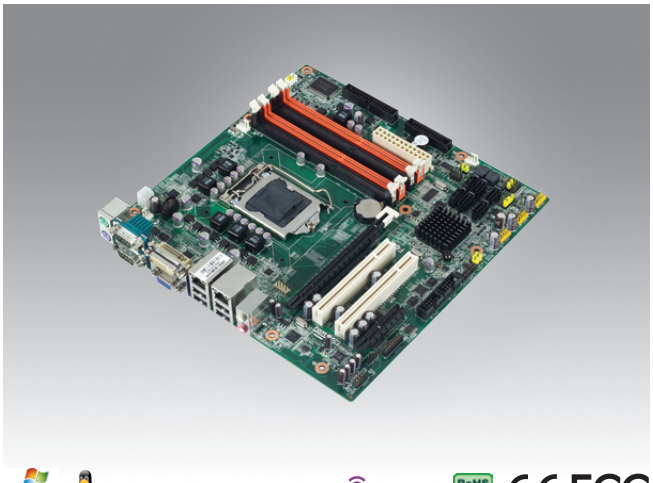
AIMB-580

Intel® Core™ i7/i5/i3/Pentium®/Xeon LGA1156 mATX with CRT/DVI, 4 COM, Dual LAN



Features

- Supports Intel® Core™ i7/i5/i3/Pentium/Xeon processor with Q57/3450 chipset
- Four DIMM sockets support up to 16 GB DDR3 800/1066/1333 MHz SDRAM
- Supports dual display of CRT and DVI and dual GbE LAN
- Supports SATA RAID 0, 1, 5, 10, AMT 6.0, TPM 1.2 (optional)
- Supports SUSIAccess and Embedded Software APIs

Software APIs: SMBus, H/W Monitor, Watchdog, GPIO

Utilities: BIOS flash, Monitoring, Embedded Security ID

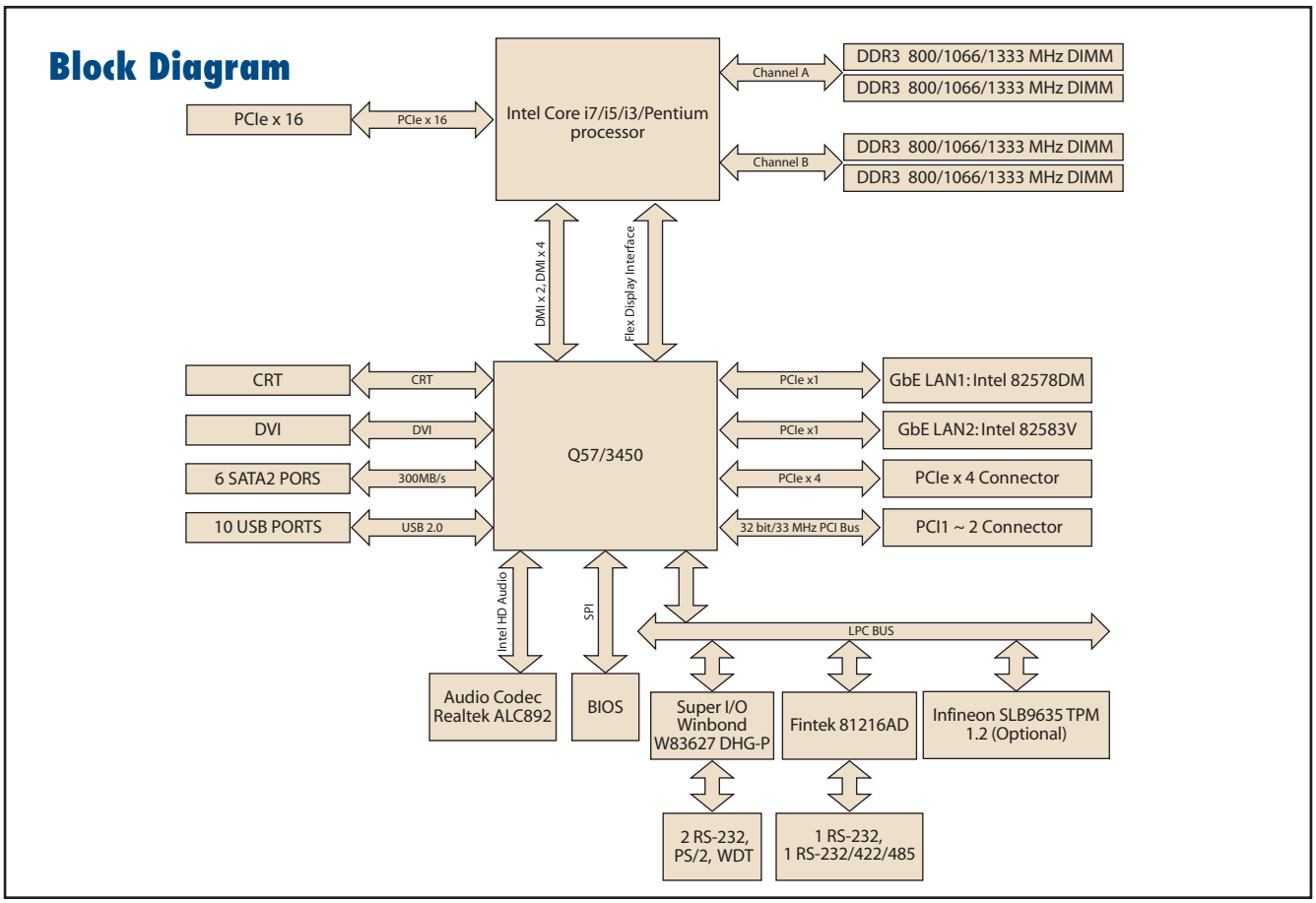
Specifications

Processor System	CPU	Xeon 34xx	Intel Core i7 8xx	Intel Core i5 7xx	Intel Core i5 6xx	Intel Core i3 5xx	Intel Pentium G69xx
	Core Number	4	4	4	2	2	2
	Max. Speed	2.93 GHz	2.93 GHz	2.66 GHz	3.3 GHz	3.06 GHz	2.8 GHz
	Integrated Graphics	No	No	No	Yes	Yes	Yes
	L2 Cache	8 MB	8 MB	8 MB	4 MB	4 MB	3 MB
	Supports Model	WG2	QG2	QG2	WG2/QG2	WG2/QG2	WG2/QG2
	Chipset	Q57/3450					
	BIOS	AMI 64 Mbit SPI					
Expansion Slot	PCI	32-bit/33 MHz, 2 slots					
	PCIe x4	1.0 GB/s per direction, 1 slot					
	PCIe x16 (Gen2)	8 GB/s per direction, 1 slot					
Memory	Technology	Dual Channel DDR3 800/1066/1333 MHz SDRAM					
	Max. Capacity	16 GB/4 GB per DIMM					
	Socket	4 x 240-pin DIMM					
Graphics	Controller	Intel HD Graphics					
	VRAM	1 GB maximum shared memory with 2 GB and above system memory installed					
	CRT	Supports max resolution 2048 x 1536 at 60 Hz					
	DVI	Supports max resolution 1920 x 1200 at 60 Hz					
	Dual Display	CRT+DVI					
Ethernet	Interface	10/100/1000 Mbps					
	Controller	GbE LAN1: Intel 82578DM, GbE LAN2: Intel 82583V					
	Connector	RJ-45 x 2					
SATA	Max Data Transfer Rate	300 MB/s (SATA 2.0)					
	Channel	6					
Rear I/O	CRT	1					
	DVI-D	1					
	Ethernet	2					
	USB	4 (USB 2.0 compliant)					
	Audio	2 (Mic-in, Line-out)					
	Serial	2 (RS-232)					
	PS/2	2 (1 x keyboard and 1 x mouse)					
Internal Connector	USB	6 (USB 2.0 compliant)					
	Serial	2 (1 x RS-232, 1 x RS-232/422/485 to support auto flow control)					
	IDE	-					
	SATA	6					
	FDD	1					
	Parallel	1					
	IrDA	-					
	GPIO	-					
Watchdog Timer	Output	System reset					
	Interval	Programmable 1 ~ 255 sec/min					
Power Requirements		Intel Core i7-860 2.8 GHz, 2 GB DDR3 1333 MHz SDRAM x 4 pcs					
	Power On	5 V	3.3 V		12 V	5 Vsb	-12 V
		4.21 A	1.22 A		8.01 A	0.78 A	0.05 A
Environment		Operating				Non-Operating	
	Temperature	0 ~ 60° C (32 ~ 140° 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")					

All product specifications are subject to change without notice

Last updated : 15-Jan-2014

Block Diagram



Ordering Information

Part Number	Chipset	Memory	CRT	DVI	USB	COM	GbE LAN
AIMB-580QG2-00A1E	Q57	Non-ECC	Yes	Yes	10	4	2
AIMB-580WG2-00A1E	3450	ECC/Non-ECC	Yes	Yes	10	4	2

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-RP3P8-12A1E	2U riser card with 2 PCIe x 8 & 1 PCI slots expansion (For WG2 Sku)
AIMB-RF10F-01A1E	1U riser card with 1 PCI e x 16 expansion slot

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

I/O View



AIMB-580QG2-00A1E
AIMB-580WG2-00A1E

Packing List

Part Number	Description	Quantity
1700340640	FDD cable	1
1700003194	SATA HDD cable	2
1703150102	SATA power cable	2
1960019193T100	I/O port bracket	1
2002058000	Startup manual	1
2062058000	Driver CD	1

Optional Accessories

Part Number	Description
1701092300	1-to-4 serial ports cable kit, 28.5 cm
1700002204	Dual port USB cable (27 cm) with bracket
1960047669N001	LGA1156 CPU cooler for 4U and wallmount chassis
1960047831N001	LGA1156 CPU cooler for 2U and wallmount chassis
1960049408N001	LGA1156 CPU cooler for 1U and wallmount chassis
1700008809	Printer port cable kit
1960048353T000	1U I/O port bracket
1950014302N001	Special bracket for riser card AIMB-RP3P8-12A1E

Note: Purchasing AIMB-580's proprietary CPU cooler from Advantech is a must. Other brands' CPU cooler are NOT compatible with AIMB-580.

The complete thermal solution is composed of CPU cooler and system fans to support the CPU TDP as above.

Embedded OS/API

OS/API	Part No.	Description
Win XPE	2070009652	XPE WES2009 Q57_AIMB-280/580/780 V4.0 ENG
	2070009653	XPE WES2009 Q57_AIMB-280/580/780 V4.0 MUI24
Software API	205E580000	SUSI 3.0 SW API for AIMB-580 XP