

AIMB-584

Intel® Xeon® E3/ Core™ i7/i5/i3 LGA1150
MicroATX with CRT/DVI/eDP/LVDS/DP,
6 COM, Dual LAN, SATAIII

NEW



Features

- Supports Intel® Xeon®/ Core™ i7/i5/i3 processor with Q87/C226 chipset
- Four DIMM sockets support up to 32 GB DDR3 1333/1600 MHz SDRAM
- Supports CRT, DVI, LVDS, DP, eDP (optional) display
- Supports Intel AMT 9.0 and Intel vPro competent
- Supports PCIe Gen3, USB 3.0, Software RAID 0,1,5,10, TPM 1.2 (Optional)
- Supports 6 x SATAIII and dual GbE LAN
- Supports SUSIAccess and Embedded Software APIs

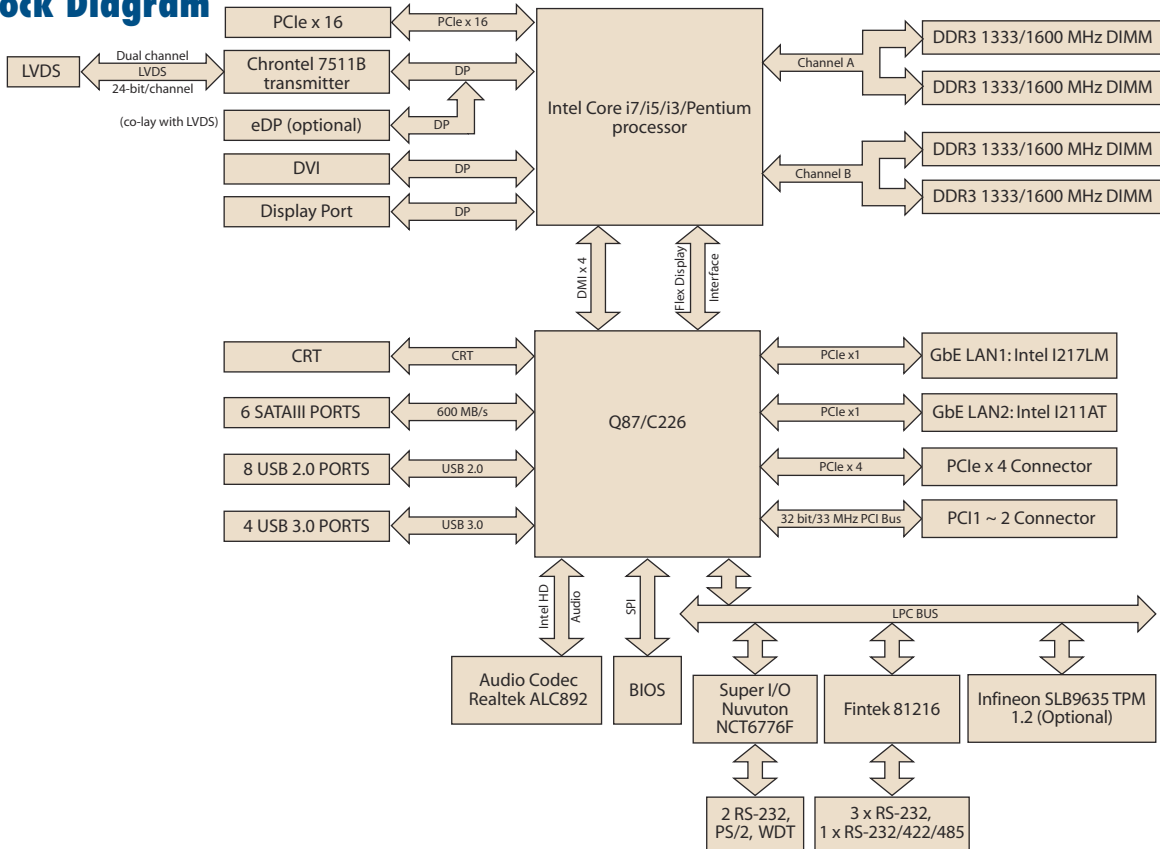
Software APIs:

Utilities:

Specifications

	CPU	E3-1275 v3	E3-1225 v3	E3-1268L v3	i7-4790S	i7-4770S/ 4770TE	i5-4590S/ 4590T	i5-4570S/ 4570TE	i3-4360/ 4350T/4340TE	i3-4330 / i3-4330TE	Pentium G3420	Pentium G3320TE	
Processor System	Core Number	4	4	4	4	4 / 4	4 / 4	4 / 2	2 / 2	2 / 2	2	2	
	Max. Speed	3.5 GHz	3.2 GHz	2.3 GHz	3.2GHz	3.1G/ 2.3GHz	3.0G/ 2.0GHz	2.9G/ 2.7GHz	3.7G/ 3.1G/ 2.6GHz	3.5G / 2.4 GHz	3.2 GHz	2.3 GHz	
	Integrated Graphics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
	L3 Cache	8M	8M	8M	8M	8M / 8M	6M/6M	6M / 4M	4M/4M/4M	4M/4M	3M	3M	
	TDP (W)	84W	84W	45W	65W	65W / 45W	65W/35W	65W / 35W	54W/35W/35W	54W / 35W	54W	35W	
	Supports Model	WG2	WG2	WG2/QG2	QG2	QG2	QG2	QG2/WG2 (i5-4570TE only)	QG2	WG2/QG2	WG2/QG2	WG2/QG2	
	Chipset	Q87/C226											
BIOS	AMI EFI 128 Mbit SPI												
Expansion Slot	PCI	32-bit/33 MHz, 2 slots											
	PCIe x4 (Gen2)	2.0 GB/s per direction, 1 slot											
	PCIe x16 (Gen3)	16 GB/s per direction, 1 slot											
Memory	Technology	Dual Channel DDR3 1333/1600 MHz SDRAM											
	Max. Capacity	32 GB/8 GB per DIMM											
	Socket	4 x 240-pin DIMM											
Graphics	Controller	Intel HD Graphics Supports DirectX11.1, OpenGL 4.0 and OpenCL 1.2											
	VRAM	1 GB maximum shared memory with 2 GB and above system memory installed											
	LVDS	Supports dual channel 48 bit up to 1920 x 1200											
	CRT	v max resolution 2048 x 1536 at 60 Hz											
	DVI	Supports max. resolution 1920 x 1200 at 60 Hz											
	eDP	Internal pin header, supports max. resolution 3840 x 2160 @ 60 Hz											
	Display Port	Supports max resolution 3840 x 2160 @ 60 Hz											
Triple Display	CRT+eDP (or LVDS)+DP, CRT+eDP (or LVDS)+ DVI CRT+DP+DVI, DP+DVI+eDP (or LVDS)												
Dual Display	CRT+eDP (or LVDS), CRT+DVI, eDP (or LVDS)+ DVI DP+DVI, DP+eDP (or LVDS)												
Ethernet	Interface	10/100/1000 Mbps											
	Controller	GbE LAN1: Intel I217LM, GbE LAN2: Intel I211AT											
	Connector	RJ-45 x 2											
SATA	Max Data Transfer Rate	600 MB/s (SATA 3.0)											
	Channel	6											
Rear I/O	CRT	1											
	DVI	1											
	Display Port	1											
	Ethernet	2											
	USB	4 (4 x USB 3.0)											
	Audio	2 (Mic-in, Line-out)											
	Serial	1 (RS-232)											
PS/2	2 (1 x keyboard and 1 x mouse)												
Internal Connector	USB	8 (USB 2.0)											
	Serial	5 (4 x RS-232, 1 x RS-232/422/485 to support auto flow control)											
	IDE	-											
	SATA	6 (SATA 3.0)											
	LVDS & Inverter	1 (default)											
	Extended Display Port (eDP)	1 (optional by removing LVDS)											
	Parallel	1											
	JTAG	1											
IrDA	-												
GPIO	8-bit GPIO												
Watchdog Timer	Output	System reset											
	Interval	Programmable 1 – 255 sec/min											
Power Requirements		Intel Core i7-4770 3.1 GHz, 8 GB DDR3 1600 MHz x 4pcs											
	Power On	+5 V	3.3 V	12 V		5 Vsb					-12 V		
		2.22A	1.13A	5.18A		0.49A					0A		
Environment	Operating												
	Temperature	0 – 60° C (32 – 140° F), depends on CPU speed and cooler solution											
Physical Characteristics	Dimensions	244 mm x 244 mm (9.6" x 9.6")											
Power	Input Mode	ATX input (Default)											

Block Diagram



Ordering Information

Part Number	Chipset	Memory	USB 3.0/2.0	CRT	DP	DVI	LVDS/eDP	SATAIII	COM	TPM	GbE LAN
AIMB-584QG2-00A1E	Q87	Non-ECC	4/8	Yes	1	1	1(1)	6	6	(1)	2
AIMB-584WG2-00A1E	C226	ECC/Non-ECC	4/8	Yes	1	1	1(1)	6	6	(1)	2

*() BOM options available on MP version.

Riser Card

Part Number	Description
AIMB-RP10P-01A1E	1U riser card with 1 PCI expansion
AIMB-RP30P-03A1E	2U riser card with 3 PCI expansion
AIMB-RP3PF-21A1E	2U riser card for 1 PCIe x 16 abd 2 PCI expansion
AIMB-RF10F-01A1E	1U riser card with 1 PCIe x 16 expansion
AIMB-RP3P8-12A1E	2U riser card with 2 PCIe x 8 & 1 PCI slots expansion (For WG2 Sku)

Note: AIMB-RP3P8-12A1E is not compatible with ACP-2010MB/2320MB chassis unless change special bracket to 1950014302N001.

Packing List

Part Number	Description	Quantity
1700003194	SATA HDD cable	2
1703150102	SATA power cable	2
1960056089T000	I/O port braket	1
2002058400	Startup manual	1
2062058400	Driver CD	1

I/O View



AIMB-584QG2-00A1E
AIMB-584WG2-00A1E

Optional Accessories

Part Number	Description
1700002204	Dual port USB cable (27 cm) with 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
1950014302N001	Special bracket for riser card AIMB-RP3P8-12A1E

Note: Purchasing AIMB-584's proprietary CPU cooler from Advantech is a must, other brand's CPU cooler are NOT compatible with AIMB-584. The complete thermal solution is composed of CPU cooler and system fans for the CPU TDP as above.

Embedded OS/API

OS/API	Part No.	Description
WES7	2070012174	Image WES7E AIMB-584QG2 32bit V5.1.6 Eng/Chs/Jpn
WES7	2070012168	IMAGE WES7E AIMB-584QG2 64bit V5.6.6 Eng/Chs/Jpn
WE8	2070012169	IMAGE WE8 Std AIMB-584QG2 32bit V6.0.0 Eng
Software API		SUSI 3.0 SW API for AIMB-584 WIN 7