ADVANTECH

AIMB-767 Socket LGA 775 Intel® Core™ 2 Quad / Core™ 2 Duo / Intel® Pentium™/ Celeron™ FSB 1333 MHz Processor-based ATX Motherboard with VGA/ DVI, 4 COM, and Dual LAN
Startup Manual

Packing List

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

• AIMB-767 ATX IMB
• 1 AIMB-767 Startup Manual
• 1 Driver CD (User Manual file included)
• 2 Serial ATA HDD data cables
• 2 Serial ATA HDD power cables
• 1 COM Port cables (2 to 2)
• 1 I/O port bracket
• 1 jumper package
• 1 warranty card

If any of these items are missing or damaged, please 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/Products/acrobat/readstep2. 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-767 series Rev. A1

Specifications

Standard SBC Functions

• **CPU:** LGA775 Intel Core 2 Quad/Core 2 Due/Pentium Dual Core/Celeron
• **BIOS:** AMI 16 Mb SPI BIOS
• **FSB:** 800/1066/1333 MHz
• **Chipset:** G41 with ICH7R
• **System memory:** Up to 4 GB with two 240-pin DIMM sockets. Supports dual channel DDR3 800/1066 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 II Interface:** Four on-board serial SATA II connectors with a data transmission rate of up to 300 MB/s supporting Advanced Host Controller Interface (AHCI) technology.
• **FDD interface:** Supports one FDD
• **Serial ports:** Four serial ports, COM1,COM2 and COM4 are RS-232; COM3 is RS-232/422/485 with auto-flow control.
• **Keyboard/mouse connector:** Supports 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 352 MB.
• **Resolution:** DVI up to resolution 1920 x 1200 @ 60 Hz refresh rate, Supports VGA up to resolution 2048 x 1536 @ 75 Hz refresh rate.

Ethernet interface

• **Interface:** 10/100/1000 Mbps
• **Controller:** LAN1: Intel 82583V; LAN2: Intel 82583V

Mechanical and Environmental

• **Dimensions (L x W):** 304.8 x 228.6 mm
• **Power supply voltage:** +3.3 V, +5 V, ±12 V, 5 VSB
• **Power requirements:** Maximum: +5 V at 3.12 A, +3.3 V at 0.28 A, +12 V at 2.52 A, +5 VSB at 0.6 A, -12 V at 0.24 A (Intel Core 2 Quad Q9400 2.66 GHz (1333 MHz FSB), 2 x 2 GB DDR3 1066 SDRAM)
• **Operating temperature:** 0 ~ 60° C (depending on CPU)
• **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.

Connector/Jumper list	
Label	**Function**
JCMOS1	Clear CMOS
JWDT1	Watchdog Timer Output Option
FDD1	FDD connector
LAN1_USB12	LAN1 / USB port 1, 2
LAN2_USB34	LAN2 / USB port 3, 4
VGA1	VGA connector
DVI1	DVI connector
COM1, COM2, COM4	Serial port: RS-232
COM3	Serial port: COM3; RS-232/422/485 with auto-flow control (9-pin connector)
JSETCOM3	COM3 RS-232/422/485 Jumper Setting
KBMS1	PS/2 Keyboard and Mouse connector
KBMS2	External Keyboard and Mouse connector (6-pin)
JFP1	Power Switch / Reset connector
JFP2	External Speaker/HDD LED/SMbus Connector
JFP3	Keyboard Lock and Power LED Suspend: Fast flash (ATX/ AT) System On: ON (ATX/ AT) System Off: OFF (AT) System Off: Slow flash (ATX)
JCASE1	Case Open
PSON1	AT(1-2) / ATX(2-3)
VOLT1	Voltage Monitoring for Alarm Board
CPUFAN1	CPU FAN connector (4-pin)
SYSFAN1	System FAN connector (3-pin)
SYSFAN2	System FAN connector (3-pin)
LANLED1	Front Panel LAN Indicator connector
AUDIO1	Audio connector
FPAUD1	HD Audio Front Panel Pin Header
USB56	USB port 5, 6
USB78	USB port 7, 8
SATA1	Serial ATA1

Jumpers and Connectors

SATA2	Serial ATA2
SATA3	Serial ATA3
SATA4	Serial ATA4
ATX12V1	ATX 12V Auxiliary power connector (for CPU)
EATXPWR1	ATX 24 Pin Main power connector (for System)
SPDIF_OUT1	SPDIF Audio out pin header
SPI_CN1	SPI connector for flashing BIOS
LPT1	Parallel port, supports SPP/ EPP/ECP mode

JCMOS1: CMOS clear function	
Pins	Result
1-2	Keep CMOS data*
2-3	Clear CMOS data
* Default	
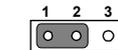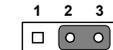
Keep CMOS data   Clear CMOS data

JSETCOM3: COM3 RS-232/422/485 Mode Selector

Users can use JSETCOM3 to select RS-232, RS-422 or RS-485 mode for COM3. The default setting is RS-232.

RS232   RS422   RS485
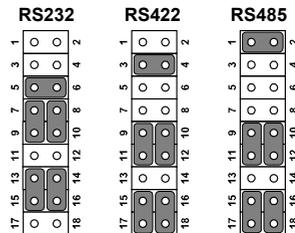
Jumpers and Connectors

JWDT1: Watchdog timer output option

Closed Pins	Result
1-2	No Function
2-3	System reset when it is triggered*
* Default	

NC 1-2 closed   System Reset 2-3 closed

PSON1: ATX, AT mode selector

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

AT Mode 1-2 closed   ATX Mode 2-3 closed

Software Installation

The CD disc contains programs that will lead you through the installation of various device drivers needed to take full advantage of your motherboard.

The computer is supplied with a battery-powered realtime 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.

Declaration of Conformity

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.

Jumper and Connector Locations
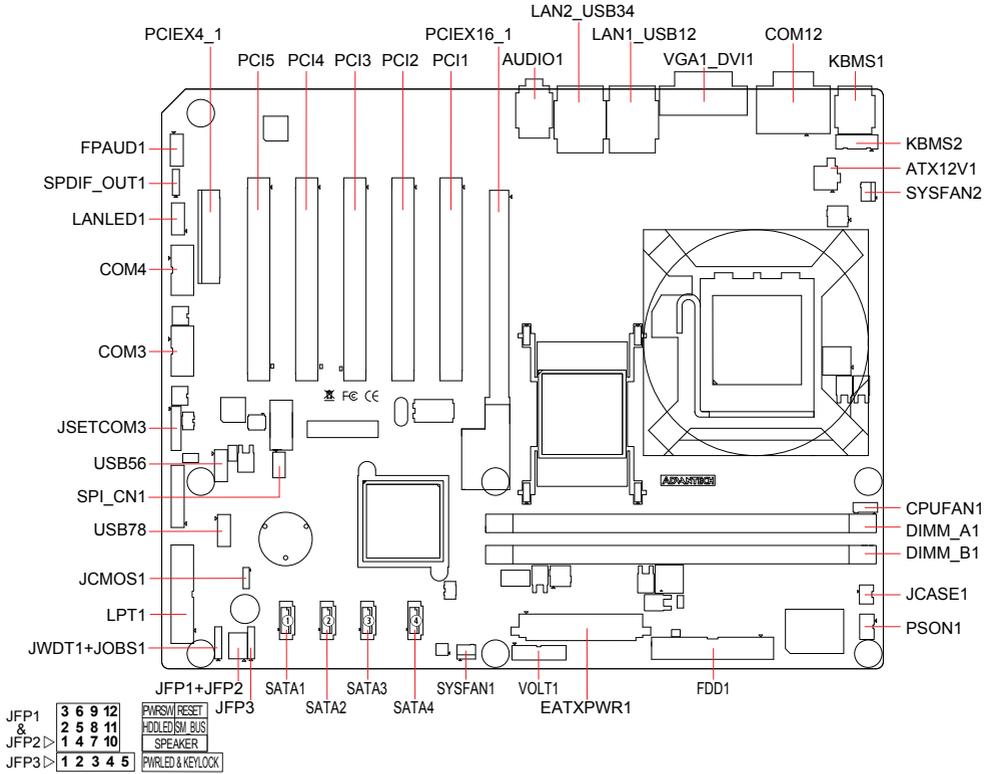
Figure 1: Board Layout - Jumper and Connector Locations