

# GMB-945GC (Intel® LGA775 Core 2 Duo Mini ITX Motherboard with DDR2/2LAN/4COM/PCIe x16)

## Startup Manual

### Packing List

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

1. GMB-945GC Intel® LGA775 Core 2 Duo Mini ITX Motherboard
2. SATA HDD cable x 2
3. SATA Power cable x 2
4. Serial port cable x 2
5. I/O port bracket x 1
6. Startup manual x 1
7. Driver CD x 1

### Optional Cable

1. Dual port USB cable (27 cm) with bracket (P/N: 1700002204)

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/Prodindex/acrobat/readstep.html](http://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 GMB-945GC series Rev. A1

Part No. 2006094510

1st Edition,

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### Specifications

#### Standard SBC Functions

- **CPU:** Intel® LGA775 Core 2 Duo, Pentium® dual-core, Pentium® 4, Celeron® D
- **FSB:** 533/ 800 MHz
- **BIOS:** Award 16 Mbit SPI
- **Chipset:** Intel 945GC with ICH7
- **System Memory:** Up to 2 GB; 200-pin SODIMM x 2, Supports dual channel DDR2 533/667 SDRAM
- **SATA:** Two onboard serial ATA connectors with a data transmission rate up to 300 MB/s
- **Serial ports:** Four serial ports: all are RS-232 ports
- **Keyboard/mouse connector:** Supports one standard PS/2 keyboard, one standard PS/2 mouse
- **Watchdog timer:** 255 level timer intervals
- **USB 2.0:** Supports up to six USB 2.0 ports, four external ports and two onboard pin-header ports

#### Graphic Interface

- **Controller:** Chipset integrated VGA controller
- **Display memory:** Dynamically shared system memory up to 224 MB
- **CRT:** Up to 2048x1536 resolution, 400MHz RAMDAC

#### Ethernet Interface

- **Dual 10/100/1000Base-T GbE LAN** Realtek RTL8111C

#### Mechanical and Environmental

- **Dimensions (L x W):** 170 x 170 mm
- **Power supply voltage:** +5 V, +12 V, +3.3 V, +5 Vsb, -12 V
- **Power requirements:**
  - Intel LGA775 Core 2 Duo 1.8 MHz FSB800 MHz, 2GB DDR2
  - +5 V @ 4 A, +3.3 V @ 1.02 A, +12 V @ 2.35 A, 5 Vsb @ 0.26, -12 V @ 0.12 A (Maximum current values measured under stressful loading test, which CPU, RAM, and Graphics are performed at top speed and full loading.)
- **Operating temperature:** 0 ~ 60° C (depending on CPU)
- **Weight:** 0.365 kg (weight of board)

## Jumpers and Connectors

The board has a number of connectors and jumpers that help to configure the system to suit your application requirements. The tables below list the functions of each connector and jumpers.

Label	Function
JFP2_1	Reset connector HDD LED connector ATX soft power switch (PS_ON) Power/Sleep LED
CMOS1	CMOS clear
PSON1	AT/ATX mode selector
USB56	USB port 5, 6 (on board)
USB 7	USB port 7 (on board)
VGA1	VGA connector
COMD12	Serial port: COM1/2 (rear panel port)
KBMS1	PS/2 keyboard and Mouse connector
CPU_FAN1	CPU fan connector
CHA_FAN1	System fan connector
COM3	Serial port connector
COM4	Serial port connector
LAN1_USB12	LAN1 / USB port 1,2
LAN2_USB34	LAN2 / USB port 3,4
AUDIO2	Line IN, Line Out, Mic IN (Motherboard) connector
EATXPWR1	ATX power connector
SPI_CN1	SPI flash card pin header
SATA1	Serial ATA0 connectors
SATA2	Serial ATA1 connectors

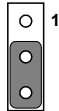
### CMOS1: Clear CMOS

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

\* Default



Keep CMOS data



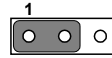
Clear CMOS

## Jumpers and Connectors

### JPSON1: ATX, AT Mode Selector

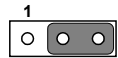
Pins	Result
1-2	AT Mode
2-3*	ATX Mode*

\* Default



AT Mode

1-2 closed



ATX Mode

2-3 closed

## Declaration of Conformity

The 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 as various device drivers needed to take full advantage of your motherboard.

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

# Board Diagram

