

AIMB-542 Socket LGA 775 Intel®Pentium®4/ Celeron®D 800 MHz FSB Industrial MicroATX Motherboard with DDR/ AGP/ FE LAN

Packing List

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

- AIMB-542 Pentium® 4 / Celeron® D processor based industrial motherboard
- 1 AIMB-542 startup manual
- 1 CD with driver utility and manual
- 1 FDD cable
- 1 Ultra ATA 66/100 HDD cables
- 2 Serial ATA HDD data cable
- 2 Serial ATA HDD power cable
- 1 I/O port bracket
- 1 Warranty card

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).

Specifications

Standard SBC Functions

- **CPU:** Intel LGA 775 Pentium 4® up to 3.8 GHz, Celeron® D up to 3.06 GHz, FSB 533/800 MHz, (90nm)
- **BIOS:** AMI 4 Mb flash memory BIOS
- **Chipset:** Intel 865G with ICH5
- **System Memory:** Up to 4 GB; four 184-pin DIMM sockets. Supports dual channel DDR 266/333/400 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.
- **SATA/IDE Interface:** Two on-board serial ATA connectors with a data transmission rate of up to 150 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:** One serial RS-232 ports
- **Parallel port:** One parallel port, supports SPP/EPP/ECP mode
- **Keyboard/mouse connector:** Supports one standard PS/2 keyboard and mouse
- **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 64 MB
- **Resolution:** Up to 2048 x 1536 @ 85 MHz refresh rate

Ethernet Interface

- **Single 10/100 Base-T:** Realtek RTL8100C x 1

Mechanical and Environmental

- **Dimensions (L x W):** 244 x 244 mm
- **Power supply voltage:** +3V, +5 V, ± 12 V
- **Power requirements:** Maximum: +12 V @ 8.95 A, +5 V @ 1.51 A, +3.3V @ 5.18 A, +5 Vsb @ 282 mA, -5V @ 9 mA, -12V @ 18mA (Pentium 4 3.4 GHz, 256 MB DDR 400 SDRAM)
- **Operating temperature:** 0 ~ 60° C (depending on CPU's speed and cooler solution)
- **Weight:** 0.5 kg (weight of board)

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-542 series Rev. A1

Printed in Taiwan
P/N: 2002054200

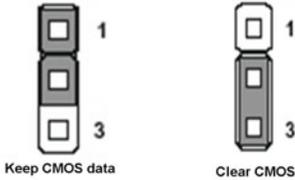
1st Edition
July 2006

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.]

CLRRTC: CMOS clear function

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



*default setting

Safety Information

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

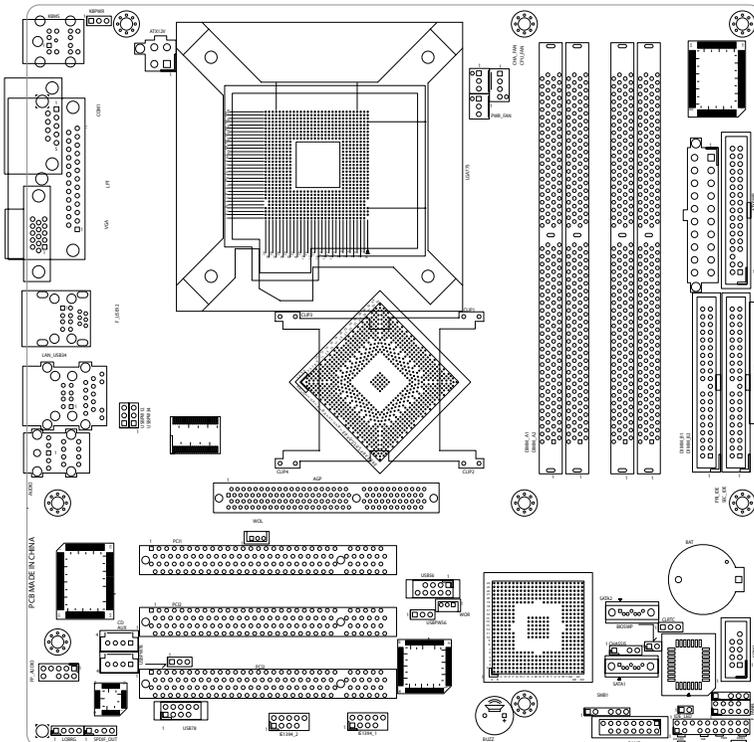
1. This device may not cause harmful interference
2. This device must accept any interference received, including interference that may cause undesired operation

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.



Board Layout