

AIMB-585

Intel® Xeon® E3/ Core™ i7/i5/i3 LGA1151
MicroATX with DVI-D/HDMI/DP++/eDP/VGA,
6 COM, Dual LAN, SATA III, 12 USB3.0



Features

- Supports Intel® Xeon®/ 6th Gen Core™ i7/i5/i3 processor with Q170/C236/H110 chipset
- Four DIMM sockets support up to 64 GB DDR4 2133 MHz SDRAM
- Supports DVI-D, HDMI, DP++, eDP, VGA (optional) display
- Supports Intel AMT 11.0 and Intel vPro competent
- Supports PCIE Gen3, 12 x USB 3.0, 4 x SATAIII and dual GbE LAN, mini-PCle
- Supports Software RAID 0, 1, 5, 10, TPM 1.2 (optional)
- Supports SUSIAccess and Embedded Software APIs

Software APIs:

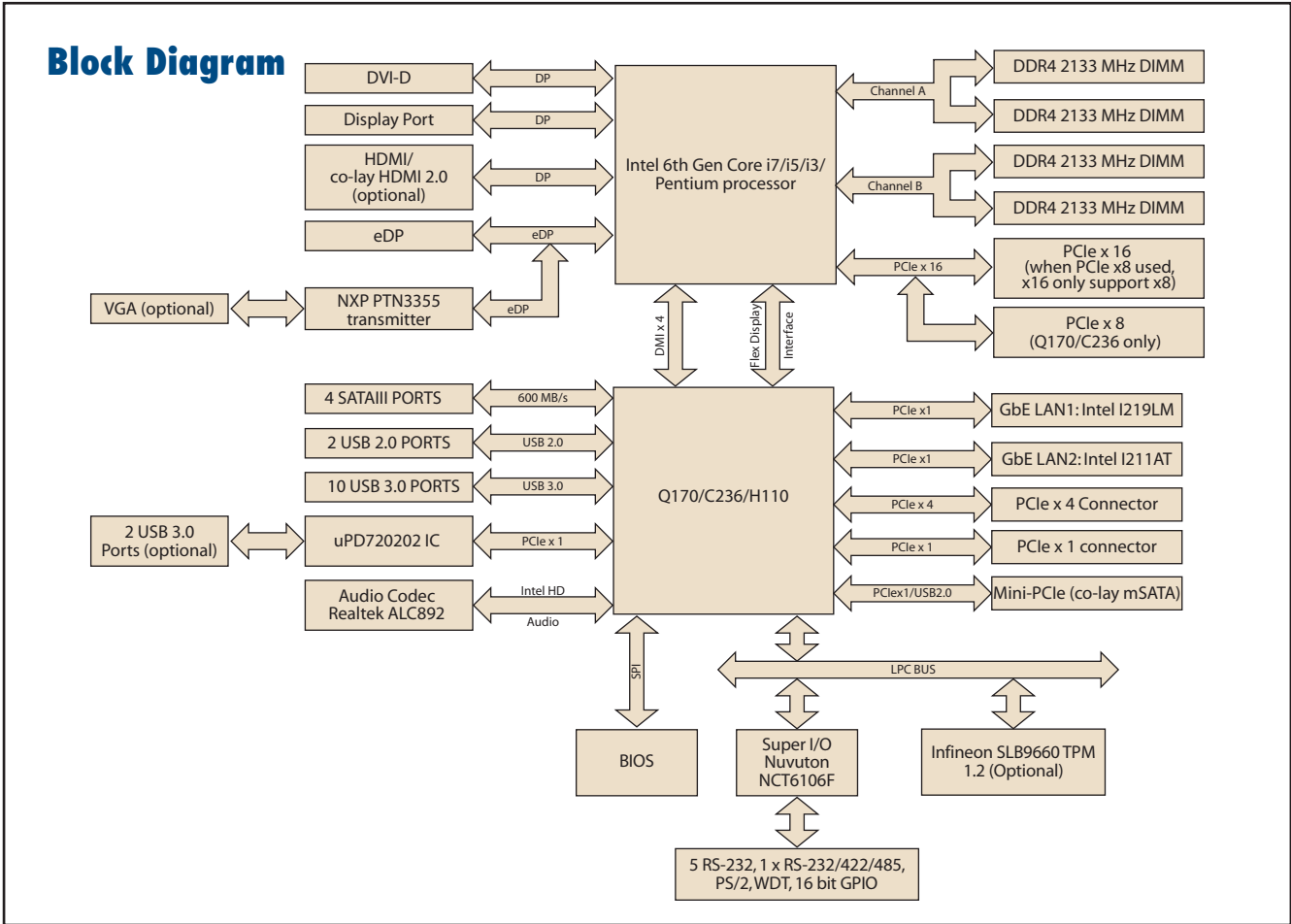


Utilities:



Specifications

	CPU	E3-1275 v5	E3-1225 v5	E3-1268L v5	i7-6700 / i7-6700TE	i5-6500 / i5-6500TE	i3-6100/ i3-6100TE	Pentium G4400 / G4400TE	Celeron G3900 / G3900TE	
Processor System	Core Number	4	4	4	4 / 4	4 / 4	2/2	2/2	2/2	
	Max. Speed	3.6GHz	3.3GHz	2.4GHz	3.4GHz / 2.4GHz	3.2GHz / 2.3GHz	TBD GHz / 2.7GHz	3.3GHz / 2.9GHz	2.8GHz / 2.6GHz	
	Integrated Graphics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
	L3 Cache	8M	6M	8M	8M / 8M	6M / 6M	4M / 4M	3M / 3M	2M / 2M	
	TDP (W)	80W	80W	35W	65W / 35W	65W / 35W	51W / 35W	65W / 35W	65W / 35W	
	Supports Model	WG2	WG2	WG2	QG2 / L	QG2 / L	QG2 / WG2 / L	QG2 / WG2 / L	QG2 / WG2 / L	
	Chipset	Q170/C236/H110								
BIOS	AMI EFI 128 Mbit SPI									
Expansion Slot	PCIe x1 (Gen3)	1 GB/s per direction, 1 slot								
	PCIe x4 (Gen3)	4 GB/s per direction, 1 slot (Q170,C236 only)								
	PCIe x8 (Gen3)	8 GB/s per direction, 1 slot (Q170,C236 only)								
	PCIe x16 (Gen3)	16 GB/s per direction, 1 slot (When x8 slot is used, x16 slot only offers x8 bandwidth automatically)								
	Memory	Technology	Dual Channel DDR4 2133 MHz SDRAM							
	Max. Capacity	64 GB/16 GB per DIMM								
	Socket	4 x 288-pin DIMM								
Graphics	Controller	Intel HD Graphics Supports DirectX11.1, OpenGL 5.0 and OpenCL 2.1								
	VRAM	1 GB maximum shared memory with 2 GB and above system memory installed								
	HDMI	Supports max resolution HDMI 1.2 1920 x 1200 @ 60 Hz (Colay HDMI 2.0,4096 x 2160 @ 60 Hz, optional)								
	VGA	Max resolution 1920 x 1200 @ 60 Hz (on board) (optional)								
	DVI-D	Supports max. resolution 1920 x 1200 @ 60 Hz								
	eDP	Internal pin header, supports max. resolution 3840 x 2160 @ 60 Hz (on board)								
	Display Port	Supports max resolution 4096 x 2304 @ 60 Hz								
	Triple Display	eDP/ VGA + DP++ + HDMI, eDP/ VGA + HDMI + DVI-D, DP++ + eDP/ VGA + DVI-D, DVI-D + DP++ + HDMI								
Dual Display	DP++ + HDMI, DP++ + DVI-D, DP++ + eDP/ VGA, HDMI + DVI-D, HDMI + eDP/ VGA, eDP, VGA + DVI-D									
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 (SATA 3.0)								
	Channel	4								
Rear I/O	DVI-D	1								
	Display Port	1								
	HDMI	1								
	Ethernet	2								
	USB	8 (QG2,WG2: 6 x USB 3.0, 2 x USB 2.0; L: 4 x USB3.0, 4 x USB2.0)								
	Audio	2 (Mic-in, Line-out)								
	Serial	1 (RS-232)								
Internal Connector	USB 3.0	6 (Default is 4.BOM option add another controller IC to 2 x USB3.0, and QG2,WG2 sku only)								
	Serial	5 (4 x RS-232, 1 x RS-232/422/485 to support auto flow control)								
	VGA	1 (optional)								
	SATA	4 (SATA 3.0)								
	Extended Display Port (eDP)	1								
	JTAG	1								
Watchdog Timer	mini-PCle	1 Full-size colay mSATA								
	GPIO	16-bit GPIO								
	Output Interval	System reset Programmable 1 ~ 255 sec/min								
Power Requirements	Power On	+5 V	3.3 V	12 V		5 Vsb		-12 V		
		TBD	TBD	TBD		TBD		TBD		
Environment	Operating	Normal								
	Temperature	0 ~ 60° C (14 ~ 158° F), depends on CPU speed and cooler solution						-40 ~ 85° C (-40 ~ 185° F)		
Physical Characteristics	Dimensions	244 mm x 244 mm (9.6" x 9.6")								
Power	Input Mode	ATX input (Default)								



Ordering Information

Part Number	Chipset	Memory	USB 3.0	USB 2.0	VGA	DP	HDMI 1.2	DVI-D	eDP	SATAIII	PCIe x16/ PCIex8	PCIe x4	PCIe x 1	TPM	GbE LAN	AMP
AIMB-585QG2-00A1E	Q170	Non-ECC	10+(2)	2	(1)	1	1	1	1	4	1/1	1	1	(1)	2	(1)
AIMB-585WG2-00A1E	C236	ECC/Non-ECC	10+(2)	2	(1)	1	1	1	1	4	1/1	1	1	(1)	2	(1)
AIMB-585L-00A1E	H110	Non-ECC	4	4	(1)	1	1	1	0	3	1/0	0	2	(1)	1	(1)

*() BOM options available on MP version.
 * HDMI 1.2 colay HDMI2.0(BOM option)
 * there is BOM option with added USB 3.0 from controller IC, only support in QG2,WG2 sku

Riser Card

Part Number	Description
AIMB-R4104-01A1E	1U riser card with 1 PCIe x 4 expansion
AIMB-R430P-03A2E	2U riser card with 3 PCI expansion
AIMB-R430I-03A1E	2U riser card for 3 PCIe x 1 abd 2 PCI expansion
AIMB-R431F-21A1E	2U riser card with 1 PCI e x 16 + 2 PCIe x 1 expansion
AIMB-R43PF-21A1E	2U riser card with 1 PCIe x16 + 2 PCI slots expansion

Packing List

Part Number	Description	Quantity
1700003194	SATA HDD cable	2
1703150102	SATA power cable	2
TBD	I/O port braket	1
TBD	Startup manual	1

I/O View



Optional Accessories

Part Number	Description
1700020277-01	Dual port USB 3.0 cable 30cm with IO bracket
1960047669N001	LGA1156 CPU cooler for 4U and wallmount chassis, for CPU TDP <= 84W, 4.72" (W) x 4.72" (L) x 3.03" (H)
1960047831N001	LGA1156 CPU cooler for 2U and backplane version of chassis, for CPU TDP <= 65W, 3.27" (W) x 3.27" (L) x 2.17" (H)
1960053207N001	LGA1155 CPU cooler for 2U and wallmount chassis, for CPU TDP <= 45W, D=3.66"(W) x 3.66"(L) x 1.81"(H)
1700018699	KBMS cable 1*6P-2.5/DIN-6P(F)*2, 25 cm
1700000447	1-to-4 serial ports cable kit, 45cm
1701400181	1-to-4 serial ports cable kit, 18cm

Note: Purchasing AIMB-585's proprietary CPU cooler from Advantech is a must, other CPU cooler are NOT compatible with AIMB-585.
 The complete thermal solution is composed of CPU cooler and system fans for the CPU TDP as above.

Embedded OS/API

OS/API	Description
WES7	TBD
WES7	TBD
WE8	TBD
Software API	TBD