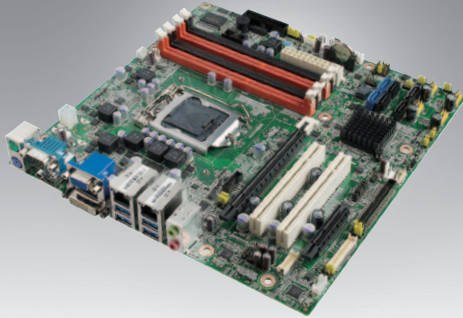


# AIMB-584

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

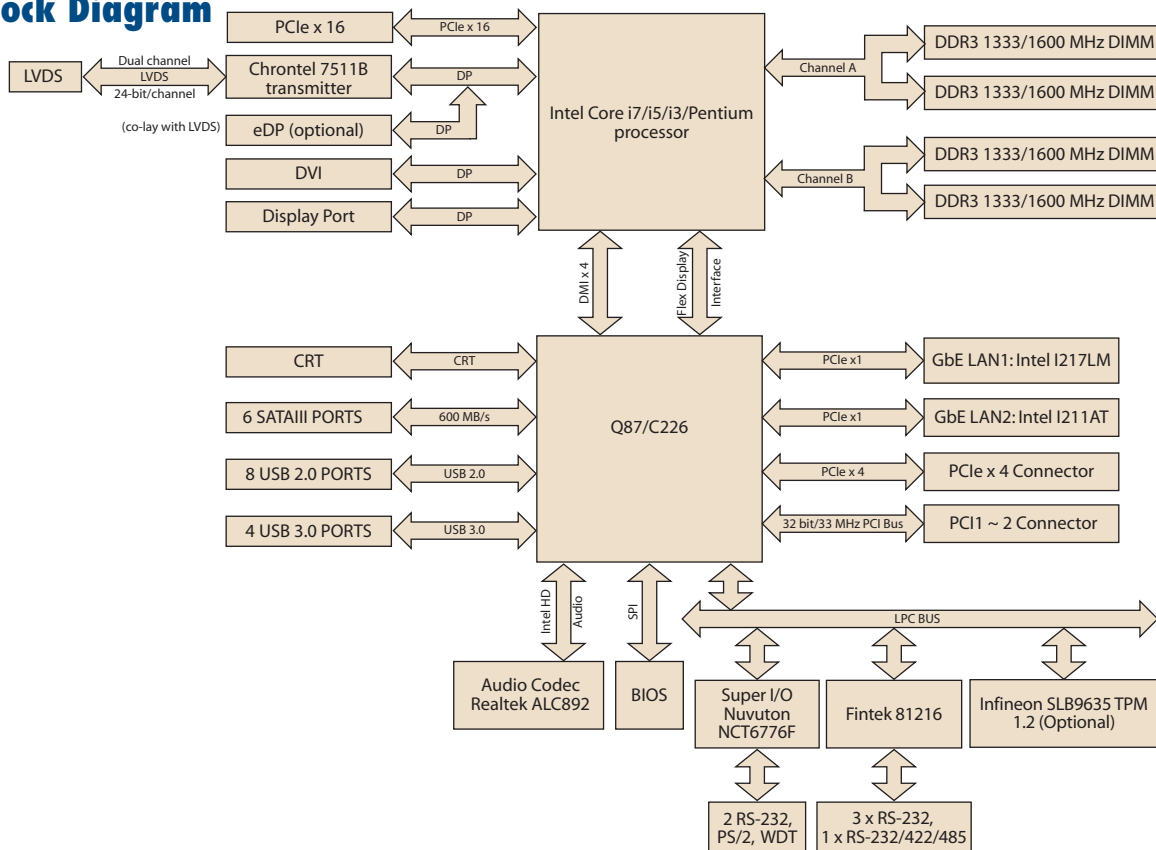
**Software APIs:**

**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	
<b>Processor System</b>													
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											
<b>Expansion Slot</b>		32-bit/33 MHz, 2 slots											
PCI		2.0 GB/s per direction, 1 slot											
PCIe x4 (Gen2)		16 GB/s per direction, 1 slot											
PCIe x16 (Gen3)													
<b>Memory</b>		Dual Channel DDR3 1333/1600 MHz SDRAM											
Technology													
Max. Capacity		32 GB/8 GB per DIMM											
Socket		4 x 240-pin DIMM											
<b>Graphics</b>		Intel HD Graphics											
Controller		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)											
<b>Ethernet</b>		10/100/1000 Mbps											
Interface		GbE LAN1: Intel I217LM, GbE LAN2: Intel I211AT											
Controller													
Connector		RJ-45 x 2											
<b>SATA</b>		600 MB/s (SATA 3.0)											
Max Data Transfer Rate													
Channel		6											
<b>Rear I/O</b>		1											
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)											
<b>Internal Connector</b>		8 (USB 2.0)											
USB		5 (4 x RS-232, 1 x RS-232/422/485 to support auto flow control)											
Serial		-											
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											
<b>Watchdog Timer</b>		System reset											
Output		Programmable 1 – 255 sec/min											
Interval													
<b>Power Requirements</b>		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		
<b>Environment</b>		Operating											
Temperature		0 – 60° C (32 – 140° F), depends on CPU speed and cooler solution											
<b>Physical Characteristics</b>		Dimensions											
Dimensions		244 mm x 244 mm (9.6" x 9.6")											
<b>Power</b>		Input Mode											
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 and 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 bracket	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



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