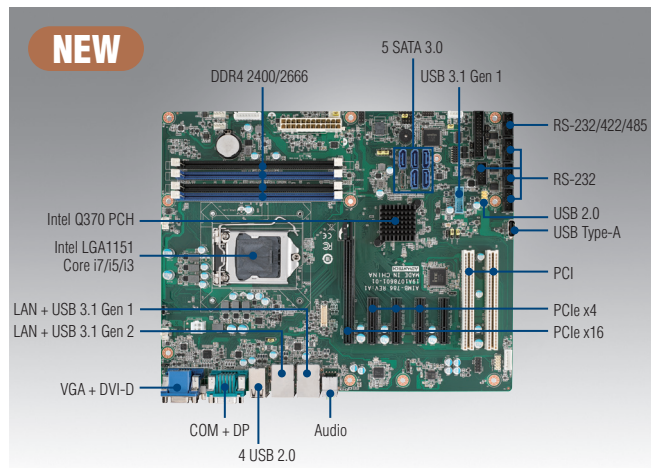


# AIMB-786

## LGA1151 8th/9th Generation Intel® Core™ i7/i5/i3 & Pentium®/ Celeron® ATX with Triple Display, DDR4, USB 3.1, SATA 3.0



### Features

- Intel® 8th/9th generation Core™ i7/i5/i3 & Pentium®/Celeron® processor with Q370 chipset
- Four DIMM sockets up to 128 GB DDR4 2400/2666
- Triple display VGA/DVI-D/DP and dual GbE LAN
- SATA RAID 0, 1, 5, 10, USB 3.1
- Supports Intel vPro, AMT & TPM technologies

Note 1: TPM module is required to enable Intel vPro and TPM technologies.

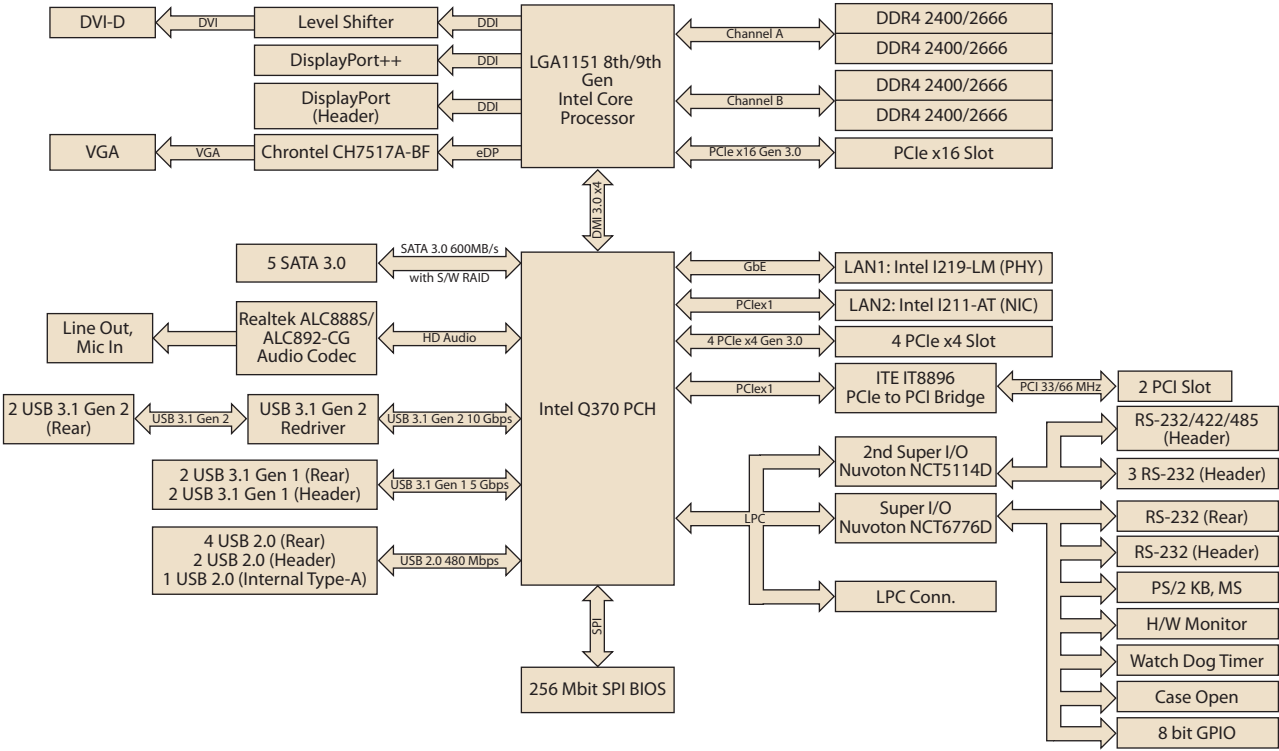
Note 2: Intel 8th/9th generation processors only support Windows 10 (64-bit).

### Quiet Specifications



Processor System	CPU	i7-9700E	i7-9700TE	i7-8700	i7-8700T	i5-9500E	i5-9500TE	i5-8500	i5-8500T	i3-9100E	i3-9100TE	i3-8100	i3-8100T	G5400	G5400T	G4900	G4900T		
	Speed	2.6GHz	1.8 GHz	3.2 GHz	2.4 GHz	3.0 GHz	2.2 GHz	3.0 GHz	2.1 GHz	3.1 GHz	2.2 GHz	3.6 GHz	3.1 GHz	3.7 GHz	3.1 GHz	3.1 GHz	2.9 GHz		
	L3 Cache	12 MB	12 MB	12 MB	12 MB	9 MB	9 MB	9 MB	9 MB	6 MB	6 MB	6 MB	6 MB	4 MB	4 MB	2 MB	2 MB		
	Cores	8	8	6	6	6	6	6	6	4	4	4	4	2	2	2	2		
	TDP	65 W	35 W	65 W	35 W	65 W	35 W	65 W	35 W	65 W	35 W	65 W	35 W	58 W	35 W	54 W	35 W		
	Socket	LGA1151																	
	Chipset	Q370																	
	BIOS	AMI 256 Mbit SPI																	
	Expansion Slot	PCI	2 (32-bit/33 MHz)																
		PCIe x4 (Gen 3)	4																
PCIe x16 (Gen 3)		1																	
Memory	Technology	Dual Channel (Non-ECC) DDR4 2400/2666																	
	Max. Capacity	128 GB																	
	Socket	4 x 288-pin DIMM																	
Graphics	Controller	Intel HD Graphics																	
	VRAM	1 GB maximum shared memory with 2 GB and above system memory installed																	
Ethernet	Interface	10/100/1000 Mbps																	
	Controller	GbE LAN1: Intel I219-LM, GbE LAN2: Intel I211-AT																	
	Connector	2 x RJ-45																	
SATA	Max Data Transfer Rate	600 MB/s																	
	Channel	5																	
	RAID	0,1,5,10																	
Rear I/O	VGA	1 (Resolution up to 1920 x 1200 @ 60 Hz)																	
	DVI-D	1 (Resolution up to 1920 x 1200 @ 60 Hz)																	
	DisplayPort	1 (Resolution up to 4096 x 2304 @ 60 Hz)																	
	Ethernet	2																	
	USB	8 (2 x USB 3.1 Gen 2, 2 x USB 3.1 Gen 1, 4 x USB 2.0)																	
	Audio	2 (Line-out, Mic-in)																	
	Serial	1 (RS-232)																	
PS/2	-																		
Internal Connectors	USB	5 (2 x USB 3.1 Gen 1 via header, 2 x USB 2.0 via header, 1 x USB 2.0 Type-A connector)																	
	Serial	5 (4 x RS-232, 1 x RS-232/422/485)																	
	SATA	5																	
	DisplayPort	1																	
	GPIO	8-bit																	
	PS/2 KB/Mouse	1 (Optional PS/2 KB/Mouse Cable is required)																	
Watchdog Timer	Output	System reset																	
	Interval	Programmable 1 ~ 255 sec																	
Power Requirement	Power On	Intel Core i7-8700 3.2 GHz; DDR4 2400 16 GB x 4																	
	Voltage	+12V	+5V	+3.3V	+5Vsb	-12V	-5V												
	Current	3.77A	1.77A	2.8A	0.1A	0.04A	0.06A												
Environment	Operating										Non-Operating								
	Temperature	0 ~ 60 °C (32 ~ 140 °F), depends on CPU speed and system thermal solution										-40 ~ 85 °C (-40 ~ 185 °F)							
	Humidity	40 °C @ 95% RH Non-condensing										60 °C @ 95% RH Non-condensing							
Physical Characteristics	Dimensions (L x H)	304.8 x 244 mm (12" x 9.6")																	

### Block Diagram



### Ordering Information

Part Number	Chipset	Memory	Display	USB 3.1 Gen 2	USB 3.1 Gen 1	USB 2.0	COM	GbE LAN	AMT	SATA 3.0	SW RAID
AIMB-786G2-00A2	Q370	Non-ECC DDR4 2400/2666 up to 128 GB	VGA + DVI-D + DP	2	4	7	6	2	Yes	5	Yes

### Packing List

Part Number	Description	Quantity
1700003194	SATA HDD cable	x 2
1700022749-11/ 1700022749-12/ 1700022749-13	SATA power cable	x 2
1960086615T001	I/O port bracket	x 1
2001078611	Startup manual	x 1

Note: Driver CD is not provided. Please visit Advantech support website for driver download.

### I/O View



AIMB-786G2-00A2

### Optional Accessories

Part Number	Description
1700002204	2-port USB 2.0 cable w/ BKT(27 cm)
1700028292-01	2-port USB 3.0 cable w/ BKT(30 cm)
1960052651N021	CPU cooler for 2U, 4U and wallmount chassis (CPU TDP ≤65W)
1960047669N001	CPU cooler for 2U/4U and wallmount chassis (CPU TDP 95W)
1701092300	Dual COM port cable(28.5 cm)
1700019268-11	PS/2 KB/Mouse cable
1960063434N000	IO bracket for PS/2 KB/Mouse cable
PCA-TPM-00B1E	TPM2.0 module to enable TPM and vPro technologies

Note: Purchasing AIMB-786's proprietary CPU cooler from Advantech is a must. Other brands' CPU coolers are NOT compatible with AIMB-786.

### Riser Card

Part Number	Description
AIMB-R430P-03A2E	2U riser card with 3 PCI expansion
AIMB-R431F-21A1E	2U riser card with 1 PCIe16 & 1 PCIe1 expansion
AIMB-R43PF-21A1E	2U riser card with 1 PCIe16 & 2 PCI expansion
AIMB-R4301-03A1E	2U riser card with 1 PCIe1 expansion

Note: AIMB-786 is not compatible with 1U chassis.