AIMB-762 Socket LGA 775 Intel® Pentium® D / Pentium® 4 / Celeron® D 800 MHz FSB ATX Motherboard with PCI-E, DDR2 and Dual GbE

Packing List

Before you begin installing your card, please make sure that the following materials have been shipped:

- AIMB-762 Pentium® 4 / Celeron® D processor based industrial motherboard
- 1 AIMB-762 startup manual
- 1 CD with driver utility and manual
- 1 FDD cable p/n:1700340640
- 2 Ultra ATA 66/100 HDD cables p/n: 1701400452
- 2 Serial ATA HDD data cable p/n: 1700071000
- 2 Serial ATA HDD power cable p/n: 1703150102
- 1 ATX 12 V power converter cable p/n:170304015K
- 1 COM port cable kit p/n: 1701090401
- 1 I/O port bracket p/n: 1962015680
- 1 jumper package p/n: 9689000068
- 1 warranty card p/n: 2190000902

If any of these items are missing or damaged, contact your distributor or sales representative immediately.

Note: Acrobat Reader is required to view any PDF file. Acrobat Reader can be downloaded at: www.adobe.com/Prodindex/acrobat/readstep.html (Acrobat is a trademark of Adobe).

For more information on this and other Advantech products, please visit our website at:

http://www.advantech.com

http://www.advantech.com/eplatform

For technical support and service, please visit our support website at:

http://www.advantech.com/support

This manual is for the AIMB-762 series Rev. A1

Part No. 2002076210 1st Edition
Printed in Taiwan March 2006

Specifications

Standard SBC Functions

- **CPU:** LGA 775 Pentium D/Pentium 4/Celeron D up to 3.2/3.8/3.06 GHz, FSB 533/800 MHz.The CPU has built-in 2 x 1024KB/2 x 2048KB (for Pentium D CPU), 1024KB/2048KB (for Pentium 4 CPU), 256KB/512 KB (For Celeron D CPU) full-speed L2 cache.
- **BIOS:** Award 8 Mb flash memory BIOS
- **Chipset:** Intel 945G with ICH7R
- **System Memory:** Up to 4 GB; four 240-pin DIMM sockets. Supports dual channel DDR2 400/533/667 SDRAM.

  Note: Due to the inherent limitations of PC architecture, the system may not fully detect 4 GB RAM when 4 GB RAM is installed.
- **SATA2/IDE Interface:** Four on-board serial ATA2 connectors with a data transmission rate of up to 300 MB/s supporting Advanced Host Controller Interface (AHCI) technology. One IDE hard disk drive or two enhanced IDE devices. Supports PIO mode 4 (16.67 MB/s data transfer rate) and ATA 33/66/100 (33/66/100 MB/s data transfer rate) BIOS enabled/disabled.
- **FDD interface:** Supports one FDD
- **Serial ports:** Two serial ports, COM1 is of RS 232; COM2 is of RS 232/422/485.
- **Parallel port:** One parallel port, supports SPP/EPP/ECP mode
- **Keyboard/mouse connector:** Supports one standard PS/2 keyboard and mouse
- **Watchdog timer:** 255 level timer intervals
- **USB 2.0:** Supports up to eight USB 2.0 ports

VGA Interface

- **Chipset:** Chipset integrated VGA controller
- **Display memory:** Dynamically shared system memory up to 224 MB
- **Resolution:** Up to 2048 x 1536 @ 75 MHz refresh rate

Ethernet Interface

- **Single** 10/100/1000Base-T: Intel® 82573
- **Dual** 10/100/1000Base-T: Intel® 82573 x 2

Mechanical and Environmental

- **Dimensions (L x W):** 304.8 x 243.8 mm
- **Power supply voltage:** +5 V, ± 12 V
- **Power requirements:** Maximum: +5 V at 3.10 A, +3.3V at 1.54A, +12V at 9.90 A (Intel Pentium D 3.2GHz (800 MHz FSB), 4 x 1GB DDR2 667 SDRAM)
- **Operating temperature:** 0 ~ 60° C (depending on CPU)
- **Weight:** 0.5 kg (weight of board)

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Jumpers and Connectors

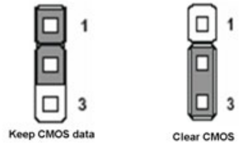
The board has a number of jumpers that allow you to configure your system to suit your application. The table below lists the function of each of the jumpers and connectors.

Other Connectors

Label	Function
JP1	COM2 RS 232/422/485 Mode Selector
CN1	Primary IDE connector
CN3	FDD connector, Supports 360 KB / 1.2 MB / 720 KB / 1.44 MB FDD x 2
CN4	Parallel port, Parallel port x 1, supports SPP/ EPP/ECP mode
CN6	USB port 4, 5
CN7	VGA connector
CN9	Serial port: COM1; RS-232 (D-sub 9-pin connector)
CN10	Serial port: COM2; RS-232 (9-pin connector)
CN11	PS/2 keyboard and mouse connector Cable length: 20 meters
CN12	External keyboard connector (6-pin)
CN13	Infrared connector
CN14	CPU FAN connector
CN15	System FAN connector 1
CN16	Power LED
CN17	External speaker
CN18	Reset connector
CN19	HDD LED connector
CN21	ATX soft power switch (PS_ON)
CN22	HW Monitor Alarm Close: Enable OBS Alarm Open: Disable OBS Alarm
CN29	SM bus connector
CN31	LAN1; USB ports 0, 1
CN32	LAN2; USB ports 2, 3
CN37	System FAN connector 2
CN55	Line Out, Mic IN connector
CN56	CD IN (Audio input from CD-ROM)
CN57	AUX IN connector
CN59	Front panel audio connector
CN62	8-pin Alarm Board Connector
CN63	USB ports 6, 7
CN64	Case Open
CN65	Front Panel LAN indicator connector
SA0	Serial ATA0
SA1	Serial ATA1
SA2	Serial ATA2
SA3	Serial ATA3
ATX1	ATX 12 V auxiliary power connector (for CPU)
ATX3	24-pin ATX power connector

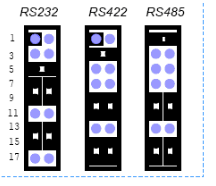
J1: CMOS clear function

Pins	Result
1-2	Keep CMOS data*
2-3	Clear CMOS data



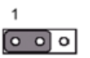
JP1: COM2 RS 232/422/485 Mode Selector

Users can use JP1 to select among RS 232/422/485 modes for COM2 (CN10). The default setting is RS 232.

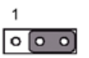


J2: Watchdog timer output option

Closed pins	Result
1-2	IRQ11
2-3	System reset *



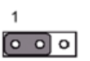
IRQ11
1 - 2 closed



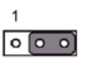
System Reset
2 - 3 closed

J12: ATX, AT mode selector

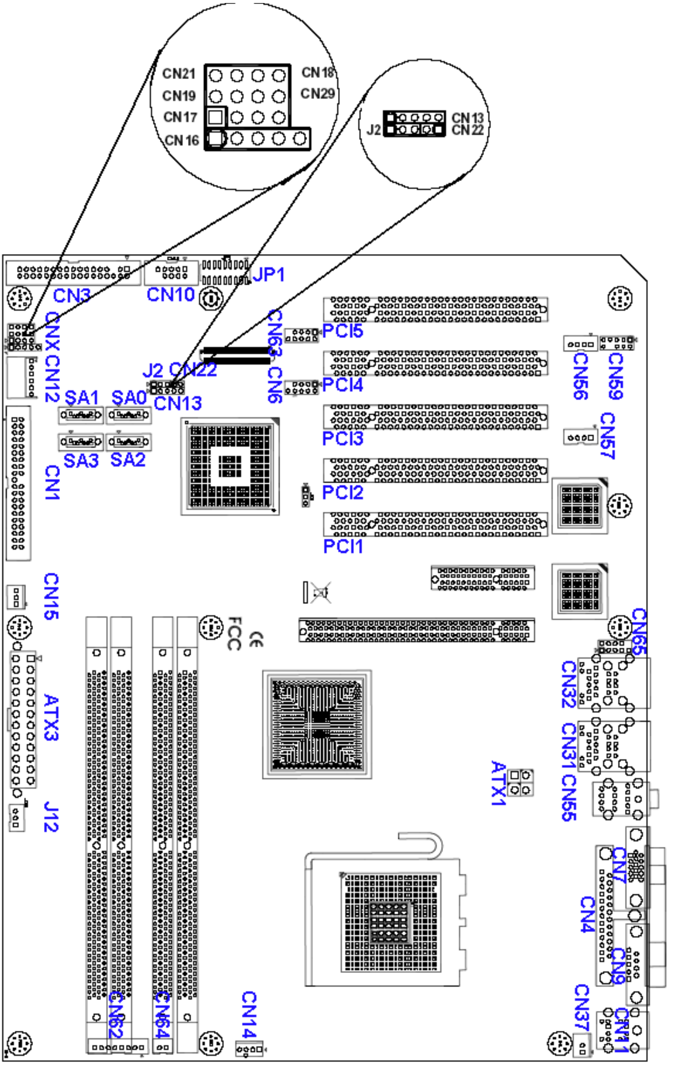
Closed Pins	Result
1-2	AT Mode
2-3	ATX Mode



AT Mode
1 - 2 closed



ATX Mode
2 - 3 closed



Board Layout: Jumper and Connector Locations

Software Installation

The CD disc contains a driver installer program that will lead you through the installation of various device drivers needed to take full advantage of your motherboard

Caution

The computer is supplied with a battery-powered Real-time Clock circuit. There is a danger of explosion if battery is incorrectly replaced. Replace only with same or equivalent type recommended by the manufacturer. Discard used batteries according to manufacturer's instructions.

Specifications

This device complies with the requirements in Part 15 of the FCC rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference

2. This device must accept any interference received, including interference that may cause undesired operation