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275 del 30/10/2002

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soddisfa i requisiti essenziali richiesti  
dalle direttive

2004/108/CE, 2006/95/CE e  
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quando ad esso applicabili

**Short Declaration of conformity**

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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

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## **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.
- To avoid injury, be careful of:
  - Sharp pins on headers and connectors
  - Rough edges and sharp corners on the chassis
  - Damage to wires that could cause a short circuit

### **1.2 Package Checklist**

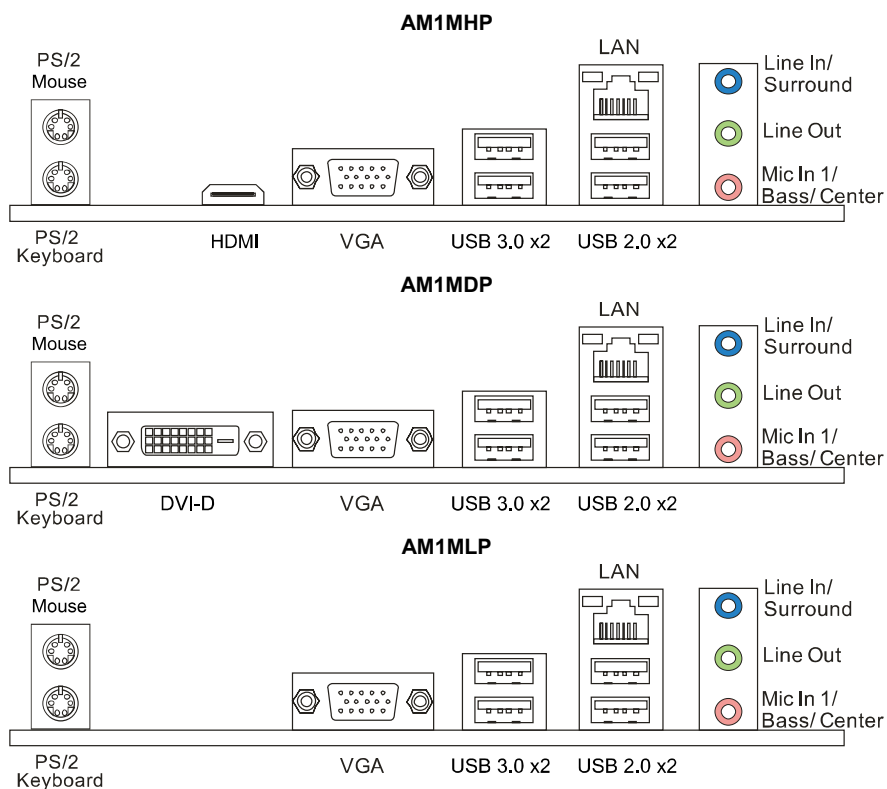
- ☒ Serial ATA Cable x2
- ☒ Rear I/O Panel for ATX Case x1
- ☒ Installation Guide x1
- ☒ Fully Setup Driver DVD x1

<p><b>Note:</b> The package contents may be different due to the sales region or models in which it was sold. For more information about the standard package in your region, please contact your dealer or sales representative.</p>
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## 1.3 Motherboard Specifications

Specifications	
CPU Support	AMD "Kabini" Athlon/Sempron APUs, AM1 Socket * Please refer to <a href="http://www.biostar.com.tw">www.biostar.com.tw</a> for CPU support list.
Memory	Supports Single Channel DDR3 1333/ 1600 (*DDR3 1600 depends on CPU) 2 x DDR3 DIMM Memory Slot, Max. Supports up to 16 GB Memory Each DIMM supports non-ECC 512MB/ 1/ 2/ 4/ 8 GB DDR3 module * Please refer to <a href="http://www.biostar.com.tw">www.biostar.com.tw</a> for Memory support list.
Storage	2x SATA 6Gb/s Connector, Supports Native IDE, AHCI Mode
LAN	AM1MHP / AM1MDP: Realtek RTL 8111G, 10/ 100/ 1000 Mb/s auto negotiation, Half / Full duplex capability AM1MLP: Realtek RTL 8106E, 10/ 100 Mb/s auto negotiation, Half / Full duplex capability
Audio Codec	ALC662, 5.1 Channels, High Definition Audio
USB	2x USB 3.0 port (2 on rear I/Os) 6x USB 2.0 port (2 on rear I/Os and 4 via internal headers)
Expansion Slots	1x PCIe 2.0 x16 Slot (x4) 1x PCIe 2.0 x1 Slot 1x PCI Slot
Rear I/Os	1x PS/2 Mouse 1x PS/2 Keyboard 1x HDMI Port (AM1MHP) 1x DVI-D (AM1MDP) 1x VGA Port 1x LAN port 2x USB 2.0 Port 2x USB 3.0 Port 3x Audio Jack
Internal I/Os	2x SATA 6.0Gb/s Connector 2x USB 2.0 Header (each header supports 2 USB 2.0 ports) 1x 4-Pin Power Connector 1x 24-Pin Power Connector 1x CPU Fan Connector 1x System Fan Connector 1x Front Panel Header 1x Front Audio Header 1x Clear CMOS Header 1x Printer Port Header 1x Serial Port Header
Form Factor	Micro-ATX Form Factor, 226 mm x 170 mm
OS Support	Windows XP / 7 / 8 / 8.1 Biostar reserves the right to add or remove support for any OS with or without notice.

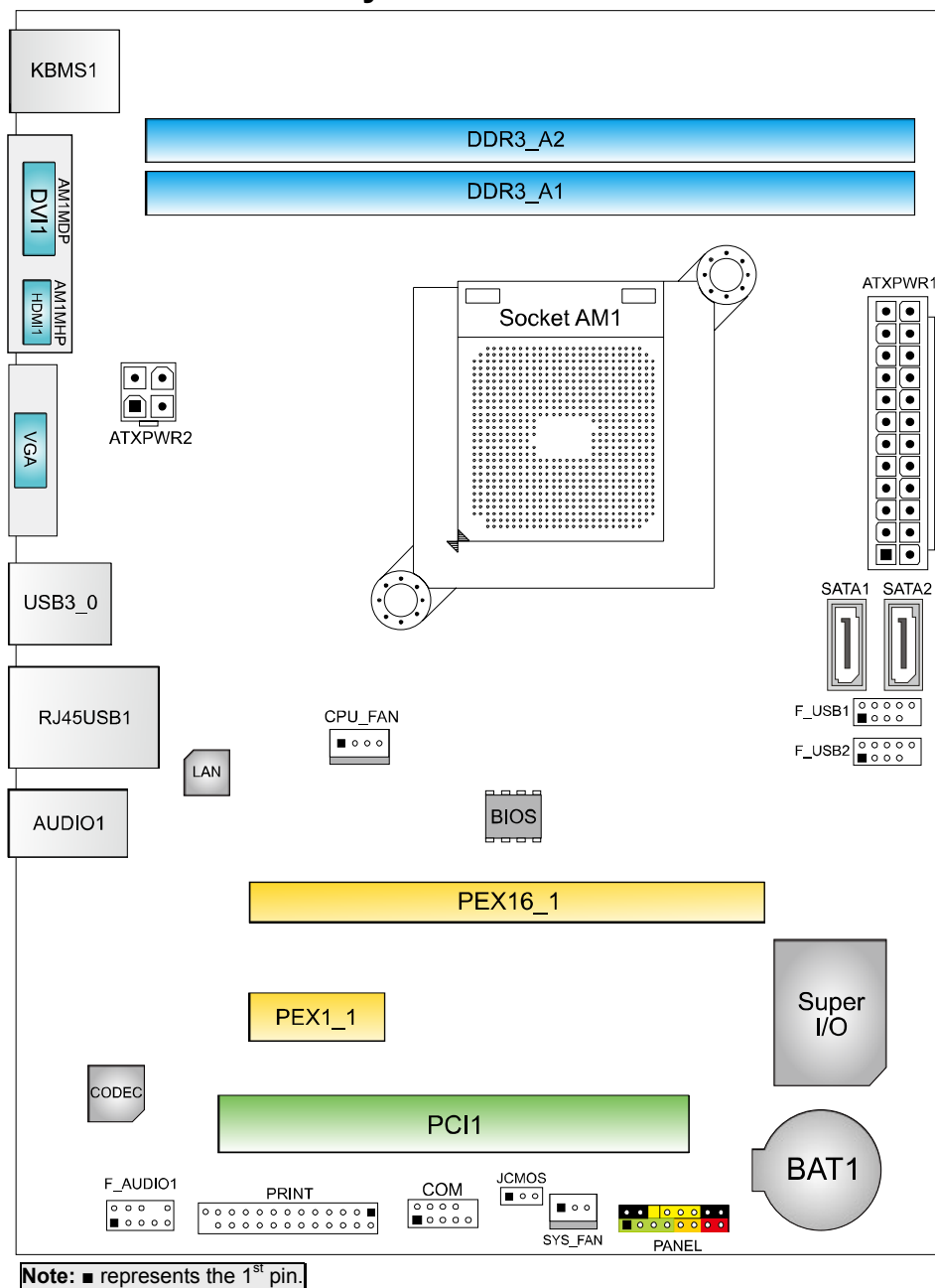
## 1.4 Rear Panel Connectors



**Note 1:** Since the audio chip supports High Definition Audio Specification, the function of each audio jack can be defined by software. The input / output function of each audio jack listed above represents the default setting. However, when connecting external microphone to the audio port, please use the Line In (Blue) and Mic In (Pink) audio jack.

**Note 2:** Maximum resolution:  
HDMI: 1920 x 1080 @60Hz  
DVI-D: 1920 x 1200 @60Hz  
VGA: 1920 x 1200 @60Hz

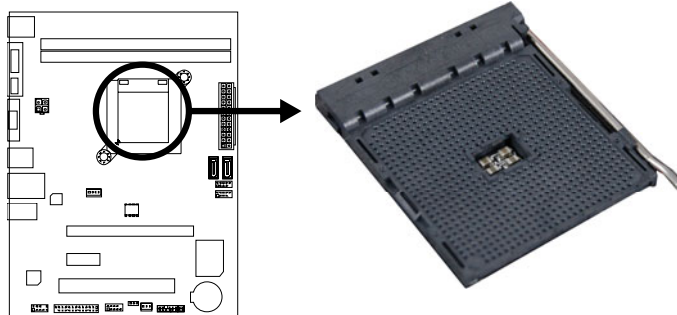
## 1.5 Motherboard Layout



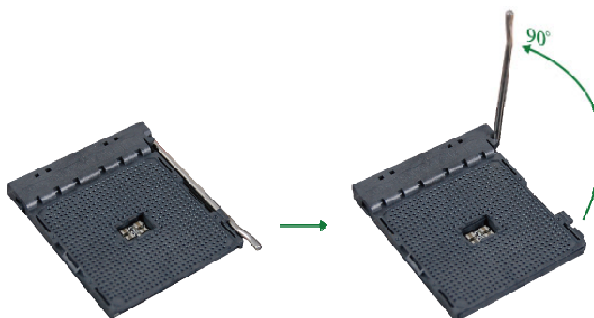
## **CHAPTER 2: HARDWARE INSTALLATION**

### **2.1 Install Central Processing Unit (AM1 Socket)**

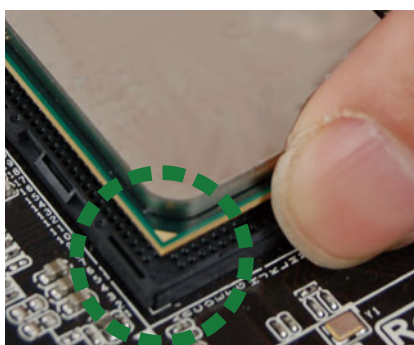
**Step 1:** Locate the CPU socket on the motherboard



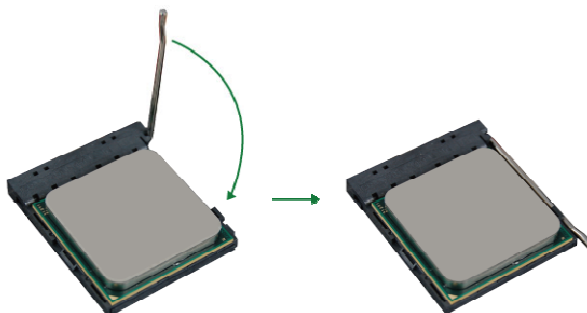
**Step 2:** Pull the socket locking out from the socket and then raise the lever up to a 90-degree angle.



**Step 3:** Look for the triangular cut edge on socket, and the golden dot on CPU should point forwards this triangular cut edge. The CPU will fit only in the correct orientation.



**Step 4:** Hold the CPU down firmly, and then close the lever to locked the position



## 2.2 Install a Heatsink

The CPU might equip with two different types of heatsink. For proper installation, please kindly refer to the installation manual of your heatsink.

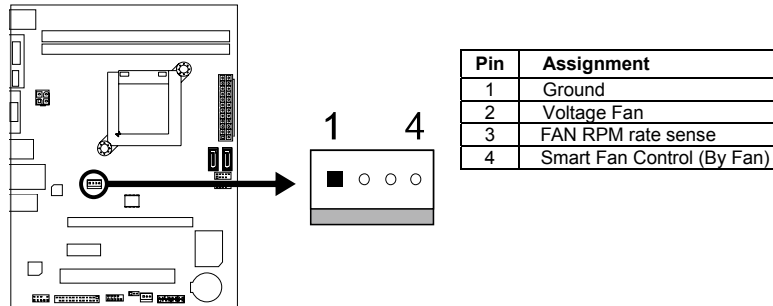
**Note:** Do not forget to connect the CPU fan connector.



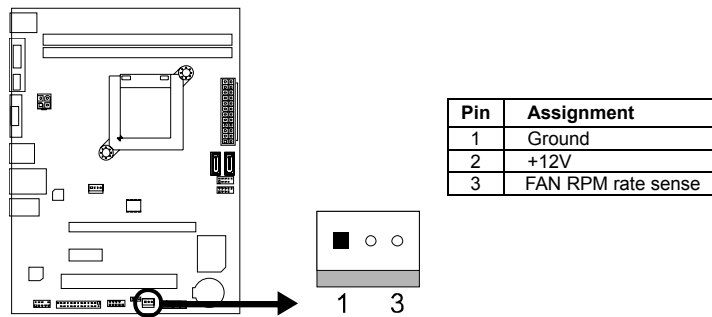
## 2.3 Connect Cooling Fans

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\_FAN: CPU Fan Header



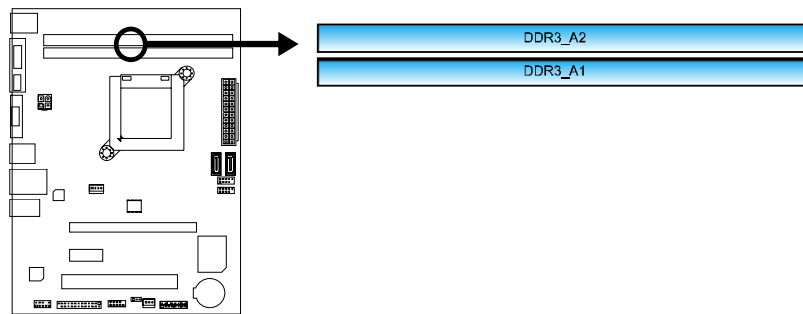
### SYS\_FAN: System Fan Header



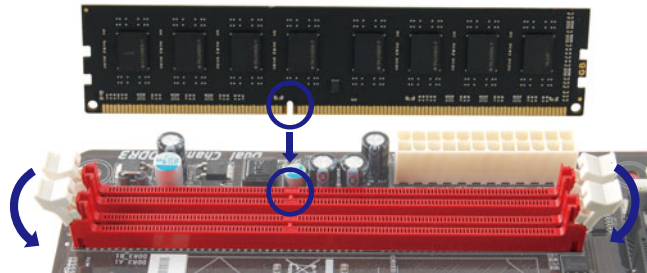
**Note:** CPU\_FAN, SYS\_FAN support 4-pin and 3-pin head connectors. When connecting with wires onto connectors, please note that the red wire is the positive and should be connected to pin#2, and the black wire is Ground and should be connected to GND.

## 2.4 Install System Memory

### A. DDR3 Modules



**Step 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.



**Step 2:** Insert the DIMM vertically and firmly into the slot until the retaining clips snap back in place and the DIMM is properly seated.



**Note1:** If the DIMM does not go in smoothly, do not force it. Pull it all the way out and try again.

### B. Memory Capacity

DIMM Socket Location	DDR3 Module	Total Memory Size
DDR3_A1	512MB/1GB/2GB/4GB/8GB	Max is 16GB.
DDR3_A2	512MB/1GB/2GB/4GB/8GB	

## 2.5 Expansion Slots

### PEX16\_1: PCI-Express Gen2 x4 Slot

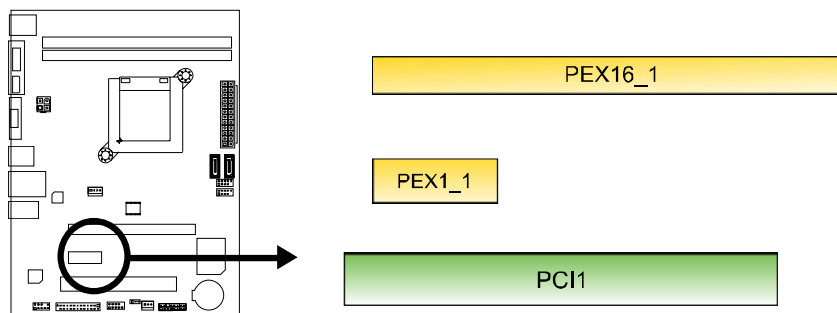
- PCI-Express 2.0 compliant.
- Data transfer bandwidth up to 2GB/s per direction; 4GB/s in total.

### PEX1\_1: PCI-Express Gen2 x1 Slot

- PCI-Express 2.0 compliant.
- Data transfer bandwidth up to 500MB/s per direction; 1GB/s in total

### PCI1: Peripheral Component Interconnect Slot

The PCI slot supports cards used in PCs include: LAN cards, sound cards, modems, TV tuner cards and other cards that comply PCI standard.



### Install an Expansion Card

You can install your expansion card by following steps:

1. Read the related expansion card's instruction document before install the expansion card into the computer.
2. Remove your computer's chassis cover, screws and slot bracket from the computer.
3. Place a card in the expansion slot and press down on the card until it is completely seated in the slot.
4. Secure the card's metal bracket to the chassis back panel with a screw.
5. Replace your computer's chassis cover.
6. Power on the computer, if necessary, change BIOS settings for the expansion card.
7. Install related driver for the expansion card.

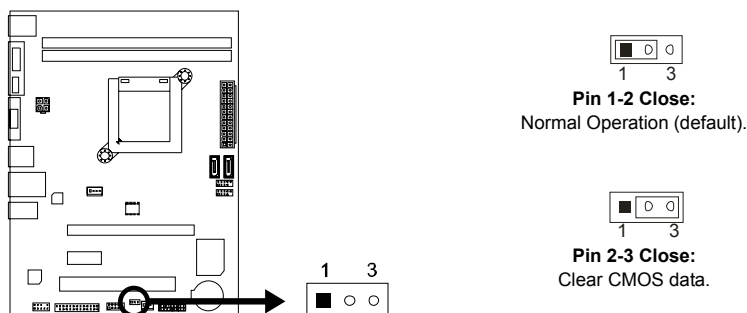
## 2.6 Jumper Setting

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”.



### JCMOS: Clear CMOS Header

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



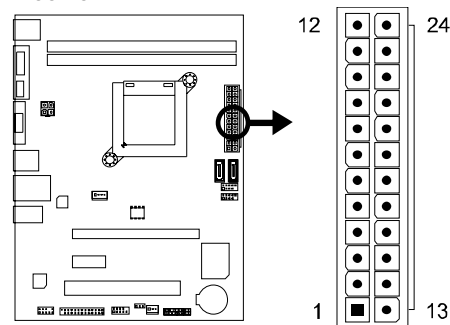
#### ※ Clear CMOS Procedures:

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.

## 2.7 Headers & Connectors

### ATXPWR1: ATX Power Source Connector

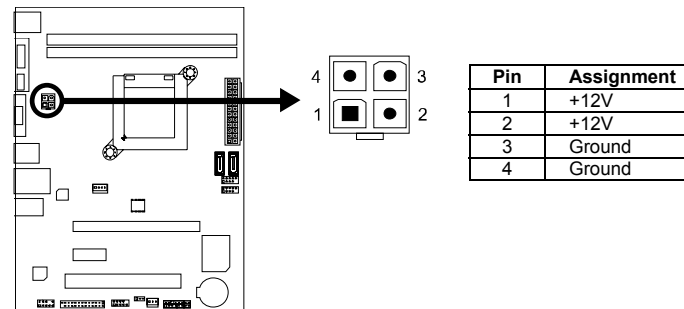
For better compatibility, we recommend to use a standard ATX 24-pin power supply for this connector. Make sure to find the correct orientation before plugging the connector.



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

This connector will provide +12V to CPU power circuit.



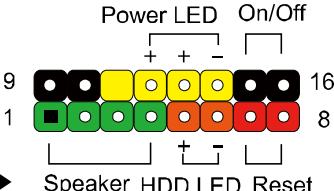
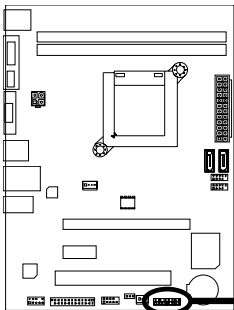
Pin	Assignment
1	+12V
2	+12V
3	Ground
4	Ground

**Note1:** Before you power on the system, please make sure that both ATXPWR1 and ATXPWR2 connectors have been plugged-in.

**Note2:** Insufficient power supplied to the system may result in instability or the peripherals not functioning properly. Use of a PSU with a higher power output is recommended when configuring a system with more power-consuming devices.

PANEL: Front Panel Header

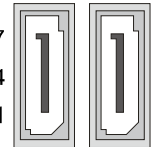
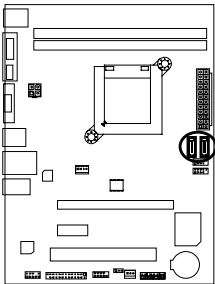
This 16-pin connector includes Power-on, Reset, HDD LED, Power LED, and speaker connection. It allows user to connect the PC case's front panel switch functions.



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

SATA1~SATA2: Serial ATA 6.0 Gb/s Connectors

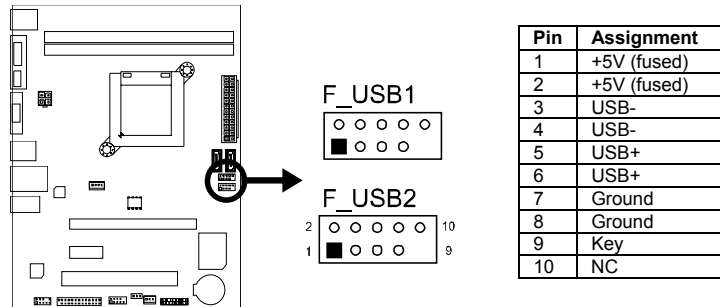
These connectors connect to SATA hard disk drives via SATA cables and with transfer rate upto 6 Gb/s.



Pin	Assignment
1	Ground
2	TX+
3	TX-
4	Ground
5	RX-
6	RX+
7	Ground

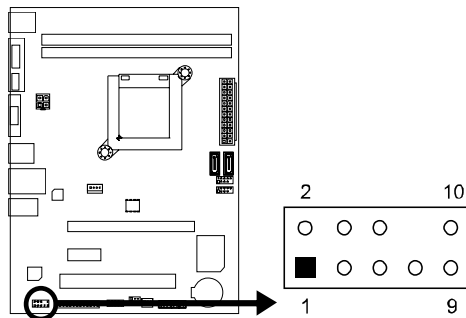
### F\_USB1/F\_USB2: Headers for USB 2.0 Ports at Front Panel

This header allows user to connect additional USB cable on the PC front panel, and also can be connected with a wide range of simultaneously accessible external Plug and Play peripherals.



### F\_AUDIO1: Front Panel Audio Header

This header allows user to connect the front audio output cable with the PC front panel. This header supports HD and AC'97 audio front panel connector.



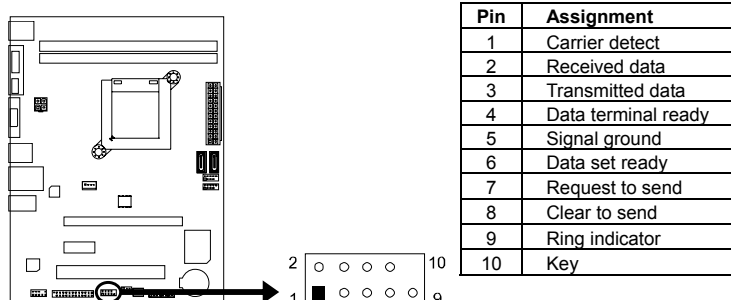
HD Audio		AC'97	
Pin	Assignment	Pin	Assignment
1	Mic Left in	1	Mic In
2	Ground	2	Ground
3	Mic Right in	3	Mic Power
4	GPIO	4	Audio Power
5	Right line in	5	RT Line Out
6	Jack Sense	6	RT Line Out
7	Front Sense	7	Reserved
8	Key	8	Key
9	Left line in	9	LFT Line Out
10	Jack Sense	10	LFT Line Out

**Note1:** It is recommended that you connect a high-definition front panel audio module to this connector to avail of the motherboard's high definition audio capability.

**Note2:** Please try to disable the "Front Panel Jack Detection" if you want to use an AC'97 front audio output cable. The function can be found via O.S. Audio Utility.

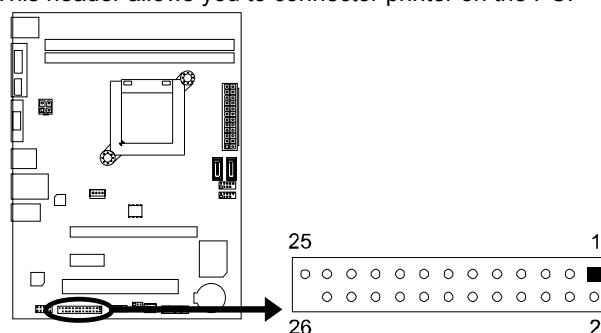
## COM: Serial Port Connector

The motherboard has a Serial Port Connector for connecting RS-232 Port.



## PRINT: 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 3: UEFI BIOS & SOFTWARE

### 3.1 UEFI BIOS Setup

- The BIOS Setup program can be used to view and change the BIOS settings for the computer. The BIOS Setup program is accessed by pressing the <DEL> key after the Power-On Self-Test (POST) memory test begins and before the operating system boot begins.
- For further information of setting up the UEFI BIOS, please refer to the UEFI BIOS Manual in the Setup DVD.

### 3.2 BIOS Update

The BIOS can be updated using either of the following utilities:

- BIOSSTAR BIOS Flasher: Using this utility, the BIOS can be updated from a file on a hard disk, a USB drive (a flash drive or a USB hard drive), or a CD-ROM.
- BIOSSTAR BIOS Update Utility: It enables automated updating while in the Windows environment. Using this utility, the BIOS can be updated from a file on a hard disk, a USB drive (a flash drive or a USB hard drive), or a CD-ROM, or from the file location on the Web.

#### BIOSSTAR BIOS Flasher

BIOSSTAR BIOS Flasher is a BIOS flashing utility providing you an easy and simple way to update your BIOS via USB pen drive.

**Note1:** This utility only allows storage device with FAT32/16 format and single partition.

**Note2:** Shutting down or resetting the system while updating the BIOS will lead to system boot failure.

#### Updating BIOS with BIOSSTAR BIOS Flasher

1. Go to the website to download the latest BIOS file for the motherboard.
2. Then, copy and save the BIOS file into a USB flash (pen) drive.
3. Insert the USB pen drive that contains the BIOS file to the USB port.
4. Power on or reset the computer and then press <F12> during the POST process.

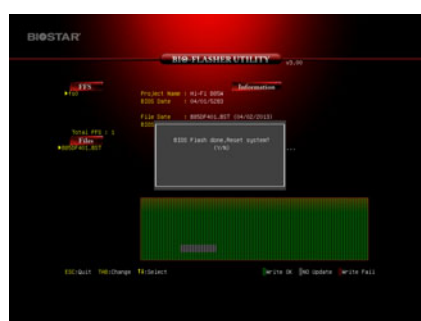
5. After entering the POST screen, the BIOS-FLASHER utility pops out. Choose [fs0] to search for the BIOS file.



6. Select the proper BIOS file, and a message asking if you are sure to flash the BIOS file. Click Yes to start updating BIOS.



7. A dialog pops out after BIOS flash is completed, asking you to restart the system. Press the [Y] key to restart system.



8. While the system boots up and the full screen logo shows up, press <DEL> key to enter BIOS setup.  
After entering the BIOS setup, please go to the **Save & Exit**, using the **Restore Defaults** function to load Optimized Defaults, and select **Save Changes and Reset** to restart the computer. Then, the BIOS Update is completed.

### BIOS Update Utility (through the Internet)

1. Installing BIOS Update Utility from the DVD Driver.
2. Please make sure the system is connected to the internet before using this function.

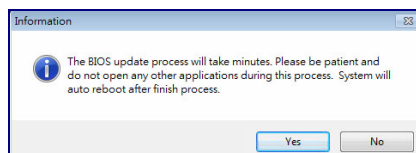
3. Launch BIOS Update Utility and click the **Online Update** button on the main screen.



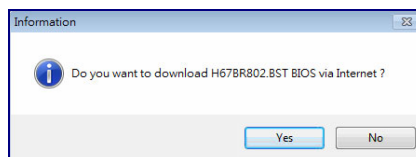
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## AM1MHP / AM1MDP / AM1MLP

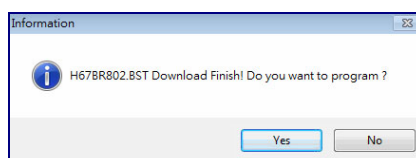
4. An open dialog will show up to request your agreement to start the BIOS update. Click **Yes** to start the online update procedure.



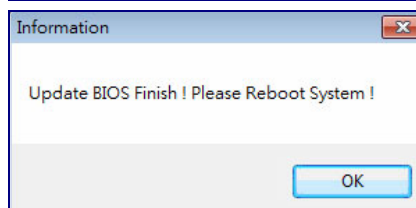
5. If there is a new BIOS version, the utility will ask you to download it. Click **Yes** to proceed.



6. After the download is completed, you will be asked to program (update) the BIOS or not. Click **Yes** to proceed.



7. After the updating process is finished, you will be asked to reboot the system. Click **OK** to reboot.



8. While the system boots up and the full screen logo shows up, press <DEL> key to enter BIOS setup. After entering the BIOS setup, please go to the **Save & Exit**, using the **Restore Defaults** function to load Optimized Defaults, and select **Save Changes and Reset** to restart the computer. Then, the BIOS Update is completed.

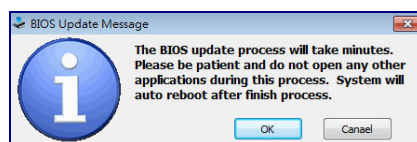
### BIOS Update Utility (through a BIOS file)

1. Installing BIOS Update Utility from the DVD Driver.
2. Download the proper BIOS from <http://www.biostar.com.tw/>

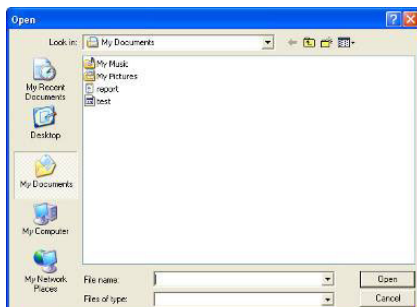
3. Launch BIOS Update Utility and click the **Update BIOS** button on the main screen.



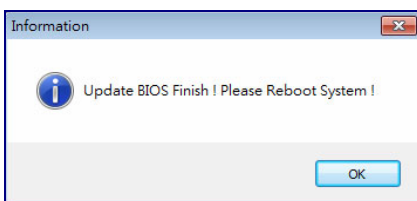
4. A warning message will show up to request your agreement to start the BIOS update. Click **OK** to start the update procedure.



5. Choose the location for your BIOS file in the system. Please select the proper BIOS file, and then click on **Open**. It will take several minutes, please be patient.



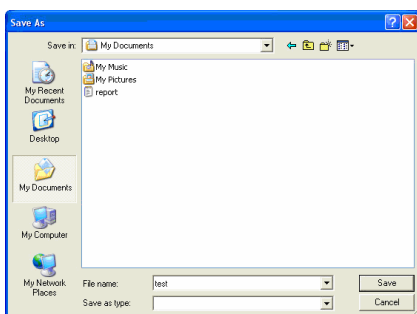
6. After the BIOS Update process is finished, click on **OK** to reboot the system.



7. While the system boots up and the full screen logo shows up, press <DEL> key to enter BIOS setup. After entering the BIOS setup, please go to the **Save & Exit**, using the **Restore Defaults** function to load Optimized Defaults, and select **Save Changes and Reset** to restart the computer. Then, the BIOS Update is completed.

### Backup BIOS

Click the Backup BIOS button on the main screen for the backup of BIOS, and select a proper location for your backup BIOS file in the system, and click **Save**.



### 3.3 Software

#### Installing Software

1. Insert the Setup DVD to the optical drive. The driver installation program would appear if the Auto-run 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

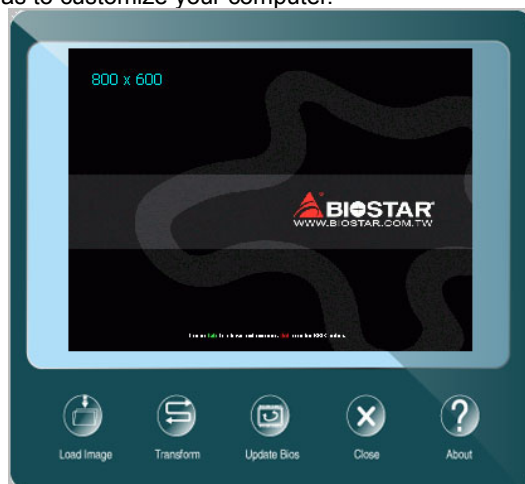
After the installation process is completed, you will see the software icon showing on the desktop. Double-click the icon to launch it.

**Note1:** All the information and content about following software are subject to be changed without notice. For better performance, the software is being continuously updated.

**Note2:** The information and pictures described below are for your reference only. The actual information and settings on board may be slightly different from this manual.

#### BIOScreen Utility

This utility allows you to personalize your boot logo easily. You can choose BMP as your boot logo so as to customize your computer.



Please follow the step-by-step instructions below to update boot logo:

- Load Image : Choose the picture as the boot logo.
- Transform : Transform the picture for BIOS and preview the result.
- Update Bios : Write the picture to BIOS Memory to complete the update.

### eHot-Line

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.

**Note:** 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 text box displays system information: Base board information: Caption: Base Board, CreationClassName: Win32\_BaseBoard, Description: Base Board, HostingBoard: TRUE, HotSwappable: FALSE, Manufacturer: BIOSTAR Group, Name: Base Board, PoweredOn: TRUE, Product: TA780G M2+, Removable: FALSE, Replaceable: TRUE, RequiresDaughterBoard: FALSE, SerialNumber: None, Status: OK, Tag: Base Board, Version: 6.0. On the right, there is a 'Symptom Description' text area. Below this are fields for 'Region', 'CC E-mail', 'Memory Module: Manufacture', and 'Power Supply Manufacture/model'. At the bottom are buttons for 'Send', 'Save As...', and 'Exit'. Annotations with red lines point to various parts: the system information text box, the symptom description area, the 'Send' button, the 'Save As...' button, the 'Exit' button, the 'Region' dropdown, the 'CC E-mail' field, the 'Memory Module: Manufacture' field, and the 'Power Supply Manufacture/model' field. A note on the left explains that asterisks represent important information. A note at the top right says to describe the condition of the system. A note at the bottom right explains that the asterisk indicates important information that must be provided for the mail to be sent.

Send the mail out.

Save these information to a .txt file

Exit this dialog.

Select your area or the area close to you.

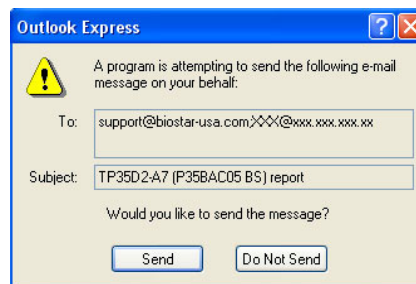
Provide the e-mail address that you would like to send the copy to.

Provide the name of the memory module manufacturer.

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

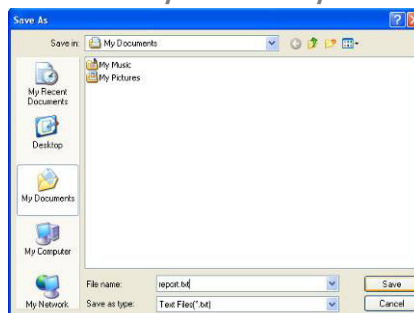
After filling up this information, click **"Send"** to send the mail out. A warning dialog would appear asking for your confirmation; click **"Send"** to confirm or **"Do Not Send"** to cancel.

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.

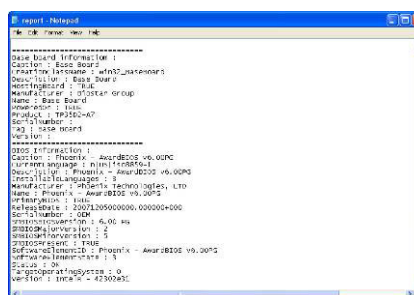


## AM1MHP / AM1MDP / AM1MLP

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.



**Note1:** 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.

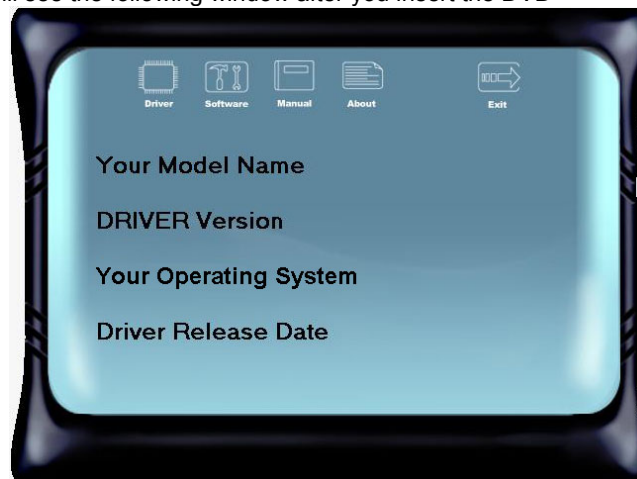
**Note2:** If you are not using Outlook Express as your default e-mail client application, you may need to save the system information to a .txt file and send the file to our tech support with other e-mail application. Go to the following website <http://www.biostar.com.tw/app/en/about/contact.php> for getting our contact information.

## CHAPTER 4: USEFUL HELP

### 4.1 Driver Installation

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

You will see the following window after you insert the DVD



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

**Note:** If this window didn't show up after you insert the Driver DVD, 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 DVD. 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://get.adobe.com/reader/>



## **4.2 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.

## 4.2 AMI BIOS Beep Code

### Boot Block Beep Codes

Number of Beeps	Description
Continuing	Memory sizing error or Memory module not found

### POST BIOS Beep Codes

Number of Beeps	Description
1	Success booting.
8	Display memory error (system video adapter)

## 4.3 Troubleshooting

Probable	Solution
<ol style="list-style-type: none"><li>1. There is no power in the system. Power LED does not shine; the fan of the power supply does not work</li><li>2. Indicator light on keyboard does not shine.</li></ol>	<ol style="list-style-type: none"><li>1. Make sure power cable is securely plugged in.</li><li>2. Replace cable.</li><li>3. Contact technical support.</li></ol>
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"><li>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.</li><li>2. Backing up the hard drive is extremely important. All hard disks are capable of breaking down at any time.</li></ol>
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"><li>1. Back up data and applications files.</li><li>2. Reformat the hard drive. Re-install applications and data using backup disks.</li></ol>
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"><li>1. Set master/slave jumpers correctly.</li><li>2. Run SETUP program and select correct drive types. Call the drive manufacturers for compatibility with other drives.</li></ol>

## APPENDIX: SPEC IN OTHER LANGUAGES

## Arabic

المواصفات	
قاعدة وحدة المعالجة المركزية	AMD "Kabini" Athlon/Sempron APUs, AM1 Socket * يرجى الرجوع إلى الموقع <a href="http://www.biostar.com.tw">www.biostar.com.tw</a> لقائمة دعم المعالج CPU.
الذاكرة	قناة واحدة وتدعم DDR3 1333/ 1600 x2 دي. دي. آر. DDR3 قتلت الذاكرة المزودة DIMM، تتحمل كحد أقصى 16 جيجابايت ذاكرة كل فتحة مزودة DIMM تتحمل دون 512 ECC ميجا بايت 8/4/2/1 جيجابايت دي. دي. آر. DDR3 * يرجى الرجوع إلى الموقع <a href="http://www.biostar.com.tw">www.biostar.com.tw</a> لقائمة دعم الذاكرة.
التخزين	وصلة x 2 SATA 6 سبًا 6 جيجا بايت / الثانية تتحمل ريد الأم AHCI / IDE
شبكة محلية LAN	AM1MHP / AM1MDP: ريبليتيك رتل 8111G REALTEK 1000 / 100 / 10 ميجابايت / الثانية ، تحديد تلقائي ، النصف / القدرة القصوى المزودة AM1MLP: ريبليتيك رتل 8106E REALTEK 100 / 10 ميجابايت / الثانية ، تحديد تلقائي ، النصف / القدرة القصوى المزودة
الترميز الصوتي	ALC662 5.1 قنوات عالية الدقة
ناقل متسلسل عام USB	منفذ x 2 ناقل متسلسل عام USB 3.0 ( 2 في المداخل والمخارج الخلفية) منفذ x 6 ناقل متسلسل عام USB 2.0 ( 2 في المداخل والمخارج الخلفية و 4 من خلال الموزع الداخلي )
فتحات التوسع	x 1 فتحة منفذ الملحقات الإضافية 16 x 2.0 PCIe (4x) x 1 فتحة منفذ الملحقات الإضافية 1 x 2.0 PCIe x 1 فتحة منفذ الملحقات الإضافية PCI
المداخل والمخارج الخلفية	1 x PS/2 الفأرة 1 x PS/2 لوحة المفاتيح للكمبيوتر فتحة توصيل عدد 1 x HDMI وبسيط متعدد العالي الوضوح (AM1MHP) فتحة توصيل عدد 1 x واجهة مرئية رقمية DVI-D (AM1MDP) فتحة توصيل عدد 1 x منظومة العرض المرئي VGA فتحة لتوصيل عدد 1 x الشبكة المحلية LAN فتحة توصيل عدد 2 x ناقل متسلسل عام 2.0 USB فتحة توصيل عدد 2 x ناقل متسلسل عام 3.0 USB فتحة توصيل عدد 3 x جاك للصوت
المداخل والمخارج الداخلية	وصلة x 2 SATA 6 جيجابايت / الثانية موزع x 2 ناقل متسلسل عام 2.0 USB ( كل موزع يتحمل فتحتين ناقل متسلسل عام 2.0 USB ) وصلة للطاقة 1 x 4 دبائيس وصلة للطاقة 1 x 24 دبوس وصلة x 1 مروحة تبريد وحدة المعالجة المركزية وصلة x 1 مروحة تبريد المنظومة موزع x 1 اللوحة الأمامية موزع x 1 الصوت الأمامي موزع x 1 ميموس مباشر موزع x 1 فتحة للطلبة موزع x 1 فتحة تسلسلية
عامل الشكل	عامل شكل مدد التكنولوجيا المتقدمة Micro-ATX ، 226 x 170 مم
أنظمة التشغيل المدعومة	ويندوز إكس بي windows xp / ويندوز 8.1 / 8 / 7 بيو ستار BIOSTAR تحتفظ بحق إضافة أو إزالة الدعم لأي نظام تشغيل مع أو بدون أنظار.

## French

Spécifications	
Support Unité Centrale	AMD "Kabini" Athlon/Sempron APUs, AM1 Socket * Veuillez vous reporter à <a href="http://www.biostar.com.tw">www.biostar.com.tw</a> pour la liste des supports modèles d'Unité Centrale.
Mémoire	Supporte mémoire DDR3 single canal 1333/ 1600 Banc de mémoire 2 x DDR3 DIMM, Supporte max. jusqu'à une mémoire de 16 GB Chaque module DIMM supporte module DDR3 non-ECC 512MB/ 1/ 2/ 4/ 8 GB * Veuillez vous reporter à <a href="http://www.biostar.com.tw">www.biostar.com.tw</a> pour la liste des soutien de la mémoire.
Stockage	Connecteur 2 x SATA 6Gb/s, Supporte système indigène IDE & AHCI mode
Réseau local	AM1MHP / AM1MDP: Realtek RTL 8111G 10/ 100/ 1000 Mb/s auto négociation, capacité bidirectionnelle à l'alternat / bidirectionnelle simultanée AM1MLP: Realtek RTL 8106E 10/ 100 Mb/s auto négociation, capacité bidirectionnelle à l'alternat / bidirectionnelle simultanée
Codec audio	ALC662, Canaux 5.1, écoute audio de haute définition
USB	Port 2x USB 3.0 (2 sur les I/O arrières) Port 6x USB 2.0 (2 sur les I/O arrières et 4 en interne)
Connecteur d'extension	1x PCIe 2.0 x16 Fente (x4) 1x PCIe 2.0 x1 Fente 1x PCI x1 Fente
I/O arrières	1x PS/2 Clavier 1x PS/2 Souris 1x Port HDMI (AM1MHP) 1x Port DVI-D (AM1MDP) 1x Port VGA 1x port LAN 2x Port USB 2.0 2x Port USB 3.0 3x entrées audio
I/O en interne	2x Connecteur SATA 6.0Gb/s 2x embases USB 2.0 (chaque embase supporte 2 Ports USB 2.0) 1x 4-Broche de carte 1x 24-Broche de carte 1x Connecteur ventilateur unité centrale 1x Connecteur ventilateur système 1x Fiche panneau avant 1x Fiche audio avant 1x Fiche mémoire CMOS vide 1x Embase port imprimante 1x Embase port série
Facteur d'encombrement	Facteur d'encombrement Micro-ATX, 226 mm x 170 mm
Support SE	Windows XP / 7 / 8 / 8.1 Biostar se réserve le droit d'ajouter ou d'enlever le support pour toute SE avec ou sans préavis.

## German

Spezifikationen	
CPU-Unterstützung	AMD "Kabini" Athlon/Sempron APUs, AM1 Socket * Bitte konsultieren Sie <a href="http://www.biostar.com.tw">www.biostar.com.tw</a> für CPU-Unterstützungsliste
Festplattenspeicher	Unterstützt single-channel DDR3 1333/ 1600 2 x DDR3 DIMM-SpeicherSlot, Max. Unterstützung bis zu 16 GB-Speicher Jedes DIMM unterstützt nicht-ECC 512MB/ 1/ 2/ 4/ 8 GB DDR3-Module * Bitte konsultieren Sie <a href="http://www.biostar.com.tw">www.biostar.com.tw</a> für Speicherunterstützung Liste.
Arbeitsspeicher	2x SATA 6Gb-Verbindung, Unterstützt Ureinwohner IDE & AHCI Modus
LAN	AM1MHP / AM1MDP: Realtek RTL 8111G 10/ 100/ 1000 Mb Auto-Negotiation, Halb- / Voll-Duplex-fähig AM1MLP: Realtek RTL 8106E 10/ 100 Mb Auto-Negotiation, Halb- / Voll-Duplex-fähig
Audio-Codec	ALC662, 5.1 Kanäle, HD-Audio
USB	2x USB 3.0-Port (2 hintere I/Os) 6x USB 2.0-Port (2 hintere I/Os und 4 via interne Header)
Erweiterungsanschlüsse	1x PCIe 2.0 x16-Slot (x4) 1x PCIe 2.0 x1-Slot 1x PCI x1-Slot
Hintere I/Os	1x PS/2-Maus 1x PS/2-Keyboard 1x HDMI-Port (AM1MHP) 1x DVI-D-Port (AM1MDP) 1x VGA-Port 1x LAN-Port 2x USB 2.0-Port 2x USB 3.0-Port 3x Audio Jack
Interne I/Os	2x SATA 6.0Gb/s-Verbindung 2x USB 2.0-Header (jeder Header unterstützt 2 USB 2.0-Ports) 1x 4-Pin-Stromverbindung 1x 24-Pin-Stromverbindung 1x CPU-Ventilatorverbindung 1x System-Ventilatorverbindung 1x Header für Frontpanel 1x Header für Frontaudio 1x Header für klares CMOS 1x Header für Druckerport 1x Serieller Port-Header
Formfaktor	Micro-ATX Formfaktor, 226 mm x 170 mm
OS-Unterstützung	Windows XP / 7 / 8 / 8.1 Biostar reserves the right to add or remove support for any OS with or without notice.

## Italian

Specificazioni	
Supporto processore	AMD "Kabini" Athlon/Sempron APUs, AM1 Socket * Si prega di consultare <a href="http://www.biostar.com.tw">www.biostar.com.tw</a> per la lista di supporto del processore
Memoria	Supporta DDR3 1333/ 1600 Singolo Canale 2 x DDR3 DIMM Slot di Memoria Supporta fino a 16 GB Memoria Ogni DIMM supporta non-ECC 512MB/ 1/ 2/ 4/ 8 GB DDR3 moduli * Si prega di consultare <a href="http://www.biostar.com.tw">www.biostar.com.tw</a> per la lista di supporto del memoria.
Memorizzazione	Connettore 2x SATA 6Gb/s Supporta nativo IDE & AHCI modo
Catena	AM1MHP / AM1MDP: Realtek RTL 8111G 10/ 100/ 1000 Mb auto negoziazione, capacita di duplex Meta / Completo AM1MLP: Realtek RTL 8106E 10/ 100 Mb auto negoziazione, capacita di duplex Meta / Completo
Codec Audio	ALC662 Canali Audio di Alta Definizione 5.1
USB	Slot 2x USB 3.0 (2 nei ingressi/ uscite posteriore) Slot 6x USB 2.0 (2 nei ingressi/ uscite posteriore e 4 da distributori interni)
Slot di espansione	Slot 1x PCIe 2.0 x16 (x4) Slot 1x PCIe 2.0 x1 Slot 1x PCI
Ingressi/ Uscite Posteriore	Mouse 1x PS/2 Tastiera 1x PS/2 Slot 1x HDMI (AM1MHP) Slot 1xDVI-D (AM1MDP) Slot 1x VGA Slot 1x LAN Slot 2x USB 2.0 Slot 2x USB 3.0 Jack audio 3x
Ingressi/ Uscite Interni	Connettore 2x SATA 6.0Gb/s Distributore 2x USB 2.0(ogni distributore supporta 2 slot USB 2.0) Connettore con 4 pin x1 Connettore con 24 pin x1 Connettore Ventilatore processore x1 Connettore Ventilatore Sistema x1 Distributore Pannello Frontale x1 Distributore Audio Frontale x1 Distributore CMOS Diretto x1 Distributore Slot Stampante x1
Fattore di Forma	Fattore di Forma Micro-ATX, 226 mm x 170 mm
Supporto SO	Windows XP / 7 / 8 / 8.1 Biostar si riserva il diritto di aggiungere o ritirare il supporto per qualsiasi SO con o senza preavviso.

## Japanese

仕様	
CPU サポート	AMD "Kabini" Athlon/Sempron APUs, AM1 Socket *CPU サポート リストについては、 <a href="http://www.biostar.com.tw">www.biostar.com.tw</a> を参照してください。
メモリ	シングルチャンネル DDR3 1333/ 1600 をサポート 2xDDR3 DIMM メモリ スロット、最大 16GB メモリまでサポート 各 DIMM は、非-ECC 512MB/ 1/2/4/8 GB DDR3 モジュールをサポートしています *サポートされているメモリのリストについては、 <a href="http://www.biostar.com.tw">www.biostar.com.tw</a> を参照してください。
保存スペース	2x SATA 6Gb/s コネクタ, ネイティブ IDE & AHCI モード のサポート
LAN	AM1MHP / AM1MDP: Realtek RTL 8111G 10/ 100/ 1000 Mb/s オートネゴシエーション、半/全 二重通信 AM1MLP: Realtek RTL 8106E 10/ 100 Mb/s オートネゴシエーション、半/全 二重通信
オーディオ コーデック	ALC662 5.1 チャンネル, ハイ デフィニション オーディオ
USB	2x USB 3.0 ポート (後部 I/O に2つ) 6x USB 2.0 ポート (後部 I/O に2つ 及び 内蔵ヘッダー経由に4つ)
拡張スロット	1x PCIe 2.0 x16 スロット (x4) 1x PCIe 2.0 x1 スロット 1x PCI スロット
後部 I/O	1x PS/2 キーボード 1x PS/2 マウス 1x HDMI ポート (AM1MHP) 1x DVI-D ポート (AM1MDP) 1x VGA ポート 1x LAN ポート 2x USB 2.0 ポート 2x USB 3.0 ポート 3x オーディオ ジャック
内蔵 I/O	2x SATA 6.0Gb/s コネクタ 2x USB 2.0 ヘッダー (各ヘッダーは、2つの USB 2.0 ポートをサポートしています) 1x 4-Pin パワー コネクタ 1x 24-Pin パワー コネクタ 1x CPU ファン コネクタ 1x システム ファン コネクタ 1x フロント パネル ヘッダー 1x フロント オーディオ ヘッダー 1x クリア CMOS ヘッダー 1x プリンター ポート ヘッダー 1x シリアル ポート ヘッダー
フォーム ファクタ	Micro-ATX フォーム ファクタ、226 mm x 170 mm
サポート OS	Windows XP / 7 / 8 / 8.1 Biostar には、通知なしでサポート OS を変更する権限があります。

## Polish

Specyfikacje techniczne	
Obsługa procesora	AMD "Kabini" Athlon/Sempron APUs, AM1 Socket * Proszę sprawdzić listę obsługiwanych procesorów na stronie internetowej <a href="http://www.biostar.com.tw">www.biostar.com.tw</a>
Pamięć	Pojedynczy pamięci DDR3 1333/ 1600 Dwukanałowa 2 x DDR3 DIMM Pamięć Gniazda procesora (Slot), Maksymalna wielkość pamięci 16 GB Każdy DIMM obsługuje jeden moduł non-ECC 512MB/ 1/ 2/ 4/ 8 GB DDR3 * Proszę sprawdzić listę obsługiwanych pamięć na stronie internetowej <a href="http://www.biostar.com.tw">www.biostar.com.tw</a>
Przechowywanie	Złącze 2x SATA 6Gb/s, Obsługa rodzimy IDE & AHCI tryb
LAN	AM1MHP / AM1MDP: Układ RTL 8111G 10/ 100/ 1000 Mb auto negocjacja, pojemność duplex Połowe / Pełny AM1MLP: Układ RTL 8106E 10/ 100 Mb auto negocjacja, pojemność duplex Połowe / Pełny
Codec Audio	ALC662 Kanały Audio wysokiej Definicji 5.1
USB	2 x złącza USB 3.0 (2 przez tylne porty wejścia/ wyjścia oraz) 6 x złącza USB 2.0 (2 przez tylne porty wejścia/ wyjścia oraz 4 przez wewnętrzne porty)
Złącza rozszerzeń	złącza 1x PCIe 2.0 x16 (x4 Slot) złącza 1x PCIe 2.0 x1 złącza 1x PCI
Tylne porty wejścia/ wyjścia	Myszka 1x PS/2 Klawiatura 1x PS/2 Port 1x HDMI (gniazdo) (AM1MHP) Port 1x DVI-D (AM1MDP) Port 1x VGA Port 1x LAN Porty 2x USB 2.0 Porty 2x USB 3.0 Porty audio 3x
Wewnętrzne porty wejścia/ wyjścia	Złącza 2x SATA 6.0Gb/s Złącza 2x USB 2.0 (każde złącze obsługuje dodatkowe 2 porty USB 2.0) Złącza 4 pionowe x 1 Złącza 24 pionowe x 1 Złącze wentylatora CPU x 1 Złącze wentylatora obudowy x 1 Złącze przedniego panelu x1 Złącze audio przedniego panelu x1 Złącze bezpośrednie CMOS x1 Złącze port drukarki x1 Port szeregowy x1
Obudowa	Obudowa Micro-ATX, 226 mm x 170 mm
Obsługa OS	Windows XP / 7 / 8 / 8.1 Biostar zastrzega sobie prawo do dodania lub wycofania obsługi dla OS, z wypowiedzeniem lub bez wypowiedzenia.



## Portuguese

Especificações	
Suporte Processador	AMD "Kabini" Athlon/Sempron APUs, AM1 Socket * Por favor consulte <a href="http://www.biostar.com.tw">www.biostar.com.tw</a> para obter uma lista de suporte do processador.
Memória	Suporta DDR3 1333/ 1600 Canal único 2 x DDR3 DIMM Slot de memória Suporta até 16 GB Memória Cada DIMM suporta non-ECC 512MB/ 1/ 2/ 4/ 8 GB DDR3 módulo * Por favor consulte <a href="http://www.biostar.com.tw">www.biostar.com.tw</a> para obter uma lista de suporte do memória.
Armazenamento	Conector 2x SATA 6Gb/s, Suporta nativo IDE & AHCI modo
LAN	AM1MHP / AM1MDP: Realtek RTL 8111G 10/ 100/ 1000 Mb auto negociação, capacidade duplex Metade / Cheio AM1MLP: Realtek RTL 8106E 10/ 100 Mb auto negociação, capacidade duplex Metade / Cheio
Codec de Audio	ALC662 Canais de Áudio de Alta Definição 5.1
USB	Porta 2x USB 3.0 (2 nas entradas/saídas traseiras) Porta 6x USB 2.0 (2 nas entradas/saídas traseiras e 4 pelos Dispositivos internos)
Slots de expansão	Porta 1x PCIe 2.0 x16 (x4) Porta 1x PCIe 2.0 x1 Porta 1x PCI
Entradas/Saídas no painel traseiro	Mouse 1x PS/2 Teclado 1x PS/2 Porta 1x HDMI (AM1MHP) Porta 1x DVI-D (AM1MDP) Porta 1x VGA Porta 1x LAN Porta 2x USB 2.0 Porta 2x USB 3.0 Soquete audio 3x
Conectores na placa	Conector 2x SATA 6.0Gb/s Dispositivo 2x USB 2.0 (cada Dispositivo suporta 2 portas USB 2.0) Conector de 4 pinos x1 Conector de 24 pinos x1 Conector de Ventoinha processador x1 Conector de Ventoinha Sistema x1 Dispositivo Painel Frontal x1 Dispositivo de Audio Frontal x1 Dispositivo CMOS Direct x1 Dispositivo Porta Impressora x1 Dispositivo Porta Série x1
Fator de Forma	Fator de Forma Micro-ATX, 226 mm x 170 mm
Suporte OS	Windows XP / 7 / 8 / 8.1 Biostar reserva seu direito de adicionar ou retirar o suporte para qualquer OS com ou sem notificação.

## Russian

Спецификации	
Поддержка центрального процессора	AMD "Kabini" Athlon/Sempron APU's, AM1 Socket * Перечень поддержки центрального процессора смотрите на <a href="http://www.biostar.com.tw">www.biostar.com.tw</a>
Память	Поддерживает Одноканальный DDR3 1333/ 1600 2 гнезда платы памяти DDR3 DIMM, максимальная память до 16 Гб Каждый модуль DIMM поддерживает модуль не-ECC 512 Мб/ 1/ 2/ 4/ 8 Гб DDR3 * Перечень поддержки памяти смотрите на <a href="http://www.biostar.com.tw">www.biostar.com.tw</a> .
Накопитель	Соединитель 2x SATA 6 Гб/с, Поддерживает родной IDE & AHCI режим
Локальная сеть	AM1MHP / AM1MDP: Realtek RTL 8111G Автосогласование 10/ 100/ 1000 Мб/с, работает в полно/полудуплексном режиме AM1MLP: Realtek RTL 8106E Автосогласование 10/ 100 Мб/с, работает в полно/полудуплексном режиме
Аудиокодек	ALC662 Каналы 5.1, высококачественное аудио
USB	2 порта USB 3.0 (2 сзади ввода-вывода) 6 порта USB 2.0 (2 сзади ввода-вывода и 4 через внутренние контакты)
Гнезда расшир.	1x PCIe 2.0 x16 гнездо (x4) 1x PCIe 2.0 x1 гнездо 1x PCI гнездо
Задняя плата ввода-вывода	1 мышь PS/2 1 клавиатура PS/2 1 порт HDMI (AM1MHP) 1 порт DVI-D (AM1MDP) 1 порт VGA 1 порт локальной сети 2 порта USB 2.0 2 порта USB 3.0 3 гнезд для подключения наушников
Внутр. Плата ввода-вывода	Соединитель 2x SATA 6 Гб/с 2 контакта USB 2.0 (каждый контакт поддерживает 2 порта USB 2.0) 1 4-выводный разъем питания 1 24-выводный разъем питания 1 разъем вентилятора ЦП 1 разъема вентилятора системы 1 контакт передней панели 1 контакт передней аудиопанели 1 контакт микросхемы Clear CMOS 1 контакт порта принтера 1 контакт последовательного порта
Конструктив	Форм-фактор Micro-ATX, 226 мм x 170 мм
Поддержка ОС	Windows XP / 7 / 8 / 8.1 Biostar оставляет за собой право добавлять или удалять поддержку любой ОС, с уведомлением или без.

## Spanish

Especificaciones	
Compatibilidad con el procesador	AMD "Kabini" Athlon/Sempron APUs, AM1 Socket *Por favor consultar con <a href="http://www.biostar.com.tw">www.biostar.com.tw</a> para la lista de compatibilidad con el procesador.
Memoria	Soporta DDR3 1333/ 1600 monocanal 2x DDR3 DIMM Ranura de memoria Soporta hasta 16 GB Memoria Cada DIMM soporta un modulo non-ECC 512MB/ 1/ 2/ 4/ 8 GB DDR3 *Por favor consultar con <a href="http://www.biostar.com.tw">www.biostar.com.tw</a> para la lista de compatibilidad con el memoria.
Almacenamiento de información	Conector 2x SATA 6Gb/s, Soporta nativo IDE & AHCI modo
LAN	AM1MHP / AM1MDP: Realtek RTL 8111G 10/ 100/ 1000 Mb/s auto negociación, capacidad dúplex Mitad/Completo AM1MLP: Realtek RTL 8106E 10/ 100 Mb/s auto negociación, capacidad dúplex Mitad/Completo
Códec Audio	ALC662, Canales Audio de Alta Definición 5.1
USB	Ranura 2x USB 3.0 (2 en las entrada/salidas posteriores) Ranura 6x USB 2.0 (2 en las entradas/salidas posteriores y 4 por los distribuidores internos)
Ranuras de Extinción	Ranura 1x PCIe 2.0 x16 (x4) Ranura 1x PCIe 2.0 x1 Ranura 1x PCI
Panel trasero de E/S	Ratón 1x PS/2 Teclado 1x PS/2 Ranura 1x HDMI (AM1MHP) Ranura 1x DVI-D (AM1MDP) Ranura 1x VGA Ranura 1x LAN Ranura 2x USB 2.0 Ranura 2x USB 3.0 Socket audio 3x
Conectores en placa	Conector 2x SATA 6Gb's Distribuidor 2x USB 2.0 (cada distribuidor soporta 2 ranuras USB 2.0) Conector con 4 patillas x1 Conector con 24 patillas x1 Conector Ventilador procesador x1 Conector Ventilador Sistema x1 Distribuidor Panel Frontal x1 Distribuidor Audio Frontal x1 Distribuidor CMOS Directo x1 Distribuidor Ranura Impresora x1 Distribuidor Ranura Serie x1
Factor de Forma	Factor de Forma Micro-ATX, 226 mm x 170 mm
Soporte OS	Windows XP / 7 / 8 / 8.1 Biostar reserva su derecho de añadir o retirar el soporte para cada OS con o sin notificación.

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