

AIMB-760 Socket LGA 775 Intel® Pentium® 4 / Celeron® D 800 MHz FSB Industrial 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-760 Pentium® 4 / Celeron® D processor based industrial motherboard
- 1 AIMB-760 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: 1960004027
- 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-760 series Rev. A1

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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
- **BIOS:** Award 4 Mb flash memory BIOS
- **Chipset:** Intel 915GV with ICH6
- **System Memory:** Up to 4 GB; four 240-pin DIMM sockets. Supports dual channel DDRII 400/533 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:** Four 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:** Two 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
- **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 128 MB
- **Resolution:** Up to 2048 x 1536 @ 85 MHz refresh rate

Ethernet Interface

- **Single 10/100/1000Base-T:** Broadcom BCM5721 x 1
- **Dual 10/100/1000Base-T:** Broadcom BCM5721 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 @ 6.64 A, +12 V @ 12.59 A (3.4 GHz Intel Pentium 4 with 800 MHz FSB, 2 x 256 MB, 2 x 512 MB DDRII 533 SDRAM)
- **Operating temperature:** 0 ~ 60° C (depending on CPU's speed and cooler solution)
- **Weight:** 0.5 kg (weight of board)

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.

J1: CMOS clear function

Closed Pins Result

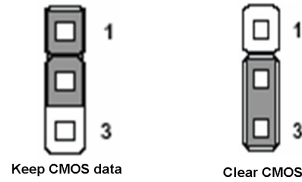
| Pins | Result |
|------|-----------------|
| 1-2 | Keep CMOS data* |
| 2-3 | Clear CMOS data |

J12: ATX, AT 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 |

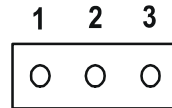


*default setting

J2: Watchdog timer output option

Closed pins Result

| | |
|-----|----------------|
| 1-2 | IRQ11 |
| 2-3 | System reset * |



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.

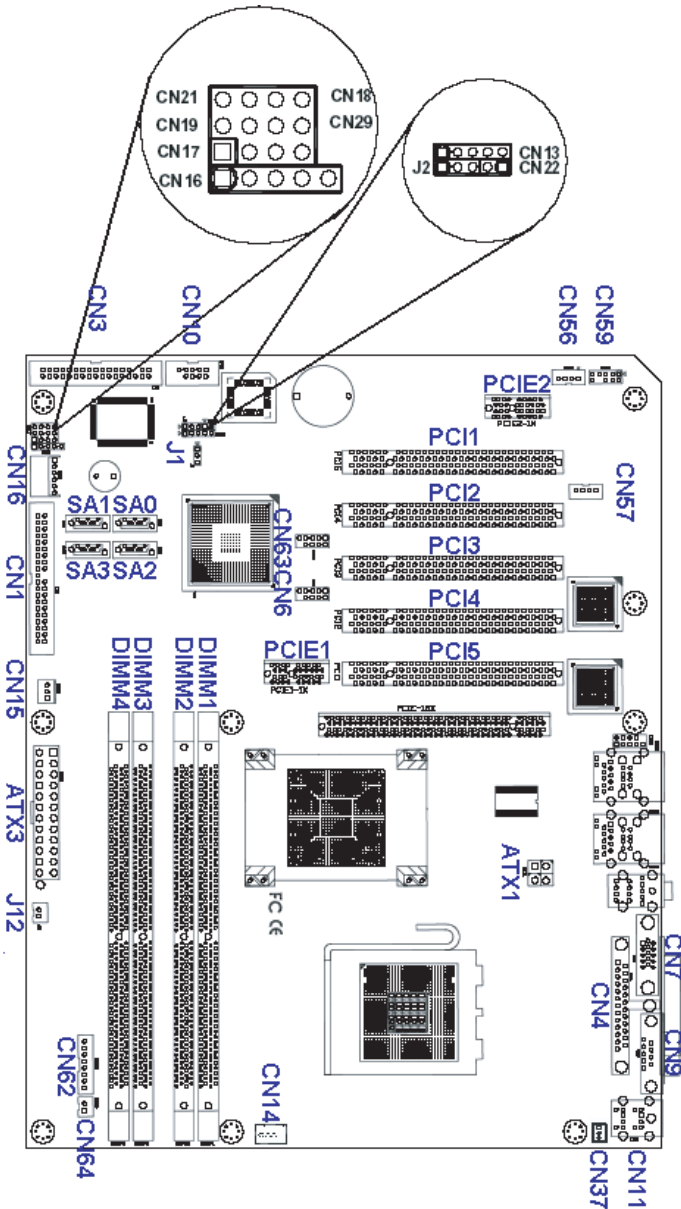
Caution

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.

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



Board Layout: Jumper and Connector Locations