

FCC Information and Copyright

This equipment has been tested and found to comply with the limits of a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. There is no guarantee that interference will not occur in a particular installation.

The vendor makes no representations or warranties with respect to the contents here and specially disclaims any implied warranties of merchantability or fitness for any purpose. Further the vendor reserves the right to revise this publication and to make changes to the contents here without obligation to notify any party beforehand.

Duplication of this publication, in part or in whole, is not allowed without first obtaining the vendor's approval in writing.

The content of this user's manual is subject to be changed without notice and we will not be responsible for any mistakes found in this user's manual. All the brand and product names are trademarks of their respective companies.



Dichiarazione di conformità sintetica

Ai sensi dell'art. 2 comma 3 del D.M.
275 del 30/10/2002

Si dichiara che questo prodotto è
conforme alle normative vigenti e
soddisfa i requisiti essenziali richiesti
dalle direttive

2004/108/CE, 2006/95/CE e
1999/05/CE

quando ad esso applicabili

Short Declaration of conformity

We declare this product is complying
with the laws in force and meeting all
the essential requirements as specified
by the directives

2004/108/CE, 2006/95/CE and
1999/05/CE

whenever these laws may be applied

Table of Contents

| | |
|---|-----------|
| Chapter 1: Introduction | 1 |
| 1.1 Before You Start | 1 |
| 1.2 Package Checklist | 1 |
| 1.3 Motherboard Features | 2 |
| 1.4 Rear Panel Connectors | 3 |
| 1.5 Motherboard Layout | 4 |
| Chapter 2: Hardware Installation | 5 |
| 2.1 Installing Central Processing Unit (CPU) | 5 |
| 2.2 FAN Headers | 7 |
| 2.3 Installing System Memory | 8 |
| 2.4 Connectors and Slots | 10 |
| Chapter 3: Headers & Jumpers Setup | 13 |
| 3.1 How to Setup Jumpers | 13 |
| 3.2 Detail Settings | 13 |
| Chapter 4: RAID Functions | 17 |
| 4.1 Operating System | 17 |
| 4.2 Raid Arrays | 17 |
| 4.3 How RAID Works | 17 |
| Chapter 5: Useful Help | 20 |
| 5.1 Driver Installation Note | 20 |
| 5.2 Software | 21 |
| 5.3 Extra Information | 25 |
| 5.4 AMI BIOS Beep Code | 27 |
| 5.5 Troubleshooting | 28 |
| Appendix: SPEC In Other Languages | 30 |
| German | 30 |
| French | 32 |
| Italian | 34 |
| Spanish | 36 |
| Portuguese | 38 |
| Polish | 40 |
| Russian | 42 |
| Arabic | 44 |
| Japanese | 46 |

CHAPTER 1: INTRODUCTION

1.1 BEFORE YOU START

Thank you for choosing our product. Before you start installing the motherboard, please make sure you follow the instructions below:

- Prepare a dry and stable working environment with sufficient lighting.
- Always disconnect the computer from power outlet before operation.
- Before you take the motherboard out from anti-static bag, ground yourself properly by touching any safely grounded appliance, or use grounded wrist strap to remove the static charge.
- Avoid touching the components on motherboard or the rear side of the board unless necessary. Hold the board on the edge, do not try to bend or flex the board.
- Do not leave any unfastened small parts inside the case after installation. Loose parts will cause short circuits which may damage the equipment.
- Keep the computer from dangerous area, such as heat source, humid air and water.
- The operating temperatures of the computer should be 0 to 45 degrees Celsius.

1.2 PACKAGE CHECKLIST

- ✚ HDD Cable X 1 (optional)
- ✚ Serial ATA Cable X 2
- ✚ Rear I/O Panel for ATX Case X 1
- ✚ User's Manual X 1
- ✚ Fully Setup Driver CD X 1
- ✚ Serial ATA Power Cable X 1 (optional)
- ✚ FDD Cable X 1 (optional)
- ✚ USB 2.0 Cable X1 (optional)

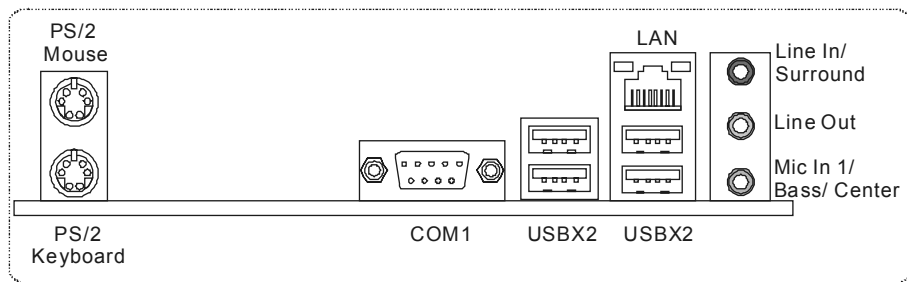
Note: The package contents may be different due to area or your motherboard version.

1.3 MOTHERBOARD FEATURES

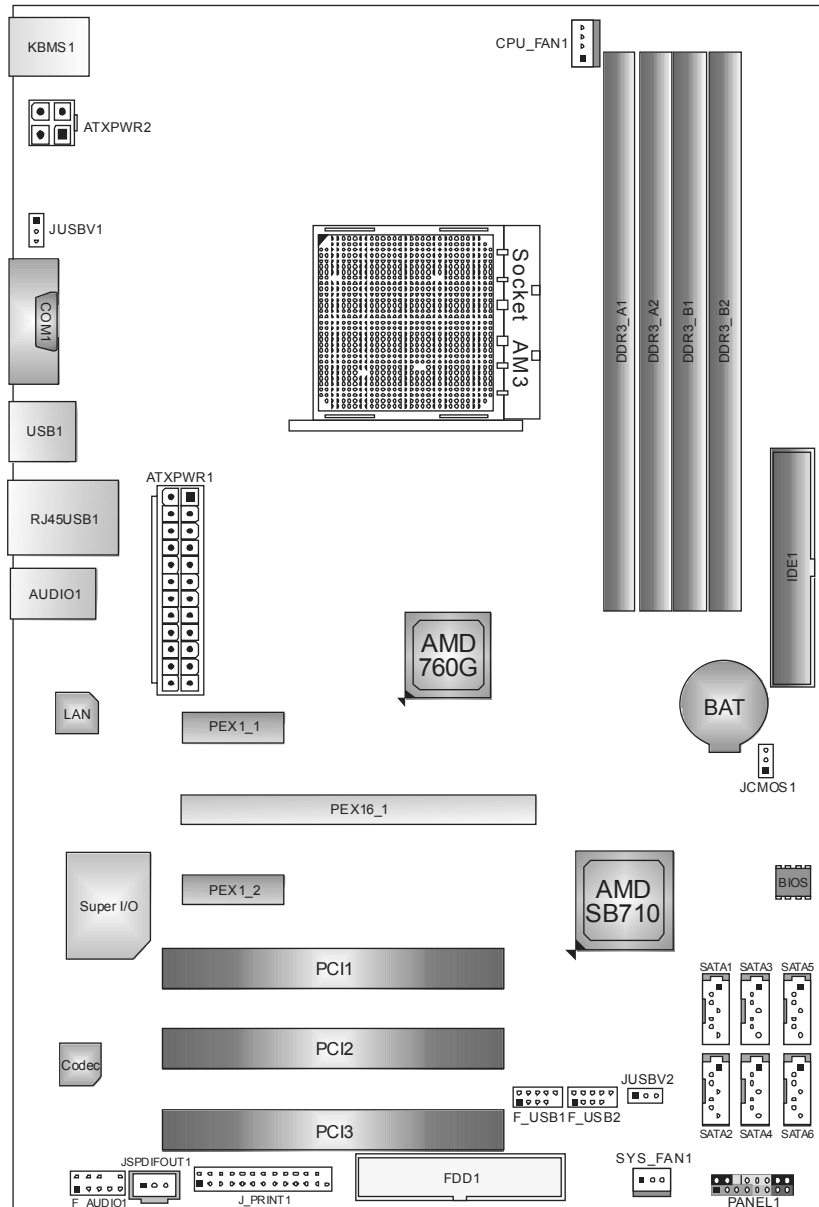
| SPEC | | | |
|--------------------|--|----|---|
| CPU | Socket AM3 | | AMD 64 Architecture enables 32 and 64 bit computing |
| | AMD Sempron / Athlon II / Phenom II processors (Maximum Watt: 125W) | | Supports Hyper Transport 3.0 |
| | | | |
| FSB | Support HyperTransport 3.0 Supports up to 5.2 GT/s Bandwidth | | |
| Chipset | Northbridge: AMD 760G Southbridge: AMD SB710 | | |
| Super I/O | ITE 8728F Provides the most commonly used legacy Super I/O functionality | | Low Pin Count Interface Environment Control initiatives H/W Monitor ITE's "Smart Guardian" function |
| Main Memory | DDR3 DIMM Slots x 4 Max Memory Capacity 16GB Each DIMM supports 512MB/ 1GB/2GB/4GB DDR3 | | Dual Channel Mode DDR3 memory module Supports DDR3 800 / 1066 / 1333 Supports DDR3 1600 (OC) Registered DIMM and ECC DIMM is not supported |
| IDE | Integrated IDE Controller | | Multi-word DMA, and Ultra DMA 33/66/100/133 modes |
| SATA II | Integrated Serial ATA Controller | | Data transfer rates up to 3 Gb/s SATA Version 2.5 specification compliant |
| LAN | Realtek RTL 8111E | | 10 / 100 /1000 Mb/s auto negotiation Half / Full duplex capability |
| Sound | ALC662 | | 5.1 channels audio out High Definition Audio |
| Slots | PCI Express Gen2 x16 slot | x1 | Supports PCI-E Gen2 x16 expansion cards |
| | PCI Express Gen2 x1 slot | x2 | Supports PCI-E Gen2 x1 expansion cards |
| | PCI slot | x3 | Supports PCI expansion cards |
| On Board Connector | Floppy Connector | x1 | Each connector supports 2 Floppy drives |
| | IDE Connector | x1 | Each connector supports 2 IDE device |
| | SATA Connector | x6 | Each connector supports 1 SATA devices |
| | Front Panel Connector | x1 | Supports front panel facilities |
| | Front Audio Connector | x1 | Supports front panel audio function |

| SPEC | | | |
|---------------------|-------------------------|----|--|
| | S/PDIF Out Connector | x1 | Supports digital audio out function |
| | CPU Fan Header | x1 | CPU Fan power supply (with Smart Fan function) |
| | System Fan Header | x1 | System Fan Power supply |
| | CMOS Clear Header | x1 | Restore CMOS data to factory default |
| | USB Connector | x2 | Each connector supports 2 front panel USB ports |
| | Power Connector (24pin) | x1 | Connects to Power supply |
| | Power Connector (4pin) | x1 | Connects to Power supply |
| | Printer Port Connector | x1 | Each connector supports 1 Printer port |
| Rear Panel I/O | PS/2 Keyboard | x1 | Connects to PS/2 Keyboard |
| | PS/2 Mouse | x1 | Connects to PS/2 Mouse |
| | Serial Port | x1 | Connects to RS-232 Port |
| | LAN port | x1 | Connect to RJ-45 ethernet cable |
| | USB Port | x4 | Connect to USB devices |
| | Audio Jack | x3 | Provide Audio-In/Out and microphone connection |
| Board Size | 205 mm(W) x 305 mm(L) | | ATX |
| Special Features | RAID 0 / 1 / 10 support | | |
| OS Support | Windows XP / Vista / 7 | | Biostar reserves the right to add or remove support for any OS With or without notice. |

1.4 REAR PANEL CONNECTORS



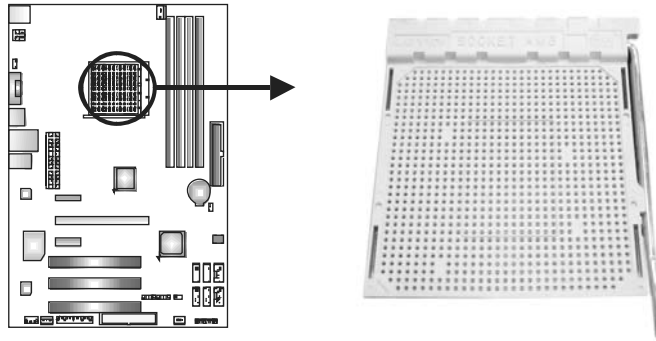
1.5 MOTHERBOARD LAYOUT



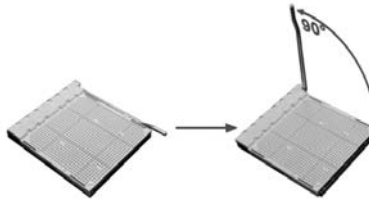
Note: ■ represents the 1st pin.

CHAPTER 2: HARDWARE INSTALLATION

2.1 INSTALLING CENTRAL PROCESSING UNIT (CPU)



Step 1: Pull the lever toward direction A from the socket and then raise the lever up to a 90-degree angle.

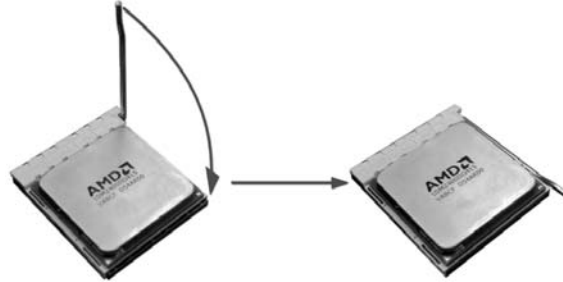


Step 2: Look for the white triangle on socket, and the gold triangle on CPU should point towards this white triangle. The CPU will fit only in the correct orientation.



Motherboard Manual

Step 3: Hold the CPU down firmly, and then close the lever toward direct B to complete the installation.



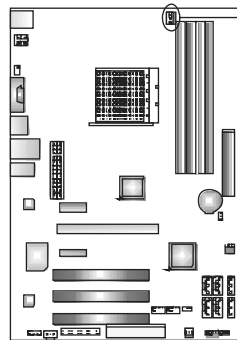
Step 4: Put the CPU Fan on the CPU and buckle it. Connect the CPU FAN power cable to the CPU_FAN1. This completes the installation.

Note: Please update the BIOS to the latest version while using AM2+/AM3 CPUs. Due to the latest CPU transition, you may encounter the situation that the new system failed to boot while using new AM2+/AM3 CPUs. In this case, please install one standard AM2 CPU to boot your system, and update the latest BIOS from our website for AM2+/AM3 CPUs support.

2.2 FAN HEADERS

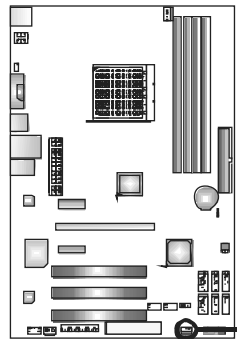
These fan headers support cooling-fans built in the computer. The fan cable and connector may be different according to the fan manufacturer. Connect the fan cable to the connector while matching the black wire to pin#1.

CPU_FAN1: CPU Fan Header



| Pin | Assignment |
|-----|----------------------------|
| 1 | Ground |
| 2 | +12V |
| 3 | FAN RPM rate sense |
| 4 | Smart Fan Control (By Fan) |

SYS_FAN1: System Fan Header



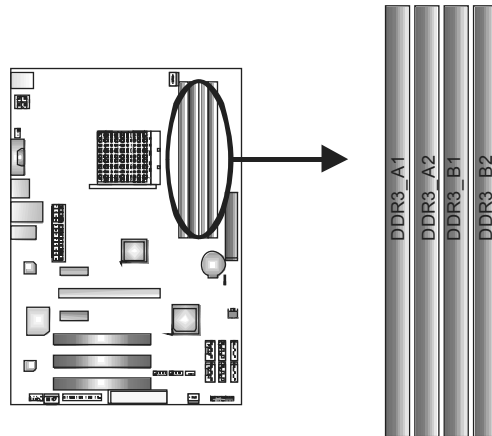
| Pin | Assignment |
|-----|--------------------|
| 1 | Ground |
| 2 | +12V |
| 3 | FAN RPM rate sense |

Note:

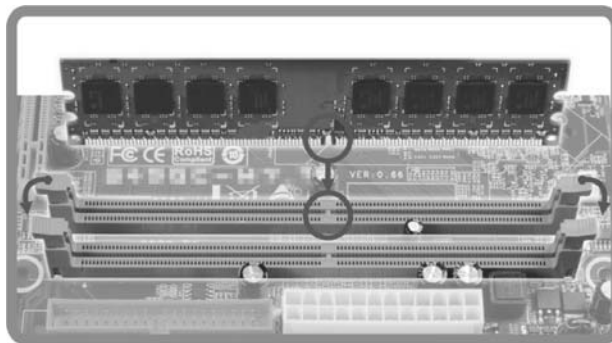
The CPU_FAN1 and SYS_FAN1 support 4-pin and 3-pin head connector. When connecting with wires onto connectors, please note that the red wire is the positive and should be connected to pin#2, and the black wire is Ground and should be connected to GND.

2.3 INSTALLING SYSTEM MEMORY

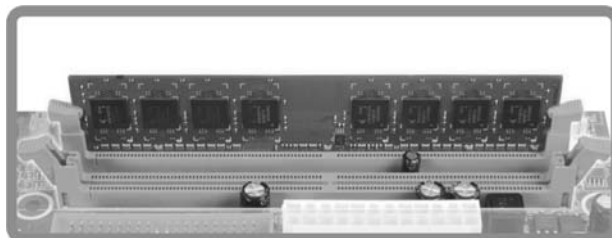
A. DDR3 Modules



1. Unlock a DIMM slot by pressing the retaining clips outward. Align a DIMM on the slot such that the notch on the DIMM matches the break on the Slot.



2. Insert the DIMM vertically and firmly into the slot until the retaining chip snap back in place and the DIMM is properly seated.



B. Memory Capacity

| DIMM Socket Location | DDR3 Module | Total Memory Size |
|----------------------|-------------------|-------------------|
| DIMMA1 | 512MB/1GB/2GB/4GB | Max is 16GB. |
| DIMMB1 | 512MB/1GB/2GB/4GB | |
| DIMMA2 | 512MB/1GB/2GB/4GB | |
| DIMMB2 | 512MB/1GB/2GB/4GB | |

C. Dual Channel Memory installation

Please refer to the following requirements to activate Dual Channel function:

Install memory module of the same density in pairs, shown in the table.

| Dual Channel Status | DDR3_A1 | DDR3_A2 | DDR3_B1 | DDR3_B2 |
|---------------------|---------|---------|---------|---------|
| Enabled | X | O | X | O |
| Enabled | O | O | O | O |

(O means memory installed, X means memory not installed.)

The DRAM bus width of the memory module must be the same (x8 or x16)

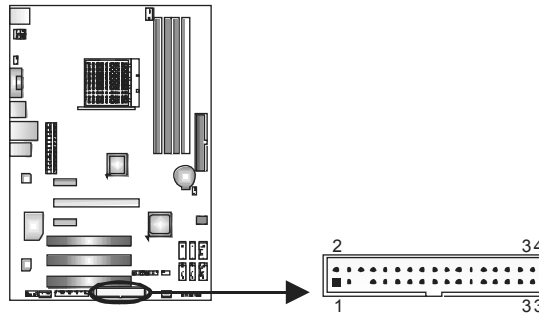
Note:

Memory module must be installed in DDR3-A2 or DDR3-B2 to boot the system.

2.4 CONNECTORS AND SLOTS

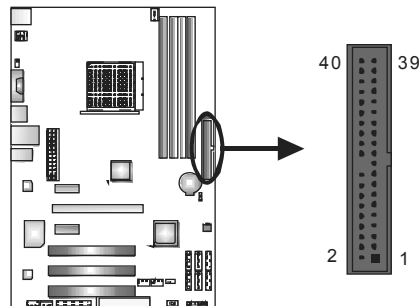
FDD1: Floppy Disk Connector

The motherboard provides a standard floppy disk connector that supports 360K, 720K, 1.2M, 1.44M and 2.88M floppy disk types.



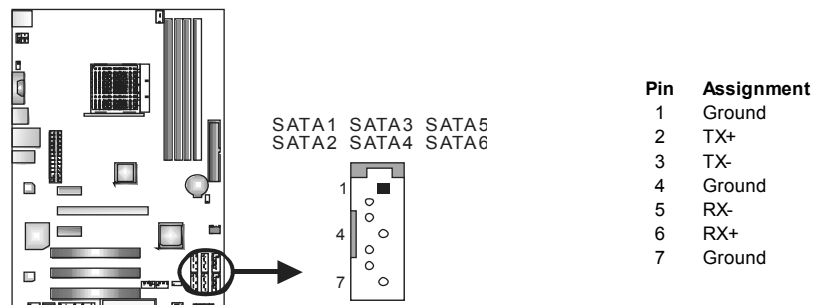
IDE1: Hard Disk Connector

The motherboard has a 32-bit Enhanced IDE Controller that provides PIO Mode 0~4, Bus Master, Multi-word DMA, and Ultra DMA 33/66/100/133 functionality.



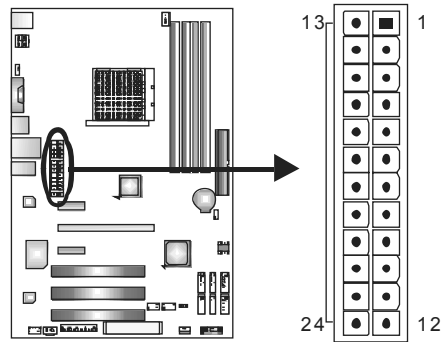
SATA1~SATA6: Serial ATA Connectors

The motherboard has a PCI to SATA Controller with 6 channels SATA interface, it satisfies the SATA 2.0 spec and with transfer rate of 3.0Gb/s.



ATXPWR1: ATX Power Source Connector

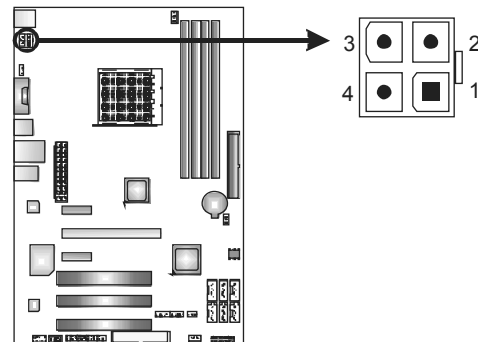
This connector allows user to connect 24-pin power connector on the ATX power supply.



| Pin | Assignment | Pin | Assignment |
|-----|------------|-----|--------------------|
| 13 | +3.3V | 1 | +3.3V |
| 14 | -12V | 2 | +3.3V |
| 15 | Ground | 3 | Ground |
| 16 | PS_ON | 4 | +5V |
| 17 | Ground | 5 | Ground |
| 18 | Ground | 6 | +5V |
| 19 | Ground | 7 | Ground |
| 20 | NC | 8 | PW_OK |
| 21 | +5V | 9 | Standby Voltage+5V |
| 22 | +5V | 10 | +12V |
| 23 | +5V | 11 | +12V |
| 24 | Ground | 12 | +3.3V |

ATXPWR2: ATX Power Source Connector

Connecting this connector will provide +12V to CPU power circuit.



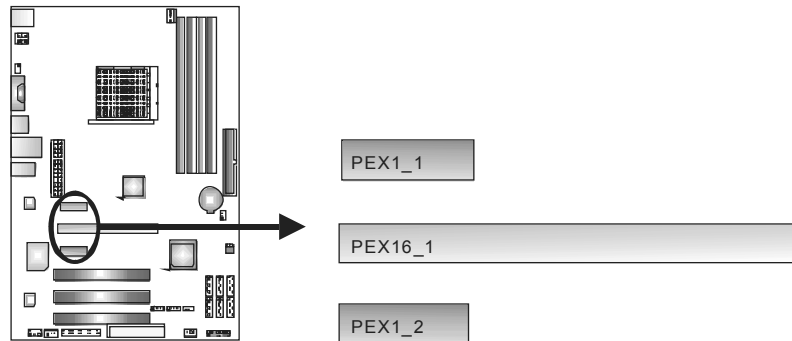
| Pin | Assignment |
|-----|------------|
| 1 | +12V |
| 2 | +12V |
| 3 | Ground |
| 4 | Ground |

PEX16_1: PCI-Express Gen2 x16 Slot

- PCI-Express 2.0 compliant.
- Maximum theoretical realized bandwidth of 8GB/s simultaneously per direction, for an aggregate of 16GB/s totally.

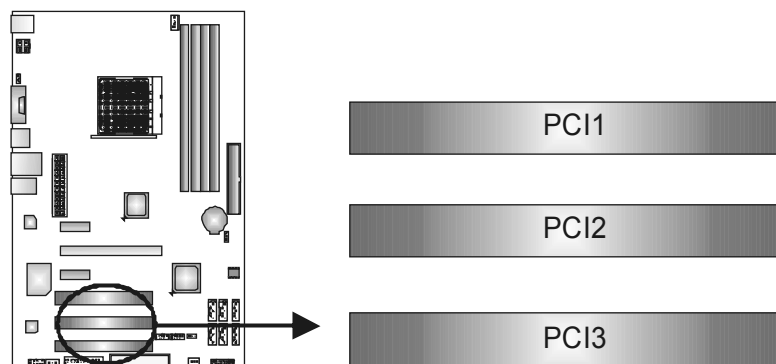
PEX1_1/PEX1_2: PCI-Express Gen2 x1 Slots

- PCI-Express 2.0 compliant.
- Data transfer bandwidth up to 500MB/s per direction; 1GB/s in total.
- PCI-Express Gen2 supports a raw bit-rate of 5.0Gb/s on the data pins.
- 2X bandwidth over the PCI-Express 1.0 architecture.



PCI1~PCI3: Peripheral Component Interconnect Slots

This motherboard is equipped with 3 standard PCI slots. PCI stands for Peripheral Component Interconnect, and it is a bus standard for expansion cards. This PCI slot is designated as 32 bits.



CHAPTER 3: HEADERS & JUMPERS SETUP

3.1 HOW TO SETUP JUMPERS

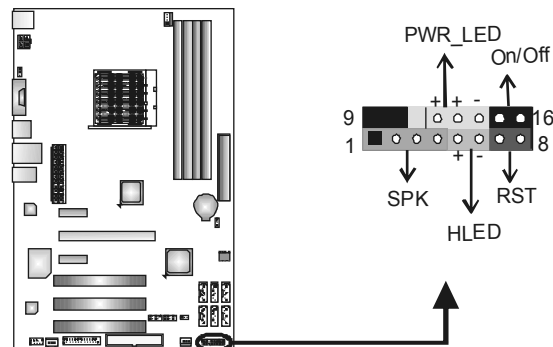
The illustration shows how to set up jumpers. When the jumper cap is placed on pins, the jumper is “close”, if not, that means the jumper is “open”.



3.2 DETAIL SETTINGS

PANEL1: Front Panel Header

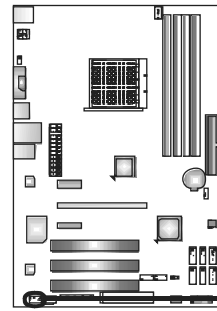
This 16-pin connector includes Power-on, Reset, HDD LED, Power LED, and speaker connection. It allows user to connect the PC case's front panel switch functions.



| Pin | Assignment | Function | Pin | Assignment | Function |
|-----|---------------|-------------------|-----|---------------|-----------------|
| 1 | +5V | Speaker Connector | 9 | N/A | N/A |
| 2 | N/A | | 10 | N/A | N/A |
| 3 | N/A | | 11 | N/A | N/A |
| 4 | Speaker | Hard drive LED | 12 | Power LED (+) | Power LED |
| 5 | HDD LED (+) | | 13 | Power LED (+) | |
| 6 | HDD LED (-) | Reset button | 14 | Power LED (-) | |
| 7 | Ground | | 15 | Power button | Power-on button |
| 8 | Reset control | | 16 | Ground | |

F_AUDIO1: Front Panel Audio Header

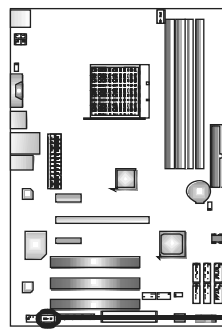
This header allows user to connect the front audio output cable with the PC front panel. This header allows only HD audio front panel connector.



| Pin | Assignment |
|-----|---------------|
| 1 | Mic Left in |
| 2 | Ground |
| 3 | Mic Right in |
| 4 | GPIO |
| 5 | Right line in |
| 6 | Jack Sense |
| 7 | Front Sense |
| 8 | Key |
| 9 | Left line in |
| 10 | Jack Sense |

JSPDIFOUT1: Digital Audio-out Connector

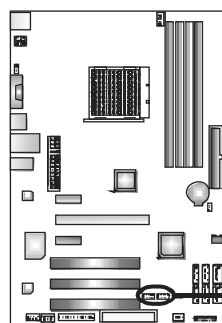
This connector allows user to connect the PCI bracket SPDIF output header.



| Pin | Assignment |
|-----|---------------------|
| 1 | Left Channel Input |
| 2 | Ground |
| 3 | Ground |
| 4 | Right Channel Input |

F_USB1/F_USB2: Headers for USB 2.0 Ports at Front Panel

These headers allow user to connect additional USB cable on the PC front panel, and also can be connected with internal USB devices, like USB card reader.



| Pin | Assignment |
|-----|-------------|
| 1 | +5V (fused) |
| 2 | +5V (fused) |
| 3 | USB- |
| 4 | USB- |
| 5 | USB+ |
| 6 | USB+ |
| 7 | Ground |
| 8 | Ground |
| 9 | Key |
| 10 | NC |

JUSBV1/JUSBV2: Power Source Headers for USB Ports

Pin 1-2 Close:

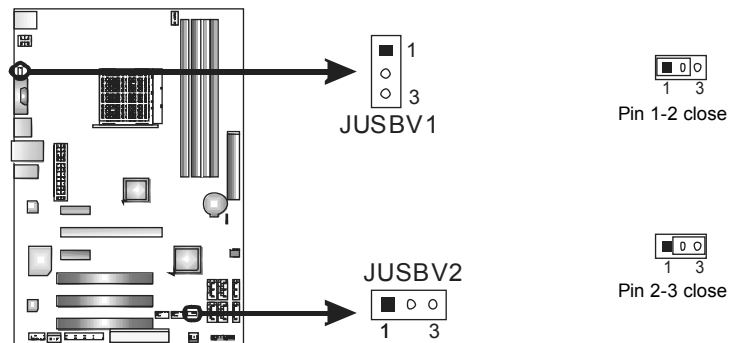
JUSBV1: +5V for USB ports at F_USB1/F_USB2.

JUSBV2: +5V for USB ports at USB1/RJ45USB1.

Pin 2-3 Close:

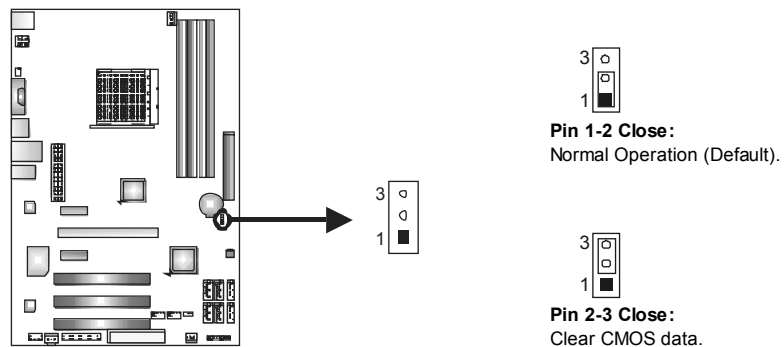
JUSBV1: +5V STB for USB ports at F_USB1/F_USB2.

JUSBV2: +5V STB for USB ports at USB1/RJ45USB1.



JCMOS1: Clear CMOS Header

Placing the jumper on pin2-3 allows user to restore the BIOS safe setting and the CMOS data. Please carefully follow the procedure to avoid damaging the motherboard.

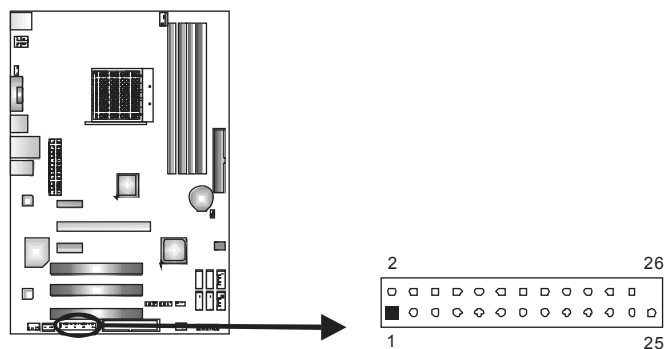


※ Clear CMOS Procedures:

1. Remove AC power line.
2. Set the jumper to "Pin 2-3 close".
3. Wait for five seconds.
4. Set the jumper to "Pin 1-2 close".
5. Power on the AC.
6. Load Optimal Defaults and save settings in CMOS.

J_PRINT1: Printer Port Connector

This header allows you to connector printer on the PC.



| Pin | Assignment | Pin | Assignment |
|-----|------------|-----|------------|
| 1 | -Strobe | 14 | Ground |
| 2 | -ALF | 15 | Data 6 |
| 3 | Data 0 | 16 | Ground |
| 4 | -Error | 17 | Data 7 |
| 5 | Data 1 | 18 | Ground |
| 6 | -Init | 19 | -ACK |
| 7 | Data 2 | 20 | Ground |
| 8 | -Scltin | 21 | Busy |
| 9 | Data 3 | 22 | Ground |
| 10 | Ground | 23 | PE |
| 11 | Data 4 | 24 | Ground |
| 12 | Ground | 25 | SCLT |
| 13 | Data 5 | 26 | Key |

CHAPTER 4: RAID FUNCTIONS

4.1 OPERATING SYSTEM

Supports Windows XP Home/Professional Edition, and Windows Vista

4.2 RAID ARRAYS

RAID supports the following types of RAID arrays:

RAID 0: RAID 0 defines a disk striping scheme that improves disk read and write times for many applications.

RAID 1: RAID 1 defines techniques for mirroring data.

RAID 10: RAID 10 combines the techniques used in RAID 0 and RAID 1.

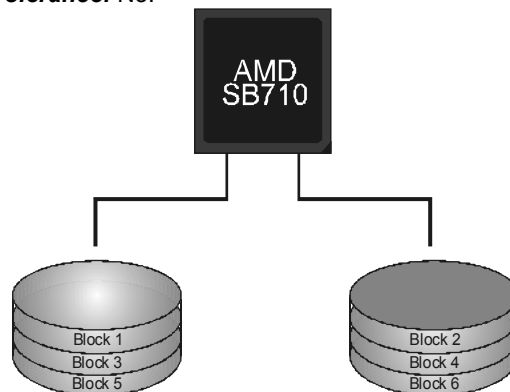
4.3 How RAID WORKS

RAID 0:

The controller “stripes” data across multiple drives in a RAID 0 array system. It breaks up a large file into smaller blocks and performs disk reads and writes across multiple drives in parallel. The size of each block is determined by the stripe size parameter, which you set during the creation of the RAID set based on the system environment. This technique reduces overall disk access time and offers high bandwidth.

Features and Benefits

- **Drives:** Minimum 1, and maximum is up to 6 or 8. Depending on the platform.
- **Uses:** Intended for non-critical data requiring high data throughput, or any environment that does not require fault tolerance.
- **Benefits:** provides increased data throughput, especially for large files. No capacity loss penalty for parity.
- **Drawbacks:** Does not deliver any fault tolerance. If any drive in the array fails, all data is lost.
- **Fault Tolerance:** No.

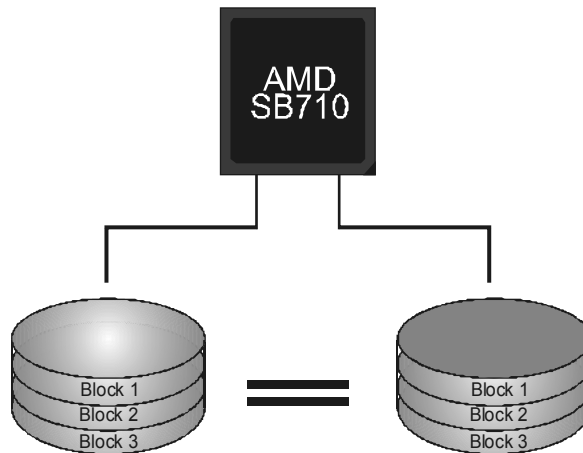


RAID 1:

Every read and write is actually carried out in parallel across 2 disk drives in a RAID 1 array system. The mirrored (backup) copy of the data can reside on the same disk or on a second redundant drive in the array. RAID 1 provides a hot-standby copy of data if the active volume or drive is corrupted or becomes unavailable because of a hardware failure. RAID techniques can be applied for high-availability solutions, or as a form of automatic backup that eliminates tedious manual backups to more expensive and less reliable media.

Features and Benefits

- **Drives:** Minimum 2, and maximum is 2.
- **Uses:** RAID 1 is ideal for small databases or any other application that requires fault tolerance and minimal capacity.
- **Benefits:** Provides 100% data redundancy. Should one drive fail, the controller switches to the other drive.
- **Drawbacks:** Requires 2 drives for the storage space of one drive. Performance is impaired during drive rebuilds.
- **Fault Tolerance:** Yes.

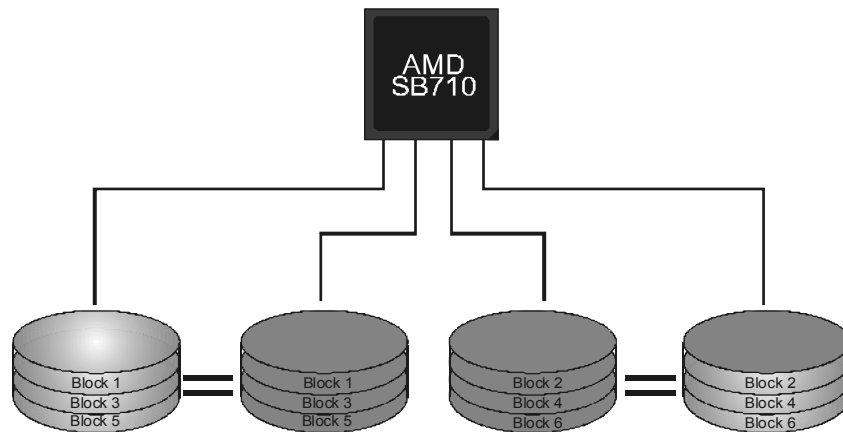


RAID 10:

RAID 1 drives can be striped using RAID 0 techniques. Resulting in a RAID 10 solution for improved resiliency, performance and rebuild performance.

Features and Benefits

- **Drives:** Minimum 4, and maximum is 6 or 8, depending on the platform.
- **Benefits:** Optimizes for both fault tolerance and performance, allowing for automatic redundancy. May be simultaneously used with other RAID levels in an array, and allows for spare disks.
- **Drawbacks:** Requires twice the available disk space for data redundancy, the same as RAID level 1.
- **Fault Tolerance:** Yes.

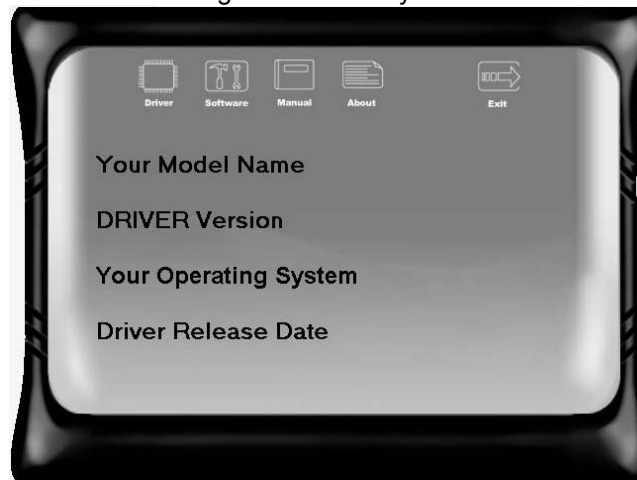


CHAPTER 5: USEFUL HELP

5.1 DRIVER INSTALLATION NOTE

After you installed your operating system, please insert the Fully Setup Driver CD into your optical drive and install the driver for better system performance.

You will see the following window after you insert the CD



The setup guide will auto detect your motherboard and operating system.

Note:

If this window didn't show up after you insert the Driver CD, please use file browser to locate and execute the file **SETUP.EXE** under your optical drive.

A. Driver Installation

To install the driver, please click on the Driver icon. The setup guide will list the compatible driver for your motherboard and operating system. Click on each device driver to launch the installation program.

B. Software Installation

To install the software, please click on the Software icon. The setup guide will list the software available for your system, click on each software title to launch the installation program.

C. Manual

Aside from the paperback manual, we also provide manual in the Driver CD. Click on the Manual icon to browse for available manual.

Note:

You will need Acrobat Reader to open the manual file. Please download the latest version of Acrobat Reader software from
<http://www.adobe.com/products/acrobat/readstep2.html>

5.2 SOFTWARE

Installing Software

1. Insert the Setup CD to the optical drive. The drivers installation program would appear if the Autorun function has been enabled.
2. Select **Software Installation**, and then click on the respective software title.
3. Follow the on-screen instructions to complete the installation.

Launching Software

After the installation process, you will see the software icon “eHOT Line” / “BIOS Update” appears on the desktop. Double-click the icon to launch the utility.

eHot-Line (Optional)

eHot-Line is a convenient utility that helps you to contact with our Tech-Support system. This utility will collect the system information which is useful for analyzing the problem you may have encountered, and then send these information to our tech-support department to help you fix the problem.



Before you use this utility, please set Outlook Express as your default e-mail client application program.

*represents important information that you must provide. Without this information, you may not be able to send out the mail.

This block will show the information which would be collected in the mail.

*Describe condition of your system.

The screenshot shows the eHot-Line utility window. On the left, a list of system information is displayed, including Base board information, Caption, CreationClassName, Description, HostingBoard, HotSwappable, Manufacturer, Name, PoweredOn, Product, Removable, Replaceable, RequiresDaughterBoard, SerialNumber, Status, Tag, and Version. On the right, there is a Symptom Description text area. Below the text area, there are input fields for Region, CC E-mail, Memory Module Manufacture, and Power Supply Manufacture/model. At the bottom, there are buttons for Send, Save As..., and Exit. Annotations with arrows point to various parts of the window: a warning icon, the system information list, the Symptom Description text area, the Region dropdown, the CC E-mail field, the Memory Module Manufacture field, the Power Supply Manufacture/model field, the Send button, the Save As... button, and the Exit button.

Send the mail out.

Save these information to a .txt file

Exit this dialog.

*Select your area or the area close to you.

Provide the e-mail address that you would like to send the copy to.

*Provide the name of the memory module manufacturer.

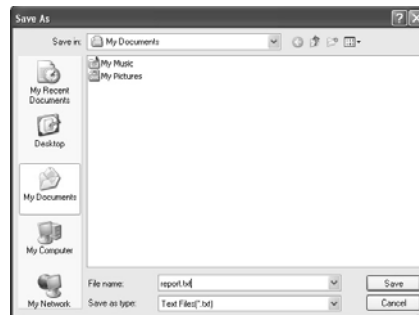
Provide the name of the power supply manufacturer and the model no.

After filling up this information, click **“Send”** to send the mail out. A warning dialog would appear asking for your confirmation; click **“Send”** to confirm or **“Do Not Send”** to cancel.



If you want to save this information to a .txt file, click **“Save As...”** and then you will see a saving dialog appears asking you to enter file name.

Enter the file name and then click **“Save”**. Your system information will be saved to a .txt file.



Open the saved .txt file, you will see your system information including motherboard/BIOS/CPU/video/device/OS information. This information is also concluded in the sent mail.



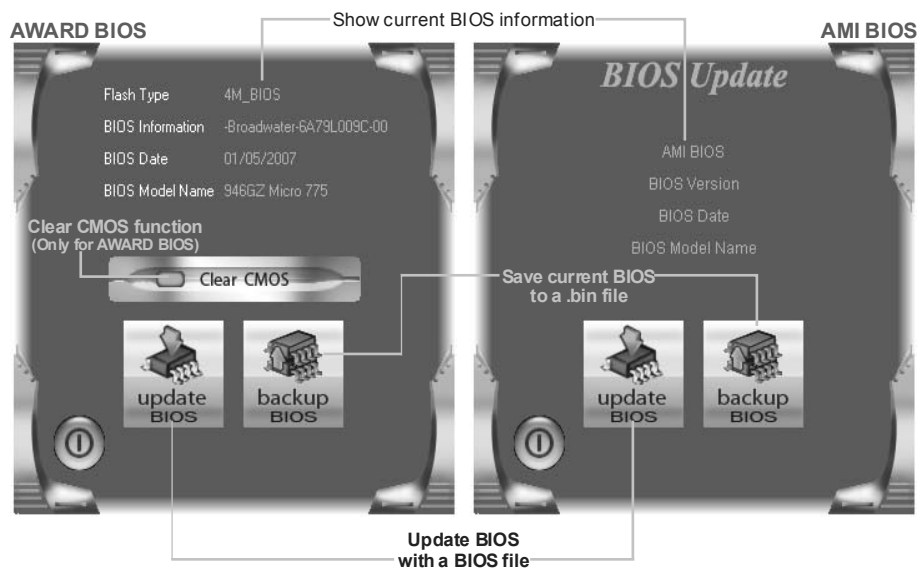
We will not share customer's data with any other third parties, so please feel free to provide your system information while using eHot-Line service.



If you are not using Outlook Express as your default e-mail client application, you may need to save the system information to a .txt file and send the file to our tech support with other e-mail application. Go to the following web <http://www.biostar.com.tw/app/en-us/about/contact.php> for getting our contact information.

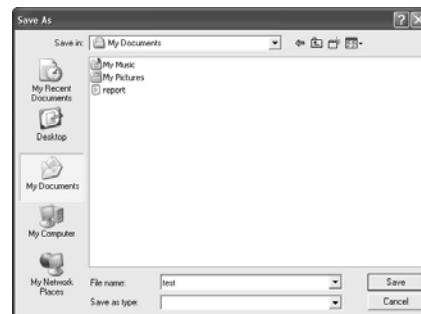
BIOS Update

BIOS Update is a convenient utility which allows you to update your motherboard BIOS under Windows system.



<Backup BIOS>

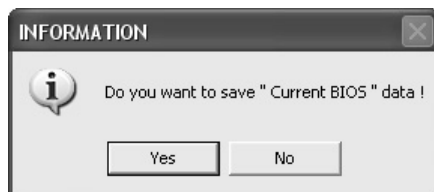
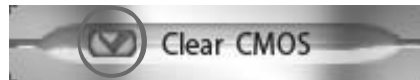
Once click on this button, the saving dialog will show. Choose the position to save file and enter file name. (We recommend that the file name should be English/number and no longer than 7 characters.) Then click **Save**.



<Update BIOS>

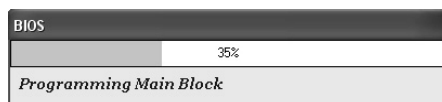
Before doing this, please download the proper BIOS file from the website.

For AWARD BIOS, update BIOS procedure should be run with Clear CMOS function, so please check on Clear CMOS first.



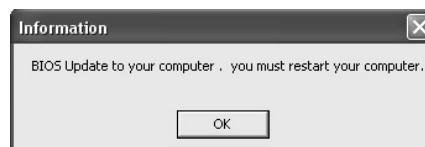
Then click Update BIOS button, a dialog will show for asking you backup current BIOS. Click **Yes** for BIOS backup and refer to the Backup BIOS procedure; or click **No** to skip this procedure.


After the BIOS Backup procedure, the open dialog will show for requesting the BIOS file which is going to be updated. Please choose the proper BIOS file for updating, then click on **Open**.



The utility will update BIOS with the proper BIOS file, and this process may take minutes. Please do not open any other applications during this process.

After the BIOS Update process, click on **OK** to restart the system.



While the system boots up and the full screen logo shows, press  <Delete> key to enter BIOS setup.

In the BIOS setup, use the **Load Optimized Defaults** function and then **Save and Exit Setup** to exit BIOS setup. BIOS Update is completed.



All the information and content above about the software are subject to be changed without notice. For better performance, the software is being continuously updated. The information and pictures described above are for your reference only. The actual information and settings on board may be slightly different from this manual.

5.3 EXTRA INFORMATION

CPU Overheated

If the system shutdown automatically after power on system for seconds, that means the CPU protection function has been activated.

When the CPU is over heated, the motherboard will shutdown automatically to avoid a damage of the CPU, and the system may not power on again.

In this case, please double check:

1. The CPU cooler surface is placed evenly with the CPU surface.
2. CPU fan is rotated normally.
3. CPU fan speed is fulfilling with the CPU speed.

After confirmed, please follow steps below to relief the CPU protection function.

1. Remove the power cord from power supply for seconds.
2. Wait for seconds.
3. Plug in the power cord and boot up the system.

Or you can:

1. Clear the CMOS data.
(See "Close CMOS Header: JCMOS1" section)
2. Wait for seconds.
3. Power on the system again.

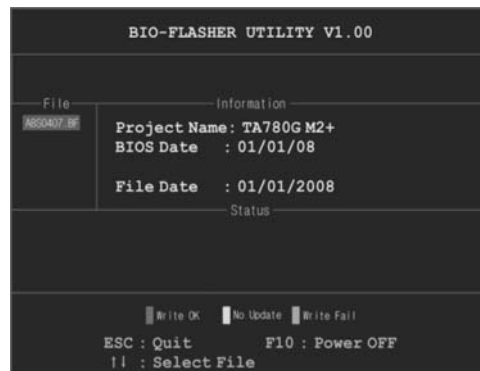
BIO-Flasher

BIO-Flasher is a BIOS flashing utility providing you an easy and simple way to update your BIOS via USB pen drive or floppy disk.

The BIO-Flasher is built in the BIOS chip. To enter the utility, **press <F12> during the Power-On Self Tests (POST)** procedure while booting up.

Updating BIOS with BIO-Flasher

1. Go to the website to download the latest BIOS file for the motherboard.
2. Then, save the BIOS file into a USB pen drive or a floppy disk.
3. Insert the USB pen drive or the floppy disk that contains the BIOS file to the USB port or the floppy disk drive.
4. Power on or reset the computer and then press **<F12>** during the **POST** process. A select dialog as the picture on the right appears. Select the device contains the BIOS file and press **<Enter>** to enter the utility.



5. The utility will show the BIOS files and their respective information. Select the proper BIOS file and press **<Enter>** then **<Y>** to perform the BIOS update process.
6. After the update process, the utility will ask you to reboot the system. Press **<Y>** to proceed. BIOS update completes.



- This utility only allows storage device with FAT32/16 format and single partition.
- Shutting down or resetting the system while updating the BIOS will lead to system boot failure.

5.4 AMI BIOS BEEP CODE

Boot Block Beep Codes

| Number of Beeps | Description |
|-----------------|--|
| 1 | No media present. (Insert diskette in floppy drive A:) |
| 2 | "AMIBOOT.ROM" file not found in root directory of diskette in A: |
| 3 | Insert next diskette if multiple diskettes are used for recovery |
| 4 | Flash Programming successful |
| 5 | File read error |
| 7 | No Flash EPROM detected |
| 10 | Flash Erase error |
| 11 | Flash Program error |
| 12 | "AMIBOOT.ROM" file size error |
| 13 | BIOS ROM image mismatch (file layout does not match image present in flash device) |

POST BIOS Beep Codes

| Number of Beeps | Description |
|-----------------|---|
| 1 | Memory refresh timer error |
| 3 | Base memory read/write test error |
| 6 | Keyboard controller BAT command failed |
| 7 | General exception error (processor exception interrupt error) |
| 8 | Display memory error (system video adapter) |

Troubleshooting POST BIOS Beep Codes

| Number of Beeps | Troubleshooting Action |
|-----------------|--|
| 1, 3 | Reseat the memory, or replace with known good modules. |
| 6, 7 | <p>Fatal error indicating a serious problem with the system. Consult your system manufacturer. Before declaring the motherboard beyond all hope, eliminate the possibility of interference by a malfunctioning add-in card. Remove all expansion cards except the video adapter.</p> <ul style="list-style-type: none"> ● If beep codes are generated when all other expansion cards are absent, consult your system manufacturer's technical support. ● If beep codes are not generated when all other expansion cards are absent, one of the add-in cards is causing the malfunction. Insert the cards back into the system one at a time until the problem happens again. This will reveal the malfunctioning card. |
| 8 | If the system video adapter is an add-in card, replace or reseat the video adapter. If the video adapter is an integrated part of the system board, the board may be faulty. |

5.5 TROUBLESHOOTING

| Probable | Solution |
|--|--|
| <ol style="list-style-type: none">1. There is no power in the system. Power LED does not shine; the fan of the power supply does not work2. Indicator light on keyboard does not shine. | <ol style="list-style-type: none">1. Make sure power cable is securely plugged in.2. Replace cable.3. Contact technical support. |
| System is inoperative. Keyboard lights are on, power indicator lights are lit, and hard drives are running. | Using even pressure on both ends of the DIMM, press down firmly until the module snaps into place. |
| System does not boot from a hard disk drive, but can be booted from optical drive. | <ol style="list-style-type: none">1. Check cable running from disk to disk controller board. Make sure both ends are securely plugged in; check the drive type in the standard CMOS setup.2. Backing up the hard drive is extremely important. All hard disks are capable of breaking down at any time. |
| System only boots from an optical drive. Hard disks can be read, applications can be used, but system fails to boot from a hard disk. | <ol style="list-style-type: none">1. Back up data and applications files.2. Reformat the hard drive. Re-install applications and data using backup disks. |
| Screen message shows "Invalid Configuration" or "CMOS Failure." | Review system's equipment. Make sure correct information is in setup. |
| System cannot boot after user installs a second hard drive. | <ol style="list-style-type: none">1. Set master/slave jumpers correctly.2. Run SETUP program and select correct drive types. Call the drive manufacturers for compatibility with other drives. |

This page is intentionally left blank.

APPENDIX: SPEC IN OTHER LANGUAGES

GERMAN

| Spezifikationen | | |
|-----------------|--|---|
| CPU | Sockel AM3 AMD Sempron / Athlon II / Phenom II Prozessoren (Maximales Watt: 125W) | Die AMD 64-Architektur unterstützt eine 32-Bit- und 64-Bit-Datenverarbeitung Unterstützt Hyper Transport 3.0 |
| FSB | Unterstützt HyperTransport 3.0 mit einer Bandbreite von bis zu 5.2 GT/s | |
| Chipsatz | AMD 760G AMD SB710 | |
| Super E/A | ITE 8728F Bietet die häufig verwendeten alten Super E/A-Funktionen. Low Pin Count-Schnittstelle | Umgebungskontrolle, Hardware-Überwachung Lüfterdrehzahl-Controller "Smart Guardian"-Funktion von ITE |
| Arbeitsspeicher | DDR3 DIMM-Steckplätze x 4 Max. 16GB Arbeitsspeicher Jeder DIMM unterstützt 512MB/ 1GB/2GB/4GB DDR3. | Dual-Kanal DDR3 Speichermodul Unterstützt DDR3 800 / 1066 / 1333 Unterstützt DDR3 1600 (OC) registrierte DIMMs. ECC DIMMs werden nicht unterstützt. |
| IDE | Integrierter IDE-Controller | Ultra DMA 33 / 66 / 100 / 133 Bus Master-Modus Unterstützt PIO-Modus 0~4, |
| SATA II | Integrierter Serial ATA-Controller | Datentransferrate bis zu 3Gb/s Konform mit der SATA-Spezifikation Version 2.0. Unterstützt RAID 0,1,10 |
| LAN | Realtek RTL 8111E | 10 / 100 / 1000 Mb/s Auto-Negotiation Halb- / Vollduplex-Funktion |
| Audio-Codec | ALC662 | 5.1-Kanal-Audioausgabe Unterstützt High-Definition Audio |
| Steckplätze | PCI Steckplatz x3 PCI Express Gen2 x16 Steckplatz x1 PCI Express Gen2x1 Steckplatz x2 | |

| Spezifikationen | | | |
|------------------------|----------------------------|----|--|
| Onboard-Anschluss | Diskettenlaufwerkanschluss | x1 | Jeder Anschluss unterstützt 2 Diskettenlaufwerke |
| | Druckeranschluss | x1 | Jeder Anschluss unterstützt 1 Druckeranschluss |
| | IDE-Anschluss | x1 | Jeder Anschluss unterstützt 2 IDE-Laufwerke |
| | SATA-Anschluss | x6 | Jeder Anschluss unterstützt 1 SATA-Laufwerk |
| | Fronttafelanschluss | x1 | Unterstützt die Fronttafelfunktionen |
| | Front-Audioanschluss | x1 | Unterstützt die Fronttafel-Audioanschlussfunktion |
| | S/PDIF- Ausgangsanschluss | x1 | Unterstützt die digitale Audioausgabefunktion |
| | CPU-Lüfter-Sockel | x1 | CPU-Lüfterstromversorgungsanschluss (mit Smart Fan-Funktion) |
| | System-Lüfter-Sockel | x2 | System-Lüfter-Stromversorgungsanschluss |
| | "CMOS löschen"-Sockel | x1 | |
| | USB-Anschluss | x2 | Jeder Anschluss unterstützt 2 Fronttafel-USB-Anschlüsse |
| | Stromanschluss (24-polig) | x1 | |
| | Stromanschluss (4-polig) | x1 | |
| Rückseiten-E/A | PS/2-Tastatur | x1 | |
| | PS/2-Maus | x1 | |
| | Serieller Anschluss | x1 | |
| | LAN-Anschluss | x1 | |
| | USB-Anschluss | x4 | |
| | Audioanschluss | x3 | |
| Platinengröße | 205 mm (B) X 305 mm (L) | | ATX |
| OS-Unterstützung | Windows XP / Vista / 7 | | Biostar behält sich das Recht vor, ohne Ankündigung die Unterstützung für ein Betriebssystem hinzuzufügen oder zu entfernen. |

FRENCH

| <i>SPEC</i> | | |
|--------------------|---|--|
| UC | Socket AM3 Processeurs AMD Sempron / Athlon II / Phenom II (Watt maximum : 125W) | L'architecture AMD 64 permet le calcul 32 et 64 bits Prend en charge Hyper Transport 3.0 |
| Bus frontal | Prend en charge Hyper Transport 3.0 jusqu'à une bande passante de 5.2 GT/s | |
| Chipset | AMD 760G AMD SB710 | |
| Super E/S | ITE 8728F Fournit la fonctionnalité de Super E/S patrimoniales la plus utilisée. Interface à faible compte de broches | Initiatives de contrôle environnementales, Moniteur de matériel Contrôleur de vitesse de ventilateur Fonction "Gardien intelligent" de l'ITE |
| Mémoire principale | Fentes DDR3 DIMM x 4 Capacité mémoire maximale de 16 Go Chaque DIMM prend en charge des DDR3 de 512Mo/1Go/2Go/4Go | Module de mémoire DDR3 à mode à double voie Prend en charge la DDR3 800 / 1066 / 1333 Prend en charge la DDR3 1600 (OC) Les DIMM à registres et DIMM avec code correcteurs d'erreurs ne sont pas prises en charge |
| IDE | Contrôleur IDE intégré | Mode principale de Bus Ultra DMA 33 / 66 / 100 / 133 Prend en charge le mode PIO 0~4, |
| SATA II | Contrôleur Serial ATA intégré | Taux de transfert jusqu'à 3 Go/s. Conforme à la spécification SATA Version 2.0 Prise en charge RAID 0,1,10 |
| LAN | Realtek RTL 8111E | 10 / 100 / 1000 Mb/s négociation automatique Half / Full duplex capability |
| Codec audio | ALC662 | Sortie audio à 5.1 voies Prise en charge de l'audio haute définition |
| Fentes | Fente PCI x3 Fente PCI Express Gen2 x16 x1 Fente PCI Express Gen2 x1 x2 | |

| SPEC | | | |
|------------------------|--|--|--|
| Connecteur embarqué | Connecteur de disquette | x1 | Chaque connector prend en charge 2 lecteurs de disquettes |
| | Connecteur de Port d'imprimante | x1 | Chaque connector prend en charge 1 Port d'imprimante |
| | Connecteur IDE | x1 | Chaque connecteur prend en charge 2 périphériques IDE |
| | Connecteur SATA | x6 | Chaque connecteur prend en charge 1 périphérique SATA |
| | Connecteur du panneau avant | x1 | Prend en charge les équipements du panneau avant |
| | Connecteur Audio du panneau avant | x1 | Prend en charge la fonction audio du panneau avant |
| | Connecteur de sortie S/PDIF | x1 | Prend en charge la fonction de sortie audio numérique |
| | Embase de ventilateur UC | x1 | Alimentation électrique du ventilateur UC (avec fonction de ventilateur intelligent) |
| | Embase de ventilateur système | x2 | Alimentation électrique du ventilateur système |
| | Embase d'effacement CMOS | x1 | |
| | Connecteur USB | x2 | Chaque connecteur prend en charge 2 ports USB de panneau avant |
| | Connecteur d'alimentation (24 broches) | x1 | |
| | Connecteur d'alimentation (4 broches) | x1 | |
| E/S du panneau arrière | Clavier PS/2 | x1 | |
| | Souris PS/2 | x1 | |
| | Port série | x1 | |
| | Port LAN | x1 | |
| | Port USB | x4 | |
| | Fiche audio | x3 | |
| Dimensions de la carte | 205 mm (l) X 305 mm (H) | ATX | |
| Support SE | Windows XP / Vista / 7 | Biostar se réserve le droit d'ajouter ou de supprimer le support de SE avec ou sans préavis. | |

ITALIAN

| SPECIFICA | | |
|--------------------|--|--|
| CPU | Socket AM3 Processori AMD Sempron / Athlon II / Phenom II (Watt massimo: 125W) | L'architettura AMD 64 abilita la computazione 32 e 64 bit Supporto di Hyper Transport 3.0 |
| FSB | Supporto di HyperTransport 3.0 fino a 5.2 GT/s di larghezza di banda | |
| Chipset | AMD 760G AMD SB710 | |
| Super I/O | ITE 8728F Fornisce le funzionalità legacy Super I/O usate più comunemente. Interfaccia LPC (Low Pin Count) | Funzioni di controllo dell'ambiente: Monitoraggio hardware Controller velocità ventolina Funzione "Smart Guardian" di ITE |
| Memoria principale | Alloggi DIMM DDR3 x 4 Capacità massima della memoria 16GB Ciascun DIMM supporta DDR3 512MB/1GB/2GB/4GB | Modulo di memoria DDR3 a canale doppio Supporto di DDR3 800 / 1066 / 1333 Supporto di DDR3 1600 (OC) DIMM registrati e DIMM ECC non sono supportati |
| IDE | Controller IDE integrato | Modalità Bus Master Ultra DMA 33 / 66 / 100 / 133 Supporto modalità PIO Mode 0-4 |
| SATA II | Controller Serial ATA integrato | Velocità di trasferimento dei dati fino a 3 Gb/s. Compatibile specifiche SATA Versione 2.0. Supporto RAID 0,1,10 |
| LAN | Realtek RTL 8111E | Negoziiazione automatica 10 / 100 / 1000 Mb/s Capacità Half / Full Duplex |
| Codec audio | ALC662 | Uscita audio 5.1 canali Supporto audio High-Definition (HD) |
| Alloggi | Alloggio PCI x3 Alloggio PCI Express Gen2 x16 x1 Alloggio PCI Express Gen2x1 x2 | |

| SPECIFICA | | | |
|------------------------------|---------------------------------------|---|---|
| Connettori su scheda | Connettore floppy | x1 | Ciascun connettore supporta 2 unità Floppy |
| | Connettore Porta stampante | x1 | Ciascun connettore supporta 1 Porta stampante |
| | Connettore IDE | x1 | Ciascun connettore supporta 2 unità IDE |
| | Connettore SATA | x6 | Ciascun connettore supporta 1 unità SATA |
| | Connettore pannello frontale | x1 | Supporta i servizi del pannello frontale |
| | Connettore audio frontale | x1 | Supporta la funzione audio pannello frontale |
| | Connettore output SPDIF | x1 | Supporta la funzione d’output audio digitale |
| | Collettore ventolina CPU | x1 | Alimentazione ventolina CPU (con funzione Smart Fan) |
| | Collettore ventolina sistema | x2 | Alimentazione ventolina di sistema |
| | Collettore cancellazione CMOS | x1 | |
| | Connettore USB | x2 | Ciascun connettore supporta 2 porte USB pannello frontale |
| | Connettore alimentazione (24 pin) | x1 | |
| | Connettore alimentazione (4 pin) | x1 | |
| | | | |
| I/O pannello posteriore | Tastiera PS/2 | x1 | |
| | Mouse PS/2 | x1 | |
| | Porta seriale | x1 | |
| | Porta LAN | x1 | |
| | Porta USB | x4 | |
| | Connettore audio | x3 | |
| Dimensioni scheda | 205 mm (larghezza) x 305 mm (altezza) | ATX | |
| Sistemi operativi supportati | Windows XP / Vista / 7 | Biostar si riserva il diritto di aggiungere o rimuovere il supporto di qualsiasi sistema operativo senza preavviso. | |

SPANISH

| <i>Especificación</i> | | |
|-----------------------|--|--|
| CPU | Conector AM3 | La arquitectura AMD 64 permite el procesado de 32 y 64 bits |
| | Procesadores AMD Sempron / Athlon II / Phenom II (Vatio máximo: 125W) | Soporta las tecnologías Hyper Transport 3.0 |
| | Admite HyperTransport 3.0 con un ancho de banda de hasta 5.2 GT/s | |
| Conjunto de chips | AMD 760G AMD SB710 | |
| Súper E/S | ITE 8728F Le ofrece las funcionalidades heredadas de uso más común Súper E/S. Interfaz de cuenta Low Pin | Iniciativas de control de entorno, Monitor hardware Controlador de velocidad de ventilador Función "Guardia inteligente" de ITE |
| Memoria principal | Ranuras DIMM DDR3 x 4 Capacidad máxima de memoria de 16GB Cada DIMM admite DDR de 512MB/1GB/2GB/4GB | Módulo de memoria DDR3 de canal Doble Admite DDR3 de 800 / 1066 / 1333 Admite DDR3 de 1600 (OC) No admite DIMM registrados o DIMM compatibles con ECC |
| IDE | Controlador IDE integrado | Modo bus maestro Ultra DMA 33 / 66 / 100 / 133 Soporte los Modos PIO 0~4, |
| SATA II | Controlador Serial ATA integrado | Tasas de transferencia de hasta 3 Gb/s. Compatible con la versión SATA 2.0. Admite RAID 0,1,10 |
| Red Local | Realtek RTL 8111E | Negociación de 10 / 100 / 1000 Mb/s Funciones Half / Full dúplex |
| Códecs de sonido | ALC662 | Salida de sonido de 5.1 canales Soporte de sonido de Alta Definición |
| Ranuras | Ranura PCI | X3 |
| | Ranura PCI Express Gen2 x16 | X1 |
| | Ranura PCI express Gen2 x1 | X2 |

| Especificación | | | |
|------------------------------|--|--|---|
| Conectores en placa | Conector disco flexible | X1 | Cada conector soporta 2 unidades de disco flexible |
| | Conector Puerto de impresora | X1 | Cada conector soporta 1 Puerto de impresora |
| | Conector IDE | X1 | Cada conector soporta 2 dispositivos IDE |
| | Conector SATA | X6 | Cada conector soporta 1 dispositivos SATA |
| | Conector de panel frontal | X1 | Soporta instalaciones en el panel frontal |
| | Conector de sonido frontal | X1 | Soporta funciones de sonido en el panel frontal |
| | Conector de salida S/PDIF | X1 | Soporta función de salida de sonido digital |
| | Cabecera de ventilador de CPU | X1 | Fuente de alimentación de ventilador de CPU (con función Smart Fan) |
| | Cabecera de ventilador de sistema | X2 | Fuente de alimentación de ventilador de sistema |
| | Cabecera de borrado de CMOS | X1 | |
| | Conector USB | X2 | Cada conector soporta 2 puertos USB frontales |
| | Conector de alimentación (24 patillas) | X1 | |
| | Conector de alimentación (4 patillas) | X1 | |
| Panel trasero de E/S | Teclado PS/2 | X1 | |
| | Ratón PS/2 | X1 | |
| | Puerto serie | X1 | |
| | Puerto de red local | X1 | |
| | Puerto USB | X4 | |
| | Conector de sonido | X3 | |
| Tamaño de la placa | 205 mm. (A) X 305 mm. (H) | ATX | |
| Soporte de sistema operativo | Windows XP / Vista / 7 | Biostar se reserva el derecho de añadir o retirar el soporte de cualquier SO con o sin aviso previo. | |

PORTUGUESE

| ESPECIFICAÇÕES | | |
|----------------------------|---|--|
| CPU | Socket AM3 | A arquitectura AMD 64 permite uma computação de 32 e 64 bits |
| | Processadores AMD Sempron / Athlon II / Phenom II (Watt máximo: 125W) | Suporta as tecnologias Hyper Transport 3.0 |
| | | |
| FSB | Suporta a tecnologia HyperTransport 3.0 com uma largura de banda até 5.2 GT/s | |
| Chipset | AMD 760G AMD SB710 | |
| Especificação do Super I/O | ITE 8728F Proporciona as funcionalidades mais utilizadas em termos da especificação Super I/O. Interface LPC (Low Pin Count). | Iniciativas para controlo do ambiente Monitorização do hardware Controlador da velocidade da ventoinha Função "Smart Guardian" da ITE |
| Memória principal | Ranuras DIMM DDR3 x 4 Capacidade máxima de memória: 16 GB Cada módulo DIMM suporta uma memória DDR3 de 512MB/ 1GB/2GB/4GB | Módulo de memória DDR3 de canal duplo Suporta módulos DDR3 800 / 1066 / 1333 Suporta módulos DDR3 1600 (OC) Os módulos DIMM registados e os DIMM ECC não são suportados |
| IDE | Controlador IDE integrado | Modo Bus master Ultra DMA 33 / 66 / 100 / 133 Suporta o modo PIO 0~4, |
| SATA II | Controlador Serial ATA integrado | Velocidades de transmissão de dados até 3 Gb/s. Compatibilidade com a especificação SATA versão 2.0. Suporta as funções RAID 0,1,10 |
| LAN | Realtek RTL 8111E | Auto negociação de 10 / 100 / 1000 Mb/s Capacidade semi/full-duplex |
| Codec de som | ALC662 | Saída de áudio de 5.1 canais Suporta a especificação High-Definition Audio |
| Ranuras | Ranhura PCI | x3 |
| | Ranhura PCI Express Gen2 x16 | x1 |
| | Ranhura PCI Express Gen2 x1 | x2 |

| ESPECIFICAÇÕES | | |
|------------------------------------|------------------------------------|---|
| Conectores na placa | Conector da unidade de disquetes | x1 Cada conector suporta 2 unidades de disquetes |
| | Conector da para impressora | x1 Cada conector suporta 1 Porta para impressora |
| | Conector IDE | x1 Cada conector suporta 2 dispositivos IDE |
| | Conector SATA | x6 Cada conector suporta 1 dispositivo SATA |
| | Conector do painel frontal | x1 Para suporte de várias funções no painel frontal |
| | Conector de áudio frontal | x1 Suporta a função de áudio no painel frontal |
| | Conector de saída S/PDIF | x1 Suporta a saída de áudio digital |
| | Conector da ventoinha da CPU | x1 Alimentação da ventoinha da CPU (com a função Smart Fan) |
| | Conector da ventoinha do sistema | x2 Alimentação da ventoinha do sistema |
| | Conector para limpeza do CMOS | x1 |
| | Conector USB | x2 Cada conector suporta 2 portas USB no painel frontal |
| | Conector de alimentação (24 pinos) | x1 |
| | Conector de alimentação (4 pinos) | x1 |
| Entradas/Saídas no painel traseiro | Teclado PS/2 | x1 |
| | Rato PS/2 | x1 |
| | Porta série | x1 |
| | Porta LAN | x1 |
| | Porta USB | x4 |
| | Tomada de áudio | x3 |
| Tamanho da placa | 205 mm (L) X 305 mm (A) | ATX |
| Sistemas operativos suportados | Windows XP / Vista / 7 | A Biostar reserva-se o direito de adicionar ou remover suporte para qualquer sistema operativo com ou sem aviso prévio. |

POLISH

| <i>SPEC</i> | | |
|--------------------|---|--|
| Procesor | Socket AM3 AMD Sempron / Athlon II / Phenom II Procesory (Maksymalny Watt: 125W) | Architektura AMD 64 umożliwia przetwarzanie 32 i 64 bitowe Obsługa Hyper Transport 3.0 |
| FSB | Obsługa HyperTransport 3.0 o szerokości pasma do 5.2 GT/s | |
| Chipset | AMD 760G AMD SB710 | |
| Pamięć główna | Gniazda DDR3 DIMM x 4 Maks. wielkość pamięci 16GB Każde gniazdo DIMM obsługuje moduły 512MB/1GB/2GB/4GB DDR3 | Moduł pamięci DDR3 z trybem podwójnego kanału Obsługa DDR3 800 / 1066 / 1333 Obsługa DDR3 1600 (OC) Brak obsługi Registered DIMM oraz ECC DIMM |
| Super I/O | ITE 8728F Zapewnia najbardziej powszechne funkcje Super I/O. Interfejs Low Pin Count | Funkcje kontroli warunków pracy, Monitor H/W Kontroler prędkości wentylatora Funkcja ITE "Smart Guardian" |
| IDE | Zintegrowany kontroler IDE | Ultra DMA 33 / 66 / 100 / 133 Tryb Bus Master obsługa PIO tryb 0~4, |
| SATA II | Zintegrowany kontroler Serial ATA | Transfer danych do 3 Gb/s. Zgodność ze specyfikacją SATA w wersji 2.0. Obsługa RAID 0,1,10 |
| LAN | Realtek RTL 8111E | 10 / 100 / 1000 Mb/s z automatyczną negocjacją szybkości Działanie w trybie połowicznego/pełnego dupleksu |
| Kodek dźwiękowy | ALC662 | 5.1 kanałowe wyjście audio Obsługa High-Definition Audio |
| Gniazda | Gniazdo PCI x3 Gniazdo PCI Express Gen2 x16 x1 Gniazdo PCI Express Gen2 x1 x2 | |

| SPEC | | | |
|------------------------------|---|----|---|
| Złącza wbudowane | Złącze napędu dyskietek | x1 | Każde złącze obsługuje 2 napędy dyskietek |
| | Złącze Port drukarki | x1 | Każde złącze obsługuje 1 Port drukarki |
| | Złącze IDE | x1 | Każde złącze obsługuje 2 urządzenia IDE |
| | Złącze SATA | x6 | Każde złącze obsługuje 1 urządzenie SATA |
| | Złącze panela przedniego | x1 | Obsługa elementów panela przedniego |
| | Przednie złącze audio | x1 | Obsługa funkcji audio na panelu przednim |
| | Złącze wyjścia S/PDIF | x1 | Obsługa funkcji cyfrowego wyjścia audio |
| | Złącze główkowe wentylatora procesora | x1 | Zasilanie wentylatora procesora (z funkcją Smart Fan) |
| | Złącze główkowe wentylatora systemowego | x2 | Zasilanie wentylatora systemowego |
| | Złącze główkowe kasowania CMOS | x1 | |
| | Złącze USB | x2 | Każde złącze obsługuje 2 porty USB na panelu przednim |
| | Złącze zasilania (24 pinowe) | x1 | |
| | Złącze zasilania (4 pinowe) | x1 | |
| Back Panel I/O | Klawiatura PS/2 | x1 | |
| | Mysz PS/2 | x1 | |
| | Port szeregowy | x1 | |
| | Port LAN | x1 | |
| | Port USB | x4 | |
| | Gniazdo audio | x3 | |
| Wymiary płyty | 205 mm (S) X 305 mm (W) | | ATX |
| Obsługa systemu operacyjnego | Windows XP / Vista / 7 | | Biostar zastrzega sobie prawo dodawania lub odwoływania obsługi dowolnego systemu operacyjnego bez powiadomienia. |

RUSSIAN

| СПЕЦ | | |
|--------------------------------|---|---|
| CPU (центральный процессор) | Гнездо AM3 Процессоры AMD Sempron / Athlon II / Phenom II (Максимальный ватт: 125W) | Архитектура AMD 64 разрешать обработка данных на 32 и 64 бит Поддержка Hyper Transport 3.0 |
| FSB | Поддержка HyperTransport 3.0 с пропускной способностью до 5.2 GT/s | |
| Набор микросхем | AMD 760G AMD SB710 | |
| Основная память | Слоты DDR3 DIMM x 4 Максимальная ёмкость памяти 16 Гб Каждый модуль DIMM поддерживает 512Мб/1Гб/2Гб/4Гб DDR3 | Модуль памяти с двухканальным режимом DDR3 Поддержка DDR3 800 / 1066 / 1333 Поддержка DDR3 1600 (OC) Не поддерживает зарегистрированные модули DIMM and ECC DIMM |
| Super I/O | ITE 8728F Обеспечивает наиболее используемые действующие функциональные возможности Super I/O. Интерфейс с низким количеством выводов | Инициативы по охране окружающей среды, Аппаратный монитор Регулятор скорости Функция ITE "Smart Guardian" (Интеллектуальная защита) |
| IDE | Встроенное устройство управления встроенными интерфейсами устройств | Режим "хозяина" шины Ultra DMA 33 / 66 / 100 / 133 Поддержка режима PIO 0~4, |
| SATA II | Встроенное устройство управления встроенными интерфейсами устройств | скорость передачи данных до 3 гигабит/с. Соответствие спецификации SATA версия 2.0. Поддержка RAID 0,1,10 |
| Локальная сеть | Realtek RTL 8111E | Автоматическое согласование 10 / 100 / 1000 Мб/с Частичная / полная дуплексная способность |
| Звуковой кодек | ALC662 | Звуковая поддержка High-Definition 5.1канальный звуковой выход |
| Слоты | Слот PCI x3 Слот PCI Express Gen2 x16 x1 Слот PCI Express Gen2 x1 x2 | |

| СПЕЦ | | | |
|------------------------------------|---|-----|--|
| Встроенны й разъём | Разъём НГМД | x1 | Каждый разъём поддерживает 2 накопителя на гибких магнитных дисках |
| | Разъём Порт подключения принтера | x1 | Каждый разъём поддерживает 1 Порт подключения принтера |
| | Разъём IDE | x1 | Каждый разъём поддерживает 2 встроенных интерфейса накопителей |
| | Разъём SATA | x6 | Каждый разъём поддерживает 1 устройство SATA |
| | Разъём на лицевой панели | x1 | Поддержка устройств на лицевой панели |
| | Входной звуковой разъём | x1 | Поддержка звуковых функций на лицевой панели |
| | Разъём вывода для S/PDIF | x1 | Поддержка вывода цифровой звуковой функции |
| | Контактирующее приспособление вентилятора центрального процессора | x1 | Источник питания для вентилятора центрального процессора (с функцией интеллектуального вентилятора) |
| | Контактирующее приспособление вентилятора системы | x2 | Источник питания для вентилятора системы |
| | Открытое контактирующее приспособление CMOS | x1 | |
| | USB-разъём | x2 | Каждый разъём поддерживает 2 USB-порта на лицевой панели |
| | Разъем питания (24 вывод) | x1 | |
| | Разъем питания (4 вывод) | x1 | |
| Задняя панель средств ввода-вывода | Клавиатура PS/2 | x1 | |
| | Мышь PS/2 | x1 | |
| | Последовательный порт | x1 | |
| | Порт LAN | x1 | |
| | USB-порт | x4 | |
| | Гнездо для подключения наушников | x3 | |
| Размер панели | 205 мм (Ш) X 305 мм (В) | ATX | |
| Поддержка OS | Windows XP / Vista / 7 | | Biostar сохраняет за собой право добавлять или удалять средства обеспечения для OS с или без предварительного уведомления. |

ARABIC

| المواصفات | | |
|------------------------|---|--|
| وحدة المعالجة المركزية | AM3 مقبس AMD Sempron / Athlon II / Phenom II معالجات (و125: قصوى واط) | إجراء العمليات الحسابية بسرعة 32 و 64 بت AMD 64 يمكن تقنية و Hyper Transport 3.0 تدعم تقنية |
| النقل الأمامي الجانبي | 5.2 GT/s تردد يصل إلى 3.0 HyperTransport 3.0 تدعم تقنية | |
| مجموعة الشرائح | AMD 760G AMD SB710 | |
| الذاكرة الرئيسية | قناة DDR3 DIMM سعة ذاكرة قصوى 16 جيجا بايت ميغا بايت 512/سعة DDR3 تدعم ذاكرة من نوع DIMM تدعم كل قناة و1/2 و4 جيجا بايت ECC وتلك التي لا تتوافق مع DIMM لا تدعم رقائق الذاكرة | مزدوجة القناة DDR3 وحدة ذاكرة سعات 1333 / 1066 / 800 ميغا بايت DDR3 تدعم الذاكرة من نوع سعات 1600 ميغا بايت (OC) DDR3 تدعم الذاكرة من نوع ECC وتلك التي لا تتوافق مع DIMM لا تدعم رقائق الذاكرة |
| Super I/O | ITE 8728F الأكثر استخداماً. Super I/O ووفر وظيفة Low Pin Count Interface تدعم تقنية | وسائل التحكم في البيئة: مراقب لمعرفة حالة الأجهزة مراقب في سرعة المروحة ITE من "Smart Guardian" وظيفة |
| منفذ IDE | متكامل IDE متحكم | Ultra DMA 33 / 66 / 100 / 133 نقل بتقنية وضع رئيسي PIO Mode 0~4 دعم وضع |
| SATA II | متحكم Serial ATA متكامل | نقل البيانات بسرعة تصل إلى 3 جيجابت/ثانية. 2.0. الإصدار SATA مطابقة للمواصفات RAID 0,1,10 تدعم تقنية |
| شبكة داخلية | Realtek RTL 8111E | تفاوض تلقائي 100/10 ميغا بايت / ثانية و1 جيجا بت/ثانية إمكانية النقل المزدوج الكامل/الصفى |
| كوديك الصوت | ALC662 | تدعم تقنية الصوت عالي التعريف من 5.1 قنوات لخرج الصوت |
| الفتحات | قناة PCI قناة PCI Express Gen2 x16 قناة PCI Express Gen2 x1 | عدد 3 عدد 1 عدد 2 |

| المواصفات | | | |
|-----------------------------------|----------------------------------|--|-----------------------------|
| منفذ محرك أقراص مرنة | عدد 1 | يدعم محركين للأقراص المرنة | المنفذ على سطح اللوحة |
| منفذ طابعة | عدد 1 | | |
| منفذ IDE | عدد 1 | يدعم كل منفذ اثنين من أجهزة IDE | |
| منفذ SATA | عدد 6 | يدعم كل منفذ واحد من أجهزة SATA | |
| منفذ اللوحة الأممية | عدد 1 | يدعم تجهيزات اللوحة الأممية | |
| منفذ الصوت الأممي | عدد 1 | يدعم وظيفة الصوت باللوحة الأممية | |
| منفذ خرج S/PDIF | عدد 1 | يدعم وظيفة خرج الصوت الرقمي | |
| وصلة مروحة وحدة المعالجة المركزية | عدد 1 | Smart Fan توصيل الطاقة لمروحة وحدة المعالجة مع وظيفة | |
| وصلة مروحة النظام | عدد 2 | توصيل الطاقة لمروحة النظام | |
| وصلة مسح CMOS | عدد 1 | | |
| منفذ USB | عدد 2 | باللوحة الأممية USB يدعم كل منفذ قحني | |
| منفذ توصيل الطاقة (24 دبوس) | عدد 1 | | |
| منفذ توصيل الطاقة (4 دببليس) | عدد 12 | | |
| لوحة مفاتيح PS/2 | عدد 1 | | منفذ دخل/خرج اللوحة الخلفية |
| ملوس PS/2 | عدد 1 | | |
| منفذ تسلسلي | عدد 1 | | |
| منفذ شبكة اتصال محلية | عدد 1 | | |
| منافذ USB | عدد 4 | | |
| مقيس صوت | عدد 3 | | |
| حجم اللوحة | 205 مم (عرض) X 305 مم (الارتفاع) | ATX | |
| دعم أنظمة التشغيل | Windows XP / Vista / 7 | بحقها في إضافة أو إزالة الدعم لأي نظام تشغيل بإخطار أو Biostar احتفظ بدون إخطار . | |

JAPANESE

| 仕様 | | |
|---------------|---|---|
| CPU | Socket AM3 AMD Sempron / Athlon II / Phenom II プロセッサ (最高のワット: 125W) | AMD 64アーキテクチャでは、32ビットと64ビット計算が可能です ハイパートランスポート3.0をサポートします |
| FSB | 5.2 GT/sのバンド幅までハイパートランスポート3.0をサポートします | |
| チップセット | AMD 760G AMD SB710 | |
| メインメモリ | DDR3 DIMMスロット x 4 最大メモリ容量16GB 各DIMMは 512MB/1GB/2GB/4GB DDR3をサポート | デュアル チャンネルモードDDR3 メモリモジュール DDR3 800 / 1066 / 1333 をサポート DDR3 1600 をサポート (OC) 登録済みDIMMとECC DIMMはサポートされません |
| Super I/O | ITE 8728F もっとも一般に使用されるレガシーSuper I/O機能を採用しています。 低ピンカウントインターフェイス | 環境コントロールイニシアチブ、 H/Wモニター ファン速度コントローラ/ モニター ITEの「スマートガーディアン」機能 |
| IDE | 統合IDEコントローラ | Ultra DMA 33 / 66 / 100 / 133 バスマスタモード PIO Mode 0~4のサポート、 |
| SATA II | 統合Serial ATAコントローラ | 最高3 Gb/秒のデータ転送速度 SATAバージョン2.0仕様に準拠。 RAID 0,1,10のサポート |
| LAN | Realtek RTL 8111E | 10 / 100 / 1000 Mb/秒のオートネゴシエーション 半/全二重機能 |
| サウンド Codec | ALC662 | ハイデフィニションオーディオのサポート 5.1 チャンネルオーディオアウト |
| スロット | PCIスロット x3 PCI Express Gen2 x16スロット x1 PCI Express Gen2 x1スロット x2 | |

| 仕様 | | |
|-----------|------------------------|---|
| オンボードコネクタ | フロッピーコネクタ | x1 各コネクタは2つのフロッピードライブをサポートします |
| | プリンタポートコネクタ | x1 各コネクタは1つのプリンタポートをサポートします |
| | IDEコネクタ | x1 各コネクタは2つのIDEデバイスをサポートします |
| | SATAコネクタ | x6 各コネクタは1つのSATAデバイスをサポートします |
| | フロントパネルコネクタ | x1 フロントパネル機能をサポートします |
| | フロントオーディオコネクタ | x1 フロントパネルオーディオ機能をサポートします |
| | S/PDIFアウトコネクタ | x1 デジタルオーディオアウト機能をサポートします |
| | CPUファンヘッダ | x1 CPUファン電源装置(スマートファン機能を搭載) |
| | システムファンヘッダ | x2 システムファン電源装置 |
| | CMOSクリアヘッダ | x1 |
| 背面パネル I/O | USBコネクタ | x2 各コネクタは2つのフロントパネルUSBポートをサポートします |
| | 電源コネクタ(24ピン) | x1 |
| | 電源コネクタ(4ピン) | x1 |
| | PS/2キーボード | x1 |
| | PS/2マウス | x1 |
| | シリアルポート | x1 |
| ボードサイズ | LANポート | x1 |
| | USBポート | x4 |
| | オーディオジャック | x3 |
| OSサポート | Windows XP / Vista / 7 | Biostarは事前のサポートなしにOSサポートを追加または削除する権利を留保します。 |

2011/02/25