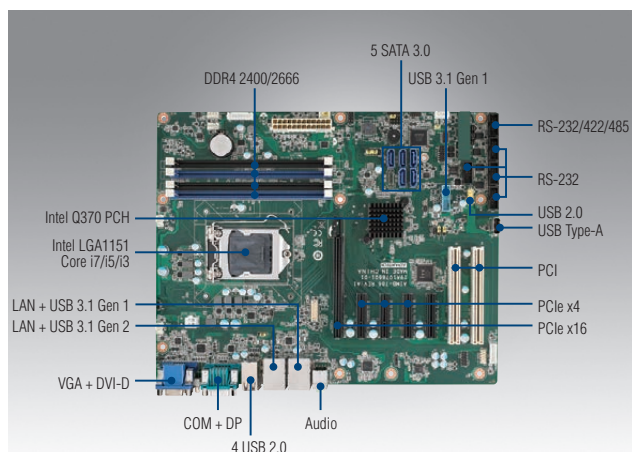


AIMB-786

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: dTPM 2.0 module is required to enable Intel vPro and TPM technologies.

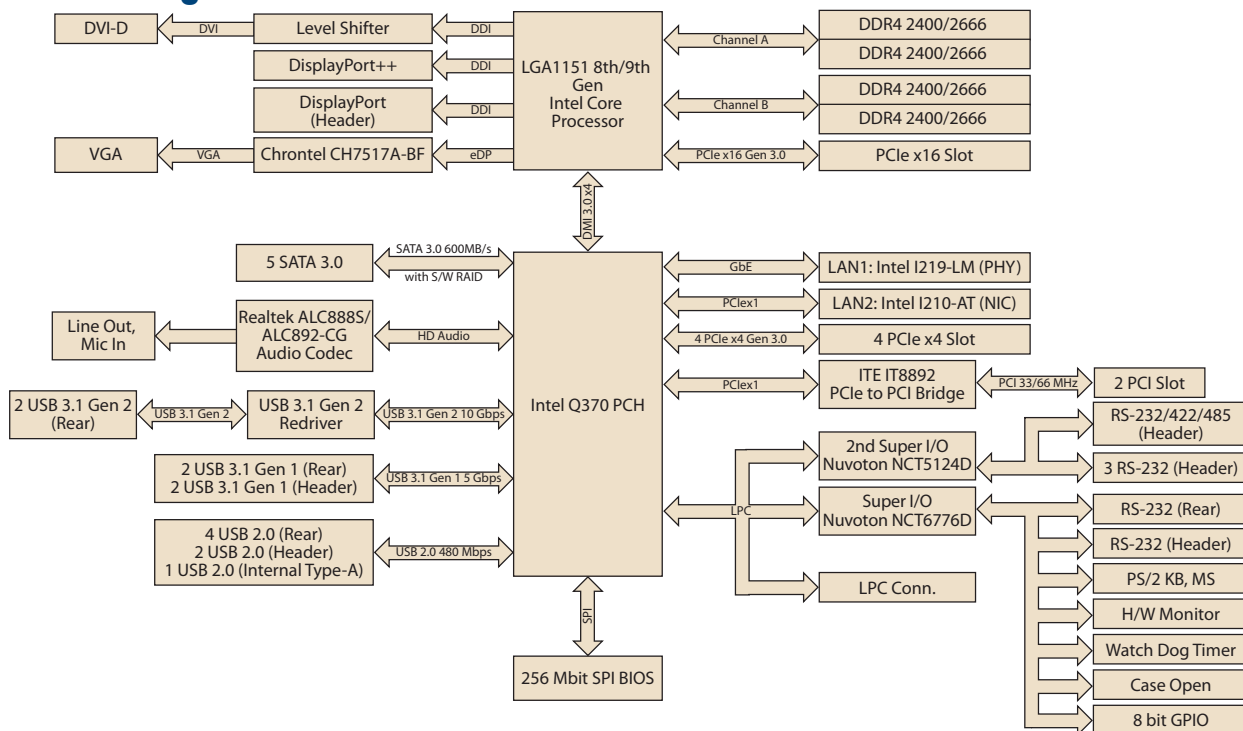
Note 2: Intel® Platform Trust Technology (Intel® PTT) ready for Windows 11.

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	2.9 GHz	
Expansion Slot	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
Memory	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															
Graphics	Chipset	Q370															
	BIOS	AMI 256 Mbit SPI															
Ethernet	PCI	2 (32-bit/33 MHz)															
	PCIe x4 (Gen 3)	4															
SATA	PCIe x16 (Gen 3)	1															
	Technology	Dual Channel Non-ECC UDIMM DDR4 2400/2666															
Rear I/O	Max. Capacity	128 GB															
	Socket	4 (288-pin DIMM)															
Internal Connectors	Controller	Intel HD Graphics															
	VRAM	1 GB maximum shared memory with 2 GB and above system memory installed															
Watchdog Timer	Interface	10/100/1000 Mbps															
	Controller	GbE LAN1: Intel I219-LM, GbE LAN2: Intel I210-AT															
Power Requirement	Connector	2 (RJ-45)															
	Max Data Transfer Rate	600 MB/s															
Environment	Channel	5															
	RAID	0,1,5,10															
Physical Characteristics	VGA	1 (Resolution up to 1920 x 1200 @ 60 Hz)															
	DVI-D	1 (Resolution up to 1920 x 1200 @ 60 Hz)															
Power Requirement	DisplayPort	1 (Resolution up to 4096 x 2304 @ 60 Hz)															
	Ethernet	2															
Power Requirement	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)															
Power Requirement	Serial	1 (RS-232)															
	PS/2	-															
Power Requirement	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)															
Power Requirement	SATA	5															
	DisplayPort	1															
Power Requirement	LPC	1 (Optional dTPM 2.0 module available)															
	GPIO	8-bit															
Power Requirement	PS/2 KB/Mouse	1 (Optional PS/2 KB/Mouse Cable is required)															
	Output	System reset															
Power Requirement	Interval	Programmable 1 ~ 255 sec															
	Power On	Intel Core i7-8700 3.2 GHz; DDR4 2400 16 GB x 4															
Power Requirement	Voltage	+12V +5V +3.3V +5Vsb -12V -5V															
	Current	3.77A 1.77A 2.8A 0.1A 0.04A 0.06A															
Power Requirement	Operating	Non-Operating															
	Temperature	0 ~ 60 °C (32 ~ 140 °F), depends on CPU speed and system thermal solution															
Power Requirement	Humidity	40 °C @ 95% RH Non-condensing															
	Humidity	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-786G2-00A4	Q370	Non-ECC DDR4 2400/2666 up to 128 GB	VGA + DVI-D + DP	2	4	7	6	2	Yes	5	Yes
AIMB-786G2-00A4U (Made in Taiwan)	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
2001078612	Startup manual	x 1

Embedded OS

Part Number	Description
20706WX9HS0000	img W10 19HL AIBM-786G2 64b 1809 ENU
20706WX9VS0000	img W10 19VL AIBM-786G2 64b 1809 ENU

I/O View

AIMB-786G2-00A4
AIMB-786G2-00A4U

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)
1960047669N001	CPU cooler for 4U and wallmount chassis
1960053207N001	CPU cooler for 2U chassis
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	dTPM 2.0 LPC 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
AlMB-R430P-03A2E	2U riser card with 3 PCI expansion
AlMB-R431F-21A1E	2U riser card with 1 PClex16 & 1 PClex1 expansion
AlMB-R43PF-21A1E	2U riser card with 1 PClex16 & 2 PCI expansion
AlMB-R4301-03A1E	2U riser card with 1 PClex1 expansion

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