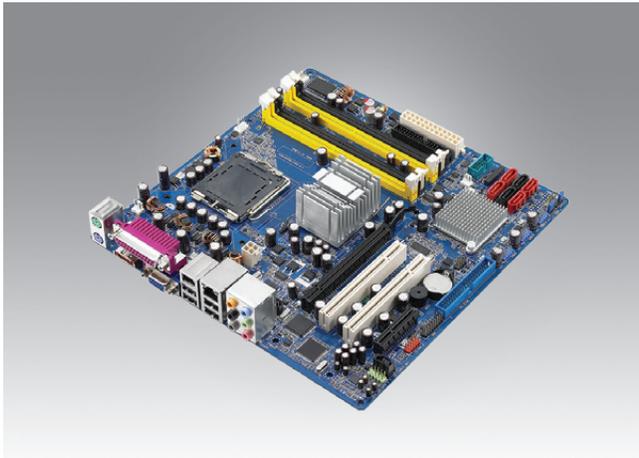# AIMB-564

Intel® Core™2 Quad/Core™2 Duo LGA775 MicroATX with CRT, PCIe, SW RAID, and LAN

Features

- Intel® Q965 chipset 533/800/1066 MHz FSB
- Supports Intel® Core™ 2 Quad/Core™ 2 Duo processor
- Two 240-pin DIMMs up to 8 GB DDR2 533/667/800 MHz SDRAM
- Chipset integrated VGA sharing 256 MB system memory
- Supports SATA RAID 0, 1, 5, and 10
- Supports single 10/100/1000 Mbps Ethernet via dedicated PCIe x1 bus
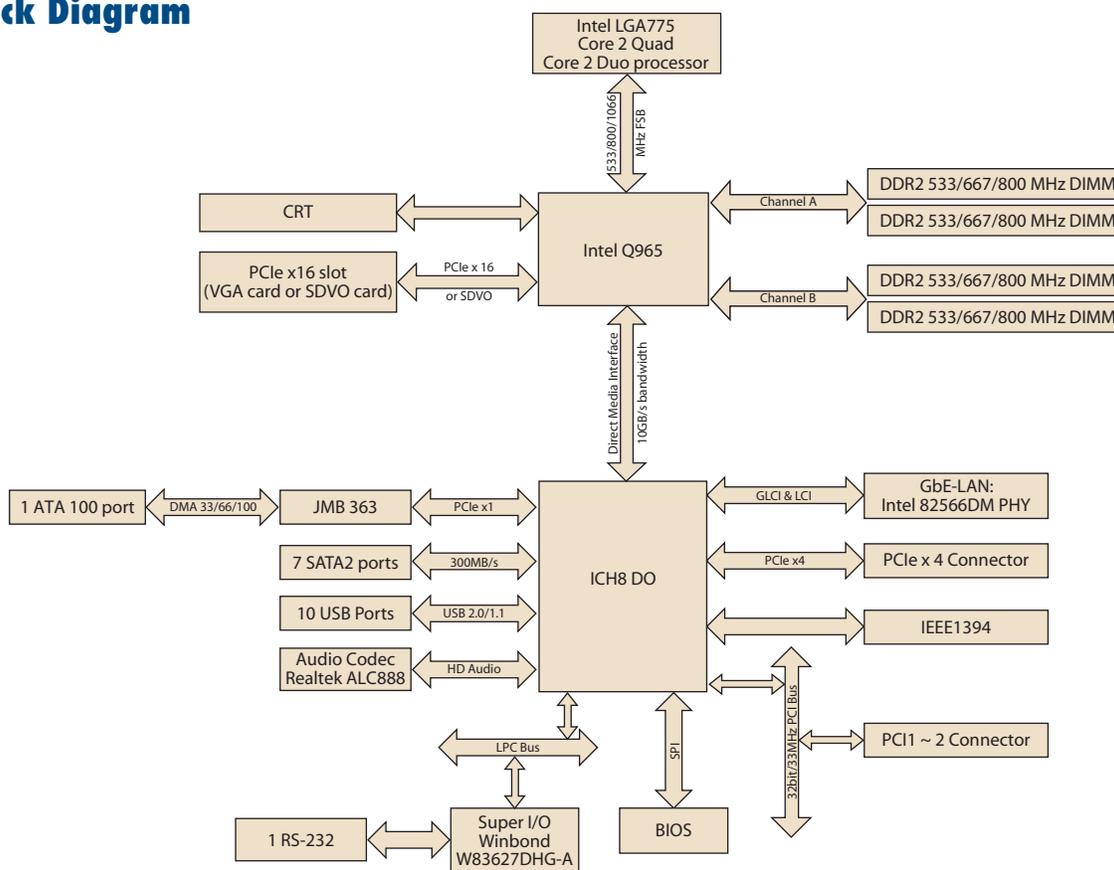- Supports SUSIAccess and Embedded Software APIs

Software APIs: SMBus   H/W Monitor

Utilities: BIOS flash   Monitoring

Specifications

Processor System	CPU (65nm/ 90nm)	Intel Core 2 Quad	Intel Core 2 Duo	Intel Pentium Dual-Core	Intel Pentium 4	Intel Celeron D
	Max. Speed	Q6700 2.66 GHz	E7400 2.8 GHz	E2200 2.2 GHz	672 3.8 GHz	352 3.2 GHz
	L2 Cache	8 MB	3 MB	1 MB	2 MB/1 MB	512 KB
	Chipset	Intel Q965+ICH8 DO				
	BIOS	AMI 16 Mbit, SPI				
	Front Side Bus	533/800/1066 MHz				
Expansion Slot	PCIe x16	4.0 GB/s per direction, 1 slot				
	PCIe x4	1.0 GB/s per direction, 1 slot				
	PCI	32-bit/33 MHz, 2 slots				
Memory	Technology	Dual channel DDR2 533/667/800 MHz SDRAM				
	Max. Capacity	8 GB/2 GB per DIMM				
	Socket	4 x 240-pin DIMM (Non-ECC)				
Graphics	Embedded	Intel GMA 3000 sharing 256 MB system memory				
	Add-on	PCIe x 16 slot				
Ethernet	Interface	10/100/1000 Mbps				
	Controller	GbE LAN: Intel 82566DM				
	Connector	RJ-45 x 1				
SATA	Max. Data Transfer Rate	300 MB/s (SATA 2.0)				
	Channel	7				
EIDE	Mode	ATA 100/66/33				
	Channel	1 (max. 2 devices)				
I/O Interface	CRT	1				
	USB	10 (USB 2.0)				
	Audio	8-CH HD Audio (Mic-in, Line-in, Line-out, CD-in, 6 jacks)				
	Serial	1 (RS-232)				
	Parallel	1 (SPP/EPP/ECP)				
	FDD	1				
	PS/2	2 (1 x keyboard and 1 x mouse)				
	eSATA	1				
	IEEE 1394	2 (1 on rear panel, 1 on internal connector)				
Watchdog Timer	Output	System reset				
	Interval	Programmable 1~255 sec/min				
Power Requirements	Power On	Pentium 4 3.4 GHz, 1 GB SDRAM, 80 GB HDD				
		+12 V	+5 V	+3.3 V	5 Vsb	
		3.07A	10.37A	2.83A	0.46A	
Environment		Operating		Non-Operating		
	Temperature	0 ~ 60° C (32 ~ 131° F), depends on CPU speed and cooler solution		-20 ~ 70° C (-4 ~ 158° F)		
Physical Characteristics	Dimensions (W x D)	244 x 244 mm (9.6" x 9.6")				

Block Diagram

Intel LGA775
Core 2 Quad
Core 2 Duo processor

1533/800/1066 MHz FSB

CRT

PCIe x16 slot
(VGA card or SDVO card)

PCIe x 16
or SDVO

Intel Q965

Channel A

DDR2 533/667/800 MHz DIMM
DDR2 533/667/800 MHz DIMM

Channel B

DDR2 533/667/800 MHz DIMM
DDR2 533/667/800 MHz DIMM

Direct Media Interface
10GB/s bandwidth

1 ATA 100 port

DMA 33/66/100

JMB 363

PCIe x1

ICH8 DO

GLCI & LCI

GbE-LAN:
Intel 82566DM PHY

7 SATA2 ports

300MB/s

PCIe x4

PCIe x 4 Connector

10 USB Ports

USB 2.0/1.1

IEEE1394

Audio Codec
Realtek ALC888

HD Audio

32bit/33MHz PCI Bus

PCI1 ~ 2 Connector

LPC Bus

SPI

1 RS-232

Super I/O
Winbond
W83627DHG-A

BIOS

Ordering Information

Part Number	CRT	GbE LAN
AIMB-564VG-00A1E	Yes	Single

*AIMB-564 cannot be installed in ACP-2000MB and 1U chassis.

**We strongly suggest using only Advantech's certified LGA 775 CPU coolers to ensure board reliability under harsh conditions.

Riser Card

Part Number	Description
AIMB-RP3PF-21A1E	2U riser card for 1 PCIe x16 and 2 PCI expansion

I/O View

AIMB-564VG-00A1E

Packing List

Description	Quantity
IDE HDD cable	1
Serial ATA HDD data cable	4
Serial ATA HDD power cable	2
I/O port bracket	1
Startup manual	1
Utility CD	1

Optional Accessories

Part Number	Description
1750000334	LGA775 CPU cooler (115 W)
1960022033T000	LGA775 CPU cooler for 2U chassis
1700006915	Power relay cable to activate ACP-4000 LED indicators
1700006916	Power relay cable to activate IPC-610H LED indicators

Embedded OS/API

OS/API	Part No.	Description
Win XPE	2070003977	XPE SP2 FP2007 AIMB-564 V3.1 ENG 792.81 MB
	2070006570	XPE FP2007 AIMB-564 V3.01 CHT
Software API	205E564010	SUSI 3.0 SW API for AIMB-564 XP

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