansion Slots	Total PCIe slots	4						
	Slot location 1	-						
	Slot location 2	-						
	Slot location 3	-						
	Slot location 4	PCIe x4 slot (Gen3 x4 link)						
	Slot location 5	PCIe x1 slot (Gen3 x1 link)						
	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 C246: 8 SATA3 6Gb/s Intel Rapid Storage Technology Enterprise (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 USB 3.1 Gen 1 (2 ports), 3 USB 2.0 (6 ports), 1 USB Type-A						
	Fan header	5 (4-pin)						
	SMBus	1						
	Chassis intruder	1						
	Front LAN LED	2						
	Serial port header	2 (RS-232)						
	Audio Header	1 (ALC 892)						
	PS/2 KB/Mouse	1 (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 (USB 3.1 Gen 2)					
		VGA port	1 (Resolution up to 1920 x 1200 @ 60 Hz)					
DVI port		1 (Resolution up to 1920 x 1200 @ 60 Hz)						
HDMI		1 (Resolution up to 4096 x 2160 @ 60 Hz)						
RJ-45		4						
PS/2 KB/mouse		-						
Audio		2 (Mic-in , Line-out)						
Watchdog Timer	Output	System reset						
	Interval	Programmable 1 ~ 255 sec/min						
Power Requirement	Power On	3.3 V	5 V	12 V	12V_8P	5 Vsb	-12 V	
	(Xeon E-2176G 3.7GHz DDR4 2400 4G*4)	3.87A	4.11A	0.63A	6.28A	0.09A	0.238A	
Environment	Operating Temperature	0 ~ 60° C, depends on CPU speed and cooler solution				Non-operating -40 ~ 85° C		
	Humidity	0% ~ 95%				5% ~ 95% (Non condensing)		
	Dimensions	244 x 244 mm (9.6" x 9.6")						

\* ECC will not be supported when paired with Core i5/i7 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-586G2-00A1	C246	DDR4 ECC/Non-ECC	VGA + DVI-D + HDMI	2	8	Optional
ASMB-586G4-00A1	C246	DDR4 ECC/Non-ECC	VGA + DVI-D + HDMI	4	8	Optional

### Packing List

Part Number	Description	Quantity
2001058610	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

### Optional Accessories

Part Number	Description
1960049408N001	LGA 1151 CPU heatsink for 1U chassis
1960052651N021	LGA 1151 CPU cooler for 2U/4U chassis
1960088060T001	1U IO bracket for ASMB-586
1700002204	Dual port USB2.0 cable (27 cm) with bracket
1700008461	Four port USB2.0 cable (30.5 cm) with bracket
1700020277-01	Dual port USB3.0 cable (30 cm) with bracket
1701090401	Single port RS-232 cable (40cm) for COM2 connector
1700019268-11	Cable for onboard KBMS1 connector (35cm)
1960063434N000	Cable bracket for 1700019268-11
IPMI-1000-00A2E	IPMI 2.0 Module
PCA-COM232-00A1E	4 ports RS-232 module connect to LPC connector
PCA-COM485-00A1E	4 ports RS-422/485 module connect to LPC connector
PCA-TPM-00B1E	TPM 2.0 Module by LPC

### I/O View



ASMB-586G4-00A1



ASMB-586G2-00A1

Note: Purchasing ASMB-586's proprietary CPU cooler from Advantech is a must. Other brands' CPU coolers may NOT compatible with ASMB-586.