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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**

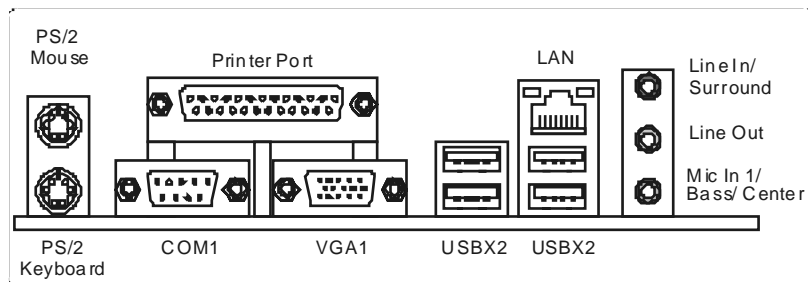
- ✦ HDD Cable X 1
- ✦ User's Manual X 1
- ✦ Fully Setup Driver CD X 1
- ✦ Rear I/O Panel for ATX Case X 1
- ✦ Serial ATA Cable X 1 (optional)
- ✦ FDD Cable X 1 (optional)
- ✦ USB 2.0 Cable X1 (optional)
- ✦ S/PDIF Cable X 1 (optional)

### 1.3 MOTHERBOARD FEATURES

| SPEC               |   |  |
|--------------------|---|--|
| CPU                | LGA 775<br>Supports Intel Pentium 4 / Pentium D / Celeron D processor up to 3.8 GHz<br>Supports Intel Core2Duo processor (only for Ver 2.0 / 8.0)<br>*It is recommended to use processors with 95W power consumption. | Supports Hyper-Threading Technology / Execute Disable Bit/ Enhanced Intel SpeedStep® / Intel Extended Memory 64 technology                                   |
| FSB                | 533 / 800 / 1066 MHz  |  |
| Chipset            | VIA P4M800 PRO<br>VIA VT8237R+  |  |
| Graphic            | Integrated in UniChrome Pro Chipset   | Max Shared Video Memory is 64 MB   |
| Super I/O          | ITE IT8705AF<br>Provides the most commonly used legacy Super I/O functionality.<br>Low Pin Count Interface  | Environment Control initiatives,<br>H/W Monitor<br>Fan Speed Controller<br>ITE's "Smart Guardian" function   |
| Main Memory        | DIMM Slots x 2<br>Supports DDR2 400 / 533<br>Each DIMM supports 256MB/512MB/1GB DDR 2<br>Max Memory Capacity 2GB  | Single Channel Mode DDR2 memory module<br>Registered DIMM and ECC DIMM is not supported  |
| IDE                | Integrated IDE Controller   | Ultra DMA 33~133 Bus Master Mode<br>supports PIO Mode 0~4,   |
| SATA               | Integrated Serial ATA Controller  | Data transfer rates up to 1.5 Gb/s.<br>SATA Version 1.0 specification compliant.   |
| LAN PHY            | Realtek RTL8201BL/RTL8201CL   | 10 / 100 Mb/s auto negotiation<br>Half / Full duplex capability  |
| Sound Codec        | ALC655  | 6 channels audio out<br>AC'97 Version 2.3  |
| Slots              | AGP slot x1<br>CNR slot x1<br>PCI slot x3   | Supports AGP expansion cards<br>Supports CNR expansion cards<br>Supports PCI expansion cards   |
| On Board Connector | Floppy connector x1<br>IDE Connector x2<br>SATA Connector x2<br>Front Panel Connector x1  | Each connector supports 2 Floppy drives<br>Each connector supports 2 IDE device<br>Each connector supports 1 SATA devices<br>Supports front panel facilities |

| SPEC              |                               |    |  |
|-------------------|-------------------------------|----|--|
|                   | Front Audio Connector         | x1 | Supports front panel audio function  |
|                   | CD-in Connector               | x1 | Supports CD audio-in function  |
|                   | S/PDIF out connector          | x1 | Supports digital audio out function  |
|                   | CPU Fan header                | x1 | CPU Fan power supply (with Smart Fan function)   |
|                   | System Fan header             | x1 | System Fan Power supply  |
|                   | Chassis open header(optional) | x1 | For chassis intruder detection function  |
|                   | Clear CMOS header             | x1 | Restore CMOS data to factory default   |
|                   | USB connector                 | x2 | Each connector supports 2 front panel USB ports  |
|                   | Power Connector (20pin)       | x1 | Connects to Power supply   |
|                   | Power Connector (4pin)        | x1 | Connects to Power supply   |
| Back Panel<br>I/O | PS/2 Keyboard                 | x1 | Connects to PS/2 Key board   |
|                   | PS/2 Mouse                    | x1 | Connects to PS/2 Mouse   |
|                   | Serial Port                   | x1 | Provide RS-232 Serial connection   |
|                   | Printer Port                  | x1 | Connects to various types of device  |
|                   | VGA Port                      | x1 | Connects to monitor.   |
|                   | LAN port                      | x1 | Connects to RJ-45 ethernet cable   |
|                   | USB Port                      | x4 | Connects to USB devices  |
|                   | Audio Jack                    | x3 | Provide Audio-In/Out and microphone connection   |
| Board Size        | 201 mm (W) x 244 mm (L)       |    | Micro ATX form Factor  |
| Special Features  | RAID 0 / 1 support            |    |  |
| OS Support        | Windows 2000 / XP             |    | Biostar Reserves the right to add or remove support for any OS with or without notice. |

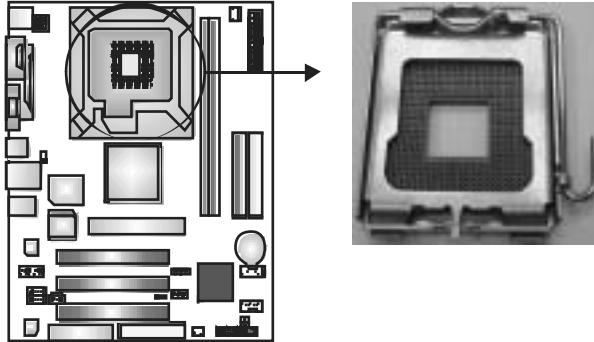
## 1.4 REAR PANEL CONNECTORS





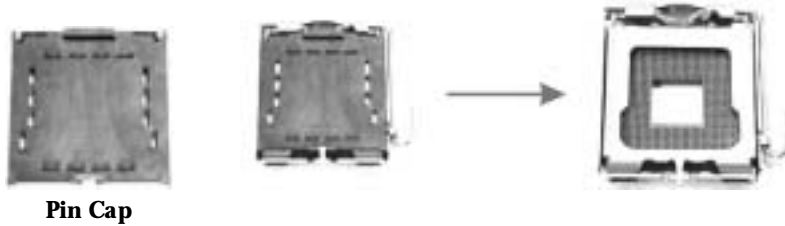
## CHAPTER 2: HARDWARE INSTALLATION

### 2.1 INSTALLING CENTRAL PROCESSING UNIT (CPU)



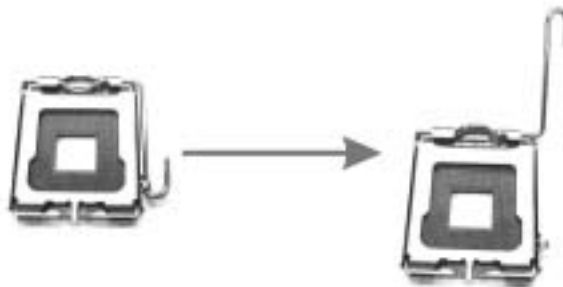
#### *Special Notice*

Remove Pin Cap before installation, and make good preservation for future use. When the CPU is removed, cover the Pin Cap on the empty socket to ensure pin legs won't be damaged.



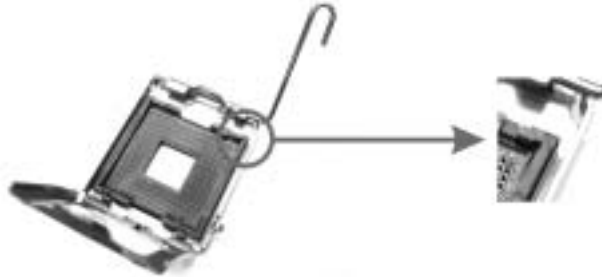
Pin Cap

**Step 1:** Pull the socket locking lever out from the socket and then raise the lever up to a 90-degree angle.

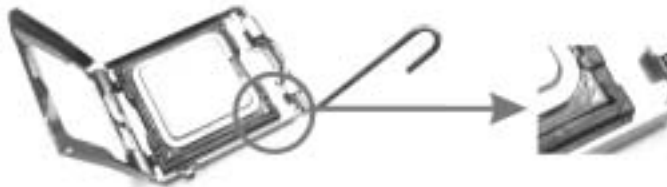


**Step 2:** Look for the triangular cut edge on socket, and the golden dot on CPU should point forwards this triangular cut edge. The CPU will fit only in the correct orientation.

*Step 2-1:*



*Step 2-2:*



**Step 3:** Hold the CPU down firmly, and then lower the lever to locked position to complete the installation.



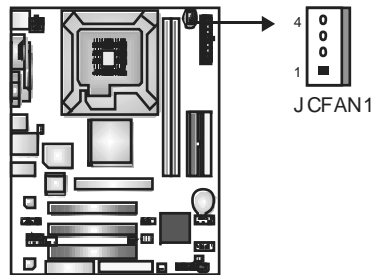
**Step 4:** Put the CPU Fan and heatsink assembly on the CPU and buckle it on the retention frame. Connect the CPU FAN power cable into the JCFAN1. This completes the installation.



## 2.2 FAN HEADERS

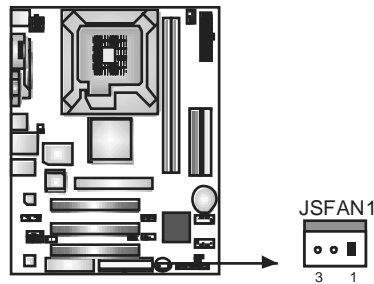
These fan headers support cooling-fans built in the computer. The fan cable and connector may be different according to the fan manufacturer. Connect the fan cable to the connector while matching the black wire to pin#1.

### JCFAN1: CPU Fan Header



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

### JSFAN1: System Fan Header



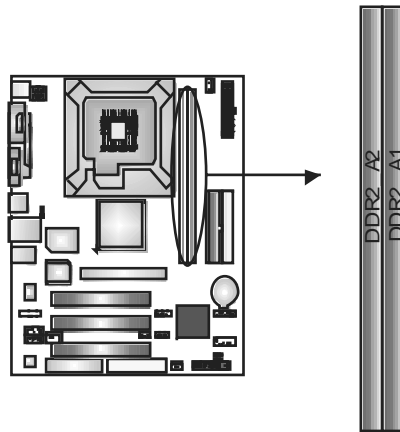
| Pin | Assignment         |
|-----|--------------------|
| 1   | Ground             |
| 2   | +12V               |
| 3   | FAN RPM rate sense |

#### Note:

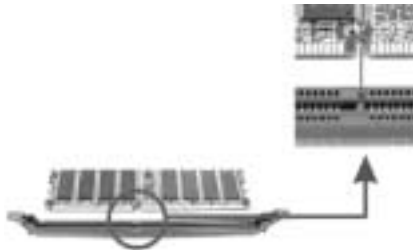
The JSFAN1 support 3-pin head connector. When connecting with wires onto connectors, please note that the red wire is the positive and should be connected to pin#2, and the black wire is Ground and should be connected to GND.

## 2.3 INSTALLING SYSTEM MEMORY

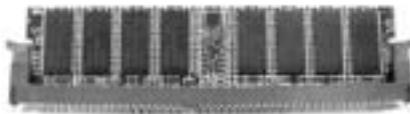
### A. Memory Modules



1. Unlock a DIMM slot by pressing the retaining dips 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.



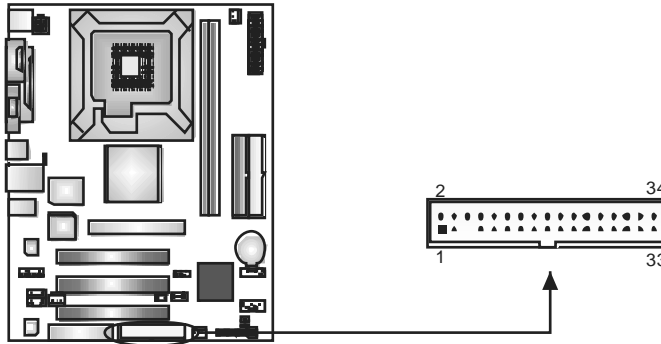
### B. Memory Capacity

| DIMM Socket Location | DDR Module      | Total Memory Size |
|----------------------|-----------------|-------------------|
| DDR2_A1              | 256MB/512MB/1GB | Max is 2GB.       |
| DDR2_A2              | 256MB/512MB/1GB |                   |

## 2.4 CONNECTORS AND SLOTS

### FDD1: Floppy Disk Connector

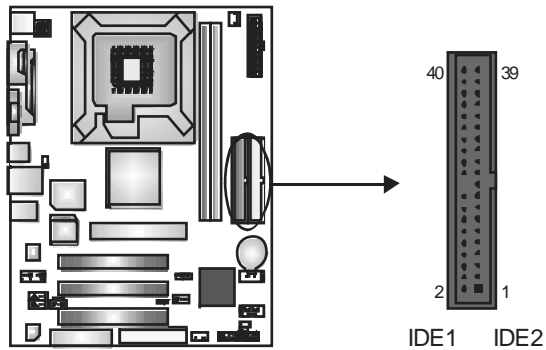
The motherboard provides a standard floppy disk connector that supports 360K, 720K, 1.2M, 1.44M and 2.88M floppy disk types. This connector supports the provided floppy drive ribbon cables.



### IDE1/IDE2: Hard Disk Connectors

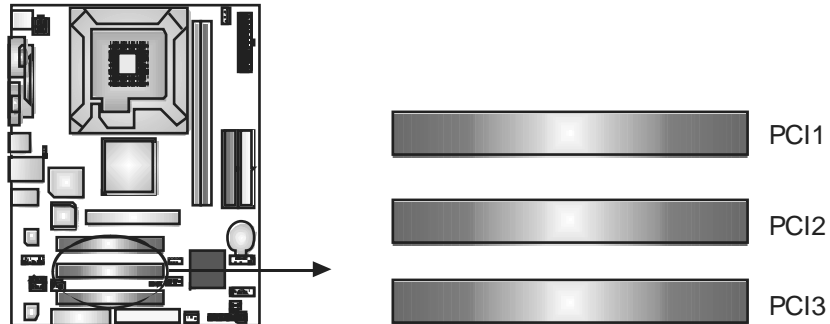
The motherboard has a 32-bit Enhanced PCI IDE Controller that provides PIO Mode 0-4, Bus Master, and Ultra DMA 33/66/100/133 functionality. It has two HDD connectors IDE1 (primary) and IDE2 (secondary).

The IDE connectors can connect a master and a slave drive, so you can connect up to four hard disk drives. The first hard drive should always be connected to IDE1.



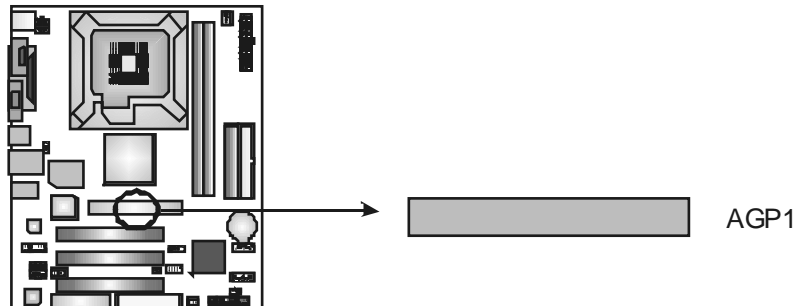
### PCI1~PCI3: Peripheral Component Interconnect Slots

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



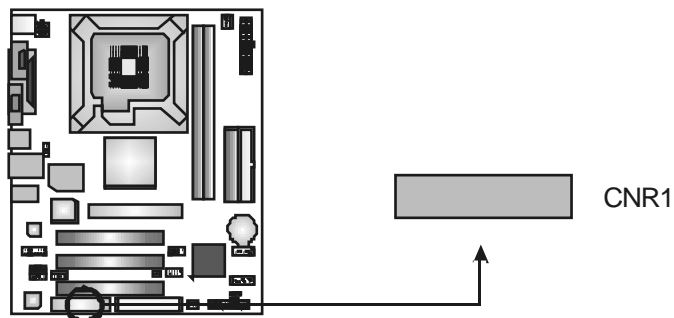
### AGP1: Accelerated Graphics Port Slot

Your monitor will attach directly to that video card. This motherboard supports video cards for PCI slots, but it is also equipped with an Accelerated Graphics Port (AGP). An AGP card will take advantage of AGP technology for improved video efficiency and performance, especially with 3D graphics.



### CNR1: Communication Network Riser Slot

The CNR specification is an open Industry Standard Architecture, and it defines a hardware scalable riser card interface, which supports modem only.



## CHAPTER 3: HEADERS & JUMPERS SETUP

### 3.1 HOW TO SETUP JUMPERS

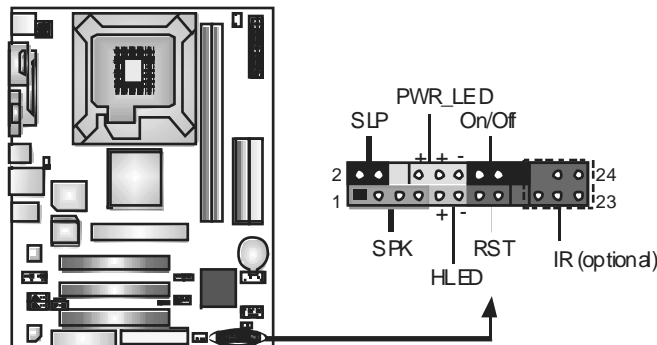
The illustration shows how to set up jumpers. When the jumper cap is placed on pins, the jumper is “close”, if not, that means the jumper is “open”.



### 3.2 DETAIL SETTINGS

#### JPANEL1: Front Panel Header

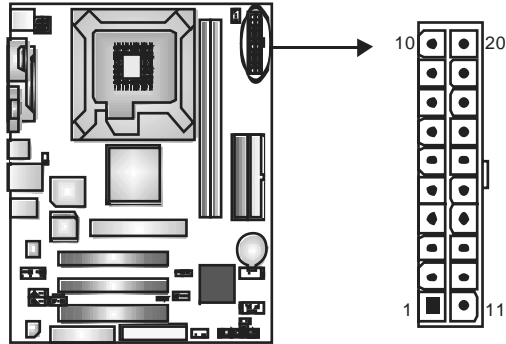
This 24-pin connector includes Power-on, Reset, HDD LED, Power LED, Sleep button, speaker and IrDA Connection. It allows user to connect the PC case's front panel switch functions.



| Pin | Assignment    | Function                  | Pin | Assignment    | Function                  |
|-----|---------------|---------------------------|-----|---------------|---------------------------|
| 1   | +5V           |                           | 2   | Sleep control | Sleep button              |
| 3   | N/A           | Speaker Connector         | 4   | Ground        |                           |
| 5   | N/A           |                           | 6   | N/A           | N/A                       |
| 7   | Speaker       |                           | 8   | Power LED (+) | Power LED                 |
| 9   | HDD LED (+)   | Hard drive LED            | 10  | Power LED (+) |                           |
| 11  | HDD LED (-)   |                           | 12  | Power LED (-) |                           |
| 13  | Ground        | Reset button              | 14  | Power button  | Power-on button           |
| 15  | Reset control |                           | 16  | Ground        |                           |
| 17  | N/A           |                           | 18  | N/A           |                           |
| 19  | N/A           | IrDA Connector (optional) | 20  | Key           | IrDA Connector (optional) |
| 21  | +5V           |                           | 22  | Ground        |                           |
| 23  | IRTX          |                           | 24  | IRRX          |                           |

### JATXPWR1: ATX Power Source Connector

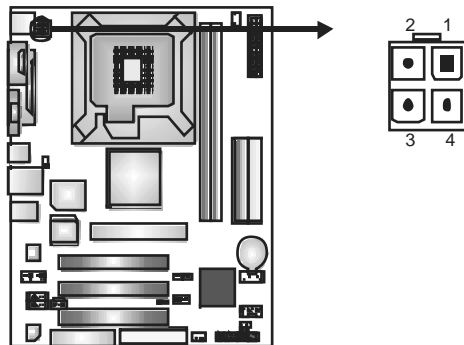
This connector allows user to connect 20-pin power connector on the ATX power supply.



| Pin | Assignment         | Pin | Assignment |
|-----|--------------------|-----|------------|
| 1   | +3.3V              | 11  | +3.3V      |
| 2   | +3.3V              | 12  | -12V       |
| 3   | Ground             | 13  | Ground     |
| 4   | +5V                | 14  | PS_ON      |
| 5   | Ground             | 15  | Ground     |
| 6   | +5V                | 16  | Ground     |
| 7   | Ground             | 17  | Ground     |
| 8   | PW_OK              | 18  | -5V        |
| 9   | StandbyVoltage +5V | 19  | +5V        |
| 10  | +12V               | 20  | +5V        |

### JATXPWR2: ATX Power Source Connector

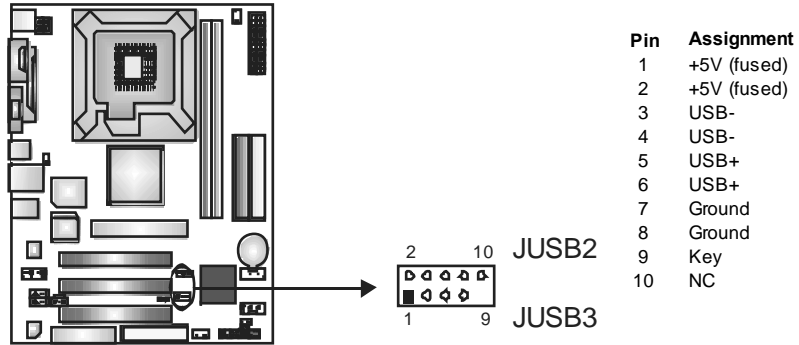
By connecting this connector, it will provide +12V to CPU power circuit.



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

### JUSB2/JUSB3: 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.



### JUSBV1/JUSBV2: Power Source Headers for USB ports

**Pin 1-2 Close:**

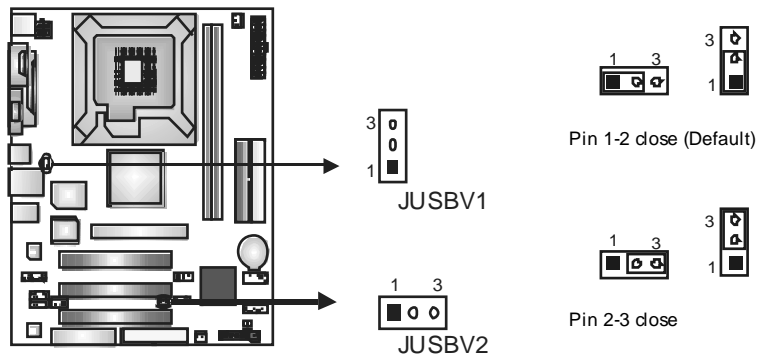
JUSBV1: +5V for USB ports at JUSB1 and JUSBLAN1.

JUSBV2: +5V for USB ports at front panel (JUSB2/JUSB3).

**Pin 2-3 Close:**

JUSBV1: USB ports at JUSB1 and JUSBLAN1 are powered by +5V standby voltage.

JUSBV2: USB ports at front panel (JUSB2/JUSB3) are powered by +5V standby voltage.

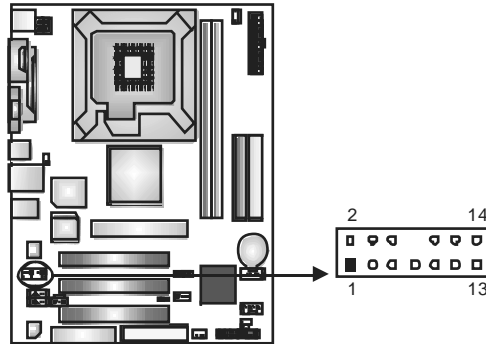


**Note:**

In order to support this function "Power-On system via a USB device," "JUSBV1/ JUSBV2" jumper cap should be placed on Pin 2-3 individually.

### JFAUDIO1: Front Panel Audio Header

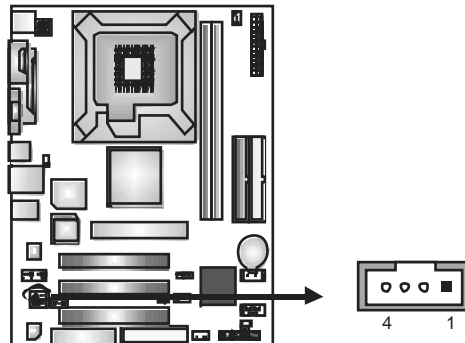
This header allows user to connect the front panel audio output cable with the PC front panel. It will disable the output on back panel audio connectors.



| Pin | Assignment                           |
|-----|--------------------------------------|
| 1   | Mic-in/Stereo MIC-in R               |
| 2   | Ground                               |
| 3   | Stereo MIC-in L                      |
| 4   | Audio power                          |
| 5   | Right line-out/<br>Speaker-out Right |
| 6   | Right line-out/<br>Speaker-out Right |
| 7   | Reserved                             |
| 8   | Key                                  |
| 9   | Left line-out/<br>Speaker-out Left   |
| 10  | Left line-out/<br>Speaker-out Left   |
| 11  | Right line-in (optional)             |
| 12  | Right line-in (optional)             |
| 13  | Left line-in (optional)              |
| 14  | Left line-in (optional)              |

### 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.

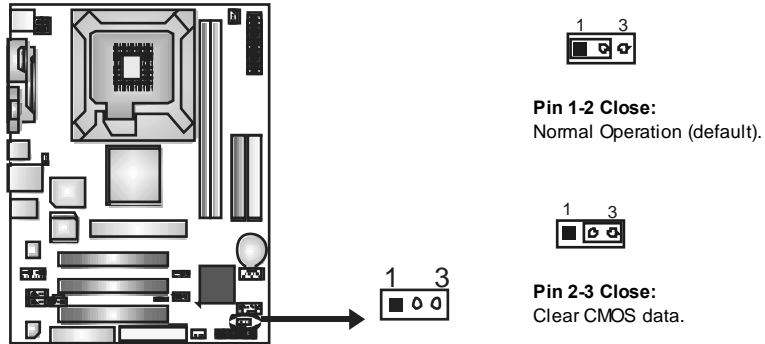


| Pin | Assignment          |
|-----|---------------------|
| 1   | Left Channel Input  |
| 2   | Ground              |
| 3   | Ground              |
| 4   | Right Channel Input |



### 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.

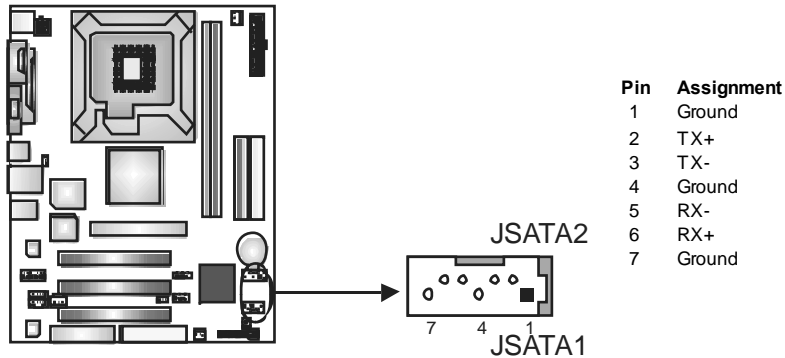


#### ※ Clear CMOS Procedures:

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.

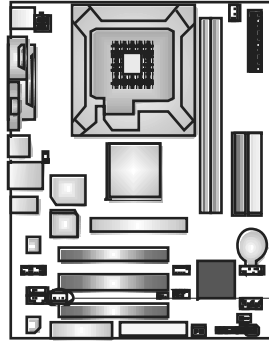
### JSATA1~JSATA2: Serial ATA Connectors

The motherboard has a PCI to SATA Controller with 2 channels SATA interface, it satisfies the SATA 1.0 spec and with transfer rate of 1.5Gb/s.

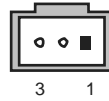


### JSPDIF01: Digital Audio-out Connector

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

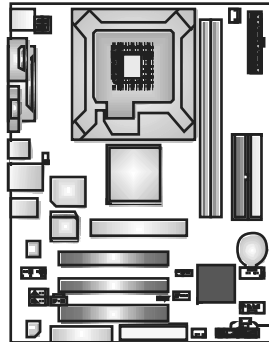


| Pin | Assignment |
|-----|------------|
| 1   | +5V        |
| 2   | SPDIF_OUT  |
| 3   | Ground     |



### JCI1: Chassis Open Header (optional)

This connector allows system to monitor PC case open status. If the signal has been triggered, it will record to the CMOS and show the message on next boot-up.



| Pin | Assignment       |
|-----|------------------|
| 1   | Case open signal |
| 2   | Ground           |



## CHAPTER 4: RAID FUNCTIONS

### 4.1 OPERATION SYSTEM

Supports Windows XP Home/Professional Edition, and Windows 2000 Professional.

### 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.

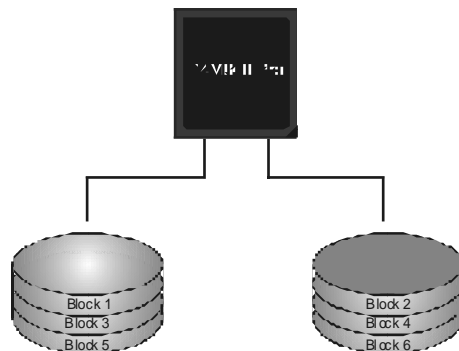
### 4.3 HOW RAID WORKS

#### **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.



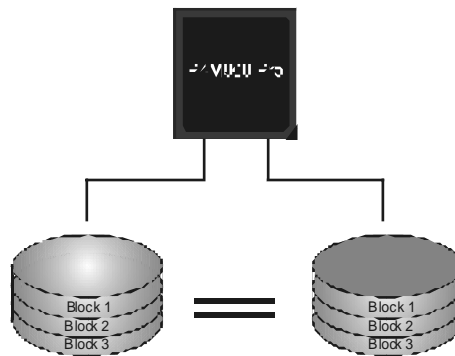
**RAID 1:**

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.

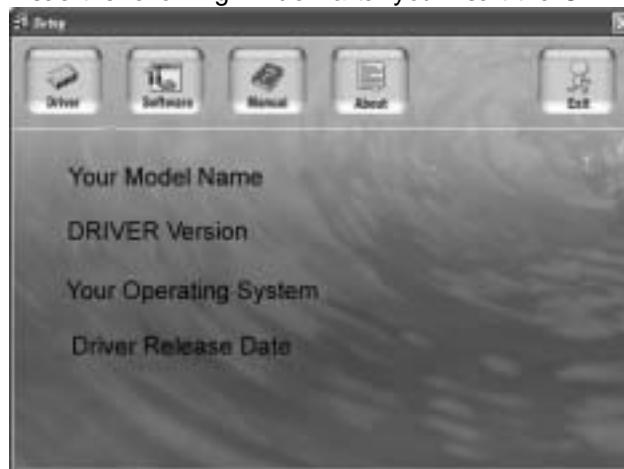


## CHAPTER 5: USEFUL HELP

### 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 **SETUPEXE** 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<br>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](http://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  |
|--|---|
| <ol style="list-style-type: none"> <li>1. No power to the system at all. Power light don't illuminate, fan inside power supply does not turn on.</li> <li>2. Indicator light on key board does not turn on.</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>  |
| <p>System inoperative. Keyboard lights are on, power indicator lights are lit, and hard drive is spinning.</p>   | <p>Using even pressure on both ends of the DIMM, press down firmly until the module snaps into place.</p>   |
| <p>System does not boot from hard disk drive, can be booted from optical drive.</p>  | <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> |
| <p>System only boots from optical drive. Hard disk can be read and applications can be used but booting from hard disk is impossible.</p>  | <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>   |
| <p>Screen message says "Invalid Configuration" or "CMOS Failure."</p>  | <p>Review system's equipment. Make sure correct information is in setup.</p>  |
| <p>Cannot boot system after installing second hard drive.</p>  | <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>  |



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## **CHAPTER 6: WARPSPEEDER™**



### **6.1 INTRODUCTION**

[WarpSpeeder™], 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, AGP 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™] 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  
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. If the "Launch the WarpSpeeder Tray Utility" checkbox is checked, the Tray Icon utility and [WarpSpeeder™] utility will be automatically and immediately launched after you click "Finish" button.



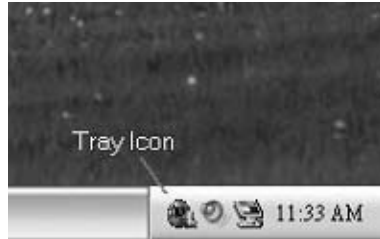
#### Usage:

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

## 6.4 WARPSPEDER™

### 1. Tray Icon:

Whenever the Tray Icon utility is launched, it will display a little tray icon on the right side of Windows Taskbar.



This utility is responsible for conveniently invoking [WarpSpeeder™] Utility. You can use the mouse by clicking the left button in order to invoke [WarpSpeeder™] directly from the little tray icon or you can right-click the little tray icon to pop up a popup menu as following figure. The “Launch Utility” item in the popup menu has the same function as mouse left-click on tray icon and “Exit” item will close Tray Icon utility if selected.



## 2. Main Panel

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

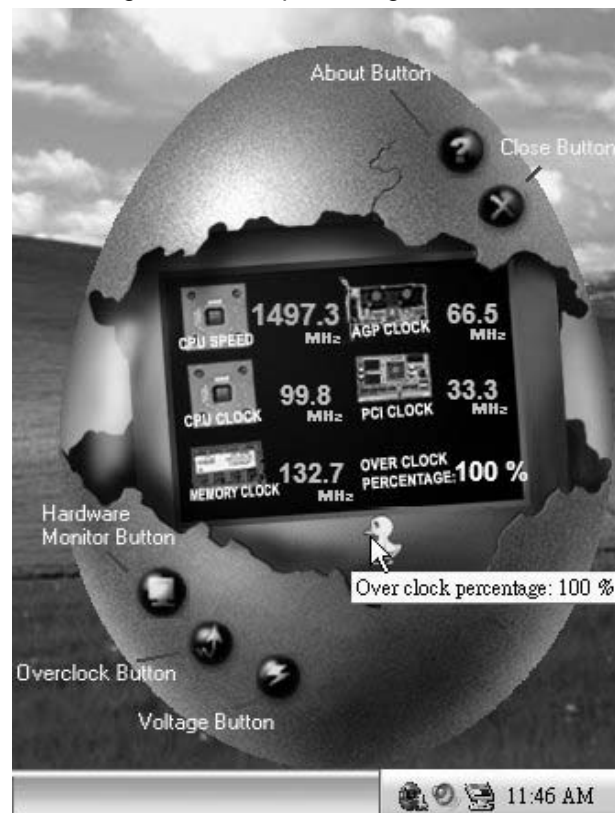
### Main Panel contains features as follows:

- Display the CPU Speed, CPU external dock, Memory dock, AGP dock, and PCI dock information.
- Contains About, Voltage, Overclock, and Hardware Monitor Buttons for invoking respective panels.
- With a user-friendly Status Animation, it can represent 3 overclock percentage stages:

Man walking → overclock percentage from 100% ~ 110 %

Panther running → overclock percentage from 110% ~ 120%

Car racing → overclock percentage from 120% ~ above



### 3. Voltage Panel

Click the Voltage button in Main Panel, the button will be highlighted and the Voltage Panel will slide out to up as the following figure.

In this panel, you can decide to increase CPU core voltage and Memory voltage or not. The default setting is "No". If you want to get the best performance of overlocking, we recommend you click the option "Yes".



#### 4. Overclock Panel

Click the Overclock button in Main Panel, the button will be highlighted and the Overclock Panel will slide out to left as the following figure.



**Overclock Panel contains the these features:**

- a. “-3MHz button”, “-1MHz button”, “+1MHz button”, and “+3MHz button”: provide user the ability to do real-time overclock adjustment.

**Warning:**

Manually overclock is potentially dangerous, especially when the over clocking 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™] automatically gets the best result for you.

- b. “Recovery Dialog button”: Pop up the following dialog. Let user select a restoring way if system need to do a fail-safe reboot.



- c. “Auto-overclock button”: User can click this button and [WarpSpeeder™] will set the best and stable performance and frequency automatically. [WarpSpeeder™] utility will execute a series of testing until system fail. Then system will do fail-safe reboot by using Watchdog function. After reboot, the [WarpSpeeder™] utility will restore to the hardware default setting or load the verified best and stable frequency according to the Recovery Dialog's setting.
- d. “Verify button”: User can click this button and [WarpSpeeder™] 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 fail, system will do a fail-safe rebooting. After reboot, the [WarpSpeeder™] utility will restore to the hardware default setting or load the verified best and stable frequency according to the Recovery Dialog's setting.

**Note:**

Because the testing programs, invoked in Auto-overclock and Verify, include DirectDraw, Direct3D and DirectShow tests, the DirectX 8.1 or newer runtime library is required. And please make sure our display card's color depth is High color (16 bit) or True color (24/32 bit) that is required for Direct3D rendering.

## 5. Hardware Monitor Panel

Click the Hardware Monitor button in Main Panel, the button will be highlighted and the Hardware Monitor panel will slide out to left as the following figure.

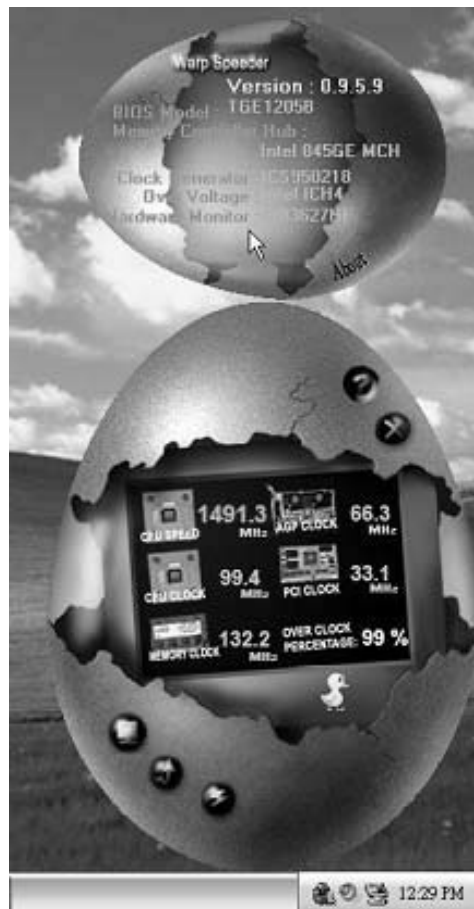
In this panel, you can get the real-time status information of your system. The information will be refreshed every 1 second.



## 6. About Panel

Click the “about” button in Main Panel, the button will be highlighted and the About Panel will slide out to 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 mainboard’s BIOS model and the Version number of [WarpSpeeder™] utility.



### Note:

Because the overlock, overvoltage, and hardware monitor features are controlled by several separate chipset, [WarpSpeeder™] 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™] utility more robust.



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**APPENDENCIES: SPEC IN OTHER LANGUAGE****GERMAN**

| Spezifikationen |  |   |
|-----------------|--|---|
| CPU             | LGA 775<br>Intel Pentium 4 / Pentium D /<br>Celeron D Prozessoren mit bis zu 3,8<br>GHz<br>Intel Core2Duo Prozessoren (nur für<br>Ver 2.0 / 8.0)<br>*It is recommended to use<br>processors with 95W power<br>consumption. | Unterstützt Hyper-Threading / Execute Disable Bit<br>/ Enhanced Intel SpeedStep® / Extended<br>Memory 64 Technology |
| FSB             | 533 / 800 / 1066 MHz   |   |
| Chipsatz        | VIA P4M800 PRO<br>VIA VT8237R+   |   |
| Grafik          | Integrierter UniChrome Pro Chipsatz  | Max. 64MB gemeinsam benutzter Videospeicher   |
| Super E/A       | ITE IT8705AF<br>Bietet die häufig verwendeten alten<br>Super E/A-Funktionen.<br>Low Pin Count-Schnittstelle  | Umgebungskontrolle,<br>Hardware-Überwachung<br>Lüfterdrehzahl-Controller<br>"Smart Guardian"-Funktion von ITE       |
| Arbeitsspeicher | DDR2 DIMM-Steckplätze x 2<br>Unterstützt DDR2 400 / 533<br>Jeder DIMM unterstützt<br>256/512MB/1GB DDR2.<br>Max. 2GB Arbeitsspeicher   | Ein-Kanal DDR2 Speichermodul<br>registrierte DIMMs. ECC DIMMs werden nicht<br>unterstützt.                          |
| IDE             | Integrierter IDE-Controller  | Unterstützt PIO-Modus 0~4,<br>Ultra DMA 33 / 66 / 100 / 133 Bus Master-Modus  |
| SATA            | Integrierter Serial ATA-Controller   | Konform mit der SATA-Spezifikation Version 1.0.<br>Datentransferrate bis zu 1.5Gb/s                                 |
| LAN PHY         | Realtek RTL8201BL/RTL8201CL  | 10 / 100 Mb/s Auto-Negotiation<br>Halb-/ Voll duplex-Funktion   |
| Audio-Codec     | ALC 655  | 6-Kanal-Audioausgabe<br>AC'97 Version 2.3   |
| Steckplätze     | AGP-Steckplatz x1<br>CNR-Steckplatz x1<br>PCI-Steckplatz x3  |   |

| Spezifikationen   |                                   |  |  |
|-------------------|-----------------------------------|--|--|
| Onboard-Anschluss | Diskettenlaufwerkanschluss        | x1   | Jeder Anschluss unterstützt 2 Diskettenlaufwerke             |
|                   | IDE-Anschluss                     | x2   | Jeder Anschluss unterstützt 2 IDE-Laufwerke                  |
|                   | SATA-Anschluss                    | x2   | Jeder Anschluss unterstützt 1 SATA-Laufwerk                  |
|                   | Fronttafelanschluss               | x1   | Unterstützt die Fronttafelaktionen                           |
|                   | Front-Audioanschluss              | x1   | Unterstützt die Fronttafel-Audioanschlussfunktion            |
|                   | CD-IN-Anschluss                   | x1   | Unterstützt die CD Audio-In-Funktion                         |
|                   | S/PDIF-Ausgangsanschluss          | x1   | Unterstützt die digitale Audi oausgabefunktion               |
|                   | CPU-Lüfter-Sockel                 | x1   | CPU-Lüfterstromversorgungsanschluss (mit Smart Fan-Funktion) |
|                   | System-Lüfter-Sockel              | x1   | System-Lüfter-Stromversorgungsanschluss                      |
|                   | "Gehäuse offen"-Sockel (optional) | x1   | Zur Erkennung eines geöffneten Gehäuses                      |
|                   | "CMOS löschen"-Sockel             | x1   |  |
|                   | USB-Anschluss                     | x2   | Jeder Anschluss unterstützt 2 Fronttafel-USB-Anschlüsse      |
|                   | Stromanschluss (20-polig)         | x1   |  |
|                   | Stromanschluss (4-polig)          | x1   |  |
| Rückseiten-E/A    | PS/2-Tastatur                     | x1   |  |
|                   | PS/2-Maus                         | x1   |  |
|                   | Serieller Anschluss               | x1   |  |
|                   | Druckeranschluss                  | x1   |  |
|                   | VGA-Anschluss                     | x1   |  |
|                   | LAN-Anschluss                     | x1   |  |
|                   | USB-Anschluss                     | x4   |  |
| Audioanschluss    | x3                                |  |  |
| Platinengröße.    | 201 mm (B) X 244 mm (L)           |  |  |
| Sonderfunktionen  | Unterstützt RAID 0 / 1            |  |  |
| OS-Unterstützung  | Windows 2K / XP                   | Biostar behält sich das Recht vor, ohne Ankündigung die Unterstützung für ein Betriebssystem hinzuzufügen oder zu entfernen. |  |

## FRANCE

| SPEC                |   |  |
|---------------------|---|--|
| UC                  | LGA 775<br>Processeurs Intel Pentium 4 / Pentium D / Celeron D jusqu'à 3,8 GHz<br>Processeurs Intel Core2Duo (Seulement pour Ver 2.0 / 8.0)<br>*It is recommended to use processors with 95W power consumption. | Prend en charge les technologies Hyper-Threading / d'exécution de bit de désactivation / Intel SpeedStep® optimisée / de mémoire étendue 64                                  |
| Bus frontal         | 533 / 800 / 1066 MHz  |  |
| Chipset             | VIA P4M800 PRO<br>VIA VT8237R+  |  |
| Graphiques          | Intégré dans la chipset UniChrome Pro   | Mémoire vidéo partagée maximale de 64 Mo   |
| Super E/S           | ITE IT8705AF<br>Fournit la fonctionnalité de Super E/S patrimoniales la plus utilisée.<br>Interface à faible compte de broches  | Initiatives de contrôle environnementales,<br>Moniteur de matériel<br>Contrôleur de vitesse de ventilateur<br>Fonction "Gardien intelligent" de l'ITE                        |
| Mémoire principale  | Fentes DDR2 DIMM x 2<br>Prend en charge la DDR2 400 / 533<br>Chaque DIMM prend en charge des DDR2 de 256 Mo / 512 Mo / 1Go<br>Capacité mémoire maximale de 2 Go   | Module de mémoire DDR2 à mode à simple voie<br>Les DIMM à registres et DIMM avec code correcteurs d'erreurs sont pas prises en charge  |
| IDE                 | Contrôleur IDE intégré  | Prend en charge le mode PIO 0~4,<br>Mode principale de Bus Ultra DMA 33 / 66 / 100 / 133   |
| SATA                | Contrôleur Serial ATA intégré :   | Conforme à la spécification SATA Version 1.0<br>Taux de transfert jusqu'à 1.5 Go/s.  |
| LAN PHY             | Realtek RTL8201BL/RTL8201CL   | 10 / 100 Mb/s négociation automatique<br>Half / Full duplex capability   |
| Codec audio         | ALC 655   | Sortie audio à 6 voies<br>AC'97 Version 2.3  |
| Fentes              | Fente AGP x1<br>Fente CNR x1<br>Fente PCI x3  |  |
| Connecteur embarqué | Connecteur de disquette x1<br>Connecteur IDE x2<br>Connecteur SATA x2   | Chaque connecteur prend en charge 2 lecteurs de disquettes<br>Chaque connecteur prend en charge 2 périphériques IDE<br>Chaque connecteur prend en charge 1 périphérique SATA |

| SPEC                      |   |    |  |
|---------------------------|---|----|--|
|                           | Connecteur du panneau avant               | x1 | Prend en charge les équipements du panneau avant   |
|                           | Connecteur Audio du panneau avant         | x1 | Prend en charge la fonction audio du panneau avant   |
|                           | Connecteur d'entrée CD                    | x1 | Prend en charge la fonction d'entrée audio de CD   |
|                           | Connecteur de sortie S/PDIF               | x1 | Prend en charge la fonction de sortie audio numérique  |
|                           | Embase de ventilateur UC                  | x1 | Alimentation électrique du ventilateur UC (avec fonction de ventilateur intelligent)         |
|                           | Embase de ventilateur système             | x1 | Alimentation électrique du ventilateur système   |
|                           | Embase d'ouverture de châssis (en option) | x1 | Pour la fonction de détection d'intrus dans le châssis                                       |
|                           | Embase d'effacement CMOS                  | x1 |  |
|                           | Connecteur USB                            | x2 | Chaque connecteur prend en charge 2 ports USB de panneau avant                               |
|                           | Connecteur d'alimentation (20 broches)    | x1 |  |
|                           | Connecteur d'alimentation (4 broches)     | x1 |  |
| E/S du panneau arrière    | Clavier PS/2                              | x1 |  |
|                           | Souris PS/2                               | x1 |  |
|                           | Port série                                | x1 |  |
|                           | Port d'imprimante                         | x1 |  |
|                           | Port VGA                                  | x1 |  |
|                           | Port LAN                                  | x1 |  |
|                           | Port USB                                  | x4 |  |
|                           | Fiche audio                               | x3 |  |
| Dimensions de la carte    | 201 mm (l) X 244 mm (H)                   |    |  |
| Fonctionnalités spéciales | Prise en charge RAID 0 / 1                |    |  |
| Support SE                | Windows 2K / XP                           |    | Biostar se réserve le droit d'ajouter ou de supprimer le support de SE avec ou sans préavis. |

**ITALIAN**

| SPECIFICA            |   |  |
|----------------------|---|--|
| CPU                  | LGA 775<br>Processore Intel Pentium 4 / Pentium D / Celeron D fino a 3.8 GHz<br>Processore Intel Core 2Duo (solo per Ver 2.0 / 8.0)<br>*It is recommended to use processors with 95W power consumption. | Supporto di Hyper-Threading / Execute Disable Bit / Enhanced Intel SpeedStep® / Tecnologia Extended Memory 64                      |
| FSB                  | 533 / 800 / 1066 MHz  |  |
| Chipset              | VIA P4M800 PRO<br>VIA VT8237R+  |  |
| Grafica              | Integrata nel Chipset UniChrome Pro   | La memoria video condivisa massima è di 64MB   |
| Super I/O            | ITE IT8705AF<br>Fornisce le funzionalità legacy Super I/O usate più comunemente.<br>Interfaccia LPC (Low Pin Count)   | Funzioni di controllo dell'ambiente:<br>Monitoraggio hardware<br>Controller velocità ventolina<br>Funzione "Smart Guardian" di ITE |
| Memoria principale   | Alloggi DIMM DDR 2 x 2<br>Supporto di DDR2 400 / 533<br>Ciascun DIMM supporta DDR2 256MB / 512MB / 1GB<br>Capacità massima della memoria 2GB  | Modulo di memoria DDR2 a canale singolo<br>DIMM registrati e DIMM ECC non sono supportati  |
| IDE                  | Controller IDE integrato  | Supporto modalità PIO Mode 0-4<br>Modalità Bus Master Ultra DMA 33 / 66 / 100 / 133  |
| SATA                 | Controller Serial ATA integrato   | Compatibile specifiche SATA Versione 1.0.<br>Velocità di trasferimento dei dati fino a 1.5 Gb/s.                                   |
| LAN PHY              | Realtek RTL8201BL/RTL8201CL   | Negoziazione automatica 10 / 100 Mb/s<br>Capacità Half / Full Duplex   |
| Codec audio          | ALC 655   | Uscita audio 6 canali<br>AC'97 Versione 2.3  |
| Alloggi              | Alloggio AGP x1<br>Alloggio CNR x1<br>Alloggio PCI x3   |  |
| Connettori su scheda | Connettore floppy x1<br>Connettore IDE x2   | Ciascun connettore supporta 2 unità Floppy<br>Ciascun connettore supporta 2 unità IDE  |

| SPECIFICA                    |                                       |    |   |
|------------------------------|---------------------------------------|----|---|
|                              | Connettore SATA                       | x2 | Ciascun connettore supporta 1 unità SATA  |
|                              | Connettore pannello frontale          | x1 | Supporta i servizi del pannello frontale  |
|                              | Connettore audio frontale             | x1 | Supporta la funzione audio pannello frontale  |
|                              | Connettore CD-in                      | x1 | Supporta la funzione input audio CD   |
|                              | Connettore output SPDIF               | x1 | Supporta la funzione d'output audio digitale  |
|                              | Collettore ventolina CPU              | x1 | Alimentazione ventolina CPU (con funzione Smart Fan)  |
|                              | Collettore ventolina sistema          | x1 | Alimentazione ventolina di sistema  |
|                              | Collettore apertura telaio (optional) | x1 | Per la funzione di rilevamento intrusione telaio  |
|                              | Collettore cancellazione CMOS         | x1 |   |
|                              | Connettore USB                        | x2 | Ciascun connettore supporta 2 porte USB pannello frontale   |
|                              | Connettore alimentazione (20 pin)     | x1 |   |
|                              | Connettore alimentazione (4 pin)      | x1 |   |
| I/O pannello posteriore      | Tastiera PS/2                         | x1 |   |
|                              | Mouse PS/2                            | x1 |   |
|                              | Porta seriale                         | x1 |   |
|                              | Porta stampante                       | x1 |   |
|                              | Porta VGA                             | x1 |   |
|                              | Porta LAN                             | x1 |   |
|                              | Porta USB                             | x4 |   |
|                              | Connettore audio                      | x3 |   |
| Dimensioni scheda            | 201 mm (larghezza) x 244 mm (altezza) |    |   |
| Caratteristiche speciali     | Supporto RAID 0 / 1                   |    |   |
| Sistemi operativi supportati | Windows 2K / XP                       |    | Biostar si riserva il diritto di aggiungere o rimuovere il supporto di qualsiasi sistema operativo senza preavviso. |

## SPANISH

| Especificación      |  |  |
|---------------------|--|--|
| CPU                 | LGA 775<br>Procesador Intel Pentium 4 / Pentium D / Celeron D hasta 3,8 GHz<br>Procesador Intel Core 2Duo (solamente para Ver 2.0 / 8.0)<br>*It is recommended to use processors with 95W power consumption. | Admite Hyper-Threading / Bit de deshabilitación de ejecución / Intel SpeedStep® Mejorado / Tecnología Extended Memory 64                 |
| FSB                 | 533 / 800 / 1066 MHz   |  |
| Conjunto de chips   | VIA P4M800 PRO<br>VIA VT8237R+   |  |
| Gráficos            | Integrados en el conjunto de chips UniChrome Pro   | Memoria máxima de vídeo compartida de 64MB   |
| Súper E/S           | ITE IT8705AF<br>Le ofrece las funcionalidades heredadas de uso más común Súper E/S.<br>Interfaz de cuenta Low Pin  | Iniciativas de control de entorno,<br>Monitor hardware<br>Controlador de velocidad de ventilador<br>Función "Guardia inteligente" de ITE |
| Memoria principal   | Ranuras DIMM DDR 2 x 2<br>Admite DDR2 de 400 / 533<br>Cada DIMM admite DDR de 256MB / 512MB / 1GB<br>Capacidad máxima de memoria de 2GB  | Módulo de memoria DDR2 de canal Sencillo<br>No admite DIMM registrados o DIMM compatibles con ECC  |
| IDE                 | Controlador IDE integrado  | Soporte los Modos PIO 0~4,<br>Modo bus maestro Ultra DMA 33 / 66 / 100 / 133   |
| SATA                | Controlador ATA Serie Integrado  | Compatible con la versión SATA 1.0.<br>Tasas de transferencia de hasta 1.5 Gb/s.   |
| Red Local           | Realtek RTL8201BL/RTL8201CL  | Negociación de 10 / 100 Mb/s<br>Funciones Half / Full dúplex   |
| Códecs de sonido    | ALC 655  | Salida de sonido de 6 canales<br>AC'97 Versión 2.3   |
| Ranuras             | Ranura AGP X1<br>Ranura CNR X1<br>Ranura PCI X3  |  |
| Conectores en placa | Conector disco flexible X1<br>Conector IDE X2  | Cada conector soporta 2 unidades de disco flexible<br>Cada conector soporta 2 dispositivos IDE   |



| Especificación               |  |    |  |
|------------------------------|--|----|--|
|                              | Conector SATA                          | X2 | Cada conector soporta 1 dispositivos SATA  |
|                              | Conector de panel frontal              | X1 | Soporta instalaciones en el panel frontal  |
|                              | Conector de sonido frontal             | X1 | Soporta funciones de sonido en el panel frontal  |
|                              | Conector de entrada de CD              | X1 | Soporta función de entrada de sonido de CD   |
|                              | Conector de salida S/PDIF              | X1 | Soporta función de salida de sonido digital  |
|                              | Cabecera de ventilador de CPU          | X1 | Fuente de alimentación de ventilador de CPU (con función Smart Fan)                                  |
|                              | Cabecera de ventilador de sistema      | X1 | Fuente de alimentación de ventilador de sistema  |
|                              | Cabecera de chasis abierto (opcional)  | X1 | Función de detección de intrusos en el chasis  |
|                              | Cabecera de borrado de CMOS            | X1 |  |
|                              | Conector USB                           | X2 | Cada conector soporta 2 puertos USB frontales  |
|                              | Conector de alimentación (20 patillas) | X1 |  |
|                              | Conector de alimentación (4 patillas)  | X1 |  |
| Panel trasero de E/S         | Teclado PS/2                           | X1 |  |
|                              | Ratón PS/2                             | X1 |  |
|                              | Puerto serie                           | X1 |  |
|                              | Puerto de impresora                    | X1 |  |
|                              | Puerto VGA                             | X1 |  |
|                              | Puerto de red local                    | X1 |  |
|                              | Puerto USB                             | X4 |  |
|                              | Conector de sonido                     | X3 |  |
| Tamaño de la placa           | 201mm. (A) X 244 Mm. (H)               |    |  |
| Funciones especiales         | Admite RAID 0 / 1                      |    |  |
| Soporte de sistema operativo | Windows 2K / XP                        |    | Biostar se reserva el derecho de añadir o retirar el soporte de cualquier SO con o sin aviso previo. |

**PORTUGUESE**

| ESPECIFICAÇÕES          |  |  |
|-------------------------|--|--|
| CPU                     | LGA 775<br>Processador Intel Pentium 4 / Pentium D / Celeron D até 3,8 GHz<br>Processador Intel Core2Duo (a penas para os modelos Ver 2.0 / 8.0)<br>*It is recommended to use processors with 95W power consumption. | Suporta as tecnologias Hyper-Threading / Execute Disable Bit / Enhanced Intel SpeedStep® / Extended Memory 64                                  |
| FSB                     | 533 / 800 / 1066 MHz   |  |
| Chipset                 | VIA P4M800 PRO<br>VIA VT8237R+   |  |
| Placa gráfica           | Integrada no chipset UniChrome Pro   | Memória de vídeo máxima partilhada: 64 MB  |
| Especificação Super I/O | ITE IT8705AF<br>Proporciona as funcionalidades mais utilizadas em termos da especificação Super I/O.<br>Interface LPC (Low Pin Count).   | Iniciativas para controlo do ambiente<br>Monitorização do hardware<br>Controlador da velocidade da ventoinha<br>Função "Smart Guardian" da ITE |
| Memória principal       | Ranuras DIMM DDR2 x 2<br>Suporta módulos DDR2 400 / 533<br>Cada módulo DIMM suporta uma memória DDR2 de 256MB / 512 MB / 1 GB<br>Capacidade máxima de memória: 2 GB  | Módulo de memória DDR2 de canal simples<br>Os módulos DIMM registados e os DIMM ECC não são suportados   |
| IDE                     | Controlador IDE integrado  | Suporta o modo PIO 0~4,<br>Modo Bus master Ultra DMA 33 / 66 / 100 / 133   |
| SATA                    | Controlador Serial ATA integrado   | Compatibilidade com a especificação SATA versão 1.0.<br>Velocidades de transmissão de dados até 1.5 Gb/s.                                      |
| LAN PHY                 | Realtek RTL8201BL/RTL8201CL  | Auto negociação de 10 / 100 MB/s<br>Capacidade semi/full-duplex  |
| Codec de som            | ALC 655  | Saída de áudio de 6 canais<br>AC'97 Versão 2.3   |
| Ranuras                 | Ranhura AGP x1<br>Ranhura CNR x1<br>Ranhura PCI x3   |  |
| Conectores na placa     | Conector da unidade de disquetes x1<br>Conector IDE x2   | Cada conector suporta 2 unidades de disquetes<br>Cada conector suporta 2 dispositivos IDE  |

| ESPECIFICAÇÕES                               |   |    |   |
|--|---|----|---|
|  | Conector SATA   | x2 | Cada conector suporta 1 dispositivo SATA  |
|  | Conector do painel frontal                              | x1 | Para suporte de várias funções no painel frontal  |
|  | Conector de áudio frontal                               | x1 | Suporta a função de áudio no painel frontal   |
|  | Conector para entrada de CDs                            | x1 | Suporta a entrada de áudio a partir de CDs  |
|  | Conector de saída S/PDIF                                | x1 | Suporta a saída de áudio digital  |
|  | Conector da ventoinha da CPU                            | x1 | Alimentação da ventoinha da CPU (com a função Smart Fan)  |
|  | Conector da ventoinha do sistema                        | x1 | Alimentação da ventoinha do sistema   |
|  | Conector para detecção da abertura do chassis(opcional) | x1 | Para detectar qualquer intrusão no chassis  |
|  | Conector para limpeza do CMOS                           | x1 |   |
|  | Conector USB  | x2 | Cada conector suporta 2 portas USB no painel frontal  |
|  | Conector de alimentação (20 pinos)                      | x1 |   |
|  | Conector de alimentação (4 pinos)                       | x1 |   |
| Entradas/<br>Saídas no<br>painel<br>traseiro | Teclado PS/2  | x1 |   |
|  | Rato PS/2   | x1 |   |
|  | Porta série   | x1 |   |
|  | Porta para impressora                                   | x1 |   |
|  | Porta VGA   | x1 |   |
|  | Porta LAN   | x1 |   |
|  | Porta USB   | x4 |   |
|  | Tomada de áudio   | x3 |   |
| Tamanho da placa                             | 201 mm (L) X 244 mm (A)                                 |    |   |
| Características especiais                    | Suporta as funções RAID 0 / 1                           |    |   |
| Sistemas operativos suportados               | Windows 2K / XP   |    | A Biostar reserva-se o direito de adicionar ou remover suporte para qualquer sistema operativo com ou sem aviso prévio. |

**POLISH**

| SPEC                |   |  |
|---------------------|---|--|
| Procesor            | LGA 775<br>Procesor Intel Pentium 4 / Pentium D /<br>Celeron D do 3,8 GHz<br>Procesor Intel Core 2Duo (wyłącznie<br>dla Ver 2.0 / 8.0)<br>*It is recommended to use processors<br>with 95W power consumption. | Obsługa Hyper-Threading / Execute Disable Bit /<br>Enhanced Intel SpeedStep® / Extended Memory<br>64 Technology                  |
| FSB                 | 533 / 800 / 1066 MHz  |  |
| Chipset             | VIA P4M800 PRO<br>VIA VT8237R+  |  |
| Grafika             | Zintegrowana w chipsecie UniChrome<br>Pro   | Maks. wielkość współdzielonej pamięci video<br>wynosi 64MB   |
| Pamięć<br>główna    | Gniazda DDR2 DIMM x 2<br>Obsługa DDR2 400 / 533<br>Każde gniazdo DIMM obsługuje<br>moduły 256MB / 512MB / 1GB DDR2<br>Maks. wielkość pamięci 2GB  | Moduł pamięci DDR2 z trybem pojedynczego<br>kanału<br>Brak obsługi Registered DIMM oraz ECC DIMM                                 |
| Super I/O           | ITE IT8705AF<br>Zapewnia najbardziej powszechne<br>funkcje Super I/O.<br>Interfejs Low Pin Count  | Funkcje kontroli warunków pracy,<br>Monitor H/W<br>Kontroler prędkości wentylatora<br>Funkcja ITE "Smart Guardian"               |
| IDE                 | Zintegrowany kontroler IDE  | obsługa PIO tryb 0~4,<br>Ultra DMA 33 / 66 / 100 / 133 Tryb Bus Master   |
| SATA                | Zintegrowany kontroler Serial ATA   | Zgodność ze specyfikacją SATA w wersji 1.0.<br>Transfer danych do 1.5 Gb/s.  |
| LAN PHY             | Realtek RTL8201BL/RTL8201CL   | 10 / 100 Mb/s z automatyczną negocjacją<br>szybkości<br>Działanie w trybie połowicznego / pełnego<br>dupleksu                    |
| Kodek<br>dźwiękowy  | ALC 655   | 6 kanałowe wyjście audio<br>AC'97 w wersji 2.3   |
| Gniazda             | Gniazdo AGP x1<br>Gniazdo CNR x1<br>Gniazdo PCI x3  |  |
| Złącza<br>wbudowane | Złącze napędu dyskietek x1<br>Złącze IDE x2<br>Złącze SATA x2   | Każde złącze obsługuje 2 napędy dyskietek<br>Każde złącze obsługuje 2 urządzenia IDE<br>Każde złącze obsługuje 1 urządzenie SATA |

| SPEC                         |  |    |  |
|------------------------------|--|----|--|
|                              | Złącze panela przedniego                 | x1 | Obsługa elementów panela przedniego  |
|                              | Przednie złącze audio                    | x1 | Obsługa funkcji audio na panelu przednim   |
|                              | Złącze wejścia CD                        | x1 | Obsługa funkcji wejścia audio CD   |
|                              | Złącze wyjścia S/PDIF                    | x1 | Obsługa funkcji cyfrowego wyjścia audio  |
|                              | Złącze główkowe wentylatora procesora    | x1 | Zasilanie wentylatora procesora (z funkcją Smart Fan)  |
|                              | Złącze główkowe wentylatora systemowego  | x1 | Zasilanie wentylatora systemowego  |
|                              | Złącze główkowe otwarcia obudowy (opcja) | x1 | Do funkcji wykrywania naruszenia obudowy   |
|                              | Złącze główkowe kasowania CMOS           | x1 |  |
|                              | Złącze USB                               | x2 | Każde złącze obsługuje 2 porty USB na panelu przednim  |
|                              | Złącze zasilania (20 pinowe)             | x1 |  |
|                              | Złącze zasilania (4 pinowe)              | x1 |  |
| Back Panel I/O               | Klawiatura PS/2                          | x1 |  |
|                              | Mysz PS/2                                | x1 |  |
|                              | Port szeregowy                           | x1 |  |
|                              | Port drukarki                            | x1 |  |
|                              | Port VGA                                 | x1 |  |
|                              | Port LAN                                 | x1 |  |
|                              | Port USB                                 | x4 |  |
|                              | Gniazdo audio                            | x3 |  |
| Wymiary płyty                | 201 mm (S) X 244 mm (W)                  |    |  |
| Funkcje specjalne            | Obsługa RAID 0 / 1                       |    |  |
| Obsługa systemu operacyjnego | Windows 2K / XP                          |    | Biostar zastrzega sobie prawo do dodawania lub odwoływania obsługi dowolnego systemu operacyjnego bez powiadomienia. |

## RUSSIAN

| СПЕЦ.                          |  |  |
|--------------------------------|--|--|
| CPU<br>(центральный процессор) | LGA 775<br>Процессор Intel Pentium 4 / Pentium D / Celeron D до 3.8 ГГц<br>Процессор Intel Core2Duo (только для Ver 2.0 / 8.0)<br>*It is recommended to use processors with 95W power consumption. | Поддержка технологий Hyper-Threading / Execute Disable Bit / Enhanced Intel SpeedStep® / Extended Memory 64 Technology   |
| FSB                            | 533 / 800 / 1066 МГц   |  |
| Набор микросхем                | VIA P4M800 PRO<br>VIA VT8237R+   |  |
| Графика                        | Встроенная в набор микросхем UniChrome Pro   | Максимальная совместно используемая видео память составляет 64 МБ  |
| Основная память                | Слоты DDR2 DIMM x 2<br>Поддержка DDR2 400 / 533<br>Каждый модуль DIMM поддерживает 256МБ / 512МБ / 1ГБ DDR2<br>Максимальная ёмкость памяти 2 ГБ  | Модуль памяти с одноканальным режимом DDR2<br>Не поддерживает зарегистрированные модули DIMM and ECC DIMM  |
| Super I/O                      | ITE IT8705AF<br>Обеспечивает наиболее используемые действующие функциональные возможности Super I/O.<br>Интерфейс с низким количеством выводов   | Инициативы по охране окружающей среды,<br>Аппаратный монитор<br>Регулятор скорости<br>Функция ITE "Smart Guardian"<br>(Интеллектуальная защита)                                      |
| IDE                            | Встроенное устройство управления встроенными интерфейсами устройств  | Режим "хозяина" шины Ultra DMA 33 / 66 / 100 / 133<br>Поддержка режима PIO 0~4,  |
| SATA                           | Встроенное последовательное устройство управления ATA  | скорость передачи данных до 1.5 гигабит/с.<br>Соответствие спецификации SATA версия 1.0.   |
| Локальная сеть                 | Realtek RTL8201BL/RTL8201CL  | Автоматическое согласование 10 / 100 Мб/с<br>Частичная / полная дуплексная способность   |
| Звуковой кодек                 | ALC 655  | Шестиканальный звуковой выход<br>AC'97 Версия 2.3  |
| Слоты                          | Слот AGP x1<br>Слот CNR x1<br>Слот PCI x3  |  |
| Встроенный разъём              | Разъём HГМД x1<br>Разъём IDE x2<br>Разъём SATA x2  | Каждый разъём поддерживает 2 накопителя на гибких магнитных дисках<br>Каждый разъём поддерживает 2 встроенных интерфейса накопителей<br>Каждый разъём поддерживает 1 устройство SATA |

| СПЕЦ.                                  |   |    |  |
|--|---|----|--|
|  | Разъём на лицевой панели  | x1 | Поддержка устройств на лицевой панели  |
|  | Входной звуковой разъём   | x1 | Поддержка звуковых функций на лицевой панели   |
|  | Разъём ввода для CD   | x1 | Поддержка функции ввода для CD   |
|  | Разъём вывода для S/PDIF  | x1 | Поддержка вывода цифровой звуковой функции   |
|  | Контактирующее приспособление вентилятора центрального процессора | x1 | Источник питания для вентилятора центрального процессора (с функцией интеллектуального вентилятора)                        |
|  | Контактирующее приспособление вентилятора системы                 | x1 | Источник питания для вентилятора системы   |
|  | Шасси открытого контактирующего приспособления (дополнительно)    | x1 | Для функции обнаружения злоумышленника шасси   |
|  | Открытое контактирующее приспособление CMOS                       | x1 |  |
|  | USB-разъём  | x2 | Каждый разъём поддерживает 2 USB-порта на лицевой панели   |
|  | Разъём питания (20 вывод)   | x1 |  |
|  | Разъём питания (4 вывод)  | x1 |  |
| Задняя панель средств ввода-вывода     | Клавиатура PS/2   | x1 |  |
|  | Мышь PS/2   | x1 |  |
|  | Последовательный порт   | x1 |  |
|  | Порт подключения принтера   | x1 |  |
|  | Порт VGA  | x1 |  |
|  | Порт LAN  | x1 |  |
|  | USB-порт  | x4 |  |
|  | Гнездо для подключения наушников                                  | x3 |  |
| Размер панели                          | 201 мм (Ш) X 244 мм (В)   |    |  |
| Специальные технические характеристики | Поддержка RAID 0 / 1  |    |  |
| Поддержка ОС                           | Windows 2K / XP   |    | Biostar сохраняет за собой право добавлять или удалять средства обеспечения для ОС с или без предварительного уведомления. |

## ARABIC

| الوصفات                |  |  |
|------------------------|--|--|
| وحدة المعالجة المركزية | LGA 775<br>Intel Pentium 4 / Pentium D /<br>Celeron D<br>Intel Core2Duo (في 8.0 / 2.0 فقط)<br>*It is recommended to use processors with 95W power consumption.   | Hyper-Threading / Execute Disable Bit / Enhanced Intel SpeedStep® / Extended Memory 64 Technology              |
| الناقل الأمامي الجانبي | ميغا هرتز 533 / 800 / 1066 تردد  |  |
| مجموعة الشرائح         | VIA P4M800 PRO<br>VIA VT8237R+   |  |
| بطاقة الرسومات         | UniChrome Pro مدمجة في رقائق   | ميغا بايت 64 أقصى سعة للذاكرة الفيديو المشتركة   |
| الذاكرة الرئيسية       | فتحة DDR2 DIMM عدد 2<br>400 / 533 ساعات DDR2 تدعم الذاكرة من نوع ميغا بايت<br>تدعم ذاكرة من نوع DIMM تدعم كل فتحة DDR2<br>ميغا بايت 512 / ميغا بايت 256 سعة<br>1 و 2 جيجا بايت<br>سعة ذاكرة قصوى 2 جيجا بايت | أحادية القناة DDR2 وحدة ذاكرة ECC المسجلة وتلك التي لا تتوافق مع DIMM تدعم رقائق الذاكرة                       |
| Super I/O              | ITE IT8705AF<br>الأكثر استخداماً. Super I/O يوفر وظيفة Low Pin Count Interface تدعم تقنية  | وسائل التحكم في البيئة:<br>مراقب لمعرفة حالة الأجهزة<br>مراقب في سرعة المروحة<br>ITE من "Smart Guardian" وظيفة |
| منفذ IDE               | متكامل IDE متحكم   | PIO Mode 0~4 دعم وضع<br>Ultra DMA 33 / 66 / 100 / 133 ناقل بتقنية وضع رئيسي                                    |
| SATA                   | متكامل Serial ATA متحكم  | 1.0 الإصدار SATA مطابقة لمواصفات نقل البيانات بسرعات تصل إلى 1.5 جيجابايت/ثانية.                               |
| شبكة داخلية            | Realtek RTL8201BL/RTL8201CL  | تفاوض تلقائي 10/100 ميغا بايت / ثلثية إمكانية النقل المزدوج الكامل/النصفي                                      |
| كوديك الصوت            | ALC655   | قنوات لخرج الصوت 6<br>AC'97 من 2.3 للإصدار   |
| الفتحات                | فتحة AGP عدد 1<br>فتحة CNR عدد 1   |  |



| المواصفات   |       |                                    |
|---|-------|------------------------------------|
|   | عدد 3 | فتحة PCI                           |
| يدعم محرك الأقراص المرنة  | عدد 1 | مقذ محرك أقراص مرنة                |
| يدعم كل منفذ اثنين من أجهزة IDE   | عدد 2 | مقذ IDE                            |
| يدعم كل منفذ واحد من أجهزة SATA   | عدد 2 | مقذ SATA                           |
| يدعم تجهيزات اللوحة الامامية  | عدد 1 | مقذ اللوحة الامامية                |
| يدعم وظيفة الصوت باللوحة الامامية   | عدد 1 | مقذ الصوت الاممي                   |
| يدعم وظيفة دخل صوت القرص المدمج   | عدد 1 | مقذ CD-IN                          |
| يدعم وظيفة خرج الصوت الرقمي   | عدد 1 | مقذ خرج S/PDIF                     |
| Smart Fan(لتوصيل الطاقة لمروحة وحدة المعالجة (مع وظيفة                            | عدد 1 | وصلة مروحة ووحدة المعالجة المركزية |
| لتوصيل الطاقة لمروحة النظم  | عدد 1 | وصلة مروحة النظم                   |
| للكشف عن اختراق الهيكل  | عدد 1 | وصلة فتح الهيكل (اختياري)          |
|   | عدد 1 | وصلة مسح CMOS                      |
| باللوحة الامامية USB يدعم كل منفذ فتحتي   | عدد 2 | مقذ USB                            |
|   | عدد 1 | مقذ توصيل الطاقة (20دوس)           |
|   | عدد 1 | مقذ توصيل الطاقة (4ببليس)          |
|   | عدد 1 | لوحة مفاتيح PS/2                   |
|   | عدد 1 | مؤس PS/2                           |
|   | عدد 1 | مقذ تسلسلي                         |
|   | عدد 1 | مقذ طباعة                          |
|   | عدد 1 | مقذ VGA                            |
|   | عدد 1 | مقذ شبكة لتصل محلية                |
|   | عدد 4 | منافذ USB                          |
|   | عدد 3 | مقيس صوت                           |
|   |       | حجم اللوحة                         |
|   |       | 201مم (عرض) X 244مم (ارتفاع)       |
|   |       | مزايا خاصة                         |
|   |       | RAID 0 / 1 تدعم تقنية              |
| بحقها في اضافة أو ازالة الدعم لأي نظام تشغيل بإخطار أو Biostar تحتفظ بدون اخطار . |       | دعم أنظمة التشغيل                  |
|   |       | Windows 2K / XP                    |

## JAPANESE

| 仕様        |  |  |
|-----------|--|--|
| CPU       | LGA 775<br>Intel Pentium 4 / Pentium D / Celeron<br>D processor up to 3.8 GHz<br>Intel Core2Duo Processor (Ver 2.0 / 8.0 のみ)<br>*It is recommended to use processors with 95W power consumption. | Hyper-Threading / Execute Disable Bit / Enhanced Intel SpeedStep® / Extended Memory 64 Technology をサポートします |
| FSB       | 533 / 800 / 1066 MHz   |  |
| チップセット    | VIA P4M800 PRO<br>VIA VT8237R+   |  |
| グラフィックス   | UniChrome Pro チップセットに統合  | 最大の共有ビデオメモリは64MBです   |
| メインメモリ    | DDR2 DIMMスロット x 2<br>DDR2 400 / 533をサポート<br>各DIMMは256/512MB/1GB DDR2をサポート<br>最大メモリ容量2GB  | シングルチャンネルモードDDR2メモリモジュール登録済みDIMMとECC DIMMはサポートされません  |
| Super I/O | ITE IT8705AF<br>もつとも一般に使用されるレガシー Super I/O機能を採用しています。<br>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、<br>H/Wモニター<br>ファン速度コントローラ/ モニター<br>ITEの「スマートガーディアン」機能                                      |
| IDE       | 統合IDEコントローラ  | PIO Mode 0~4のサポート、<br>Ultra DMA 33 / 66 / 100 / 133バスマスタモード  |
| SATA      | 統合シリアルATAコントローラ  | SATAバージョン1.0仕様に準拠。<br>最高1.5 Gb/秒のデータ転送速度   |
| LAN PHY   | Realtek RTL8201BL/RTL8201CL  | 10 / 100 Mb/秒のオートネゴシエーション<br>半/全二重機能   |
| サウンドCodec | ALC 655  | 6チャンネルオーディオアウト<br>AC'97バージョン2.3  |
| スロット      | AGPスロット x1<br>CNRスロット x1<br>PCIスロット x3   |  |

| 仕様            |                          |    |   |
|---------------|--------------------------|----|---|
| オンボード<br>コネクタ | フロッピーコネクタ                | x1 | 各コネクタは2つのフロッピードライブをサポートします                  |
|               | IDEコネクタ                  | x2 | 各コネクタは2つのIDEデバイスをサポートします                    |
|               | SATAコネクタ                 | x2 | 各コネクタは1つのSATAデバイスをサポートします                   |
|               | フロントパネルコネクタ              | x1 | フロントパネル機能をサポートします                           |
|               | フロントオーディオコネクタ            | x1 | フロントパネルオーディオ機能をサポートします                      |
|               | CDインコネクタ                 | x1 | CDオーディオイン機能をサポートします                         |
|               | S/PDIFアウトコネクタ            | x1 | デジタルオーディオアウト機能をサポートします                      |
|               | CPUファンヘッダ                | x1 | CPUファン電源装置(スマートファン機能を搭載)                    |
|               | システムファンヘッダ               | x1 | システムファン電源装置                                 |
|               | シャーシオープンヘッダ<br>(オプション)   | x1 | シャーシ侵入検出機能                                  |
|               | CMOSクリアヘッダ               | x1 |   |
|               | USBコネクタ                  | x2 | 各コネクタは2つのフロントパネルUSBポートをサポートします              |
| 電源コネクタ(20ピン)  | x1                       |    |   |
| 電源コネクタ(4ピン)   | x1                       |    |   |
| 背面パネル<br>I/O  | PS/2キーボード                | x1 |   |
|               | PS/2マウス                  | x1 |   |
|               | シリアルポート                  | x1 |   |
|               | プリンタポート                  | x1 |   |
|               | VGAポート                   | x1 |   |
|               | LANポート                   | x1 |   |
|               | USBポート                   | x4 |   |
|               | オーディオジャック                | x3 |   |
| ボードサイズ        | 201 mm (幅) X 244 mm (高さ) |    |   |
| 特殊機能          | RAID 0 / 1のサポート          |    |   |
| OSサポート        | Windows 2K / XP          |    | 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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