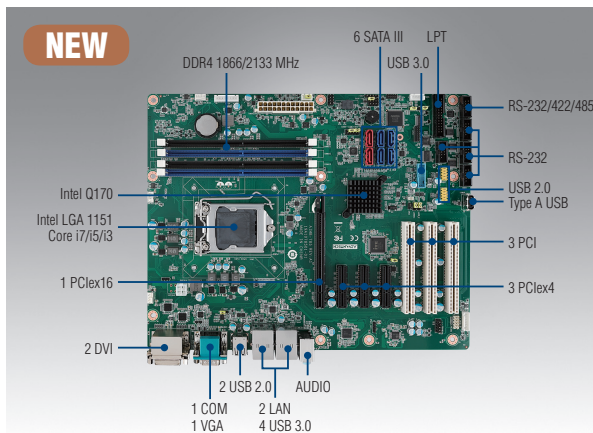


AIMB-785

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



Features

- Supports Intel® Core™ i7/i5/i3/Celeron/Pentium 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: PCA-TPM-00A1E module is required to enable Intel vPro and TPM technologies

Quiet

Specifications

CE FCC

Processor System	CPU	i7-6700	i7-6700TE	i5-6500	i5-6500TE	i3-6100	i3-6100TE	G4400	G4400TE	G3900	G3900TE	
	Speed	3.4GHz	2.4GHz	3.2GHz	2.3GHz	3.7GHz	2.7GHz	3.3GHz	2.9GHz	2.8GHz	2.6GHz	
	L3 Cache	8MB	8MB	6MB	6MB	4MB	4MB	3MB	3MB	2MB	2MB	
	Socket	LGA1151										
	Chipset	Q170										
	BIOS	AMI 128 Mbit SPI										
Expansion Slot	PCI	32-bit/33 MHz, 3 slots										
	PCIe x4 (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)										
	PS/2	N/A										
Internal Connectors	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										
	Parallel	1 (SPP/EPP)										
	Display Port	N/A										
	IrDA	N/A										
	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 I7-6700 @ 3.4GHz DDR4 2133 8G x 4										
	Voltage	+12V	+5V	+3.3V	+5Vsb	-12V	-5V					
	Current	6.78A	1.38A	1.35A	0.12A	0.05A	0.05A					
Environment	Temperature	Operating							Non-Operating			
		0 ~ 60° C (32 ~ 140° F), depends on CPU speed and cooler solution							-40 ~ 85° C (-40 ~ 185° F)			
Physical Characteristics	Dimensions	304.8 x 244 mm (12" x 9.6")										

ADVANTECH

Industrial Motherboards

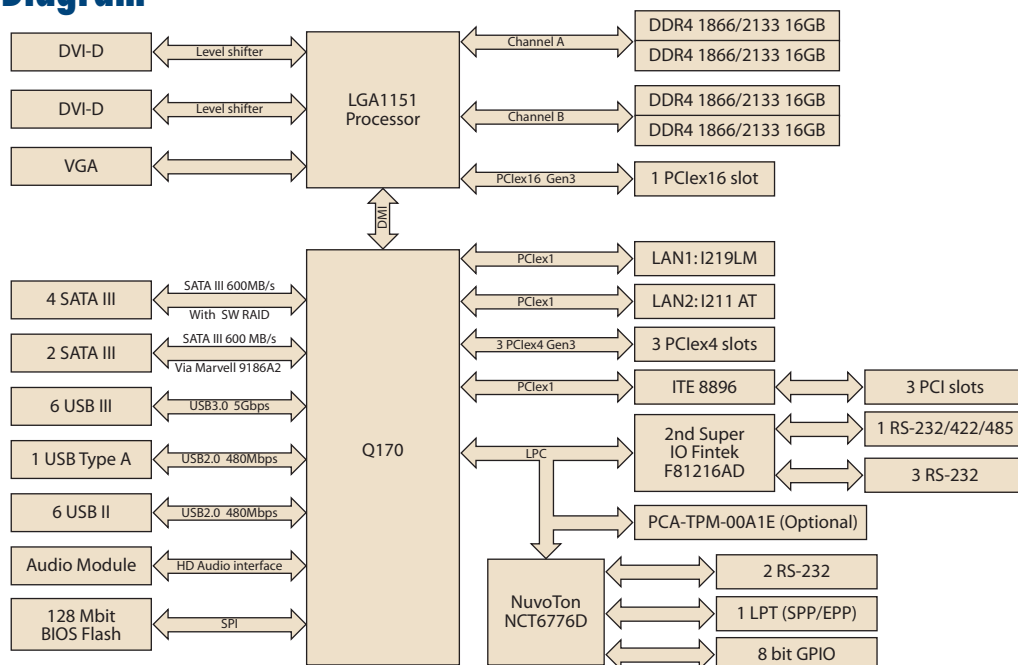
All product specifications are subject to change without notice

Last updated : 6-Jun-2016

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Date: 10/2016 Rev.01

Block Diagram



Ordering Information

Part Number	Chipset	Memory	Display	USB 3.0	USB 2.0	COM	GbE LAN	AMT	SATA III	SW RAID
AIMB-785G2-00A1E	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	SATA power cable	x 1
19Z0000884T000	I/O port bracket	x 1
2006078510	Startup manual	x 1
2066078501	Driver CD	x 1
2190000902	Warranty Card	x 1

Optional Accessories

Part Number	Description
1700002204	Dual port USB 2.0 cable (27 cm) with bracket
1700020277-01	Dual port USB 3.0 Cable with bracket
1960052651N021	CPU Cooler for 2U, 4U and wallmount chassis
1960049408N001	CPU cooler for 1U Rackmount chassis
1960069666N001	IO bracket for 1U chassis
1700020294-01	Printer port cable kit (42 cm)
1701092300	COM port cable kit
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

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

I/O View



AIMB-785G2-00A1E

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