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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.

1.2 PACKAGE CHECKLIST

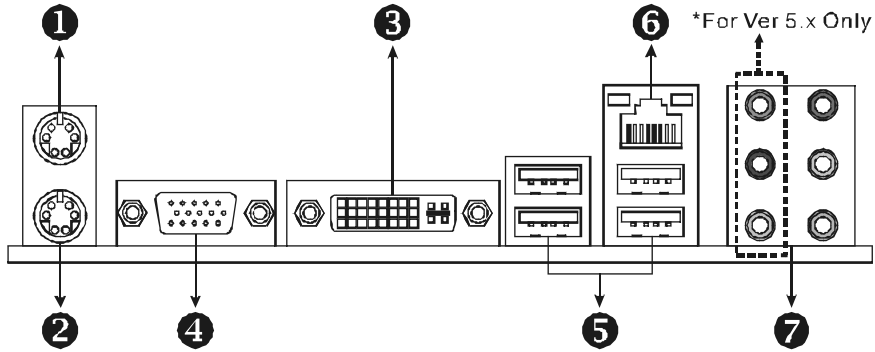
- ✚ HDD Cable X 1
- ✚ Serial ATA Cable X 1
- ✚ Rear I/O Panel for ATX Case X 1
- ✚ User's Manual X 1
- ✚ Fully Setup Driver CD X 1
- ✚ FDD Cable X 1 (optional)
- ✚ USB 2.0 Cable X1 (optional)
- ✚ S/PDIF out Cable X 1 (optional)

1.3 MOTHERBOARD FEATURES

	<i>Ver 5.x</i>	<i>Ver 6.x</i>
CPU	Socket AM2 AMD Athlon 64 / Athlon 64 FX / Athlon 64 x2 / Sempron processors AMD 64 Architecture enables 32 and 64 bit computing Supports Hyper Transport and Cool'n-Quiet	Socket AM2 AMD Athlon 64 / Athlon 64 FX / Athlon 64 x2 / Sempron processors AMD 64 Architecture enables 32 and 64 bit computing Supports Hyper Transport and Cool'n-Quiet
FSB	Supports up to 1 GHz Bandwidth Support HyperTransport	Supports up to 1 GHz Bandwidth Support HyperTransport
Chipset	AMD 690G AMD SB600	AMD 690G AMD SB600
Super I/O	ITE 8716F 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	ITE 8716F 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	DDR2 DIMM Slots x 4 Max Memory Capacity 4GB Each DIMM supports 256/512MB & 1GB DDR2 Dual Channel Mode DDR2 memory module Supports DDR2 533 / 667 / 800 Registered DIMM and ECC DIMM is not supported	DDR2 DIMM Slots x 4 Max Memory Capacity 4GB Each DIMM supports 256/512MB & 1GB DDR2 Dual Channel Mode DDR2 memory module Supports DDR2 533 / 667 / 800 Registered DIMM and ECC DIMM is not supported
Graphics	Integrated in AMD 690G Chipset Max Shared Video Memory is 512MB	Integrated in AMD 690G Chipset Max Shared Video Memory is 512MB
IDE	Integrated IDE Controller Ultra DMA 33 / 66 / 100 / 133 Bus Master Mode supports PIO Mode 0~4,	Integrated IDE Controller Ultra DMA 33 / 66 / 100 / 133 Bus Master Mode supports PIO Mode 0~4,
SATA II	Integrated Serial ATA Controller Data transfer rates up to 3 Gb/s SATA Version 2.0 specification compliant	Integrated Serial ATA Controller Data transfer rates up to 3 Gb/s SATA Version 2.0 specification compliant
LAN	Marvell 88E8056 / 88E8039 (optional) 10 / 100 Mb/s / 1Gb/s auto negotiation (Gigabit bandwidth is for Marvell 88E8056 only) Half / Full duplex capability	Marvell 88E8056 / 88E8039 (optional) 10 / 100 Mb/s / 1Gb/s auto negotiation (Gigabit bandwidth is for Marvell 88E8056 only) Half / Full duplex capability

	<i>Ver 5.x</i>		<i>Ver 6.x</i>	
Sound	ALC888 7.1 channels audio out High Definition Audio		ALC662 5.1 channels audio out High Definition Audio	
Slots	PCI Express x16 slot	x1	PCI Express x16 slot	x1
	PCI Express x 1 slot	x1	PCI Express x 1 slot	x1
	PCI slot	x2	PCI slot	x2
On Board Connector	Floppy connector	x1	Floppy connector	x1
	IDE Connector	x1	IDE Connector	x1
	SATA Connector	x4	SATA Connector	x4
	Front Panel Connector	x1	Front Panel Connector	x1
	Front Audio Connector	x1	Front Audio Connector	x1
	CD-in Connector	x1	CD-in Connector	x1
	S/PDIF out connector	x1	S/PDIF out connector	x1
	CPU Fan header	x1	CPU Fan header	x1
	System Fan header	x1	System Fan header	x1
	CMOS clear header	x1	CMOS clear header	x1
	USB connector	x3	USB connector	x3
	Power Connector (24pin)	x1	Power Connector (24pin)	x1
	Power Connector (4pin)	x1	Power Connector (4pin)	x1
	Printer Port Connector	x1	Printer Port Connector	x1
Serial port Connector	x1	Serial port Connector	x1	
Back Panel I/O	PS/2 Keyboard	x1	PS/2 Keyboard	x1
	PS/2 Mouse	x1	PS/2 Mouse	x1
	DVI port	x1	DVI port	x1
	VGA port	x1	VGA port	x1
	LAN port	x1	LAN port	x1
	USB Port	x4	USB Port	x4
	Audio Jack	x6	Audio Jack	x3
Board Size	215 mm(W) x 244 mm(L)		215 mm(W) x 244 mm(L)	
Special Features	RAID 0 / 1 / 1+0 support		RAID 0 / 1 / 1+0 support	
OS Support	Windows XP / VISTA Biostar Reserves the right to add or remove support for any OS With or without notice.		Windows XP / VISTA Biostar Reserves the right to add or remove support for any OS With or without notice.	

1.4 REAR PANEL CONNECTORS



1 PS/2 Mouse Port

2 PS/2 Keyboard Port

3 DVI-D VGA Port

The Digital Visual Interface (DVI) is a video interface transmitting digital video signals to digital display devices such as flat panel LCDs or digital projectors. The DVI-D connector allows digital signals transmission only.

4 D-Sub VGA Port

Transmit analog video signals to computer monitor or any other display panels equipped with D-Sub VGA input.

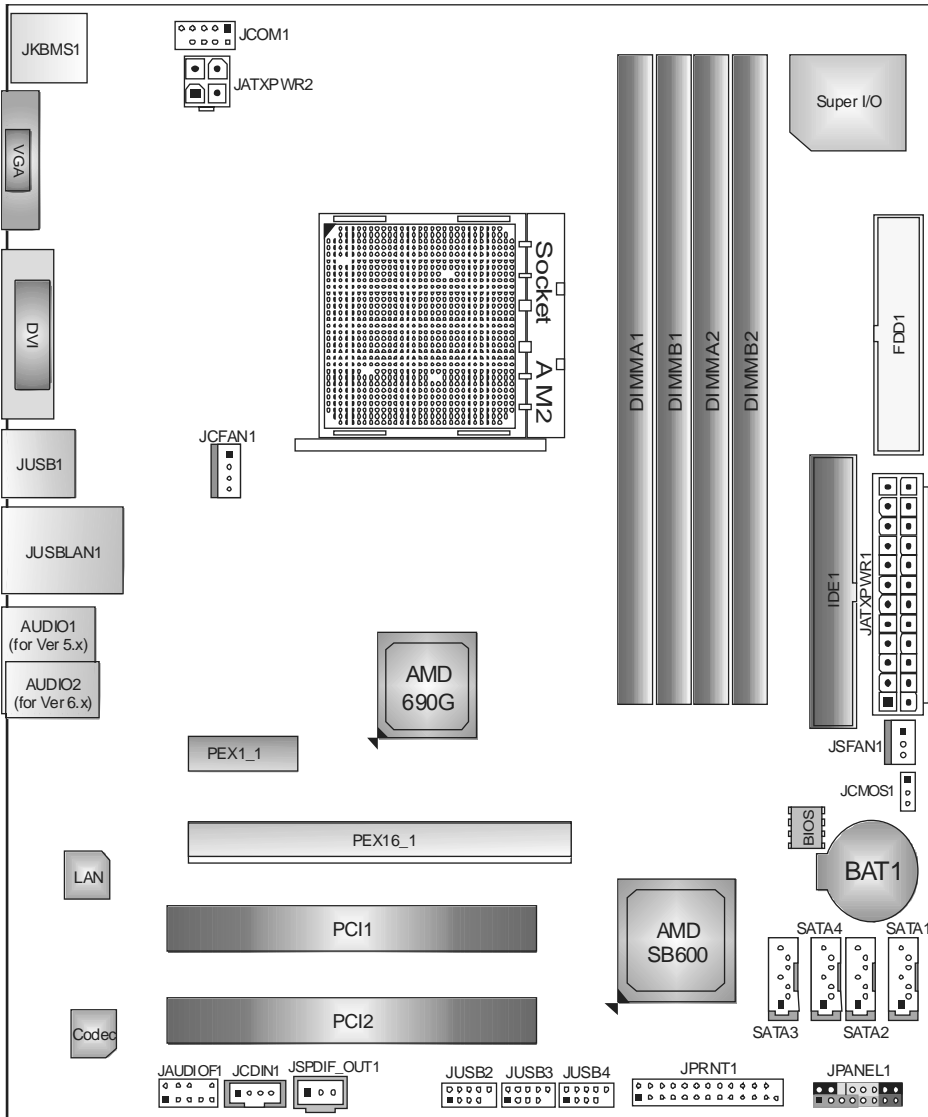
5 USB 2.0 Port x 4

6 RJ-45 LAN Port

7 Audio Jack x 6 (for Ver 5.x) / Audio Jack x 3 (for Ver 6.x)

Port	2-Channel	4-Channel	6-Channel/8-Channel
Blue	Line-In	Line-In	Line-In
Green	Line-Out	Front Speaker Out	Front Speaker Out
Pink	Mic In	Mic In	Mic In
Orange			Center/Subwoofer
Black	Rear Speaker Out	Rear Speaker Out	Rear Speaker Out
Grey			Side Speaker Out

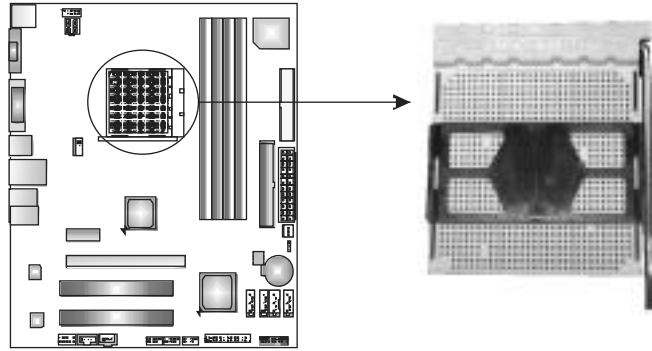
1.5 MOTHERBOARD LAYOUT



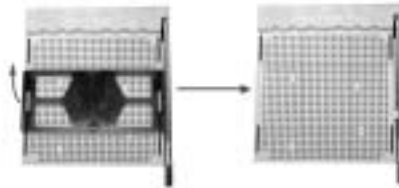
Note: ■ represents the 1st pin.

CHAPTER 2: HARDWARE INSTALLATION

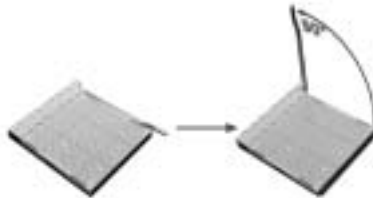
2.1 INSTALLING CENTRAL PROCESSING UNIT (CPU)



Step 1: Remove the socket protection cap.



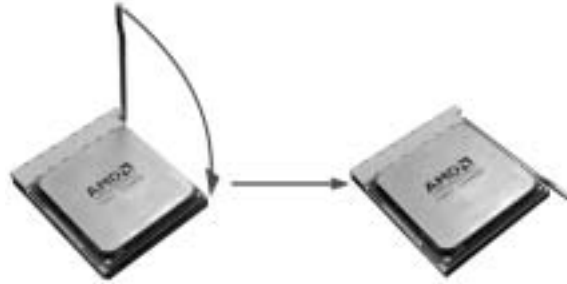
Step 2: Pull the lever toward direction A from the socket and then raise the lever up to a 90-degree angle.



Step 3: 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.



Step 4: Hold the CPU down firmly, and then close the lever toward direct B to complete the installation.

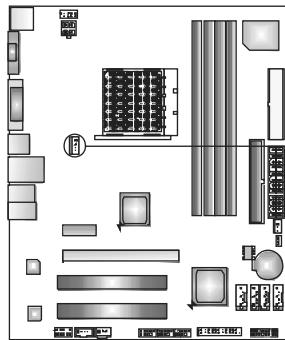


Step 5: Put the CPU Fan on the CPU and buckle it. Connect the CPU FAN power cable to the JCFAN1. This completes the installation.

2.2 FAN HEADERS

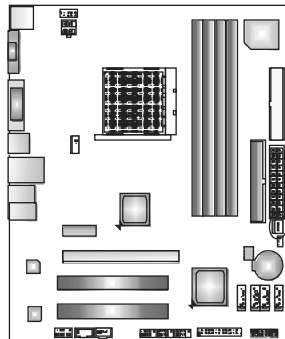
These fan headers support cooling-fans built in the computer. The fan cable and connector may be different according to the fan manufacturer. Connect the fan cable to the connector while matching the black wire to pin#1.

JCFAN1: CPU Fan Header



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

JSFAN1: System Fan Header



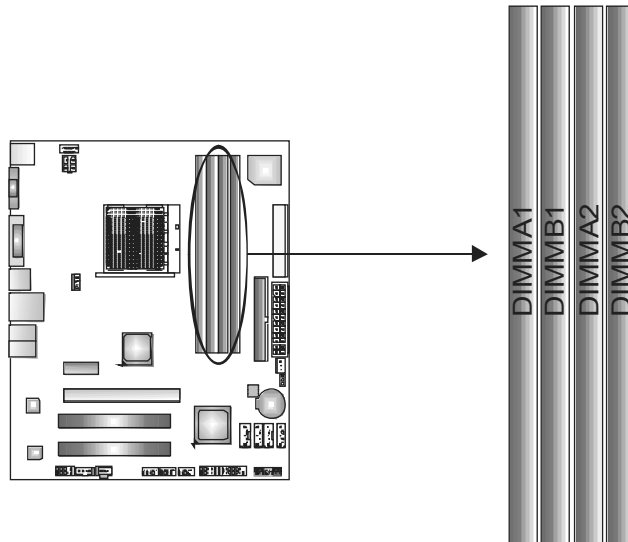
Pin	Assignment
1	Ground
2	+12V
3	FAN RPM rate sense

Note:

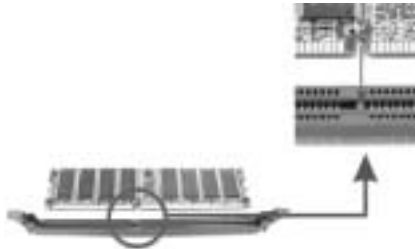
The JCFAN1 supports 4-pin head connector. The JSFAN1 supports 3-pin head connector. When connecting with wires onto connectors, please note that the red wire is the positive and should be connected to pin#2, and the black wire is Ground and should be connected to GND.

2.3 INSTALLING SYSTEM MEMORY

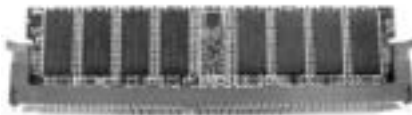
A. Memory Modules



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	DDR2 Module	Total Memory Size
DIMMA1	256MB/512MB/1024MB	Max is 4GB.
DIMMB1	256MB/512MB/1024MB	
DIMMA2	256MB/512MB/1024MB	
DIMMB2	256MB/512MB/1024MB	

C. Dual Channel Memory installation

To trigger the Dual Channel function of the motherboard, the memory module must meet the following requirements:

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

Dual Channel Status	DIMMA1	DIMMB1	DIMMA2	DIMMB2
Enabled	O	O	X	X
Enabled	X	X	O	O
Enabled	O	O	O	O

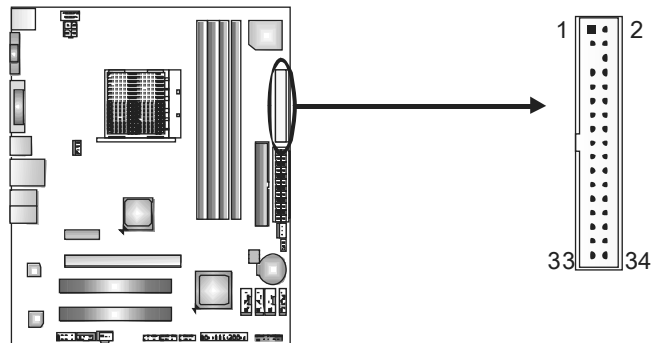
(O means memory installed, X means memory not installed.)

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

2.4 CONNECTORS AND SLOTS

FDD1: Floppy Disk Connector

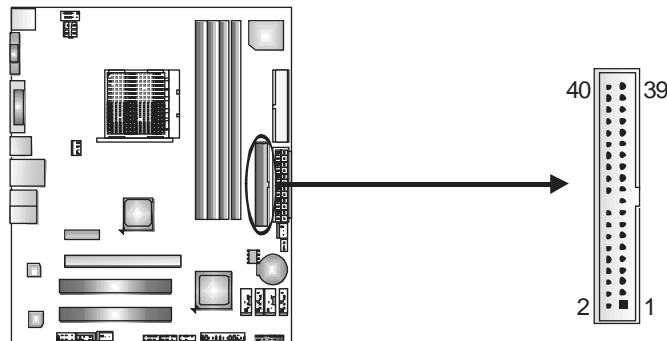
The motherboard provides a standard floppy disk connector that supports 360K, 720K, 1.2M, 1.44M and 2.88M floppy disk types. This connector supports the provided floppy drive ribbon cables.



IDE1: Hard Disk Connectors

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

The IDE connectors can connect a master and a slave drive, so you can connect up to two hard disk drives.

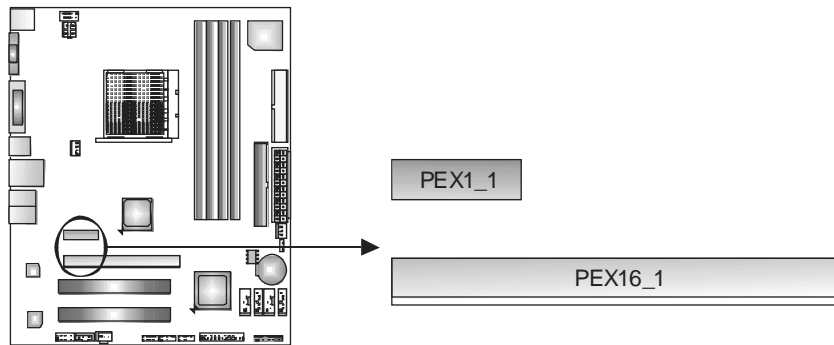


PEX16_1: PCI-Express x16 Slot

- PCI-Express 1.0a compliant.
- Maximum theoretical realized bandwidth of 4GB/s simultaneously per direction, for an aggregate of 8GB/s totally.

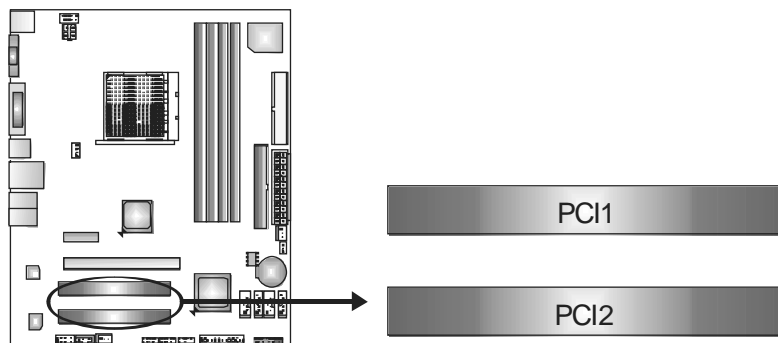
PEX1_1: PCI-Express x1 Slot

- PCI-Express 1.0a compliant.
- Data transfer bandwidth up to 250MB/s per direction; 500MB/s in total.
- PCI-Express supports a raw bit-rate of 2.5Gb/s on the data pins.
- 2X bandwidth over the traditional PCI architecture.



PCI1~PCI2: Peripheral Component Interconnect Slots

This motherboard is equipped with 2 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

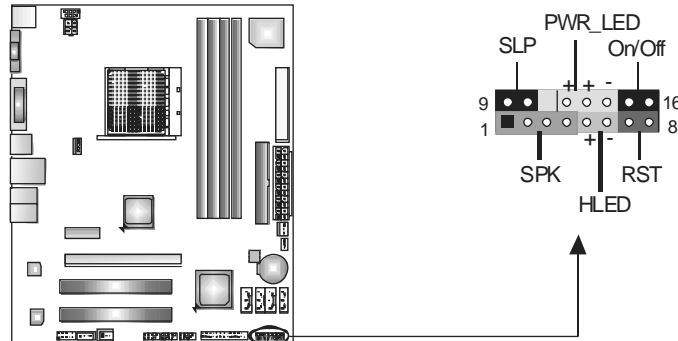
The illustration shows how to set up jumpers. When the jumper cap is placed on pins, the jumper is “close”, if not, that means the jumper is “open”.



3.2 DETAIL SETTINGS

JPANEL1: Front Panel Header

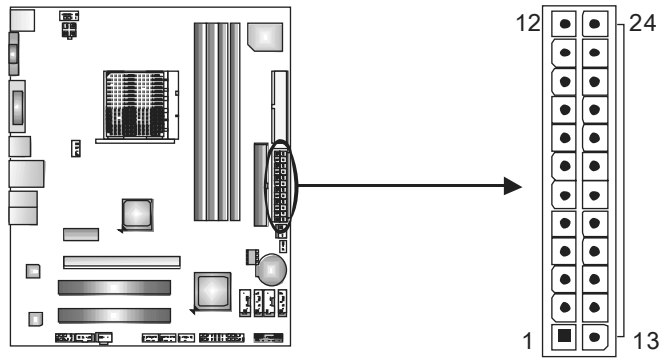
This 16-pin connector includes Power-on, Reset, HDD LED, Power LED, Sleep button and speaker connection. It allows user to connect the PC case's front panel switch functions.



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

JATXPWR1: ATX Power Source Connector

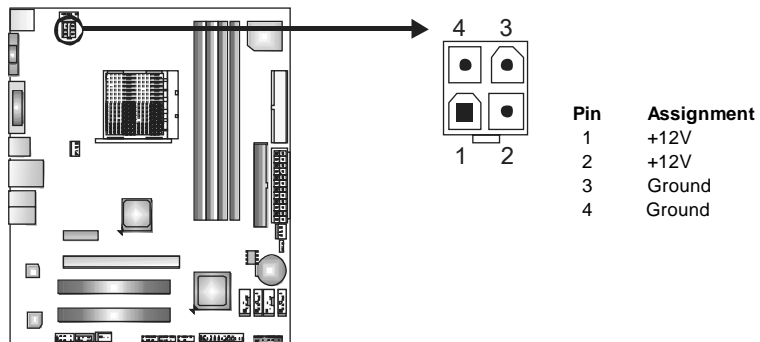
This connector allows user to connect 24-pin power connector on the ATX power supply.



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

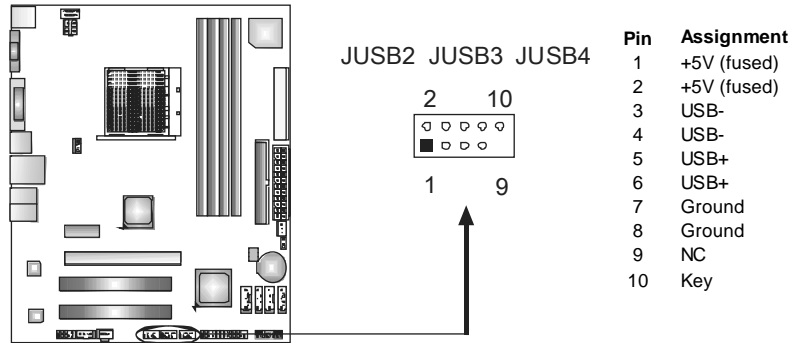
JATXPWR2: ATX Power Source Connector

By connecting this connector, it will provide +12V to CPU power circuit.



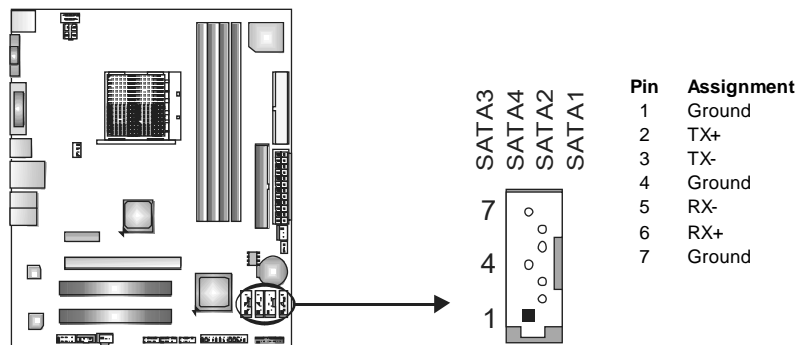
JUSB2/JUSB3/JUSB4: Headers for USB 2.0 Ports at Front Panel

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



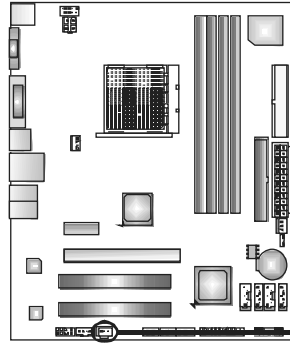
SATA1~SATA4: Serial ATA Connectors

The motherboard has a PCI to SATA Controller with 4 channels SATA interface.

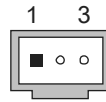


JSPDIF_OUT1: Digital Audio-out Connector

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

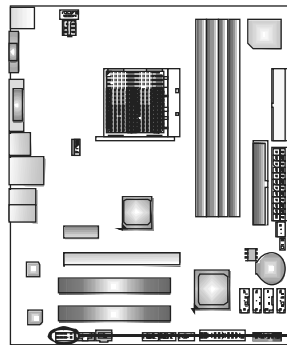


Pin	Assignment
1	+5V
2	SPDIF_OUT
3	Ground

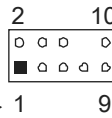


JAUDIOF1: Front Panel Audio Header

This header allows user to connect the front audio output cable with the PC front panel. It will disable the output on back panel audio connectors.

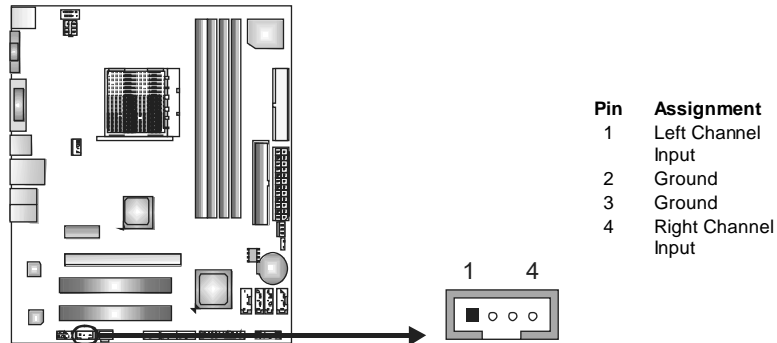


Pin	Assignment
1	Mic Left in
2	Ground
3	Mic Right in
4	GPIO
5	Right line in
6	Jack Sense
7	Front Sense
8	Key
9	Left line in
10	Jack Sense



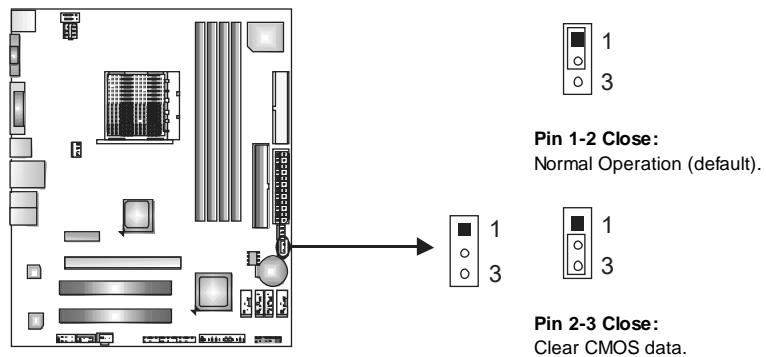
JCDIN1: CD-ROM Audio-in Connector

This connector allows user to connect the audio source from the variety devices, like CD-ROM, DVD-ROM, PCI sound card, PCI TV turner card etc.



JCMOS1: Clear CMOS Header

By 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.

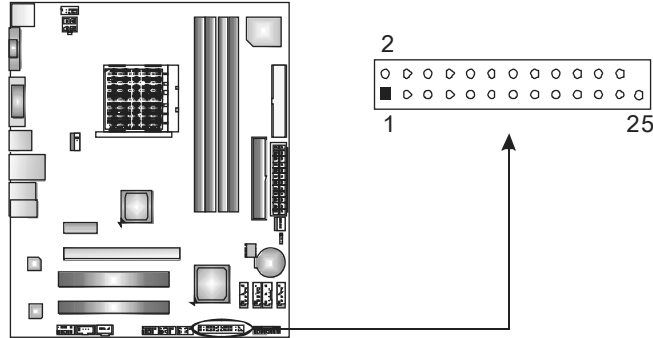


※ Clear CMOS Procedures:

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. Reset your desired password or clear the CMOS data.

JPRNT1: Printer Port Connector

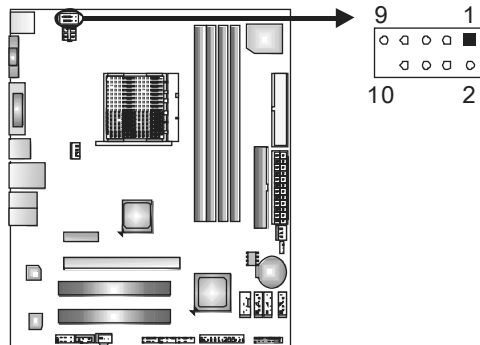
This header allows you to connector printer on the PC.



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

JCOM1: Serial port Connector

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



Pin	Assignment
1	Carrier detect
2	Received data
3	Transmitted data
4	Data terminal ready
5	Signal ground
6	Data set ready
7	Request to send
8	Clear to send
9	Ring indicator
10	NC

CHAPTER 4: RAID FUNCTIONS

4.1 OPERATION 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 1+0: RAID 1+0 combines the techniques used in RAID 0 and RAID 1.

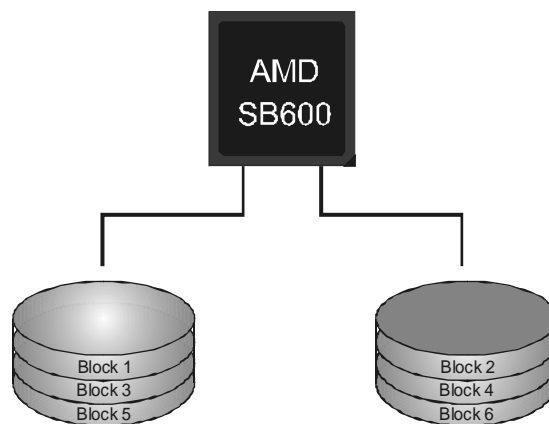
4.3 How RAID WORKS

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.



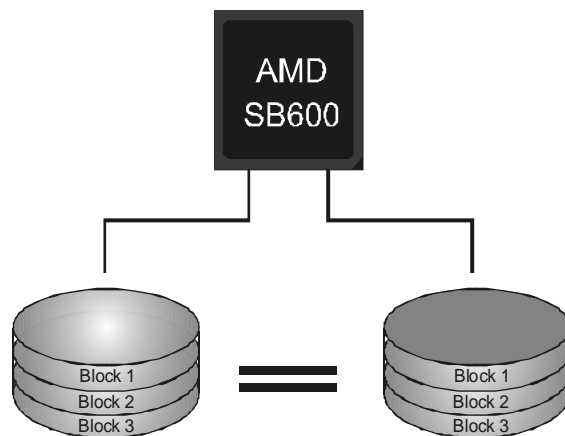
RAID 1:

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.

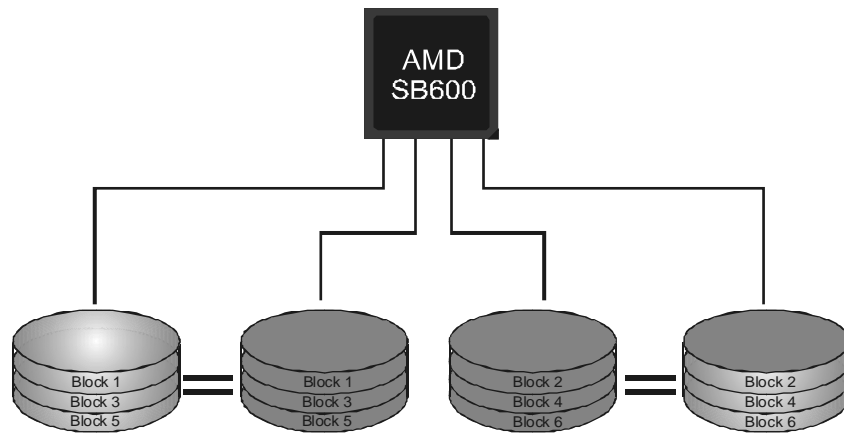


RAID 1+0:

RAID 1 drives can be striped using RAID 0 techniques. Resulting in a RAID 1+0 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.

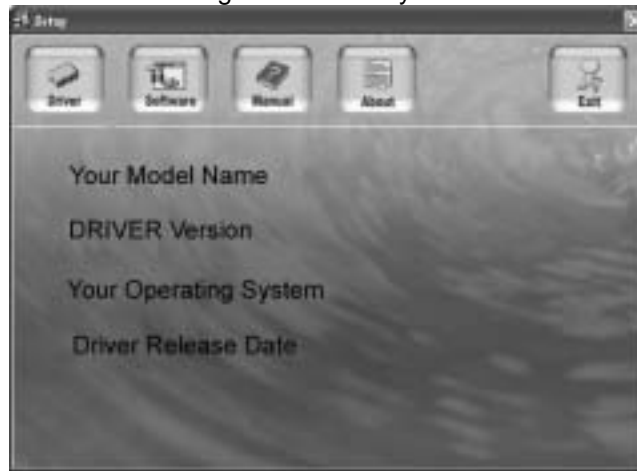


CHAPTER 5: USEFUL HELP

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>

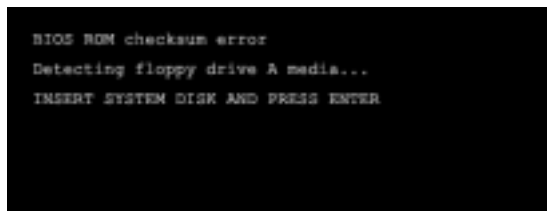
5.2 AWARD BIOS BEEP CODE

Beep Sound	Meaning
One long beep followed by two short beeps	Video card not found or video card memory bad
High-low siren sound	CPU overheated System will shut down automatically
One Short beep when system boot-up	No error found during POST
Long beeps every other second	No DRAM detected or install

5.3 EXTRA INFORMATION

A. BIOS Update

After you fail to update BIOS or BIOS is invaded by virus, the Boot-Block function will help to restore BIOS. If the following message is shown after boot-up the system, it means the BIOS contents are corrupted.



In this Case, please follow the procedure below to restore the BIOS:

1. Make a bootable floppy disk.
2. Download the Flash Utility "AWDFLASH.exe" from the Biostar website: www.biostar.com.tw
3. Confirm motherboard model and download the respectively BIOS from Biostar website.
4. Copy "AWDFLASH.exe" and respectively BIOS into floppy disk.
5. Insert the bootable disk into floppy drive and press Enter.
6. System will boot-up to DOS prompt.
7. Type "*Awdflash xxxx.bf/sn/py/r*" in DOS prompt.
(xxxx means BIOS name.)
8. System will update BIOS automatically and restart.
9. The BIOS has been recovered and will work properly.

B. 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.

5.4 TROUBLESHOOTING

Probable	Solution
1. No power to the system at all Power light don't illuminate, fan inside power supply does not turn on. 2. Indicator light on keyboard does not turn on.	1. Make sure power cable is securely plugged in. 2. Replace cable. 3. Contact technical support.
System inoperative. Keyboard lights are on, power indicator lights are lit, and hard drive is spinning.	Using even pressure on both ends of the DIMM, press down firmly until the module snaps into place.
System does not boot from hard disk drive, can be booted from optical drive.	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 optical drive. Hard disk can be read and applications can be used but booting from hard disk is impossible.	1. Back up data and applications files. 2. Reformat the hard drive. Re-install applications and data using backup disks.
Screen message says "Invalid Configuration" or "CMOS Failure."	Review system's equipment. Make sure correct information is in setup.
Cannot boot system after installing second hard drive.	1. Set master/slave jumpers correctly. 2. Run SETUP program and select correct drive types. Call the drive manufacturers for compatibility with other drives.

CHAPTER 6: WARPSPEEDER™ III



6.1 INTRODUCTION

[WarpSpeeder™ III], a new powerful control utility, features three user-friendly functions including Overclock Manager, Overvoltage Manager, and Hardware Monitor.

With the Overclock Manager, users can easily adjust the frequency they prefer or they can get the best CPU performance with just one click. The Overvoltage Manager, on the other hand, helps to power up CPU core voltage and Memory voltage. The cool Hardware Monitor smartly indicates the temperatures, voltage and CPU fan speed as well as the chipset information. Also, in the About panel, you can get detail descriptions about BIOS model and chipsets. In addition, the frequency status of CPU, memory, VGA and PCI along with the CPU speed are synchronically shown on our main panel.

Moreover, to protect users' computer systems if the setting is not appropriate when testing and results in system fail or hang, [WarpSpeeder™ III] technology assures the system stability by automatically rebooting the computer and then restart to a speed that is either the original system speed or a suitable one.

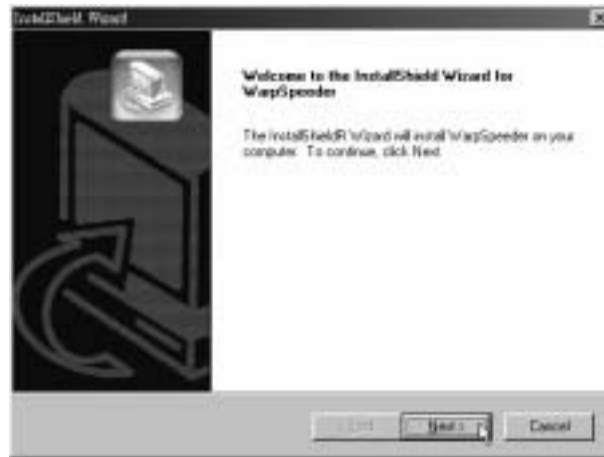
6.2 SYSTEM REQUIREMENT

OS Support: Windows 98 SE, Windows Me, Windows 2000, Windows XP, Windows Vista

DirectX: DirectX 8.1 or above. (The Windows XP operating system includes DirectX 8.1. If you use Windows XP, you do not need to install DirectX 8.1.)

6.3 INSTALLATION

1. Execute the setup execution file, and then the following dialog will pop up. Please click “Next” button and follow the default procedure to install.



2. When you see the following dialog in setup procedure, it means setup is completed. Click “Finish” button.



Usage:

The following figures are only for reference, the screen printed in this user manual will change according to your motherboard on hand.

6.4 WARPSPEDER™ III

1. Desktop Icon:

After the [WarpSpeeder™ III] has been installed, a [WarpSpeeder™ III] icon will appear on the desktop, just like the icon shown below.



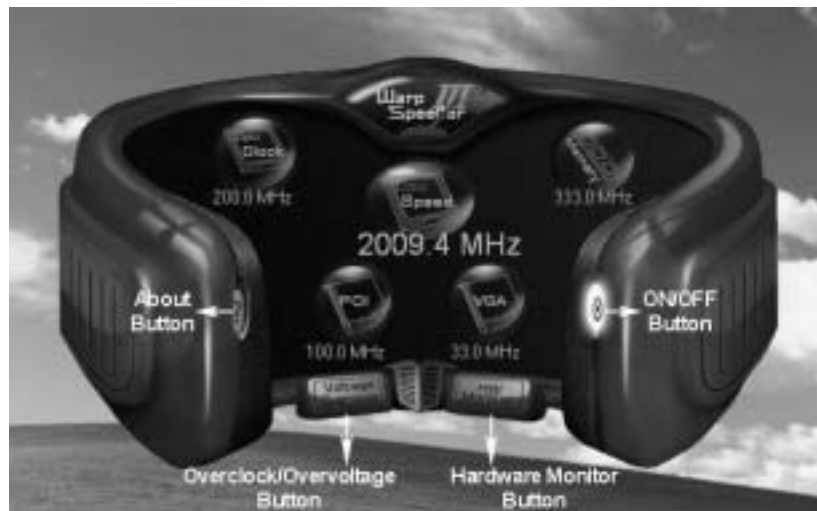
Now you can launch the [WarpSpeeder™ III] utility simply by double-clicking the desktop icon.

2. Main Panel

If you double-click the desktop icon, [WarpSpeeder™ III] will be launched. Please refer to the following figure; the utility's first window you will see is Main Panel.

Main Panel contains features as follows:

- a. Display the CPU Speed, CPU external clock, Memory clock, VGA clock, and PCI clock information.
- b. Contains About, Voltage/Overclock, and Hardware Monitor Buttons for invoking respective panels. The On/Off button is for closing the program.



3. **Overclock/Overvoltage Panel**

Click the Overclock/Overvoltage button in the Main Panel, the button will be highlighted and the Overclock/Overvoltage Panel will show up as the following figure. As you can see, the Overclock Panel is on the right side, and the Overvoltage Panel is on the left side.



Overclock Panel contains these features:

- a. “Auto-Overclock”:
User can click this button and [WarpSpeeder™ III] will set the best and stable performance and frequency automatically. A warning dialog as below will show up to notify you that the system may become unstable, click on “OK” to proceed.



Then [WarpSpeeder™ III] utility will execute a series of testing until system fail. Then system will do fail-safe reboot by using Watchdog function. After reboot, launch the [WarpSpeeder™ III] utility again and the utility will load the previously verified best and stable frequency.

- b. “Verify”:
If you use the “Manual Adjust” bar to adjust the CPU frequency, then you can click this button and [WarpSpeeder™ III] will proceed a testing for current frequency. If the testing is ok, then the current frequency will be saved into system registry. If the testing fails, system will do a fail-safe rebooting. After reboot, the [WarpSpeeder™ III] utility will restore to the hardware default setting.

Warning:

Manually overclock is potentially dangerous, especially when the overclocking percentage is over 110 %. We strongly recommend you verify every speed you overclock by click the Verify button. Or, you can just click Auto overclock button and let [WarpSpeeder™ III] automatically gets the best result for you.

- c. “V3 Engine”/“V6 Engine”/“V9 Engine”:
Provide user the ability to do real-time overclock adjustment.
- d. “Recovery”:
Click this button and the [WarpSpeeder™ III] utility will restore all values to the hardware default setting.

Overvoltage Panel contains these features:

- a. "CPU Voltage":
This function allows user to adjust CPU voltage. Click on "+" to increase or "-" to decrease the CPU voltage.
- b. "Memory Voltage":
This function allows user to adjust Memory voltage. Click on "+" to increase or "-" to decrease the Memory voltage.

4. Hardware Monitor Panel

Click the Hardware Monitor button in Main Panel, the button will be highlighted and the Hardware Monitor panel will show up as the following figure.

In this panel, you can get the real-time status information of your system. The information will be refreshed every 1 second.



5. About Panel

Click the “about” button in Main Panel, the button will be highlighted and the About Panel will show up as the following figure.

In this panel, you can get model name and detail information in hints of all the chipset that are related to overclocking. You can also get the the version number of [WarpSpeeder™ III] utility.



Note:

Because the overclock, overvoltage, and hardware monitor features are controlled by several separate chipset, [WarpSpeeder™ III] divide these features to separate panels. If one chipset is not on board, the correlative button in Main panel will be disabled, but will not interfere other panels' functions. This property can make [WarpSpeeder™ III] utility more robust.

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APPENDENCIES: SPEC IN OTHER LANGUAGE**GERMAN**

	<i>Ver 5.x</i>	<i>Ver 6.x</i>
CPU	Sockel AM2 AMD Athlon 64 / Athlon 64 FX / Athlon 64 X2 / Sempron Prozessoren Die AMD 64-Architektur unterstützt eine 32-Bit- und 64-Bit-Datenverarbeitung Unterstützt Hyper Transport und Cool'n'Quiet	Sockel AM2 AMD Athlon 64 / Athlon 64 FX / Athlon 64 X2 / Sempron Prozessoren Die AMD 64-Architektur unterstützt eine 32-Bit- und 64-Bit-Datenverarbeitung Unterstützt Hyper Transport und Cool'n'Quiet
FSB	Unterstützt HyperTransport mit einer Bandbreite von bis zu 1GHz	Unterstützt HyperTransport mit einer Bandbreite von bis zu 1GHz
Chipsatz	AMD 690G AMD SB600	AMD 690G AMD SB600
Super E/A	ITE8716F Bietet die häufig verwendeten alten Super E/A-Funktionen. Low Pin Count-Schnittstelle Umgebungskontrolle, Hardware-Überwachung "Smart Guardian"-Funktion von ITE	ITE8716F Bietet die häufig verwendeten alten Super E/A-Funktionen. Low Pin Count-Schnittstelle Umgebungskontrolle, Hardware-Überwachung "Smart Guardian"-Funktion von ITE
Arbeitsspeicher	DDR2 DIMM-Steckplätze x 4 Max. 4GB Arbeitsspeicher Jeder DIMM unterstützt 256/512MB & 1GB DDR2. Dual-Kanal DDR2 Speichermodul Unterstützt DDR2 533 / 667 / 800 registrierte DIMMs. ECC DIMMs werden nicht unterstützt.	DDR2 DIMM-Steckplätze x 4 Max. 4GB Arbeitsspeicher Jeder DIMM unterstützt 256/512MB & 1GB DDR2. Dual-Kanal DDR2 Speichermodul Unterstützt DDR2 533 / 667 / 800 registrierte DIMMs. ECC DIMMs werden nicht unterstützt.
Grafik	Integrierter AMD 690G-Chipsatz Max. 512MB gemeinsam benutzter Videospeicher	Integrierter AMD 690G-Chipsatz Max. 512MB gemeinsam benutzter Videospeicher
IDE	Integrierter IDE-Controller Ultra DMA 33 / 66 / 100 / 133 Bus Master-Modus Unterstützt PIO-Modus 0~4,	Integrierter IDE-Controller Ultra DMA 33 / 66 / 100 / 133 Bus Master-Modus Unterstützt PIO-Modus 0~4,
SATA	Integrierter Serial ATA-Controller Datentransferrate bis zu 3 Gb/s Konform mit der SATA-Spezifikation Version 2.0.	Integrierter Serial ATA-Controller Datentransferrate bis zu 3 Gb/s Konform mit der SATA-Spezifikation Version 2.0.
LAN	Marvell 88E8056 / 88E8039(optional) 10 / 100 / 1000 Mb/s Auto-Negotiation (Gigabit-Bandbreite nur beim Marvell 88E8056) Halb-/ Vollduplex-Funktion	Marvell 88E8056 / 88E8039(optional) 10 / 100 / 1000 Mb/s Auto-Negotiation (Gigabit-Bandbreite nur beim Marvell 88E8056) Halb-/ Vollduplex-Funktion

	Ver 5.x	Ver 6.x		
HD	ALC888	ALC662		
Audio-Unterstützung	7.1-Kanal-Audioausgabe Unterstützt High-Definition Audio	5.1-Kanal-Audioausgabe Unterstützt High-Definition Audio		
Steckplätze	PCI Express x16 Steckplatz	x1	PCI Express x16 Steckplatz	x1
	PCI Express x1 Steckplatz	x1	PCI Express x1 Steckplatz	x1
	PCI-Steckplatz	x2	PCI-Steckplatz	x2
Onboard-Anschluss	Diskettenlaufwerkanschluss	x1	Diskettenlaufwerkanschluss	x1
	IDE-Anschluss	x1	IDE-Anschluss	x1
	SATA-Anschluss	x4	SATA-Anschluss	x4
	Fronttafelanschluss	x1	Fronttafelanschluss	x1
	Front-Audioanschluss	x1	Front-Audioanschluss	x1
	CD-IN-Anschluss	x1	CD-IN-Anschluss	x1
	S/PDIF- Ausgangsanschluss	x1	S/PDIF- Ausgangsanschluss	x1
	CPU-Lüfter-Sockel	x1	CPU-Lüfter-Sockel	x1
	System-Lüfter-Sockel	x1	System-Lüfter-Sockel	x1
	"CMOS löschen"-Sockel	x1	"CMOS löschen"-Sockel	x1
	USB-Anschluss	x3	USB-Anschluss	x3
	Stromanschluss (24-polig)	x1	Stromanschluss (24-polig)	x1
	Stromanschluss (4-polig)	x1	Stromanschluss (4-polig)	x1
Druckeranschluss Anschluss	x1	Druckeranschluss Anschluss	x1	
Serieller Anschluss	x1	Serieller Anschluss	x1	
Rückseiten-E/A	PS/2-Tastatur	x1	PS/2-Tastatur	x1
	PS/2-Maus	x1	PS/2-Maus	x1
	VGA-Anschluss	x1	VGA-Anschluss	x1
	LAN-Anschluss	x1	LAN-Anschluss	x1
	USB-Anschluss	x4	USB-Anschluss	x4
	Audioanschluss	x6	Audioanschluss	x3
DVI-Anschluss	x1	DVI-Anschluss	x1	
Platinengröße	215 mm (B) X 244 mm (L)	215 mm (B) X 244 mm (L)		
Sonderfunktionen	Unterstützt RAID 0 / 1 / 1+0	Unterstützt RAID 0 / 1 / 1+0		
OS-Unterstützung	Windows XP / VISTA Biostar behält sich das Recht vor, ohne Ankündigung die Unterstützung für ein Betriebssystem hinzuzufügen oder zu entfernen.	Windows XP / VISTA Biostar behält sich das Recht vor, ohne Ankündigung die Unterstützung für ein Betriebssystem hinzuzufügen oder zu entfernen.		

FRANCE

	<i>Ver 5.x</i>	<i>Ver 6.x</i>
UC	Socket AM2 Processeurs AMD Athlon 64 / Athlon 64 FX / Athlon 64 X2 / Sempron L'architecture AMD 64 permet le calcul 32 et 64 bits Prend en charge Hyper Transport et Cool'n'Quiet	Socket AM2 Processeurs AMD Athlon 64 / Athlon 64 FX / Athlon 64 X2 / Sempron L'architecture AMD 64 permet le calcul 32 et 64 bits Prend en charge Hyper Transport et Cool'n'Quiet
Bus frontal	Prend en charge Hyper Transport jusqu'à une bande passante de 1GHz	Prend en charge Hyper Transport jusqu'à une bande passante de 1GHz
Chipset	AMD 690G AMD SB600	AMD 690G AMD SB600
Super E/S	ITE 8716F Fournit la fonctionnalité de Super E/S patrimoniales la plus utilisée. Interface à faible compte de broches Initiatives de contrôle environnementales, Moniteur de matériel Fonction "Gardien intelligent" de IITE	ITE 8716F Fournit la fonctionnalité de Super E/S patrimoniales la plus utilisée. Interface à faible compte de broches Initiatives de contrôle environnementales, Moniteur de matériel Fonction "Gardien intelligent" de IITE
Mémoire principale	Fentes DDR2 DIMM x 4 Capacité mémoire maximale de 4 Go Chaque DIMM prend en charge des DDR2 de 256/512 Mo et 1Go Module de mémoire DDR2 à mode à double voie Prend en charge la DDR2 533 / 667 / 800 Les DIMM à registres et DIMM avec code correcteurs d'erreurs ne sont pas prises en charge	Fentes DDR2 DIMM x 4 Capacité mémoire maximale de 4 Go Chaque DIMM prend en charge des DDR2 de 256/512 Mo et 1Go Module de mémoire DDR2 à mode à double voie Prend en charge la DDR2 533 / 667 / 800 Les DIMM à registres et DIMM avec code correcteurs d'erreurs ne sont pas prises en charge
Graphiques	Intégré dans la chipset AMD 690G Mémoire vidéo partagée maximale de 512 Mo	Intégré dans la chipset AMD 690G Mémoire vidéo partagée maximale de 512 Mo
IDE	Contrôleur IDE intégré Mode principale de Bus Ultra DMA 33 / 66 / 100 / 133 Prend en charge le mode PIO 0~4,	Contrôleur IDE intégré Mode principale de Bus Ultra DMA 33 / 66 / 100 / 133 Prend en charge le mode PIO 0~4,
SATA	Contrôleur Serial ATA intégré : Taux de transfert jusqu'à 3 Go/s. Conforme à la spécification SATA Version 2.0	Contrôleur Serial ATA intégré : Taux de transfert jusqu'à 3 Go/s. Conforme à la spécification SATA Version 2.0
LAN	Marvell 88E8056 / 88E8039(optional) 10 / 100 / 1000 Mb/s négociation automatique (La bande passante Gigabit est pour le Marvell 88E8056 uniquement) Half / Full duplex capability	Marvell 88E8056 / 88E8039(optional) 10 / 100 / 1000 Mb/s négociation automatique (La bande passante Gigabit est pour le Marvell 88E8056 uniquement) Half / Full duplex capability

		<i>Ver 5.x</i>		<i>Ver 6.x</i>		
Prise en charge audio HD	ALC888	Sortie audio à 7.1 voies Prise en charge de l'audio haute définition		ALC662	Sortie audio à 5.1 voies Prise en charge de l'audio haute définition	
Fentes	Fente PCI Express x16	x1		Fente PCI Express x16	x1	
	Fente PCI Express x1	x1		Fente PCI Express x1	x1	
	Fente PCI	x2		Fente PCI	x2	
Connecteur embarqué	Connecteur de disquette	x1		Connecteur de disquette	x1	
	Connecteur IDE	x1		Connecteur IDE	x1	
	Connecteur SATA	x4		Connecteur SATA	x4	
	Connecteur du panneau avant	x1		Connecteur du panneau avant	x1	
	Connecteur Audio du panneau avant	x1		Connecteur Audio du panneau avant	x1	
	Connecteur d'entrée CD	x1		Connecteur d'entrée CD	x1	
	Connecteur de sortie S/PDIF	x1		Connecteur de sortie S/PDIF	x1	
	Embase de ventilateur UC	x1		Embase de ventilateur UC	x1	
	Embase de ventilateur système	x1		Embase de ventilateur système	x1	
	Embase d'effacement CMOS	x1		Embase d'effacement CMOS	x1	
	Connecteur USB	x3		Connecteur USB	x3	
	Connecteur d'alimentation (24 broches)	x1		Connecteur d'alimentation (24 broches)	x1	
	Connecteur d'alimentation (4 broches)	x1		Connecteur d'alimentation (4 broches)	x1	
Connecteur de Port d'imprimante	x1		Connecteur de Port d'imprimante	x1		
Connecteur de Port série	x1		Connecteur de Port série	x1		
E/S du panneau arrière	Clavier PS/2	x1		Clavier PS/2	x1	
	Souris PS/2	x1		Souris PS/2	x1	
	Port VGA	x1		Port VGA	x1	
	Port LAN	x1		Port LAN	x1	
	Port USB	x4		Port USB	x4	
	Fiche audio	x6		Fiche audio	x3	
Port DVI	x1		Port DVI	x1		
Dimensions de la carte	215 mm (l) X 244 mm (H)			215 mm (l) X 244 mm (H)		
Fonctionnalités spéciales	Prise en charge RAID 0 / 1 / 1+0			Prise en charge RAID 0 / 1 / 1+0		
Support SE	Windows XP / VISTA Biostar se réserve le droit d'ajouter ou de supprimer le support de SE avec ou sans préavis.			Windows XP / VISTA Biostar se réserve le droit d'ajouter ou de supprimer le support de SE avec ou sans préavis.		

ITALIAN

	<i>Ver 5.x</i>	<i>Ver 6.x</i>
CPU	Socket AM2 Processori AMD Athlon 64 / Athlon 64 FX / Althlon 64 X2 / Sempron L'architettura AMD 64 abilita la computazione 32 e 64 bit Supporto di Hyper Transport e Cool'n'Quiet	Socket AM2 Processori AMD Athlon 64 / Athlon 64 FX / Althlon 64 X2 / Sempron L'architettura AMD 64 abilita la computazione 32 e 64 bit Supporto di Hyper Transport e Cool'n'Quiet
FSB	Supporto di HyperTransport fino a 1GHz di larghezza di banda	Supporto di HyperTransport fino a 1GHz di larghezza di banda
Chipset	AMD 690G AMD SB600	AMD 690G AMD SB600
Super I/O	ITE 8716F Fornisce le funzionalità legacy Super I/O usate più comunemente. Interfaccia LPC (Low Pin Count) Funzioni di controllo dell'ambiente: Monitoraggio hardware Funzione "Smart Guardian" di ITE	ITE 8716F Fornisce le funzionalità legacy Super I/O usate più comunemente. Interfaccia LPC (Low Pin Count) Funzioni di controllo dell'ambiente: Monitoraggio hardware Funzione "Smart Guardian" di ITE
Memoria principale	Alloggi DIMM DDR2 x 4 Capacità massima della memoria 4GB Ciascun DIMM supporta DDR2 256/512MB e 1GB Modulo di memoria DDR2 a canale doppio Supporto di DDR2 533 / 667 / 800 DIMM registrati e DIMM ECC non sono supportati	Alloggi DIMM DDR2 x 4 Capacità massima della memoria 4GB Ciascun DIMM supporta DDR2 256/512MB e 1GB Modulo di memoria DDR2 a canale doppio Supporto di DDR2 533 / 667 / 800 DIMM registrati e DIMM ECC non sono supportati
Grafica	Integrata nel Chipset AMD 690G La memoria video condivisa massima è di 512 MB	Integrata nel Chipset AMD 690G La memoria video condivisa massima è di 512 MB
IDE	Controller IDE integrato Modalità Bus Master Ultra DMA 33 / 66 / 100 / 133 Supporto modalità PIO Mode 0-4	Controller IDE integrato Modalità Bus Master Ultra DMA 33 / 66 / 100 / 133 Supporto modalità PIO Mode 0-4
SATA	Controller Serial ATA integrato Velocità di trasferimento dei dati fino a 3 Gb/s. Compatibile specifiche SATA Versione 2.0.	Controller Serial ATA integrato Velocità di trasferimento dei dati fino a 3 Gb/s. Compatibile specifiche SATA Versione 2.0.
LAN	Marvell 88E8056 / 88E8039(optional) Negoziazione automatica 10 / 100 / 1000 Mb/s (la larghezza di banda Gigabit è solo per Marvell 88E8056) Capacità Half / Full Duplex	Marvell 88E8056 / 88E8039(optional) Negoziazione automatica 10 / 100 / 1000 Mb/s (la larghezza di banda Gigabit è solo per Marvell 88E8056) Capacità Half / Full Duplex

		<i>Ver 5.x</i>		<i>Ver 6.x</i>		
Supporto audio HD	ALC888			ALC662		
	Uscita audio 7.1 canali			Uscita audio 5.1 canali		
	Supporto audio High-Definition (HD)			Supporto audio High-Definition (HD)		
Alloggi	Alloggio PCI Express x16	x1		Alloggio PCI Express x16	x1	
	Alloggio PCI Express x1	x1		Alloggio PCI Express x1	x1	
	Alloggio PCI	x2		Alloggio PCI	x2	
Connettori su scheda	Connettore floppy	x1		Connettore floppy	x1	
	Connettore IDE	x1		Connettore IDE	x1	
	Connettore SATA	x4		Connettore SATA	x4	
	Connettore pannello frontale	x1		Connettore pannello frontale	x1	
	Connettore audio frontale	x1		Connettore audio frontale	x1	
	Connettore CD-in	x1		Connettore CD-in	x1	
	Connettore output SPDIF	x1		Connettore output SPDIF	x1	
	Collettore ventolina CPU	x1		Collettore ventolina CPU	x1	
	Collettore ventolina sistema	x1		Collettore ventolina sistema	x1	
	Collettore cancellazione CMOS	x1		Collettore cancellazione CMOS	x1	
	Connettore USB	x3		Connettore USB	x3	
	Connettore alimentazione (24 pin)	x1		Connettore alimentazione (24 pin)	x1	
	Connettore alimentazione (4 pin)	x1		Connettore alimentazione (4 pin)	x1	
	Connettore Porta stampante	x1		Connettore Porta stampante	x1	
Connettore Porta seriale	x1		Connettore Porta seriale	x1		
I/O pannello posteriore	Tastiera PS/2	x1		Tastiera PS/2	x1	
	Mouse PS/2	x1		Mouse PS/2	x1	
	Porta VGA	x1		Porta VGA	x1	
	Porta LAN	x1		Porta LAN	x1	
	Porta USB	x4		Porta USB	x4	
	Connettore audio	x6		Connettore audio	x3	
Porta DVI	x1		Porta DVI	x1		
Dimensioni scheda	215 mm (larghezza) x 244 mm (altezza)			215 mm (larghezza) x 244 mm (altezza)		
Caratteristiche speciali	Supporto RAID 0 / 1 / 1+0			Supporto RAID 0 / 1 / 1+0		
Sistemi operativi supportati	Windows XP / VISTA Biostar si riserva il diritto di aggiungere o rimuovere il supporto di qualsiasi sistema operativo senza preavviso.			Windows XP / VISTA Biostar si riserva il diritto di aggiungere o rimuovere il supporto di qualsiasi sistema operativo senza preavviso.		

SPANISH

	Ver 5.x	Ver 6.x
CPU	<p>Conector AM2</p> <p>Procesadores AMD Athlon 64 / Athlon 64 FX / Athlon 64 X2 / Sempron</p> <p>La arquitectura AMD 64 permite el procesamiento de 32 y 64 bits</p> <p>Soporta las tecnologías Hyper Transport y Cool'n'Quiet</p>	<p>Conector AM2</p> <p>Procesadores AMD Athlon 64 / Athlon 64 FX / Athlon 64 X2 / Sempron</p> <p>La arquitectura AMD 64 permite el procesamiento de 32 y 64 bits</p> <p>Soporta las tecnologías Hyper Transport y Cool'n'Quiet</p>
FSB	Admite HyperTransport con un ancho de banda de hasta 1GHz	Admite HyperTransport con un ancho de banda de hasta 1GHz
Conjunto de chips	<p>AMD 690G</p> <p>AMD SB600</p>	<p>AMD 690G</p> <p>AMD SB600</p>
Súper E/S	<p>ITE 8716F</p> <p>Le ofrece las funcionalidades heredadas de uso más común Súper E/S.</p> <p>Interfaz de cuenta Low Pin</p> <p>Iniciativas de control de entorno, Monitor hardware</p> <p>Función "Guardia inteligente" de ITE</p>	<p>ITE 8716F</p> <p>Le ofrece las funcionalidades heredadas de uso más común Súper E/S.</p> <p>Interfaz de cuenta Low Pin</p> <p>Iniciativas de control de entorno, Monitor hardware</p> <p>Función "Guardia inteligente" de ITE</p>
Memoria principal	<p>Ranuras DIMM DDR2 x 4</p> <p>Capacidad máxima de memoria de 4GB</p> <p>Cada DIMM admite DDR de 256/512MB y 1GB</p> <p>Módulo de memoria DDR2 de canal Doble</p> <p>Admite DDR2 de 533 / 667 / 800</p> <p>No admite DIMM registrados o DIMM compatibles con ECC</p>	<p>Ranuras DIMM DDR2 x 4</p> <p>Capacidad máxima de memoria de 4GB</p> <p>Cada DIMM admite DDR de 256/512MB y 1GB</p> <p>Módulo de memoria DDR2 de canal Doble</p> <p>Admite DDR2 de 533 / 667 / 800</p> <p>No admite DIMM registrados o DIMM compatibles con ECC</p>
Gráficos	<p>Integrados en el conjunto de chips AMD 690G</p> <p>Memoria máxima de vídeo compartida de 512 MB</p>	<p>Integrados en el conjunto de chips AMD 690G</p> <p>Memoria máxima de vídeo compartida de 512 MB</p>
IDE	<p>Controlador IDE integrado</p> <p>Modo bus maestro Ultra DMA 33 / 66 / 100 / 133</p> <p>Soporte los Modos PIO 0~4,</p>	<p>Controlador IDE integrado</p> <p>Modo bus maestro Ultra DMA 33 / 66 / 100 / 133</p> <p>Soporte los Modos PIO 0~4,</p>
SATA	<p>Controlador ATA Serie Integrado</p> <p>Tasas de transferencia de hasta 3 Gb/s.</p> <p>Compatible con la versión SATA 2.0.</p>	<p>Controlador ATA Serie Integrado</p> <p>Tasas de transferencia de hasta 3 Gb/s.</p> <p>Compatible con la versión SATA 2.0.</p>
Red Local	<p>Marvell 88E8056 / 88E8039 (opcional)</p> <p>Negociación de 10 / 100 / 1000 Mb/s (el ancho de banda Gigabit es únicamente para Marvell 88E8056)</p> <p>Funciones Half / Full dúplex</p>	<p>Marvell 88E8056 / 88E8039 (opcional)</p> <p>Negociación de 10 / 100 / 1000 Mb/s (el ancho de banda Gigabit es únicamente para Marvell 88E8056)</p> <p>Funciones Half / Full dúplex</p>

		<i>Ver 5.x</i>		<i>Ver 6.x</i>	
Soporte de sonido HD	ALC888			ALC662	
	Salida de sonido de 7.1 canales			Salida de sonido de 5.1 canales	
	Soporte de sonido Alta Definición			Soporte de sonido Alta Definición	
Ranuras	Ranura PCI Express x16	X1		Ranura PCI Express x16	X1
	Ranura PCI Express x1	X1		Ranura PCI Express x1	X1
	Ranura PCI	X2		Ranura PCI	X2
Conectores en placa	Conector disco flexible	X1		Conector disco flexible	X1
	Conector IDE	X1		Conector IDE	X1
	Conector SATA	X4		Conector SATA	X4
	Conector de panel frontal	X1		Conector de panel frontal	X1
	Conector de sonido frontal	X1		Conector de sonido frontal	X1
	Conector de entrada de CD	X1		Conector de entrada de CD	X1
	Conector de salida S/PDIF	X1		Conector de salida S/PDIF	X1
	Cabecera de ventilador de CPU	X1		Cabecera de ventilador de CPU	X1
	Cabecera de ventilador de sistema	X1		Cabecera de ventilador de sistema	X1
	Cabecera de borrado de CMOS	X1		Cabecera de borrado de CMOS	X1
	Conector USB	X3		Conector USB	X3
	Conector de alimentación (24 patillas)	X1		Conector de alimentación (24 patillas)	X1
	Conector de alimentación (4 patillas)	X1		Conector de alimentación (4 patillas)	X1
	Conector Puerto de impresora	X1		Conector Puerto de impresora	X1
Conector Puerto serie	X1		Conector Puerto serie	X1	
Panel trasero de E/S	Teclado PS/2	X1		Teclado PS/2	X1
	Ratón PS/2	X1		Ratón PS/2	X1
	Puerto VGA	X1		Puerto VGA	X1
	Puerto de red local	X1		Puerto de red local	X1
	Puerto USB	X4		Puerto USB	X4
	Conector de sonido	X6		Conector de sonido	X3
	Puerto DVI	X1		Puerto DVI	X1
Tamaño de la placa	215 mm. (A) X 244 Mm. (H)		215 mm. (A) X 244 Mm. (H)		
Funciones especiales	Admite RAID 0 / 1 / 1+0		Admite RAID 0 / 1 / 1+0		
Soporte de sistema operativo	Windows XP / VISTA Biostar se reserva el derecho de añadir o retirar el soporte de cualquier SO con o sin aviso previo.		Windows XP / VISTA Biostar se reserva el derecho de añadir o retirar el soporte de cualquier SO con o sin aviso previo.		

PORTUGUESE

	Ver 5.x	Ver 6.x
CPU	Socket AM2 Processadores AMD Athlon 64 / Athlon 64 FX / Athlon 64 X2 / Sempron A arquitectura AMD 64 permite uma computação de 32 e 64 bits Suporta as tecnologias Hyper Transport e Cool'n'Quiet	Socket AM2 Processadores AMD Athlon 64 / Athlon 64 FX / Athlon 64 X2 / Sempron A arquitectura AMD 64 permite uma computação de 32 e 64 bits Suporta as tecnologias Hyper Transport e Cool'n'Quiet
FSB	Suporta a tecnologia HyperTransport com uma largura de banda até 1GHz	Suporta a tecnologia HyperTransport com uma largura de banda até 1GHz
Chipset	AMD 690G AMD SB600	AMD 690G AMD SB600
Especificação Super I/O	ITE 8716F 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 Função "Smart Guardian" da ITE	ITE 8716F 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 Função "Smart Guardian" da ITE
Memória principal	Ranuras DIMM DDR2 x 4 Capacidade máxima de memória: 4 GB Cada módulo DIMM suporta uma memória DDR2 de 256/512 MB & 1 GB Módulo de memória DDR2 de canal duplo Suporta módulos DDR2 533 / 667 / 800 Os módulos DIMM registados e os DIMM ECC não são suportados	Ranuras DIMM DDR2 x 4 Capacidade máxima de memória: 4 GB Cada módulo DIMM suporta uma memória DDR2 de 256/512 MB & 1 GB Módulo de memória DDR2 de canal duplo Suporta módulos DDR2 533 / 667 / 800 Os módulos DIMM registados e os DIMM ECC não são suportados
Placa gráfica	Integrada no chipset AMD 690G Memória de vídeo máxima partilhada: 512 MB	Integrada no chipset AMD 690G Memória de vídeo máxima partilhada: 512 MB
IDE	Controlador IDE integrado Modo Bus master Ultra DMA 33 / 66 / 100 / 133 Suporta o modo PIO 0~4,	Controlador IDE integrado Modo Bus master Ultra DMA 33 / 66 / 100 / 133 Suporta o modo PIO 0~4,
SATA	Controlador Serial ATA integrado Velocidades de transmissão de dados até 3 Gb/s. Compatibilidade com a especificação SATA versão 2.0.	Controlador Serial ATA integrado Velocidades de transmissão de dados até 3 Gb/s. Compatibilidade com a especificação SATA versão 2.0.
LAN	Marvell 88E8056 / 88E8039(opcional) Auto negociação de 10 / 100 / 1000 Mb/s (a largura de banda Gigabit refere-se apenas à especificação Marvell 88E8056) Capacidade semi/full-duplex	Marvell 88E8056 / 88E8039(opcional) Auto negociação de 10 / 100 / 1000 Mb/s (a largura de banda Gigabit refere-se apenas à especificação Marvell 88E8056) Capacidade semi/full-duplex

	Ver 5.x		Ver 6.x	
Suporte para áudio de alta definição	ALC888 Saída de áudio de 7.1 canais Suporta a especificação High-Definition Audio		ALC662 Saída de áudio de 5.1 canais Suporta a especificação High-Definition Audio	
Ranhuras	Ranhura PCI Express x16	x1	Ranhura PCI Express x16	x1
	Ranhura PCI Express x1	x1	Ranhura PCI Express x1	x1
	Ranhura PCI	x2	Ranhura PCI	x2
Conectores na placa	Conector da unidade de disquetes	x1	Conector da unidade de disquetes	x1
	Conector IDE	x1	Conector IDE	x1
	Conector SATA	x4	Conector SATA	x4
	Conector do painel frontal	x1	Conector do painel frontal	x1
	Conector de áudio frontal	x1	Conector de áudio frontal	x1
	Conector para entrada de CDs	x1	Conector para entrada de CDs	x1
	Conector de saída S/PDIF	x1	Conector de saída S/PDIF	x1
	Conector da ventoinha da CPU	x1	Conector da ventoinha da CPU	x1
	Conector da ventoinha do sistema	x1	Conector da ventoinha do sistema	x1
	Conector para limpeza do CMOS	x1	Conector para limpeza do CMOS	x1
	Conector USB	x3	Conector USB	x3
	Conector de alimentação (24 pinos)	x1	Conector de alimentação (24 pinos)	x1
	Conector de alimentação (4 pinos)	x1	Conector de alimentação (4 pinos)	x1
	Conector da para impressora	x1	Conector da para impressora	x1
Conector da Porta série	x1	Conector da Porta série	x1	
Entradas/Saídas no painel traseiro	Teclado PS/2	x1	Teclado PS/2	x1
	Rato PS/2	x1	Rato PS/2	x1
	Porta VGA	x1	Porta VGA	x1
	Porta LAN	x1	Porta LAN	x1
	Porta USB	x4	Porta USB	x4
	Tomada de áudio	x6	Tomada de áudio	x3
Porta DVI	x1	Porta DVI	x1	
Tamanho da placa	215 mm (L) X 244 mm (A)		215 mm (L) X 244 mm (A)	
Características especiais	Suporta as funções RAID 0 / 1 / 1+0		Suporta as funções RAID 0 / 1 / 1+0	
Sistemas operativos suportados	Windows XP / VISTA A Biostar reserva-se o direito de adicionar ou remover suporte para qualquer sistema operativo com ou sem aviso prévio.		Windows XP / VISTA A Biostar reserva-se o direito de adicionar ou remover suporte para qualquer sistema operativo com ou sem aviso prévio.	

POLISH

	<i>Ver 5.x</i>	<i>Ver 6.x</i>
Procesor	Socket AM2 AMD Athlon 64 / Athlon 64 FX / Athlon 64 X2 / Sempron Procesory Architektura AMD 64 umożliwia przetwarzanie 32 i 64 bitowe Obsługa Hyper Transport oraz Cool'n'Quiet	Socket AM2 AMD Athlon 64 / Athlon 64 FX / Athlon 64 X2 / Sempron Procesory Architektura AMD 64 umożliwia przetwarzanie 32 i 64 bitowe Obsługa Hyper Transport oraz Cool'n'Quiet
FSB	Obsługa HyperTransport o szerokości pasma do 1GHz	Obsługa HyperTransport o szerokości pasma do 1GHz
Chipset	AMD 690G AMD SB600	AMD 690G AMD SB600
Pamięć główna	Gniazda DDR2 DIMM x 4 Maks. wielkość pamięci 4GB Każde gniazdo DIMM obsługuje moduły 256/512MB oraz 1GB DDR2 Moduł pamięci DDR2 z trybem podwójnego kanału Obsługa DDR2 533 / 667 / 800 Brak obsługi Registered DIMM oraz ECC DIMM	Gniazda DDR2 DIMM x 4 Maks. wielkość pamięci 4GB Każde gniazdo DIMM obsługuje moduły 256/512MB oraz 1GB DDR2 Moduł pamięci DDR2 z trybem podwójnego kanału Obsługa DDR2 533 / 667 / 800 Brak obsługi Registered DIMM oraz ECC DIMM
Super I/O	ITE 8716F Zapewnia najbardziej powszechne funkcje Super I/O. Interfejs Low Pin Count Funkcje kontroli warunków pracy, Monitor H/W Funkcja ITE "Smart Guardian"	ITE 8716F Zapewnia najbardziej powszechne funkcje Super I/O. Interfejs Low Pin Count Funkcje kontroli warunków pracy, Monitor H/W Funkcja ITE "Smart Guardian"
Grafika	Zintegrowana w chipsecie AMD 690G Maks. wielkość współdzielonej pamięci video wynosi 512 MB	Zintegrowana w chipsecie AMD 690G Maks. wielkość współdzielonej pamięci video wynosi 512 MB
IDE	Zintegrowany kontroler IDE Ultra DMA 33 / 66 / 100 / 133 Tryb Bus Master obsługa PIO tryb 0~4,	Zintegrowany kontroler IDE Ultra DMA 33 / 66 / 100 / 133 Tryb Bus Master obsługa PIO tryb 0~4,
SATA	Zintegrowany kontroler Serial ATA Transfer danych do 3 Gb/s. Zgodność ze specyfikacją SATA w wersji 2.0.	Zintegrowany kontroler Serial ATA Transfer danych do 3 Gb/s. Zgodność ze specyfikacją SATA w wersji 2.0.
LAN	Marvell 88E8056 / 88E8039 (opcja) 10 / 100 / 1000 Mb/s z automatyczną negocjacją szybkości (Pasma gigabitowe wyłącznie dla Marvell 88E8056) Działanie w trybie półowicznego / pełnego duplexu	Marvell 88E8056 / 88E8039 (opcja) 10 / 100 / 1000 Mb/s z automatyczną negocjacją szybkości (Pasma gigabitowe wyłącznie dla Marvell 88E8056) Działanie w trybie półowicznego / pełnego duplexu

		<i>Ver 5.x</i>		<i>Ver 6.x</i>	
Obsługa audio HD	ALC888 7.1 kanałowe wyjście audio Obsługa High-Definition Audio			ALC662 5.1 kanałowe wyjście audio Obsługa High-Definition Audio	
Gniazda	Gniazdo PCI Express x16 x1 Gniazdo PCI Express x1 x1 Gniazdo PCI x2			Gniazdo PCI Express x16 x1 Gniazdo PCI Express x1 x1 Gniazdo PCI x2	
Złącza wbudowane	Złącze napędu dyskietek x1 Złącze IDE x1 Złącze SATA x4 Złącze panela przedniego x1 Przednie złącze audio x1 Złącze wejścia CD x1 Złącze wyjścia S/PDIF x1 Złącze główkowe wentylatora procesora x1 Złącze główkowe wentylatora systemowego x1 Złącze główkowe kasowania CMOS x1 Złącze USB x3 Złącze zasilania (24 pinowe) x1 Złącze zasilania (4 pinowe) x1 Złącze Port drukarki x1 Złącze Port szeregowy x1			Złącze napędu dyskietek x1 Złącze IDE x1 Złącze SATA x4 Złącze panela przedniego x1 Przednie złącze audio x1 Złącze wejścia CD x1 Złącze wyjścia S/PDIF x1 Złącze główkowe wentylatora procesora x1 Złącze główkowe wentylatora systemowego x1 Złącze główkowe kasowania CMOS x1 Złącze USB x3 Złącze zasilania (24 pinowe) x1 Złącze zasilania (4 pinowe) x1 Złącze Port drukarki x1 Złącze Port szeregowy x1	
Back Panel I/O	Klawiatura PS/2 x1 Mysz PS/2 x1 Port VGA x1 Port LAN x1 Port USB x4 Gniazdo audio x6 Port DVI x1			Klawiatura PS/2 x1 Mysz PS/2 x1 Port VGA x1 Port LAN x1 Port USB x4 Gniazdo audio x3 Port DVI x1	
Wymiary płyty	215 mm (S) X 244 mm (W)		215 mm (S) X 244 mm (W)		
Funkcje specjalne	Obsługa RAID 0 / 1 / 1+0		Obsługa RAID 0 / 1 / 1+0		
Obsługa systemu operacyjnego	Windows XP / VISTA Bióstar zastrzega sobie prawo dodawania lub odwoływania obsługi dowolnego systemu operacyjnego bez powiadomienia.		Windows XP / VISTA Bióstar zastrzega sobie prawo dodawania lub odwoływania obsługi dowolnego systemu operacyjnego bez powiadomienia.		

RUSSIAN

	Ver 5.x	Ver 6.x
CPU (центральный процессор)	Гнездо AM2 Процессоры AMD Athlon 64 / Athlon 64 FX / Althon 64 X2 / Sempron Архитектура AMD 64 разрешать обработка данных на 32 и 64 бит Поддержка Hyper Transport и Cool'n'Quiet	Гнездо AM2 Процессоры AMD Athlon 64 / Athlon 64 FX / Althon 64 X2 / Sempron Архитектура AMD 64 разрешать обработка данных на 32 и 64 бит Поддержка Hyper Transport и Cool'n'Quiet
FSB	Поддержка HyperTransport с пропускной способностью до 1GHz	Поддержка HyperTransport с пропускной способностью до 1GHz
Набор микросхем	AMD 690G AMD SB600	AMD 690G AMD SB600
Основная память	Слоты DDR2 DIMM x 4 Максимальная ёмкость памяти 4 ГБ Каждый модуль DIMM поддерживает 256/512МБ & 1ГБ DDR2 Модуль памяти с двухканальным режимом DDR2 Поддержка DDR2 533 / 667 / 800 Не поддерживает зарегистрированные модули DIMM and ECC DIMM	Слоты DDR2 DIMM x 4 Максимальная ёмкость памяти 4 ГБ Каждый модуль DIMM поддерживает 256/512МБ & 1ГБ DDR2 Модуль памяти с двухканальным режимом DDR2 Поддержка DDR2 533 / 667 / 800 Не поддерживает зарегистрированные модули DIMM and ECC DIMM
Super I/O	ITE 8716F Обеспечивает наиболее используемые действующие функциональные возможности Super I/O. Интерфейс с низким количеством выводов Инициативы по охране окружающей среды, Аппаратный монитор Функция ITE "Smart Guardian" (Интеллектуальная защита)	ITE 8716F Обеспечивает наиболее используемые действующие функциональные возможности Super I/O. Интерфейс с низким количеством выводов Инициативы по охране окружающей среды, Аппаратный монитор Функция ITE "Smart Guardian" (Интеллектуальная защита)
Графика	Встроенная в набор микросхем AMD 690G Максимальная совместно используемая видео память составляет 512 МБ	Встроенная в набор микросхем AMD 690G Максимальная совместно используемая видео память составляет 512 МБ
IDE	Встроенное устройство управления встроенными интерфейсами устройств Режим "хозяина" шины Ultra DMA 33 / 66 / 100 / 133 Поддержка режима PIO 0~4,	Встроенное устройство управления встроенными интерфейсами устройств Режим "хозяина" шины Ultra DMA 33 / 66 / 100 / 133 Поддержка режима PIO 0~4,
SATA	Встроенное последовательное устройство управления ATA скорость передачи данных до 3 гигабит/с. Соответствие спецификации SATA версия 2.0.	Встроенное последовательное устройство управления ATA скорость передачи данных до 3 гигабит/с. Соответствие спецификации SATA версия 2.0.
Локальная сеть	Marvell 88E8056 / 88E8039 (дополнительно) Автоматическое согласование 10 / 100 / 1000 Мб/с (гигабитная пропускная способность только для гигабитного физического уровня) Частичная / полная дуплексная способность	Marvell 88E8056 / 88E8039 (дополнительно) Автоматическое согласование 10 / 100 / 1000 Мб/с (гигабитная пропускная способность только для гигабитного физического уровня) Частичная / полная дуплексная способность

	Ver 5.x	Ver 6.x
Звуковая поддержка жесткого диска	ALC888 Звуковая поддержка High-Definition 7.1канальный звуковой выход	ALC662 Звуковая поддержка High-Definition 5.1канальный звуковой выход
Слоты	Слот PCI Express x16 x1 Слот PCI Express x1 x1 Слот PCI x2	Слот PCI Express x16 x1 Слот PCI Express x1 x1 Слот PCI x2
Встроенный разъем	Разъем НГМД x1 Разъем IDE x1 Разъем SATA x4 Разъем на лицевой панели x1 Входной звуковой разъем x1 Разъем ввода для CD x1 Разъем вывода для S/PDIF x1 Контактирующее приспособление вентилятора центрального процессора x1 Контактирующее приспособление вентилятора системы x1 Открытое контактирующее приспособление CMOS x1 USB-разъем x3 Разъем питания (24 вывод) x1 Разъем питания (4 вывод) x1 Разъем Порт подключения принтера x1 Разъем Последовательный порт x1	Разъем НГМД x1 Разъем IDE x1 Разъем SATA x4 Разъем на лицевой панели x1 Входной звуковой разъем x1 Разъем ввода для CD x1 Разъем вывода для S/PDIF x1 Контактирующее приспособление вентилятора центрального процессора x1 Контактирующее приспособление вентилятора системы x1 Открытое контактирующее приспособление CMOS x1 USB-разъем x3 Разъем питания (24 вывод) x1 Разъем питания (4 вывод) x1 Разъем Порт подключения принтера x1 Разъем Последовательный порт x1
Задняя панель средств ввода-вывода	Клавиатура PS/2 x1 Мышь PS/2 x1 Порт VGA x1 Порт LAN x1 USB-порт x4 Гнездо для подключения наушников x6 Порт DVI x1	Клавиатура PS/2 x1 Мышь PS/2 x1 Порт VGA x1 Порт LAN x1 USB-порт x4 Гнездо для подключения наушников x3 Порт DVI x1
Размер панели	215 мм (Ш) X 244 мм (В)	215 мм (Ш) X 244 мм (В)
Специальные технические характеристики	Поддержка RAID 0 / 1 / 1+0	Поддержка RAID 0 / 1 / 1+0
Поддержка OS	Windows XP / VISTA Biostar сохраняет за собой право добавлять или удалять средства обеспечения для OS с или без предварительного уведомления.	Windows XP / VISTA Biostar сохраняет за собой право добавлять или удалять средства обеспечения для OS с или без предварительного уведомления.

ARABIC

Ver 6.x	Ver 5.x	
AM2 مقبس AMD Athlon 64 / Athlon 64 FX / Sempron / Athlon 64 X2 إجراء العمليات الحاسوبية بسرعة 32 و 64 بت AMD 64 تقنية Hyper Transport و Cool'n'Quiet تدعم تقنية	AM2 مقبس AMD Athlon 64 / Athlon 64 FX / Sempron / Athlon 64 X2 إجراء العمليات الحاسوبية بسرعة 32 و 64 بت AMD 64 تقنية Hyper Transport و Cool'n'Quiet تدعم تقنية	وحدة المعالجة المركزية
ميغا بايت / ثانية 1G تردد يصل إلى HyperTransport تدعم تقنية	ميغا بايت / ثانية 1G تردد يصل إلى HyperTransport تدعم تقنية	النقل الأممي الجلبي
AMD 690G AMD SB600	AMD 690G AMD SB600	مجموعة الشرائح
ITE 8716F الأكثر استخداماً. Super I/O يوفر وظيفة Low Pin Count Interface تدعم تقنية وسائل التحكم في البيئة: مراقب لمعرفة حالة الأجهزة من ITE "Smart Guardian" وظيفة	ITE 8716F الأكثر استخداماً. Super I/O يوفر وظيفة Low Pin Count Interface تدعم تقنية وسائل التحكم في البيئة: مراقب لمعرفة حالة الأجهزة من ITE "Smart Guardian" وظيفة	Super I/O
عدد 4 قناة DDR2 DIMM سعة ذاكرة قصوى 4 جيجا بايت ميغا 256/512 سعة DDR2 تدعم ذاكرة من نوع DIMM كل قناة بايت و 1 جيجا بايت مزوجة لقناة DDR2 وحدة ذاكرة سعت 800 / 667 / 533 ميغا بايت DDR2 تدعم الذاكرة من نوع ECC وتلك التي لا تتوافق مع DIMM لا تدعم رقائق الذاكرة	عدد 4 قناة DDR2 DIMM سعة ذاكرة قصوى 4 جيجا بايت ميغا 256/512 سعة DDR2 تدعم ذاكرة من نوع DIMM كل قناة بايت و 1 جيجا بايت مزوجة لقناة DDR2 وحدة ذاكرة سعت 800 / 667 / 533 ميغا بايت DDR2 تدعم الذاكرة من نوع ECC وتلك التي لا تتوافق مع DIMM لا تدعم رقائق الذاكرة	الذاكرة الرئيسية
AMD 690G مدمجة في رقائق ميغا بايت 512 أقصى سعة لذاكرة الفيديو المشتركة	AMD 690G مدمجة في رقائق ميغا بايت 512 أقصى سعة لذاكرة الفيديو المشتركة	بطاقة الرسومات
متكامل IDE متحكم وضع رئيسي 133 / 100 / 66 / 33 Ultra DMA نقل تقنية PIO Mode 0~4 دعم وضع	متكامل IDE متحكم وضع رئيسي 133 / 100 / 66 / 33 Ultra DMA نقل تقنية PIO Mode 0~4 دعم وضع	منفذ IDE
متكامل Serial ATA متحكم جيجابت / ثانية، 3 نقل البيانات بسرعة تصل إلى 2.0 الإصدار SATA مطابقة لمواصفات	متكامل Serial ATA متحكم جيجابت / ثانية، 3 نقل البيانات بسرعة تصل إلى 2.0 الإصدار SATA مطابقة لمواصفات	SATA
(اختياري) Marvell 88E8056 / 88E8039 تفاوض تلقائي 100/10 ميغا بايت / ثانية و 1 جيجا بت / ثانية Marvell 88E8056 انطلق التردد للجيغابت مقصور فقط على إمكانية النقل المزدوج الكامل / الصفي	(اختياري) Marvell 88E8056 / 88E8039 تفاوض تلقائي 100/10 ميغا بايت / ثانية و 1 جيجا بت / ثانية Marvell 88E8056 انطلق التردد للجيغابت مقصور فقط على إمكانية النقل المزدوج الكامل / الصفي	شبكة داخلية

Ver 6.x		Ver 5.x		
	ALC662 قنوات لخرج الصوت 5.1 تدعم تقنية الصوت عالي التعريف من		ALC888 قنوات لخرج الصوت 7.1 تدعم تقنية الصوت عالي التعريف من	دعم الصوت عالي التعريف
عدد 1	قناة PCI Express x16	عدد 1	قناة PCI Express x16	الفتحات
عدد 1	قناة PCI Express x1	عدد 1	قناة PCI Express x1	
عدد 2	قناة PCI	عدد 2	قناة PCI	
عدد 1	منفذ محرك أقراص مرنة	عدد 1	منفذ محرك أقراص مرنة	المنافذ على سطح اللوحة
عدد 1	منفذ IDE	عدد 1	منفذ IDE	
عدد 4	منفذ SATA	عدد 4	منفذ SATA	
عدد 1	منفذ اللوحة الأملمية	عدد 1	منفذ اللوحة الأملمية	
عدد 1	منفذ الصوت الأملي	عدد 1	منفذ الصوت الأملي	
عدد 1	منفذ CD-IN	عدد 1	منفذ CD-IN	
عدد 1	منفذ خرج S/PDIF	عدد 1	منفذ خرج S/PDIF	
عدد 1	وصلة مروحة وحدة المعالجة المركزية	عدد 1	وصلة مروحة وحدة المعالجة المركزية	
عدد 1	وصلة مروحة النظام	عدد 1	وصلة مروحة النظام	
عدد 1	وصلة مسح CMOS	عدد 1	وصلة مسح CMOS	
عدد 3	منفذ USB	عدد 3	منفذ USB	
عدد 1	منفذ توصيل الطاقة (24بيوس)	عدد 1	منفذ توصيل الطاقة (24بيوس)	
عدد 1	منفذ توصيل الطاقة (4بيوس)	عدد 1	منفذ توصيل الطاقة (4بيوس)	
عدد 1	منفذ طباعة	عدد 1	منفذ طباعة	
عدد 1	منفذ تسلسلي	عدد 1	منفذ تسلسلي	
عدد 1	لوحة مفاتيح PS/2	عدد 1	لوحة مفاتيح PS/2	
عدد 1	ملوس PS/2	عدد 1	ملوس PS/2	
عدد 1	منفذ VGA	عدد 1	منفذ VGA	
عدد 1	منفذ شبكة اتصال محلية	عدد 1	منفذ شبكة اتصال محلية	
عدد 4	منافذ USB	عدد 4	منافذ USB	
عدد 3	مقيس صوت	عدد 6	مقيس صوت	
عدد 1	منافذ DVI	عدد 1	منافذ DVI	
	215مم (عرض) X 244مم (ارتفاع)		215مم (عرض) X 244مم (ارتفاع)	حجم اللوحة
	RAID 0 / 1 / 1+0 تدعم تقنية		RAID 0 / 1 / 1+0 تدعم تقنية	مزايا خاصة
	Windows XP / VISTA بحقها في إضافة أو إزالة الدعم لأي نظام تشغيل بإخطار أو Biostar احتفظ بدون إخطار .		Windows XP / VISTA بحقها في إضافة أو إزالة الدعم لأي نظام تشغيل بإخطار أو Biostar احتفظ بدون إخطار .	دعم أنظمة التشغيل

JAPANESE

	Ver 5.x	Ver 6.x
CPU	Socket AM2 AMD Athlon 64 / Athlon 64 FX / Athlon 64 X2 / Sempron プロセッサ 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とクールアンドクワイアットをサポートします	Socket AM2 AMD Athlon 64 / Athlon 64 FX / Athlon 64 X2 / Sempron プロセッサ 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とクールアンドクワイアットをサポートします
FSB	1GHzのバンド幅までハイパートランスポートをサポートします	1GHzのバンド幅までハイパートランスポートをサポートします
チップセット	AMD 690G AMD SB600	AMD 690G AMD SB600
メインメモリ	DDR2 DIMMスロット x 4 最大メモリ容量4GB 各DIMMは 256/512MB & 1GB DDR2をサポート デュアルチャンネルモードDDR2メモリモジュール DDR2 533 / 667 / 800をサポート 登録済みDIMMとECC DIMMはサポートされません	DDR2 DIMMスロット x 4 最大メモリ容量4GB 各DIMMは 256/512MB & 1GB DDR2をサポート デュアルチャンネルモードDDR2メモリモジュール DDR2 533 / 667 / 800をサポート 登録済みDIMMとECC DIMMはサポートされません
Super I/O	ITE 8716F もともと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 ITEの「スマートガーディアン」機能	ITE 8716F もともと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 ITEの「スマートガーディアン」機能
グラフィックス	AMD 690Gチップセットに統合 最大の共有ビデオメモリは512MBです	AMD 690Gチップセットに統合 最大の共有ビデオメモリは512MBです
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、	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	統合シリアルATAコントローラ 最高3Gb/秒のデータ転送速度 SATAバージョン2.0仕様に準拠。	統合シリアルATAコントローラ 最高3Gb/秒のデータ転送速度 SATAバージョン2.0仕様に準拠。
LAN	Marvell 88E8056 / 88E8039(オプション) 10 / 100 / 1000 Mb/秒のオートネゴシエーション (Gigabitバンド幅はMarvell 88E8056専用です) 半/全二重機能	Marvell 88E8056 / 88E8039(オプション) 10 / 100 / 1000 Mb/秒のオートネゴシエーション (Gigabitバンド幅はMarvell 88E8056専用です) 半/全二重機能

		Ver 5.x		Ver 6.x	
HDオーディオのサポート	ALC888 7.1チャンネルオーディオアウト ハイデフィニションオーディオのサポート			ALC662 5.1チャンネルオーディオアウト ハイデフィニションオーディオのサポート	
スロット	PCI Express x16スロット	x1		PCI Express x16スロット	x1
	PCI Express x1スロット	x1		PCI Express x1スロット	x1
	PCIスロット	x2		PCIスロット	x2
オンボードコネクタ	フロッピーコネクタ	x1		フロッピーコネクタ	x1
	IDEコネクタ	x1		IDEコネクタ	x1
	SATAコネクタ	x4		SATAコネクタ	x4
	フロントパネルコネクタ	x1		フロントパネルコネクタ	x1
	フロントオーディオコネクタ	x1		フロントオーディオコネクタ	x1
	CDインコネクタ	x1		CDインコネクタ	x1
	S/PDIFアウトコネクタ	x1		S/PDIFアウトコネクタ	x1
	CPUファンヘッダ	x1		CPUファンヘッダ	x1
	システムファンヘッダ	x1		システムファンヘッダ	x1
	CMOSクリアヘッダ	x1		CMOSクリアヘッダ	x1
	USBコネクタ	x3		USBコネクタ	x3
	電源コネクタ(24ピン)	x1		電源コネクタ(24ピン)	x1
	電源コネクタ(4ピン)	x1		電源コネクタ(4ピン)	x1
プリンタポートコネクタ	x1		プリンタポートコネクタ	x1	
シリアルポートコネクタ	x1		シリアルポートコネクタ	x1	
背面パネルI/O	PS/2キーボード	x1		PS/2キーボード	x1
	PS/2マウス	x1		PS/2マウス	x1
	VGAポート	x1		VGAポート	x1
	LANポート	x1		LANポート	x1
	USBポート	x4		USBポート	x4
	オーディオジャック	x6		オーディオジャック	x3
	DVIポート	x1		DVIポート	x1
ボードサイズ	215 mm (幅) X 244 mm (高さ)		215 mm (幅) X 244 mm (高さ)		
特殊機能	RAID 0 / 1 / 1+0 のサポート		RAID 0 / 1 / 1+0 のサポート		
OSサポート	Windows XP / VISTA 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。		Windows XP / VISTA 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。		

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