

## **FCC Information and Copyright**

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

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

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

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

---

---

## Table of Contents

---

---

<b>Chapter 1: Introduction</b>	<b>1</b>
<b>1.1 Before You Start</b>	1
<b>1.2 Package Checklist</b>	1
<b>1.3 Motherboard Features</b>	2
<b>1.4 Rear Panel Connectors</b>	3
<b>1.5 Motherboard Layout</b>	4
<b>Chapter 2: Hardware Installation</b>	<b>5</b>
<b>2.1 Installing Central Processing Unit (CPU)</b>	5
<b>2.2 FAN Headers</b>	7
<b>2.3 Installing System Memory</b>	8
<b>2.4 Connectors and Slots</b>	10
<b>Chapter 3: Headers &amp; Jumpers Setup</b>	<b>12</b>
<b>3.1 How to Setup Jumpers</b>	12
<b>3.2 Detail Settings</b>	12
<b>Chapter 4: Useful Help</b>	<b>19</b>
<b>4.1 Driver Installation Note</b>	19
<b>4.2 Award BIOS Beep Code</b>	20
<b>4.3 Extra Information</b>	20
<b>4.4 Troubleshooting</b>	21
<b>Chapter 5: WarpSpeeder™ III</b>	<b>22</b>
<b>5.1 Introduction</b>	22
<b>5.2 System Requirement</b>	22
<b>5.3 Installation</b>	23
<b>5.4 WarpSpeeder™ III</b>	24
<b>Appendencies: SPEC In Other Language</b>	<b>30</b>
<b>German</b>	30
<b>France</b>	32
<b>Italian</b>	34
<b>Spanish</b>	36
<b>Portuguese</b>	38
<b>Polish</b>	40
<b>Russian</b>	42
<b>Arabic</b>	44
<b>Japanese</b>	46

---

---

## **CHAPTER 1: INTRODUCTION**

### **1.1 BEFORE YOU START**

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

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

### **1.2 PACKAGE CHECKLIST**

- ✚ HDD Cable X 1
- ✚ Rear I/O Panel for ATX Case X 1
- ✚ Installation Guide X 1
- ✚ Fully Setup Driver CD X 1 (full version manual files inside)
- ✚ Serial ATA Cable X 1
- ✚ FDD Cable X 1 (optional)
- ✚ Serial ATA Power Cable X 1 (optional)
- ✚ USB 2.0 Cable X1 (optional)
- ✚ S/PDIF out Cable X 1 (optional)

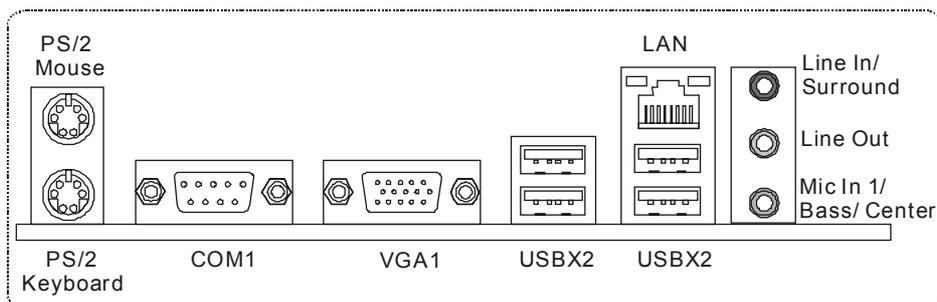
**Note:** The package contents may differ by area or your motherboard version.

### 1.3 MOTHERBOARD FEATURES

<i>SPEC</i>		
CPU	LGA 775 Intel Core2Duo / Pentium 4 / Pentium D / Celeron D / Celeron 4xx processor up to 3.8 GHz *It is recommended to use processors with 95W power consumption.	Supports Hyper-Threading Execute Disable Bit Enhanced Intel SpeedStep Extended Memory 64 Technology
FSB	533 / 800 / 1066 / 1333 MHz	
Chipset	Intel 945GC Intel ICH7	
Graphics	Intel GMA 950	Max Shared Video Memory is 224MB
Super I/O	ITE IT8712F Provides the most commonly used legacy Super I/O functionality. Low Pin Count Interface	Environment Control initiatives, H/W Monitor Fan Speed Controller ITE's "Smart Guardian" function
Main Memory	DIMM Slots x 2 Each DIMM supports 256/512MB & 1GB DDR2 Max Memory Capacity 2GB Supports DDR2 400 / 533 / 667	Dual Channel Mode DDR2 memory module Registered DIMM and ECC DIMM is not supported
IDE	Integrated IDE Controller	Ultra DMA 33 / 66 / 100 Bus Master Mode supports PIO Mode 0~4,
SATA	Integrated Serial ATA Controller	Data transfer rates up to 3.0 Gb/s. SATA Version 2.0 specification compliant.
LAN	Atheros L2	10 / 100 Mb/s auto negotiation Half / Full duplex capability
Sound Codec	ALC662	5.1 channels audio out High-Definition Audio support
Slots	PCI Express x16 slot	x1 Supports PCI-E x16 expansion cards
	PCI Express x1 slot	x1 Supports PCI-E x1 expansion cards
	PCI slot	x2 Supports PCI expansion cards
On Board Connector	Floppy connector	x1 Each connector supports 2 Floppy drives
	IDE Connector	x1 Each connector supports 2 IDE device
	Printer Port Connector	x1 Each connector supports 1 Printer port
	SATA Connector	x4 Each connector supports 1 SATA devices

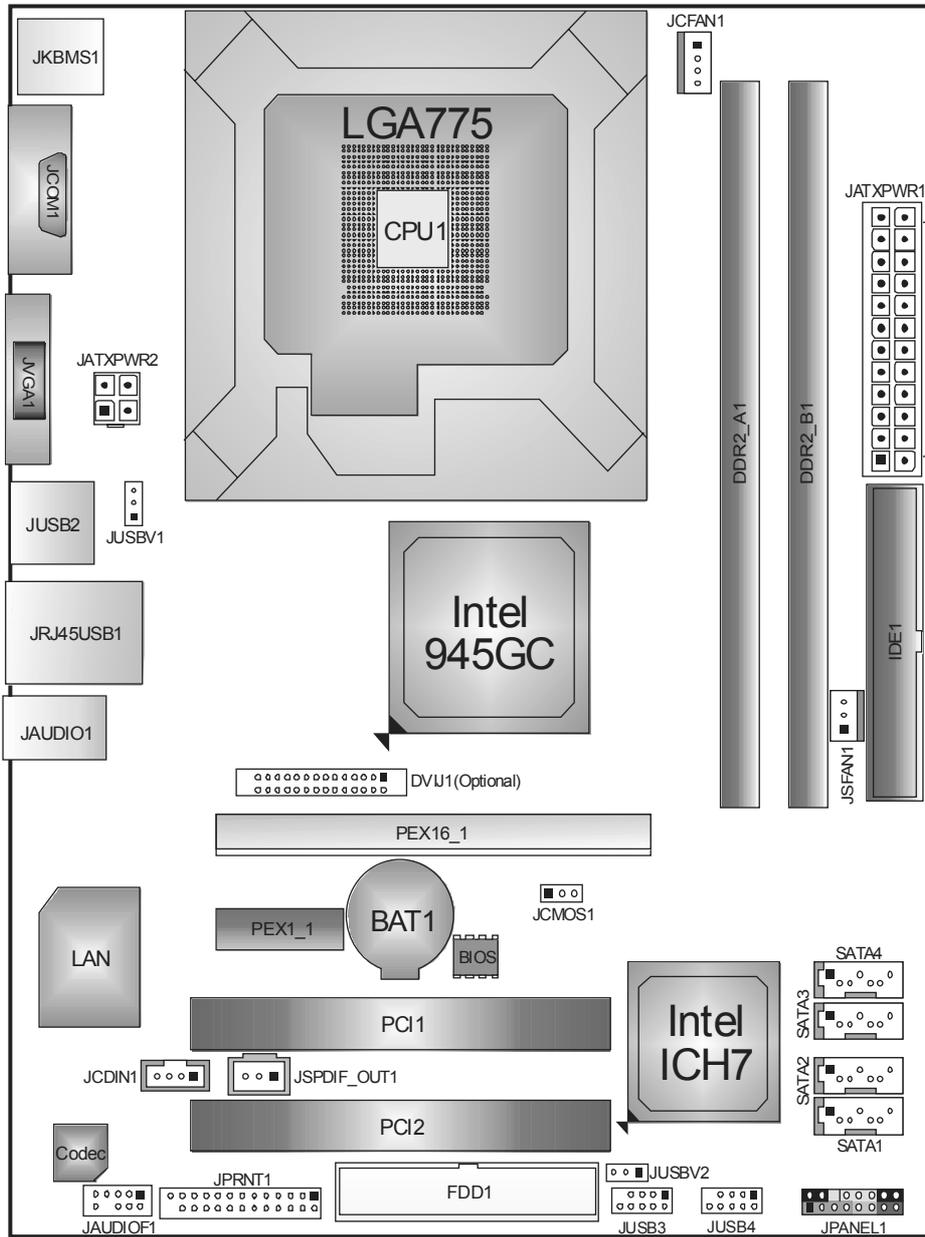
SPEC			
	Front Panel Connector	x1	Supports front panel facilities
	Front Audio Connector	x1	Supports front panel audio function
	CD-in Connector	x1	Supports CD audio-in function
	S/PDIF out connector	x1	Supports digital audio out function
	CPU Fan header	x1	CPU Fan power supply (with Smart Fan function)
	System Fan header	x1	System Fan Power supply
	Clear CMOS header	x1	Restore CMOS data to factory default
	USB connector	x2	Each connector supports 2 front panel USB ports
	Power Connector (24pin)	x1	Connects to Power supply
	Power Connector (4pin)	x1	Connects to Power supply
Back Panel I/O	PS/2 Keyboard	x1	Connects to PS/2 Keyboard
	PS/2 Mouse	x1	Connects to PS/2 Mouse
	Serial Port	x1	Provide RS-232 Serial connection
	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	190 (W) x 239 (L) mm		Micro ATX form Factor
OS Support	Windows XP / VISTA		Biostar Reserves the right to add or remove support for any OS with or without notice.

## 1.4 REAR PANEL CONNECTORS



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

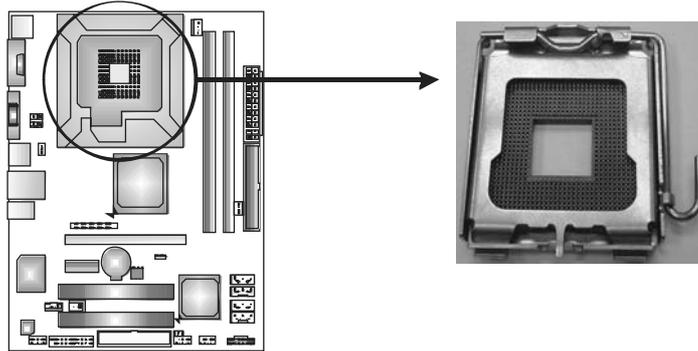
## 1.5 MOTHERBOARD LAYOUT



**Note:** ■ represents the 1<sup>st</sup> pin.

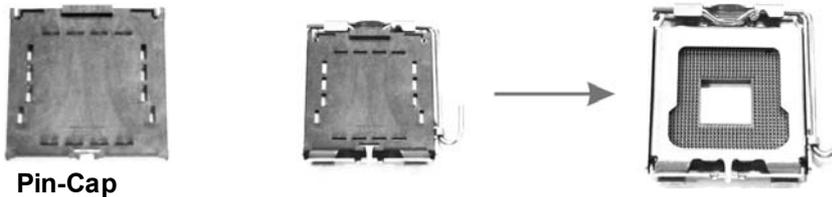
## CHAPTER 2: HARDWARE INSTALLATION

### 2.1 INSTALLING CENTRAL PROCESSING UNIT (CPU)

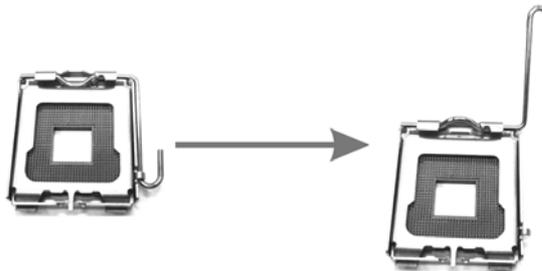


#### *Special Notice:*

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.



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

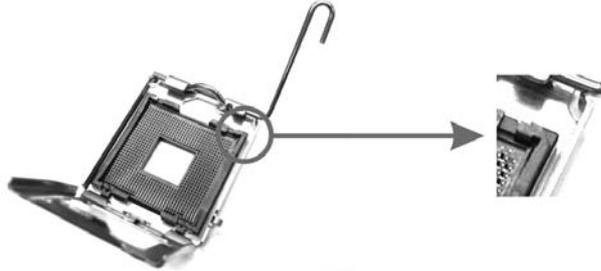


## Motherboard Manual

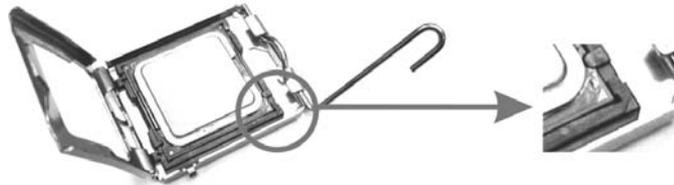
---

**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.

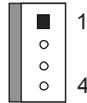
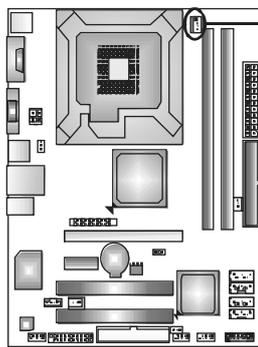


**Step 4:** Put the CPU Fan and heatsink assembly on the CPU and buckle it on the retention frame. Connect the CPU FAN power cable into the JCFAN1. This completes the installation.

## 2.2 FAN HEADERS

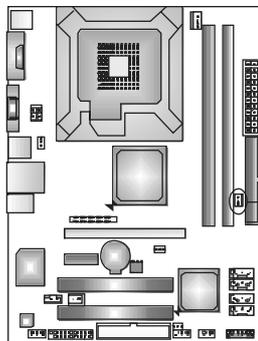
These fan headers support cooling-fans built in the computer. The fan cable and connector may be different according to the fan manufacturer. Connect the fan cable to the connector while matching the black wire to pin#1.

### JCFAN1: CPU Fan Header



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

### JSFAN1: System Fan Header



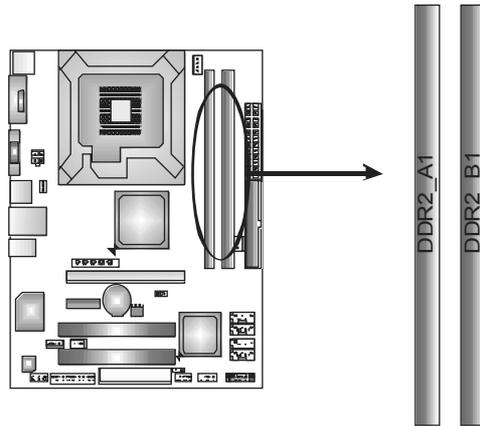
Pin	Assignment
1	Ground
2	+12V
3	FAN RPM rate sense

#### Note:

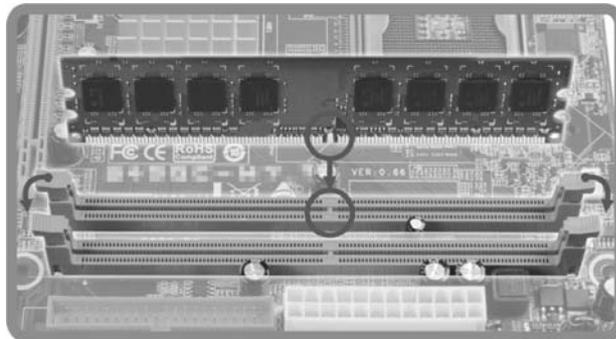
The JCFAN1 and JSFAN1 support 4-pin and 3-pin head connector. When connecting with wires onto connectors, please note that the red wire is the positive and should be connected to pin#2, and the black wire is Ground and should be connected to GND.

## 2.3 INSTALLING SYSTEM MEMORY

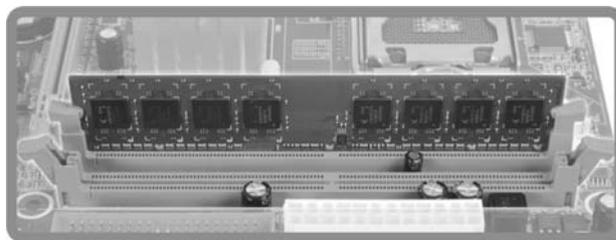
### A. DDR2 Module



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
DDR2_A1	256MB/512MB/1GB *1	Max memory 2GB.
DDR2_B1	256MB/512MB/1GB *1	

### 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	DDR2_A1	DDR2_B1
Disabled	O	X
Disabled	X	O
Enabled	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)

### D. FSB Supporting Table

According to the FSB frequency of the installed CPU, the motherboard could support DDR2 400/533/667 modules. Please refer to the table below to find out the proper RAM module that fits the FSB of the installed CPU.

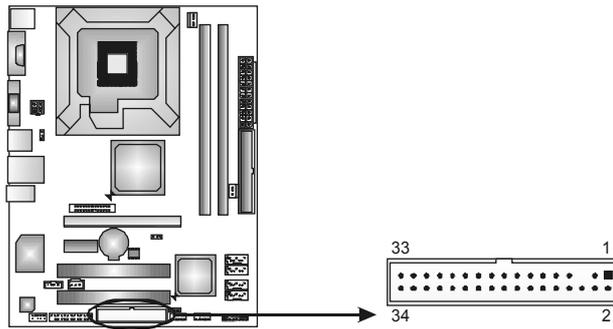
FSB of CPU DDR2 Module	FSB 533	FSB 800	FSB 1066	FSB1333
	DDR2 400	O	O	O
DDR2 533	O	O	O	O(500)
DDR2 667	O	O	O	O
DDR2 800(compatible)	O(667)	O(667)	O(667)	O(667)

(O means supported, X means not supported.)

## 2.4 CONNECTORS AND SLOTS

### FDD1: Floppy Disk Connector

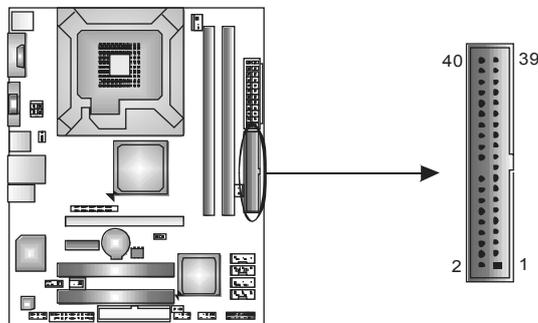
The motherboard provides a standard floppy disk connector that supports 360K, 720K, 1.2M, 1.44M and 2.88M floppy disk types. This connector supports the provided floppy drive ribbon cables.



### 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 functionality.

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

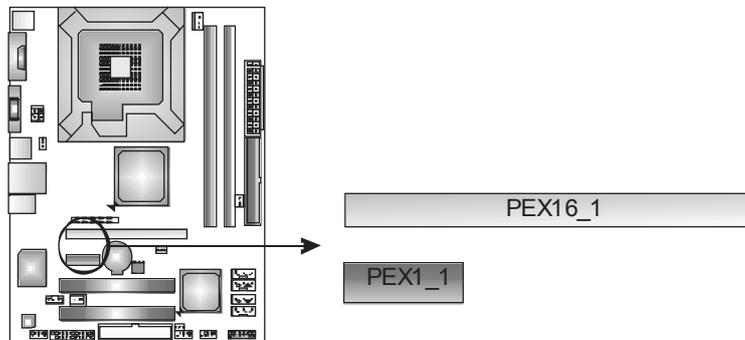


**PEX16\_1: PCI-Express x16 Slot**

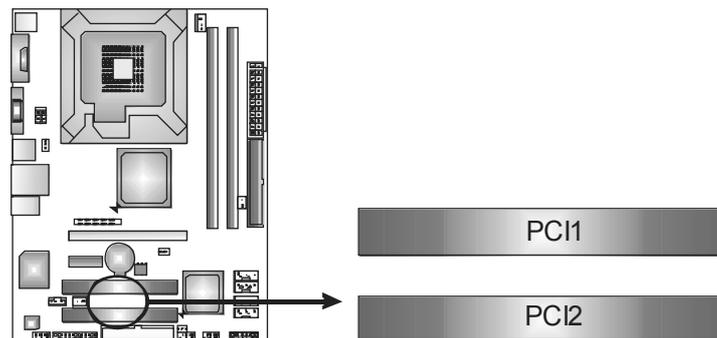
- PCI-Express 1.0a compliant.
- Maximum theoretical realized bandwidth of 4GB/s simultaneously per direction, for an aggregate of 8GB/s totally.

**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**

The 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”.



Pin opened



Pin closed

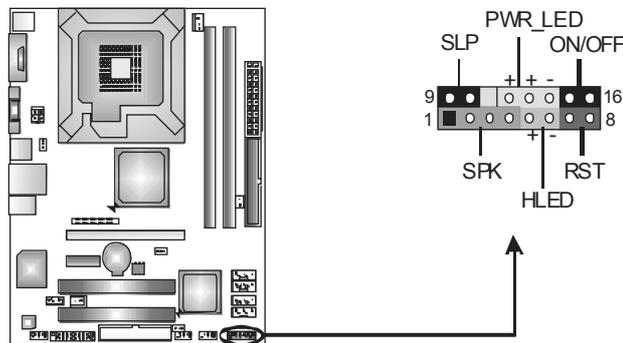


Pin1-2 closed

### 3.2 DETAIL SETTINGS

#### JPANEL1: Front Panel Header

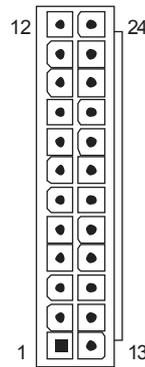
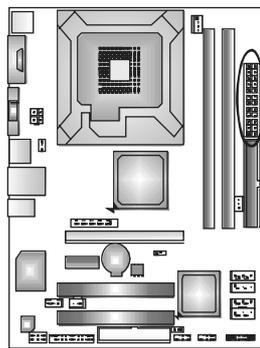
This 16-pin connector includes Power-on, Reset, HDD LED, Power LED, Sleep button, and speaker connections. It allows user to connect the PC case's front panel switch functions.



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

**JATXPWR1: ATX Power Source Connector**

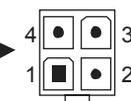
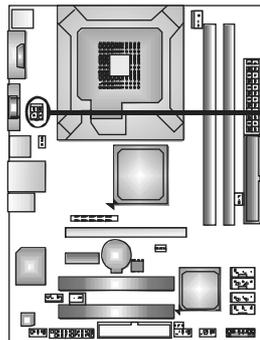
This connector allows user to connect 24-pin power connector on the ATX power supply.



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

**JATXPWR2: ATX Power Source Connector**

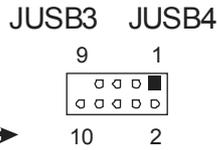
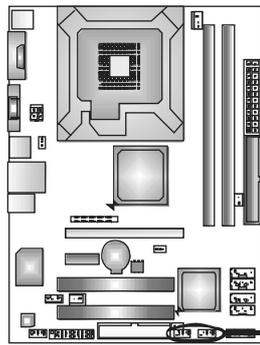
By connecting this connector, it will provide +12V to CPU power circuit.



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

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

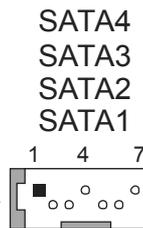
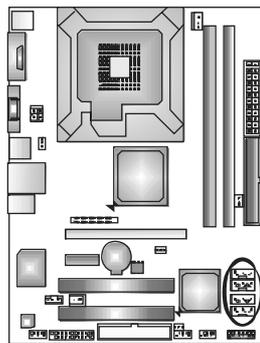
This motherboard provides 2 USB 2.0 headers, which allows user to connect additional USB cable on the PC front panel, and also can be connected with internal USB devices, like USB card reader.



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

### SATA1~SATA4: Serial ATA Connectors

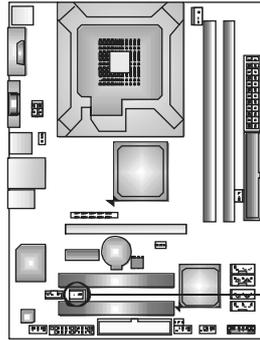
The motherboard has a PCI to SATA Controller with 4 channels SATA interface, it satisfies the SATA 2.0 spec and with transfer rate of 3Gb/s.



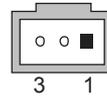
Pin	Assignment
1	Ground
2	TX+
3	TX-
4	Ground
5	RX-
6	RX+
7	Ground

### JSPDIF\_OUT1: Digital Audio out Connectors

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

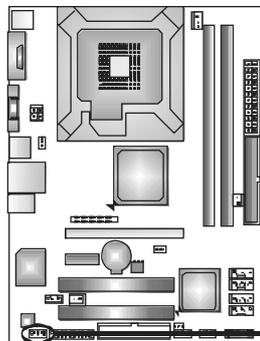


Pin	Assignment
1	+5V
2	SPDIF_OUT1
3	Ground

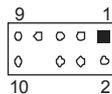


### JAUDIOF1: Front Panel Audio Header

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.

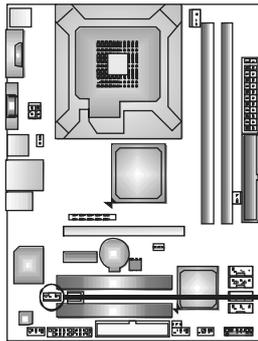


Pin	Assignment
1	Mic Left in
2	Ground
3	Mic Right in
4	GPIO
5	Right line in
6	Jack Sense
7	Front Sense
8	Key
9	Left line in
10	Jack Sense



### JCDIN1: CD-ROM Audio-in Connector

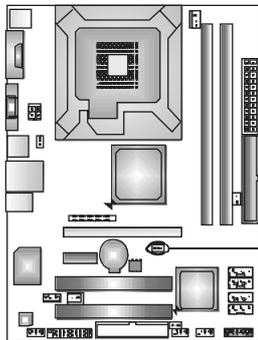
This connector allows user to connect the audio source from the variety devices, like CD-ROM, DVD-ROM, PCI sound card, PCI TV turner card etc..



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.



**Pin 1-2 Close:**  
Normal Operation (Default).



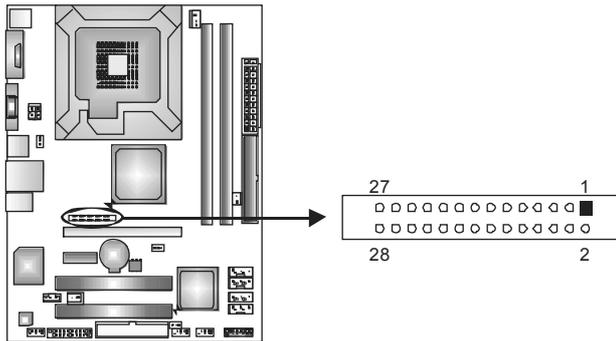
**Pin 2-3 Close:**  
Clear CMOS data.

#### ※ 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.

**DVIJ1: Connector for DVI Daughter Card Adapter (Optional)**

This connector is for the specific DVI adapter, which is equipped with a DVI-D connector. With the adapter you can use the DVI-D interface for a better display quality. Moreover, the original D-SUB and the additional DVI-D can be utilized simultaneously, so two panels can display simultaneously.



**JUSBV1/JUSBV2: Power Source Headers for USB Ports**

*Pin 1-2 Close:*

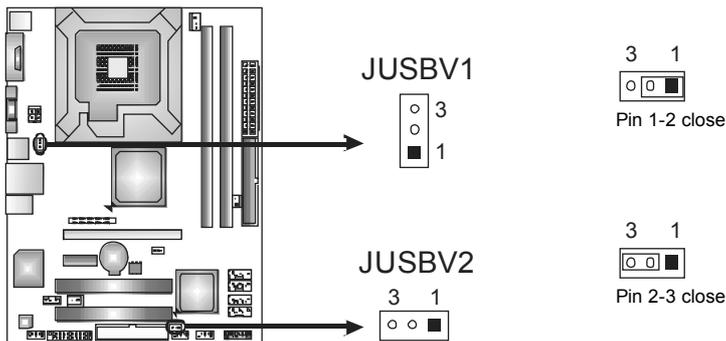
JUSBV1: +5V for USB ports at JRJ45USB1/JUSB2.

JUSBV2: +5V for USB ports at front panel (JUSB3/JUSB4).

*Pin 2-3 Close:*

JUSBV1: USB ports at JRJ45USB1/JUSB2 are powered by +5V standby voltage.

JUSBV2: USB ports at front panel (JUSB3/JUSB4) are powered by +5V standby voltage.

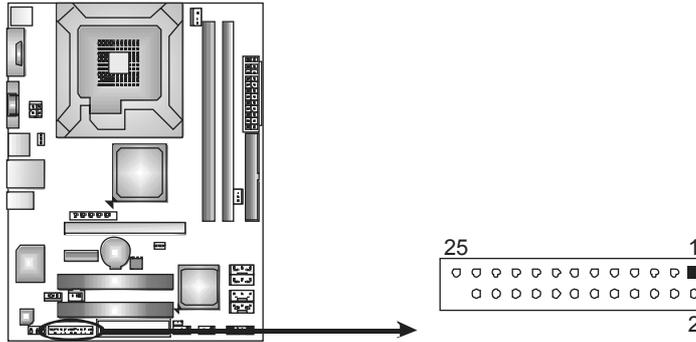


**Note:**

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

### 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

## CHAPTER 4: USEFUL HELP

### 4.1 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>

## 4.2 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

## 4.3 EXTRA INFORMATION

### ***CPU Overheated***

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

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

In this case, please double check:

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

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

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

Or you can:

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

#### 4.4 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 5: WARPSPEEDER™ III**



### **5.1 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.

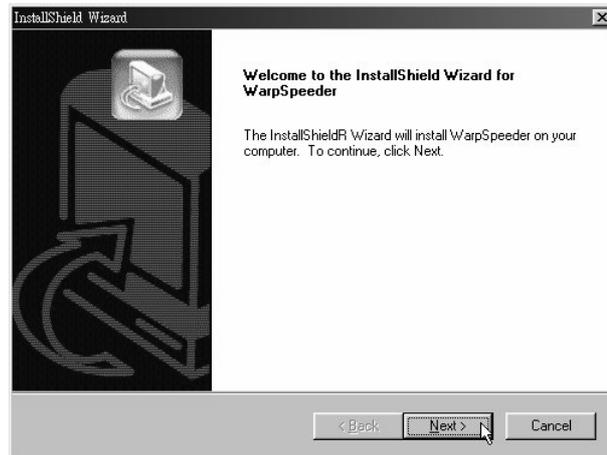
Moreover, to protect users' computer systems if the setting is not appropriate when testing and results in system fail or hang, [WarpSpeeder™ III] technology assures the system stability by automatically rebooting the computer and then restart to a speed that is either the original system speed or a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

### **5.2 SYSTEM REQUIREMENT**

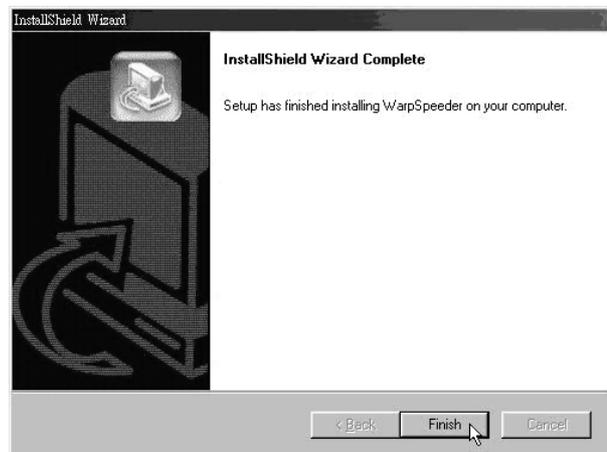
OS Support: Windows 98 SE, Windows Me, Windows XP, Windows Vista  
DirectX: DirectX 8.1 or above. (The Windows XP operating system includes DirectX 8.1. If you use Windows XP, you do not need to install DirectX 8.1.)

### 5.3 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.

## 5.4 WARP SPEEDER™ 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.



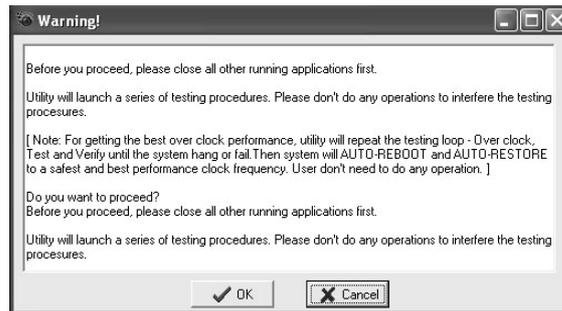
### 3. Overclock/Overvoltage Panel

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.

This page is intentionally left blank.

**APPENDENCIES: SPEC IN OTHER LANGUAGE**

**GERMAN**

<i>Spezifikationen</i>		
CPU	LGA 775 Intel Core2Duo / Pentium 4 / Pentium D / Celeron D / Celeron 4xx Prozessoren mit bis zu 3,8 GHz *It is recommended to use processors with 95W power consumption.	Unterstützt Hyper-Threading Execute Disable Bit Enhanced Intel SpeedStep® Extended Memory 64 Technology
FSB	533 / 800 / 1066 / 1333 MHz	
Chipsatz	Intel 945GC Intel ICH7	
Grafik	Intel GMA 950	Max. 224MB gemeinsam benutzter Videospeicher
Super E/A	ITE 8712F Bietet die häufig verwendeten alten Super E/A-Funktionen. Low Pin Count-Schnittstelle	Umgebungskontrolle, Hardware-Überwachung Lüfterdrehzahl-Controller "Smart Guardian"-Funktion von ITE
Arbeitsspeicher	DDR2 DIMM-Steckplätze x 2 Jeder DIMM unterstützt 256/512MB & 1GB DDR2 Max. 2GB Arbeitsspeicher Unterstützt DDR2 400 / 533 / 667	Dual-Kanal DDR2 Speichermodul registrierte DIMMs. ECC DIMMs werden nicht unterstützt.
IDE	Integrierter IDE-Controller	Ultra DMA 33 / 66 / 100 Bus Master-Modus Unterstützt PIO-Modus 0~4
SATA	Integrierter Serial ATA-Controller	Datentransferrate bis zu 3Gb/s Konform mit der SATA-Spezifikation Version 2.0
LAN	Atheros L2	10 / 100 Mb/s Auto-Negotiation Halb-/ Voll duplex-Funktion
Audio-Codec	ALC662	5.1-Kanal-Audioausgabe Unterstützt High-Definition Audio
Steckplätze	PCI Express x16 Steckplatz                      x1 PCI Express x 1-Steckplatz                      x1 PCI-Steckplatz    x2	

<b>Spezifikationen</b>			
Onboard-Anschluss	Diskettenlaufwerkanschluss	x1	Jeder Anschluss unterstützt 2 Diskettenlaufwerke
	IDE-Anschluss	x1	Jeder Anschluss unterstützt 2 IDE-Laufwerke
	Druckeranschluss Anschluss	x1	Jeder Anschluss unterstützt 1 Druckeranschluss
	SATA-Anschluss	x4	Jeder Anschluss unterstützt 1 SATA-Laufwerk
	Fronttafelanschluss	x1	Unterstützt die Fronttafelfunktionen
	Front-Audioanschluss	x1	Unterstützt die Fronttafel-Audioanschlussfunktion
	CD-IN-Anschluss	x1	Unterstützt die CD Audio-In-Funktion
	S/PDIF-Ausgangsanschluss	x1	Unterstützt die digitale Audioausgabefunktion
	CPU-Lüfter-Sockel	x1	CPU-Lüfterstromversorgungsanschluss (mit Smart Fan-Funktion)
	System-Lüfter-Sockel	x1	System-Lüfter-Stromversorgungsanschluss
"CMOS löschen"-Sockel	x1		
USB-Anschluss	x2	Jeder Anschluss unterstützt 2 Fronttafel-USB-Anschlüsse	
Stromanschluss (24-polig)	x1		
Stromanschluss (4-polig)	x1		
Rückseiten-E/A	PS/2-Tastatur	x1	
	PS/2-Maus	x1	
	Serieller Anschluss	x1	
	VGA-Anschluss	x1	
	LAN-Anschluss	x1	
	USB-Anschluss	x4	
	Audioanschluss	x3	
Platinengröße	190 mm (B) X 239 mm (L)		
OS-Unterstützung	Windows XP / VISTA		Biostar behält sich das Recht vor, ohne Ankündigung die Unterstützung für ein Betriebssystem hinzuzufügen oder zu entfernen.

**FRANCE**

SPEC		
UC	LGA 775 Processeurs Intel Core2Duo / Pentium 4 / Pentium D / Celeron D / Celeron 4xx jusqu'à 3,8 GHz *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 / 1333 MHz	
Chipset	Intel 945GC Intel ICH7	
Graphiques	Intel GMA 950	Mémoire vidéo partagée maximale de 224 Mo
Super E/S	ITE 8712F Fournit la fonctionnalité de Super E/S patrimoniales la plus utilisée. Interface à faible compte de broches	Initiatives de contrôle environnementales, Moniteur de matériel Contrôleur de vitesse de ventilateur Fonction "Gardien intelligent" de l'ITE
Mémoire principale	Fentes DDR2 DIMM x 2 Chaque DIMM prend en charge des DDR2 de 256/512 Mo et 1Go Capacité mémoire maximale de 2 Go Prend en charge la DDR2 400 / 533 / 667	Module de mémoire DDR2 à mode à double voie Les DIMM à registres et DIMM avec code correcteurs d'erreurs ne sont pas prises en charge
IDE	Contrôleur IDE intégré	Mode principale de Bus Ultra DMA 33 / 66 / 100 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
LAN	Atheros L2	10 / 100 Mb/s négociation automatique Half / Full duplex capability
Codec audio	ALC662	Sortie audio à 5.1 voies Prise en charge de l'audio haute définition
Fentes	PCI Express x16 Steckplatz x1 PCI Express x1 Steckplatz x1 Fente PCI x2	
Connecteur embarqué	Connecteur de disquette x1 Connecteur IDE x1	Chaque connector prend en charge 2 lecteurs de disquettes Chaque connecteur prend en charge 2 périphériques IDE

<i>SPEC</i>			
	Connecteur de Port d'imprimante	x1	Chaque connector prend en charge 1 Port d'imprimante
	Connecteur SATA	x4	Chaque connecteur prend en charge 1 périphérique SATA
	Connecteur du panneau avant	x1	Prend en charge les équipements du panneau avant
	Connecteur Audio du panneau avant	x1	Prend en charge la fonction audio du panneau avant
	Connecteur 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'effacement CMOS	x1	
	Connecteur USB	x2	Chaque connecteur prend en charge 2 ports USB de panneau avant
	Connecteur d'alimentation (24 broches)	x1	
	Connecteur d'alimentation (4 broches)	x1	
E/S du panneau arrière	Clavier PS/2	x1	
	Souris PS/2	x1	
	Port série	x1	
	Port VGA	x1	
	Port LAN	x1	
	Port USB	x4	
	Fiche audio	x3	
Dimensions de la carte	190mm (l) X 239 mm (H)		
Support SE	Windows XP / VISTA		Biostar se réserve le droit d'ajouter ou de supprimer le support de SE avec ou sans préavis.

**ITALIAN**

<b>SPECIFICA</b>		
CPU	LGA 775 Processore Intel Core2Duo / Pentium 4 / Pentium D / Celeron D / Celeron 4xx fino a 3.8 GHz *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 / 1333 MHz	
Chipset	Intel 945GC Intel ICH7	
Grafica	Intel GMA 950	La memoria video condivisa massima è di 224MB
Super I/O	ITE 8712F Fornisce le funzionalità legacy Super I/O usate più comunemente. Interfaccia LPC (Low Pin Count)	Funzioni di controllo dell'ambiente: Monitoraggio hardware Controller velocità ventolina Funzione "Smart Guardian" di ITE
Memoria principale	Alloggi DIMM DDR2 x 2 Ciascun DIMM supporta DDR2 256/512MB e 1GB Capacità massima della memoria 2GB Supporto di DDR2 400 / 533 / 667	Modulo di memoria DDR2 a canale doppio DIMM registrati e DIMM ECC non sono supportati
IDE	Controller IDE integrato	Modalità Bus Master Ultra DMA 33 / 66 / 100 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.
LAN	Atheros L2	Negoziazione automatica 10 / 100 Mb/s Capacità Half / Full Duplex
Codec audio	ALC662	Uscita audio 5.1 canali Supporto audio High-Definition (HD)
Alloggi	Fente PCI Express x16                      x1 Fente PCI Express x1                        x1 Alloggio PCI                                    x2	

<b>SPECIFICA</b>			
Connettori su scheda	Connettore floppy	x1	Ciascun connettore supporta 2 unità Floppy
	Connettore IDE	x1	Ciascun connettore supporta 2 unità IDE
	Connettore Porta stampante	x1	Ciascun connettore supporta 1 Porta stampante
	Connettore SATA	x4	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 cancellazione CMOS	x1	
	Connettore USB	x2	Ciascun connettore supporta 2 porte USB pannello frontale
	Connettore alimentazione (24 pin)	x1	
Connettore alimentazione (4 pin)	x1		
I/O pannello posteriore	Tastiera PS/2	x1	
	Mouse PS/2	x1	
	Porta seriale	x1	
	Porta VGA	x1	
	Porta LAN	x1	
	Porta USB	x4	
	Connettore audio	x3	
Dimensioni i scheda	190 mm (larghezza) x 239 mm (altezza)		
Sistemi operativi supportati	Windows XP / VISTA		Biostar si riserva il diritto di aggiungere o rimuovere il supporto di qualsiasi sistema operativo senza preavviso.

**SPANISH**

<i>Especificación</i>		
CPU	LGA 775 Procesador Intel Core2Duo / Pentium 4 / Pentium D / Celeron D / Celeron 4xx hasta 3,8 GHz *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 / 1333 MHz	
Conjunto de chips	Intel 945GC Intel ICH7	
Gráficos	Intel GMA 950	Memoria máxima de vídeo compartida de 224MB
Súper E/S	ITE 8712F Le ofrece las funcionalidades heredadas de uso más común Súper E/S. Interfaz de cuenta Low Pin	Iniciativas de control de entorno, Monitor hardware Controlador de velocidad de ventilador Función "Guardia inteligente" de ITE
Memoria principal	Ranuras DIMM DDR2 x 2 Cada DIMM admite DDR2 de 256/512MB y 1GB Capacidad máxima de memoria de 2GB Admite DDR2 de 400 / 533 / 667	Módulo de memoria DDR2 de canal Doble No admite DIMM registrados o DIMM compatibles con ECC
IDE	Controlador IDE integrado	Modo bus maestro Ultra DMA 33 / 66 / 100 Soporte los Modos PIO 0~4.
SATA	Controlador ATA Serie Integrado	Tasas de transferencia de hasta 3 Gb/s. Compatible con la versión SATA 2.0.
Red Local	Atheros L2	Negociación de 10 / 100 Mb/s Funciones Half / Full dúplex
Códecs de sonido	ALC662	Salida de sonido de 5.1 canales Soporte de sonido Alta Definición
Ranuras	Ranura PCI Express x16 X1 Ranura PCI Express x1 X1 Ranura PCI X2	

<b>Especificación</b>			
Conectores en placa	Conector disco flexible	X1	Cada conector soporta 2 unidades de disco flexible
	Conector IDE	X1	Cada conector soporta 2 dispositivos IDE
	Conector Puerto de impresora	X1	Cada conector soporta 1 Puerto de impresora
	Conector SATA	X4	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 borrado de CMOS	X1	
	Conector USB	X2	Cada conector soporta 2 puertos USB frontales
	Conector de alimentación (24 patillas)	X1	
Conector de alimentación (4 patillas)	X1		
Panel trasero de E/S	Teclado PS/2	X1	
	Ratón PS/2	X1	
	Puerto serie	X1	
	Puerto VGA	X1	
	Puerto de red local	X1	
	Puerto USB	X4	
Conector de sonido	X3		
Tamaño de la placa	190 mm. (A) X 239 mm. (H)		
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.

**PORTUGUESE**

<b>ESPECIFICAÇÕES</b>		
CPU	LGA 775 Processador Intel Core2Duo / Pentium 4 / Pentium D / Celeron D / Celeron 4xx até 3,8 GHz *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 / 1333 MHz	
Chipset	Intel 945GC Intel ICH7	
Placa gráfica	Intel GMA 950	Memória de vídeo máxima partilhada: 224 MB
Especificação do Super I/O	ITE 8712F Proporciona as funcionalidades mais utilizadas em termos da especificação Super I/O. Interface LPC (Low Pin Count).	Iniciativas para controlo do ambiente Monitorização do hardware Controlador da velocidade da ventoinha Função "Smart Guardian" da ITE
Memória principal	Ranuras DIMM DDR2 x2 Cada módulo DIMM suporta uma memória DDR2 de 256/512 MB & 1 GB Capacidade máxima de memória: 2 GB Suporta módulos DDR2 400 / 533 / 667	Módulo de memória DDR2 de canal duplo Os módulos DIMM registados e os DIMM ECC não são suportados
IDE	Controlador IDE integrado	Modo Bus master Ultra DMA 33 / 66 / 100 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.
LAN	Atheros L2	Auto negociação de 10 / 100 Mb/s Capacidade semi/full-duplex
Codec de som	ALC662	Saída de áudio de 5.1 canais Suporta a especificação High-Definition Audio
Ranuras	Ranura PCI Express x16                      x1 Ranura PCI Express x1                      x1 Ranura PCI                                      x2	

<b>ESPECIFICAÇÕES</b>			
Conectores na placa	Conector da unidade de disquetes	x1	Cada conector suporta 2 unidades de disquetes
	Conector IDE	x1	Cada conector suporta 2 dispositivos IDE
	Conector da para impressora	x1	Cada conector suporta 1 Porta para impressora
	Conector SATA	x4	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
Entradas/Saídas no painel traseiro	Conector para limpeza do CMOS	x1	
	Conector USB	x2	Cada conector suporta 2 portas USB no painel frontal
	Conector de alimentação (24 pinos)	x1	
	Conector de alimentação (4 pinos)	x1	
	Teclado PS/2	x1	
	Rato PS/2	x1	
Tamanho da placa	Porta série	x1	
	Porta VGA	x1	
	Porta LAN	x1	
	Porta USB	x4	
Sistemas operativos suportados	Tomada de áudio	x3	
	Windows XP / VISTA		A Biostar reserva-se o direito de adicionar ou remover suporte para qualquer sistema operativo com ou sem aviso prévio.



SPEC			
Złącza wbudowane	Złącze napędu dyskietek	x1	Każde złącze obsługuje 2 napędy dyskietek
	Złącze IDE	x1	Każde złącze obsługuje 2 urządzenia IDE
	Złącze Port drukarki	x1	Każde złącze obsługuje 1 Port drukarki
	Złącze SATA	x4	Każde złącze obsługuje 1 urządzenie SATA
	Złącze panela przedniego	x1	Obsługa elementów panela przedniego
	Przednie złącze audio	x1	Obsługa funkcji audio na panelu przednim
	Złącze 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 kasowania CMOS	x1	
Złącze USB	x2	Każde złącze obsługuje 2 porty USB na panelu przednim	
Złącze zasilania (24 pinowe)	x1		
Złącze zasilania (4 pinowe)	x1		
Back Panel I/O	Klawiatura PS/2	x1	
	Mysz PS/2	x1	
	Port szeregowy	x1	
	Port VGA	x1	
	Port LAN	x1	
	Port USB	x4	
	Gniazdo audio	x3	
Wymiary płyty	190 mm (S) X 239 mm (W)		
Obsługa systemu operacyjnego	Windows XP / VISTA		Biostar zastrzega sobie prawo dodawania lub odwoływania obsługi dowolnego systemu operacyjnego bez powiadomienia.

**RUSSIAN**

<b>СПЕЦ</b>		
CPU (центральный процессор)	LGA 775 Процессор Intel Core2Duo / Pentium 4 / Pentium D / Celeron D / Celeron 4xx до 3.8 ГГц *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 / 1333 МГц	
Набор микросхем	Intel 945GC Intel ICH7	
Графика	Intel GMA 950	Максимальная совместно используемая видео память составляет 224 МБ
Основная память	Слоты DDR2 DIMM x 2 Каждый модуль DIMM поддерживает 256/512МБ & 1ГБ DDR2 Максимальная ёмкость памяти 2 ГБ Поддержка DDR2 400 / 533 / 667	Модуль памяти с двухканальным режимом DDR2 Не поддерживает зарегистрированные модули DIMM and ECC DIMM
Super I/O	ITE 8712F Обеспечивает наиболее используемые действующие функциональные возможности Super I/O. Интерфейс с низким количеством выводов	Инициативы по охране окружающей среды, Аппаратный монитор Регулятор скорости Функция ITE "Smart Guardian" (Интеллектуальная защита)
IDE	Встроенное устройство управления встроенными интерфейсами устройств	Режим "хозяина" шины Ultra DMA 33 / 66 / 100 Поддержка режима PIO 0~4,
SATA	Встроенное последовательное устройство управления ATA	скорость передачи данных до 3 гигабит/с. Соответствие спецификации SATA версия 2.0.
Локальная сеть	Atheros L2	Автоматическое согласование 10 / 100 Мб/с Частичная / полная дуплексная способность
Звуковой кодек	ALC662	5.1канальный звуковой выход Звуковая поддержка High-Definition
Слоты	Слот PCI Express x16 Слот PCI Express x1 Слот PCI	x1 x1 x2
Встроенный разъём	Разъём НГМД Разъём IDE	x1 x1 Каждый разъём поддерживает 2 накопителя на гибких магнитных дисках Каждый разъём поддерживает 2 встроенных интерфейса накопителей

СПЕЦ			
	Разъём Порт подключения принтера	x1	Каждый разъём поддерживает 1 Порт подключения принтера
	Разъём SATA	x4	Каждый разъём поддерживает 1 устройство SATA
	Разъём на лицевой панели	x1	Поддержка устройств на лицевой панели
	Входной звуковой разъём	x1	Поддержка звуковых функций на лицевой панели
	Разъём 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
	Открытое контактирующее приспособление CMOS	x1	
	USB-разъём	x2	Каждый разъём поддерживает 2 USB-порта на лицевой панели
	Разъем питания (24 вывод)	x1	
	Разъем питания (4 вывод)	x1	
Задняя панель средств ввода-вывода	Клавиатура PS/2	x1	
	Мышь PS/2	x1	
	Последовательный порт	x1	
	Порт VGA	x1	
	Порт LAN	x1	
	USB-порт	x4	
	Гнездо для подключения наушников	x3	
Размер панели	190 мм (Ш) X 239 мм (В)		
Поддержка OS	Windows XP / VISTA		Biostar сохраняет за собой право добавлять или удалять средства обеспечения для OS с или без предварительного уведомления.

## ARABIC

المواصفات			
<p>Hyper-Threading تدعم تقنيات</p> <p>Execute Disable Bit</p> <p>Enhanced Intel SpeedStep®</p> <p>Extended Memory 64 Technology</p>	<p>LGA 775</p> <p>Intel Core2Duo / Pentium 4 / Pentium D / Celeron D / Celeron 4xx معالج</p> <p>يتردد يصل إلى 3.8 جيجا هرتز</p> <p>*It is recommended to use processors with 95W power consumption.</p>	<p>وحدة المعالجة المركزية</p>	
	<p>533 / 800 / 1066 / 1333 ميجا هرتز</p>	<p>النقل الأممي الجليبي</p>	
	<p>Intel 945GC</p> <p>Intel ICH7</p>	<p>مجموعة الشرائح</p>	
	<p>224 ميجا بايت أقصى سعة لذاكرة الفيديو المشتركة</p>	<p>Intel GMA 950</p> <p>بطاقة الرسومات</p>	
<p>أحادية مزدوجة القناة DDR2 وحدة ذاكرة ECC</p> <p>وذلك التي لا تتوافق مع DIMM لا تدعم رقائق الذاكرة</p>	<p>2 عدد DDR2 DIMM قذبة</p> <p>ميجا 256/512 سعة DDR2 تدعم ذاكرة من نوع DIMM تدعم كل قذبة</p> <p>1 ميجا بايت</p> <p>سعة ذاكرة قصوى 2 جيجا بايت</p> <p>ميجا بايت 400 / 533 / 667 سعة DDR2 تدعم الذاكرة من نوع</p>	<p>الذاكرة الرئيسية</p>	
<p>وسائل التحكم في البيئة:</p> <p>مراقب لمعرفة حالة الأجهزة</p> <p>مراقب في سرعة المروحة</p> <p>Smart Guardian "وظيفة</p>	<p>ITE 8712F</p> <p>الأكثر استخداماً. Super I/O يوفر وظيفة</p> <p>Low Pin Count Interface تدعم تقنية</p>	<p>Super I/O</p>	
<p>Ultra DMA 33 / 66 / 100 النقل بتقنية</p> <p>وضع رئيسي</p> <p>PIO Mode 0~4 دعم وضع</p>	<p>متكامل IDE</p>	<p>منفذ IDE</p>	
<p>نقل البيانات بسرعة تصل إلى 3 جيجابت/ثانية.</p> <p>الإصدار SATA مطابقة للمواصفات</p>	<p>Serial ATA متكامل</p>	<p>SATA</p>	
<p>تفاوض تلقائي 100/10 ميجا بايت / ثانية</p> <p>إمكانية النقل المزدوج الكامل/النصفي</p>	<p>Atheros L2</p>	<p>شبكة داخلية</p> <p>100/10</p>	
<p>قوات لخرج الصوت 5.1</p> <p>تدعم تقنية الصوت عالي التعريف من</p>	<p>ALC662</p>	<p>كوديك الصوت</p>	
	<p>عدد 1</p> <p>عدد 1</p> <p>عدد 2</p>	<p>قذبة PCI Express x16</p> <p>قذبة PCI Express x1</p> <p>قذبة PCI</p>	<p>التحات</p>

المواصفات		
منفذ محرك أقراص مرنة	عدد 1	يدعم محرك الأقراص المرنة
منفذ IDE	عدد 1	يدعم كل منفذ اثنين من أجهزة IDE
منفذ طباعة	عدد 1	
منفذ SATA	عدد 4	يدعم كل منفذ واحد من أجهزة SATA
منفذ اللوحة الأملمية	عدد 1	يدعم تجهيزات اللوحة الأملمية
منفذ الصوت الأملمي	عدد 1	يدعم وظيفة الصوت باللوحة الأملمية
منفذ CD-IN	عدد 1	يدعم وظيفة دخل صوت القرص المدمج
منفذ خرج S/PDIF	عدد 1	يدعم وظيفة خرج الصوت الرقمي
وصلة مروحة وحدة المعالجة المركزية	عدد 1	Smart Fan (توصيل الطاقة لمروحة وحدة المعالجة مع وظيفة
وصلة مروحة النظام	عدد 1	لتوصيل الطاقة لمروحة النظام
وصلة مسح CMOS	عدد 1	
منفذ USB	عدد 2	باللوحة الأملمية USB يدعم كل منفذ قحني
منفذ توصيل الطاقة (24 دبوس)	عدد 1	
منفذ توصيل الطاقة (4 دبوس)	عدد 1	
لوحة مفاتيح PS/2	عدد 1	
مؤس PS/2	عدد 1	
منفذ تسلسلي	عدد 1	
منفذ VGA	عدد 1	
منفذ شبكة اتصال محلية	عدد 1	
منافذ USB	عدد 4	
مقيس صوت	عدد 3	
حجم اللوحة	190 مم (عرض) X 239 مم (الارتفاع)	
دعم أنظمة التشغيل	Windows XP / VISTA بحقها في إضافة أو إزالة الدعم لأي نظام تشغيل بإخطار أو <b>Biostar</b> تحتفظ بدون إخطار .	

## JAPANESE

仕様		
CPU	LGA 775 Intel Core2Duo / Pentium 4 / Pentium D / Celeron D / Celeron 4xx processor up to 3.8 GHz *It is recommended to use processors with 95W power consumption.	Hyper-Threading Execute Disable Bit Enhanced Intel SpeedStep® Extended Memory 64 Technology
FSB	533 / 800 / 1066 / 1333 MHz	
チップセット	Intel 945GC Intel ICH7	
グラフィックス	Intel GMA 950	最大の共有ビデオメモリは224MBです
メインメモリ	DDR2 DIMMスロット x 2 各DIMMは256/512MB & 1GB DDR2をサポート 最大メモリ容量2GB DDR2 400 / 533 / 667 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 登録済みDIMMとECC DIMMはサポートされません
Super I/O	ITE 8712F 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。 低ピンカウントインターフェイス	環境コントロールイニシアチブ、 H/Wモニター ファン速度コントローラ/ モニター ITEの「スマートガーディアン」機能
IDE	統合IDEコントローラ	Ultra DMA 33 / 66 / 100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3 Gb/秒のデータ転送速度 SATAバージョン2.0仕様に準拠。
10/100 LAN	Atheros L2	10 / 100 Mb/秒のオートネゴシエーション 半/全二重機能
サウンド Codec	ALC662	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 x1スロット x1 PCIスロット x2	

仕様			
オンボードコ ネクタ	フロッピーコネクタ	x1	各コネクタは2つのフロッピードライブをサポートします
	IDEコネクタ	x1	各コネクタは2つのIDEデバイスをサポートします
	プリンタポートコネクタ	x1	各コネクタは1つのプリンタポートをサポートします
	SATAコネクタ	x4	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
	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(24ピン)	x1	
電源コネクタ(4ピン)	x1		
背面パネル I/O	PS/2キーボード	x1	
	PS/2マウス	x1	
	シリアルポート	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	190 mm (幅) X 239 mm (高さ)		
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。

2011/10/13