AIMB-750 Socket 479 Intel®Pentium®M/Celeron®M Industrial ATX Motherboard with DDR/AGP/Dual GbE/ 400 MHz FSB

Packing List

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

AIMB-750 Pentium® M/Dothan® processor-based industrial motherboard

1 AIMB-750 Startup Manual	
1 CD with driver utility and manual (in PDF format)	
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 12V power converter cable	p/n: 170304015K
Dual COM port cable kit	p/n: 1701092300
1 I/O port bracket	p/n: 1962015680
1 Low profile CPU cooler	p/n: 1960001631
1 Two USB ports ext kit (optional)	p/n: 1700100170
Warranty certificate	

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

Note 1:   For detailed contents of the AIMB-750, please refer to the enclosed CD-ROM (in PDF format).

Note 2:   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/nc

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

http://service.advantech.com.tw/eservice/

This manual is for the AIMB-750 series Rev. A1.

Specifications

Standard Motherboard Functions

CPU: Intel® socket 479 Pentium® M 2.1 GHz and above, and Celeron® M 1.5 GHz and above, FSB 400 MHz; suppports Intel Mobile Voltage Positioning (Intel® MVP IV) technology.

L2 Cache: CPU built-in Pentium® M 1024/2048 KB and Celeron® M 512/1024 KB full-speed L2 cache

BIOS: Award 4 Mb Flash memory BIOS

Chipset: Intel 855GME with 6300ESB

System Memory: Single Channel; Two 184-pin DIMM

SATA/IDE interface: Supports up to two independent Serial ATA hard drives (up to 150MB/s) and two IDE hard disk drives or four enhanced IDE devices. BIOS enabled/disabled

FDD interface: Supports one FDD

Serial ports: Two serial RS-232 ports

Parallel port: One parallel port support

Keyboard/mouse connector: Supports one standard PS/2 keyboard and mouse

Watchdog timer: 255 level timer intervals

USB (2.0): 4 Universal Serial Bus ports

VGA Interface

Chipset: Intel 855GME integrated

Interface: Intel Extreme Graphics Architecture

Display memory: Share system memory up to 64 MB, BIOS selectable

Resolution: up to 2048x1536 @ 75Hz

AGP Interface

AGP port: One 1x/2x/4x slot, 0.8V and 1.5V

Ethernet Interface

Chipset:

LAN1: Intel 82551QM(10/100Base-T); Intel 82541GI(10/ 100/1000Base-T)

LAN2: Intel 82551QM(10/100Base-T); Intel 82541GI(10/ 100/1000Base-T)

Connector: On-board RJ-45 connector x 2

Mechanical and Environmental

Dimensions (L x W): 304.8 x 243.1 mm (12" x 9.6")

Power supply voltage: ±3.3 V ±5 V ± 12 V

Power requirements: Typical: +3.3V : 4.23A, +5V: 1.35A , +12V: 4.17A (Intel Pentium® M 1.7 GHz, 512MB DDR 333)

Operating temperature: 0 ~ 60 C (depending on CPU)

Weight: 0.7 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.
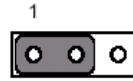
The table below lists the function of each of the jumpers and connectors.

Label	Function
J1	CMOS clear
J2	Watchdog timer output selection
J7	VGA controller temperature sensor
J8	PCI slots 3.3V / 5V selection
J9	AGP/DVI selection

Label	Function
CN1	Primary IDE connector
CN2	Secondary IDE connector
CN3	Floppy drive connector
CN4	Parallel port
CN6	USB port 4, 5 / 0, 1 (on board)
CN7	VGA connector
CN9	Serial port: COM1
CN10	Serial port: COM2 (10-pin connector)
CN11	PS/2 keyboard and mouse connector
CN12	External keyboard connector
CN14	CPU FAN connector
CN15	System FAN connector 1
CN16	Power LED and keyboard lock
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
CN23	Serial port connector COM3
CN29	SM BUS Connector PIN1: SMB_DATA PIN2: SMB_CLOCK
CN31	USB port 0, 1 & LAN1
CN32	USB port 2, 3 & LAN2
CN37	System FAN connector
CN44	CF socket (Optional), Master mode only
CN55	Line Out, MIC IN connector
CN56	CD IN (Audio input from CD-ROM)
CN57	AUX IN connector
CN58	MDM IN connector
CN59	FP AUDIO connector
CN62	8-pin Alarm Board connector
CN64	Case Open connector
CN65	Front Panel LAN LED connector
SA0	SerialATA 0
SA1	SerialATA 1
ATX1	ATX 12V Auxiliary power connector
ATX2	ATX power connector
VCN6	LVDS connector (DF13-40DP-1.25mm)
VP3	5-pin LCD panel power connector

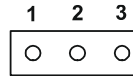**J1: CMOS clear function**

Pins	Result
1-2 (closed)	Keep CMOS data*
2-3 (closed)	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.
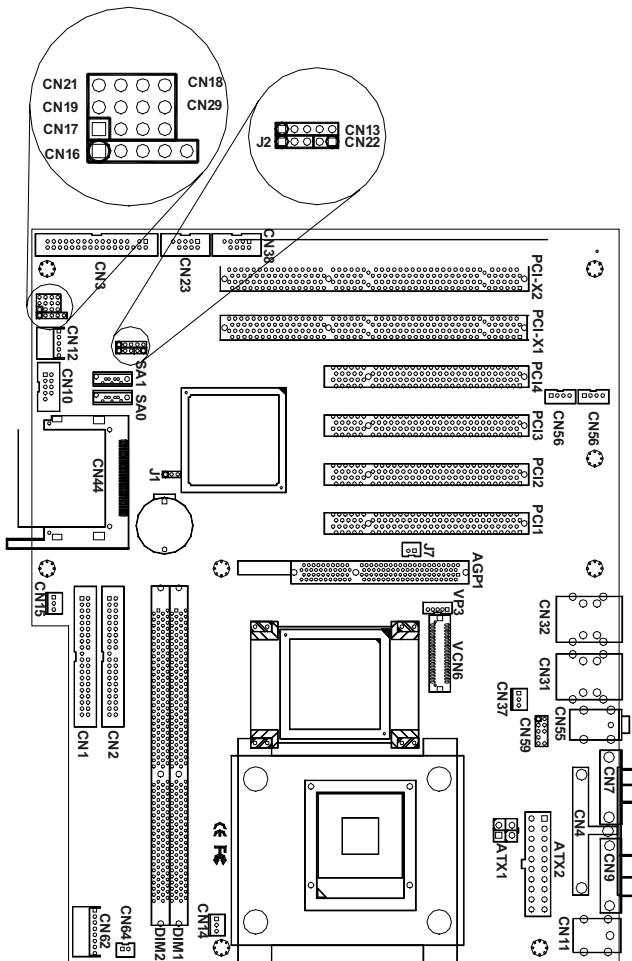
Caution

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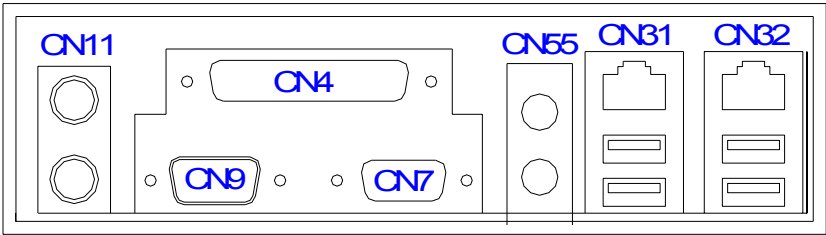
FCC: This device complies with the requirements in Part 15 of the FCC rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and

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

CAUTION!! Danger of explosion if battery is incorrectly replaced. The battery doesn't need to be charged. Replace only with Advantech-specified batteries.

Board Layout: Jumper and Connector Locations

CN11 **CN55** **CN31** **CN32**
CN4
CN9 **CN7**

I/O Connectors