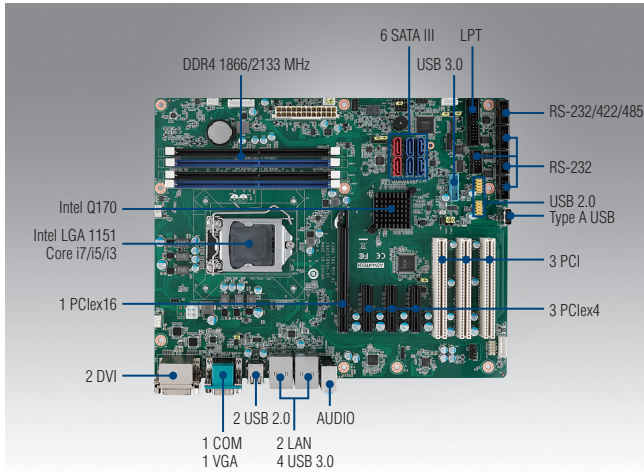


# AIMB-785

**LGA1151 6th/7th Generation Intel® Core™ i7/i5/i3/Pentium®/Celeron® ATX with Triple Display, DDR4, SATA III**



## Features

- Supports Intel® 6th/7th generation Core™ i7/i5/i3/Pentium®/Celeron® processor with Q170 chipset
- Four DIMM sockets support up to 64 GB DDR4 1866/2133
- Supports triple display VGA/2 DVI-D and dual GbE LAN
- Supports SATA RAID 0, 1, 5, 10, USB 3.0
- Supports Intel vPro, AMT 11.0 & TPM technologies

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

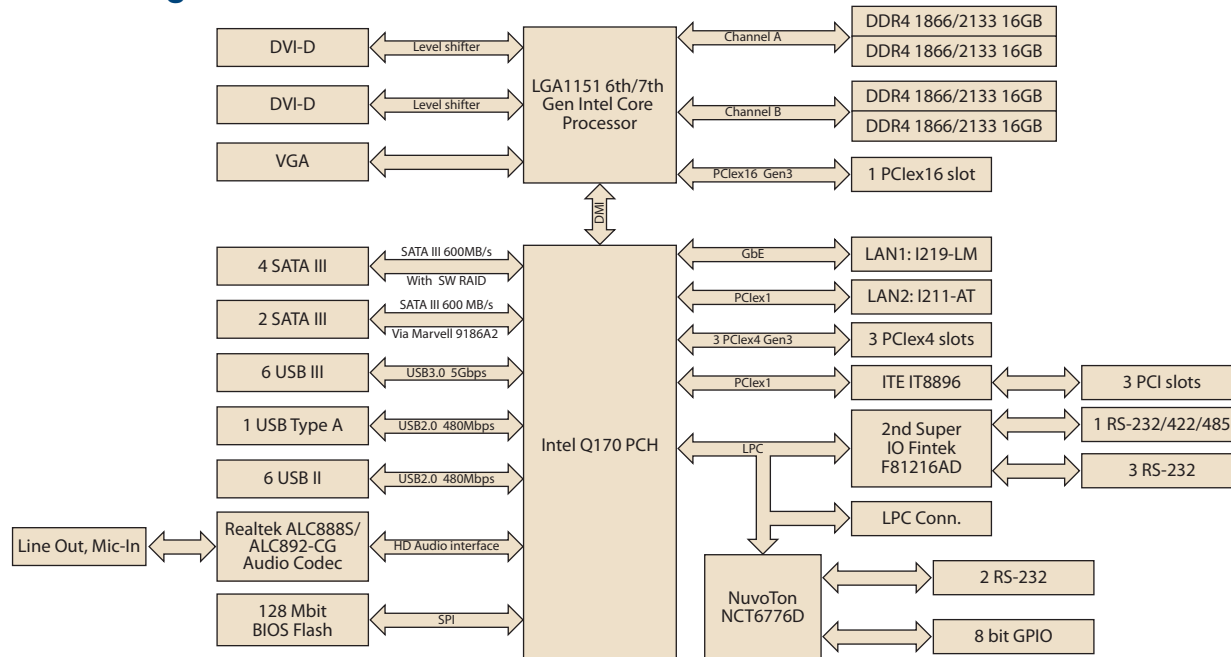
Note 2: Intel 7th generation processors only support Windows 10 (64-bit).

## Quiet Specifications

CE FCC

Processor System	CPU	i7-7700	i7-7700T	i7-6700	i7-6700TE	i5-7500	i5-7500T	i5-6500	i5-6500TE	i3-7101E	i3-7101TE	i3-6100	i3-6100TE	G4400	G4400TE	G3900	G3900TE			
	Speed	3.6GHz	2.9GHz	3.4GHz	2.4GHz	3.4GHz	2.7GHz	3.2GHz	2.3GHz	3.9GHz	3.4GHz	3.7GHz	2.7GHz	3.3GHz	2.9GHz	2.8GHz	2.6GHz			
	L3 Cache	8MB	8MB	8MB	8MB	6MB	6MB	6MB	6MB	3MB	3MB	4MB	4MB	3MB	3MB	2MB	2MB			
	Cores	4	4	4	4	4	4	4	4	2	2	2	2	2	2	2	2			
	TDP	65 W	35 W	65 W	35 W	65 W	35 W	65 W	35 W	54 W	35 W	65 W	35 W	65 W	35 W	65 W	35 W			
	Socket	LGA1151																		
	Chipset	Q170																		
	BIOS	AMI 128 Mbit SPI																		
	Expansion Slot	PCI	32-bit/33 MHz, 3 slots																	
		PCIe x 4 (Gen3)	4 GB/s per direction, 3 slots																	
PCIe x16 (Gen3)		16 GB/s per direction, 1 slot																		
Memory	Technology	Dual Channel DDR4 1866/2133																		
	Max. Capacity	64 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 I219LM, GbE LAN2: Intel I211AT																		
	Connector	RJ-45 x 2																		
SATA	Max Data Transfer Rate	600 MB/s																		
	Channel	6 (4 from Intel® Q170 and 2 from Marvell 9186A2)																		
	RAID	0,1,5,10 (4 SATAIII ports from Intel®)																		
Rear I/O	VGA	1 (Up to 1920x1200@60Hz)																		
	DVI-D	2 (Up to 1920x1200@60Hz)																		
	Ethernet	2																		
	USB	6 (USB3.0 x 4, USB2.0 x 2)																		
	Audio	2 (Mic-in, Line-out)																		
	Serial	1 (RS-232)																		
Internal Connectors	PS/2	-																		
	USB	7 (USB 3.0 with wafer box x 2, USB 2.0 with wafer box x 4, USB 2.0 with type A connector x 1)																		
	Serial	5 (4 x RS-232, 1 x RS-232/422/485)																		
	SATA	6																		
	Display Port	-																		
	IrDA	-																		
	GPIO	8-bit																		
Watchdog Timer	PS/2 KB/Mouse	1 (Optional PS/2 KB/Mouse Cable is required)																		
	Output	System reset																		
	Interval	Programmable 1 ~ 255 sec																		
Power Requirement	Power On	Intel Core i7-6700 3.4GHz; DDR4 2133 8GB x 4																		
	Voltage	+12V				+5V				+3.3V				+5Vsb		-12V		-5V		
Environment	Current	6.78A				1.38A				1.35A				0.12A		0.05A		0.05A		
	Operating	0 ~ 60 °C (32 ~ 140 °F), depends on CPU speed and system thermal solution												Non-Operating						
Physical Characteristics	Temperature	-40 ~ 85 °C (-40 ~ 185 °F)																		
	Dimensions (L x H)	304.8 x 244 mm (12" x 9.6")																		

## Block Diagram



## Ordering Information

Part Number	Chipset	Memory	Display	USB 3.0	USB 2.0	COM	GbE LAN	AMT	SATA III	SW RAID
AIMB-785G2-00A2	Q170	Non-ECC DDR4 1866/2133 up to 64GB	VGA + dual DVI	6	7	6	2	Yes	6	Yes
AIMB-785G2-00A2U (Made in Taiwan)	Q170	Non-ECC DDR4 1866/2133 up to 64GB	VGA + dual DVI	6	7	6	2	Yes	6	Yes

Note: SATA0 and SATA1 (red SATA ports) don't support RAID function.

## Packing List

Part Number	Description	Quantity
1700003194	SATA HDD cable	x 2
1700022749-11/ 1700022749-12/ 1700022749-13/	SATA power cable	x 2
19Z0000884T000	I/O port bracket	x 1
2006078511	Startup manual	x 1
2066078502	Driver CD	x 1

## I/O View



AIMB-785G2-00A2  
AIMB-785G2-00A2U

## 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
1960049408N001	CPU heatsink for 1U chassis
1960069666N101	IO bracket for 1U chassis ACP-1010MB only
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-00A1E	TPM module to enable TPM and vPro technologies (for BIOS V1.XX)
PCA-TPM-00B1E	TPM2.0 module to enable TPM and vPro technologies (for BIOS V2.XX)

Note: Purchasing AIMB-785's proprietary CPU cooler from Advantech is a must. Other brands' CPU coolers are NOT compatible with AIMB-785.

## Riser Card

Part Number	Description
AIMB-RF10F-01A1E	1U riser card with 1 PCIe16 expansion
AIMB-R4104-01A1E	1U riser card with 1 PCIe4 expansion
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-R4301-03A2E	2U riser card with 1 PCIe1 expansion