FCC Information and Copyright

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CHAPTER 1: INTRODUCTION

1.1 BEFORE YOU START

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

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

1.2 PACKAGE CHECKLIST

- HDD Cable X 1 (optional)
- 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 2
- Serial ATA Power Cable X 1 (optional)
- USB 2.0 Cable X1 (optional)

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

1.3 MOTHERBOARD FEATURES

SPEC			
CPU	NanoBGA2 VIA CPU On-board VIA C7-D 1.8G CPU		Supports Hyper-Threading Execute Disable Bit Extended Memory 64 Technology
FSB	VIA V4 BUS 800MHz		
Chipset	VIA CN896 VIA VT8237S		
Graphics	Chrome9 HC GFX		Max Shared Video Memory is 64/128/256MB
Super I/O	ITE 8712F 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 256MB/512MB/1GB DDR2 Max Memory Capacity 2GB Supports DDR2 533 / 667		Single Channel Mode DDR2 memory module Registered DIMM and ECC DIMM is not supported
IDE	Integrated IDE Controller		Ultra DMA 33 / 66 / 100 / 133 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	VIA VT6113		10 / 100 Mb/s auto negotiation
Sound Codec	VIA VT1708B		5.1 channels audio out High-Definition Audio support
Slot	PCI slot	x1	Supports PCI expansion card
	PCI Express x 16 slot	x1	Supports PCI-E x16 expansion card
On Board Connector	IDE Connector	x1	Each connector supports 2 IDE device
	Floppy Connector	x1	Each connector supports 2 Floppy drives
	SATA Connector	x2	Each connector supports 1 SATA devices
	Front Panel Connector	x1	Supports front panel facilities
	Front Audio Connector	x1	Supports front panel audio function
	S/PDIF out Connector	x1	Supports digital audio out function

SPEC			
	CPU Fan Header	x1	CPU Fan power supply
	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
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
	Printer Port	x1	Provide 1 connection for printer
	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	180 (W) x 223 (L) mm		
Special Features	RAID 0 / 1		
OS Support	Windows XP / Vista / 7		Biostar reserves the right to add or remove support for any OS with or without notice.

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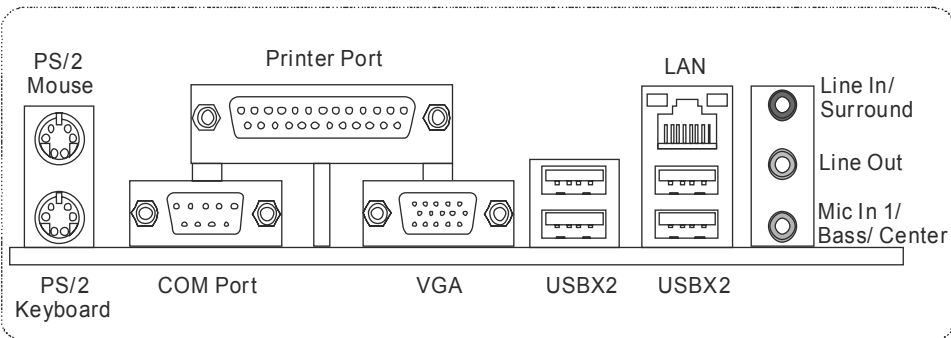
Since the audio chip supports High Definition Audio Specification, the function of each audio jack can be defined by software. The input / output function of each audio jack listed above represents the default setting. However, when connecting external microphone to the audio port, please use the Line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

1.5 MOTHERBOARD LAYOUT
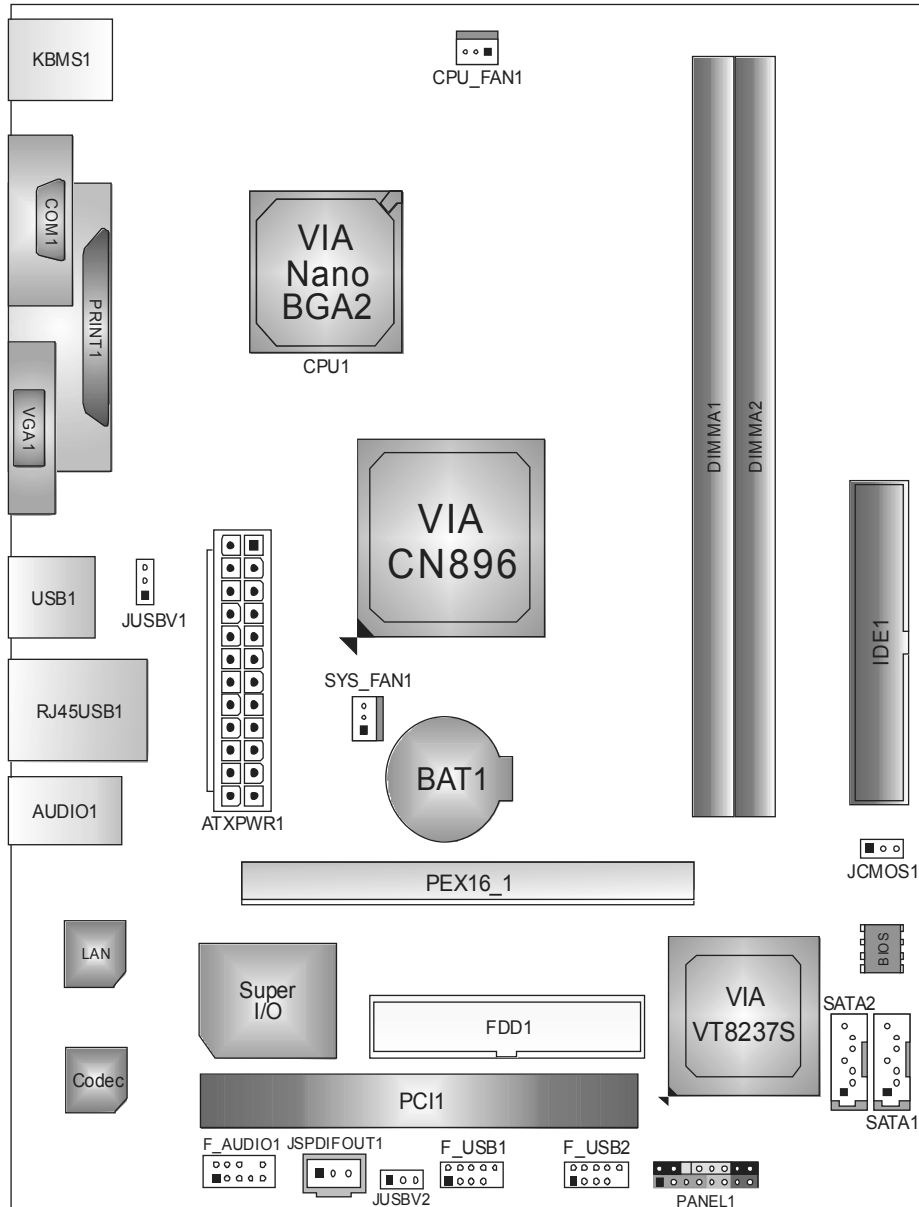
Note: ■ represents the 1st pin.

CHAPTER 2: HARDWARE INSTALLATION

2.1 INSTALLING CENTRAL PROCESSING UNIT (CPU)

The motherboard includes an embedded VIA C7-D 1.8G processor, and a heatsink has been installed to provide sufficient cooling.

2.2 FAN HEADERS

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

CPU_FAN1: CPU Fan Header

SYS_FAN1: System Fan Header

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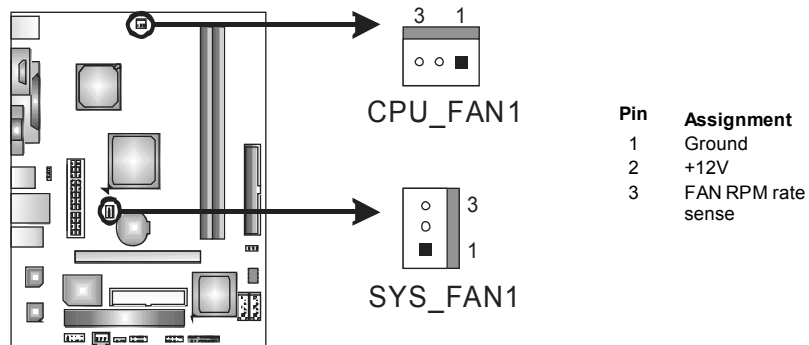
Note:

CPU_FAN1/SYS_FAN1 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. DDR2 Module
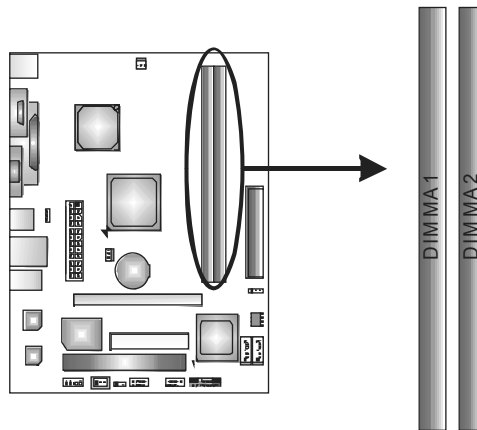
1. Unlock a DIMM slot by pressing the retaining clips outward. Align a DIMM on the slot such that the notch on the DIMM matches the break on the Slot.
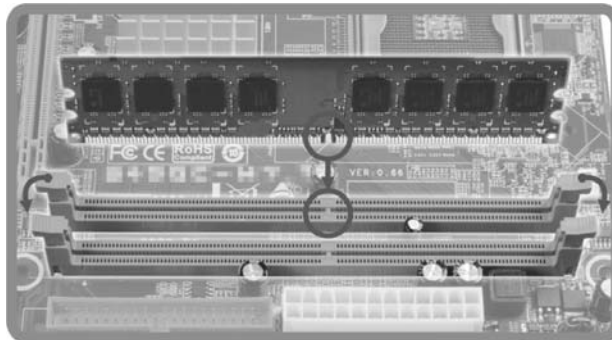
2. Insert the DIMM vertically and firmly into the slot until the retaining chip snap back in place and the DIMM is properly seated.
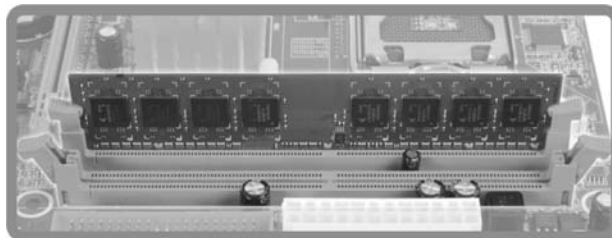
B. Memory Capacity

DIMM Socket Location	DDR2 Module	Total Memory Size
DIMMA1	256MB/512MB/1GB	Max is 2GB.
DIMMA2	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.
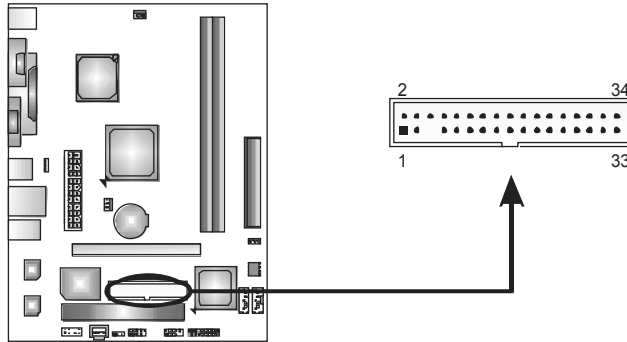
IDE1: Hard Disk Connector

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.
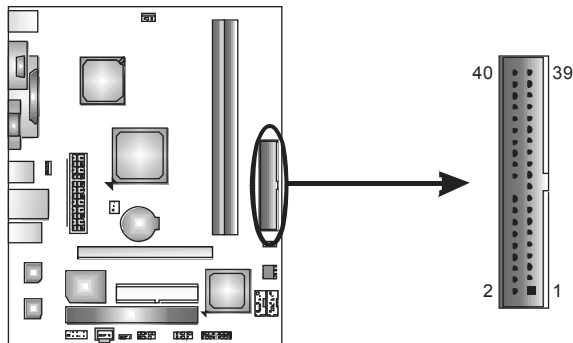
SATA1/SATA2: Serial ATA Connectors

The motherboard has a PCI to SATA Controller with 2 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
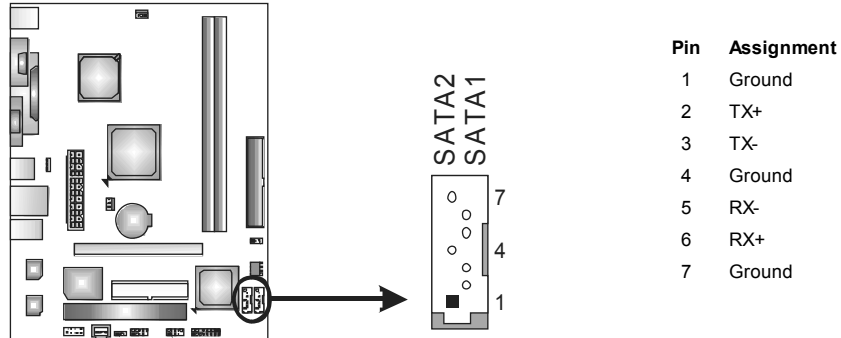
ATXPWR1: ATX Power Source Connector

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

Pin	Assignment	Pin	Assignment
13	+3.3V	1	+3.3V
14	-12V	2	+3.3V
15	Ground	3	Ground
16	PS_ON	4	+5V
17	Ground	5	Ground
18	Ground	6	+5V
19	Ground	7	Ground
20	NC	8	PW_OK
21	+5V	9	Standby Voltage+5V
22	+5V	10	+12V
23	+5V	11	+12V
24	Ground	12	+3.3V
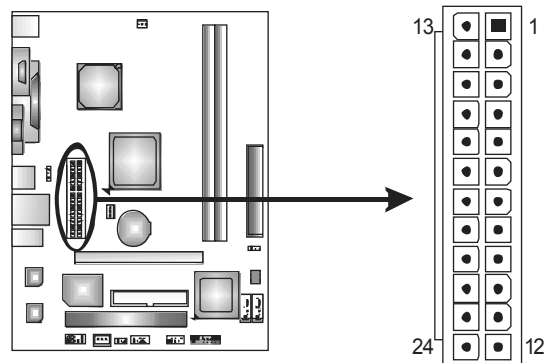
PEX16_1: PCI-Express x16 Slot

- PCI-Express 1.0a compliant.
- Maximum theoretical realized bandwidth of 4GB/s simultaneously per direction, for an aggregate of 8GB/s totally.
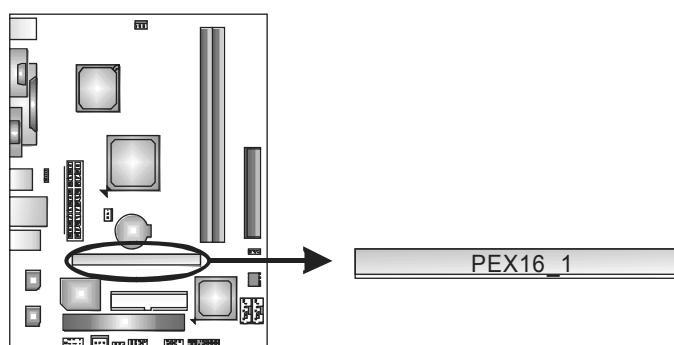
PCI1: Peripheral Component Interconnect Slot

The motherboard is equipped with 1 standard PCI slot. PCI stands for Peripheral Component Interconnect, and it is a bus standard for expansion cards. This PCI slot is designated as 32 bits.
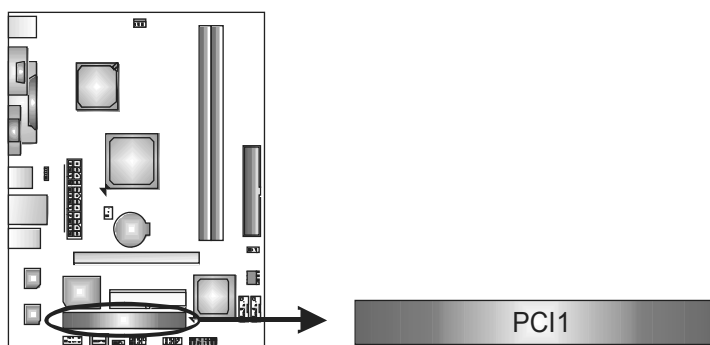
CHAPTER 3: HEADERS & JUMPERS SETUP

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

PANEL1: 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.
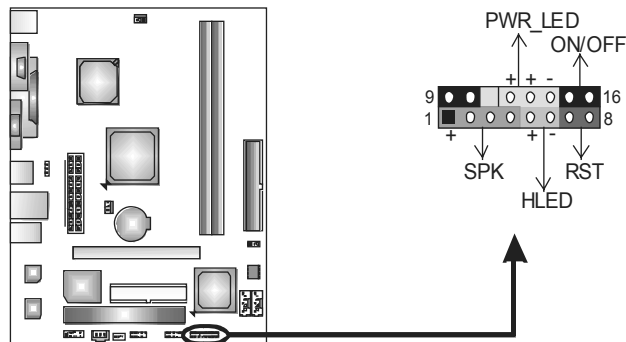
Pin	Assignment	Function	Pin	Assignment	Function
1	+5V	Speaker Connector	9	Sleep control	Sleep button
2	N/A		10	Ground	
3	N/A		11	N/A	N/A
4	Speaker		12	Power LED (+)	Power LED
5	HDD LED (+)	Hard drive LED	13	Power LED (+)	
6	HDD LED (-)		14	Power LED (-)	
7	Ground	Reset button	15	Power button	Power-on button
8	Reset control		16	Ground	

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

This motherboard provides 2 USB 2.0 headers, providing 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
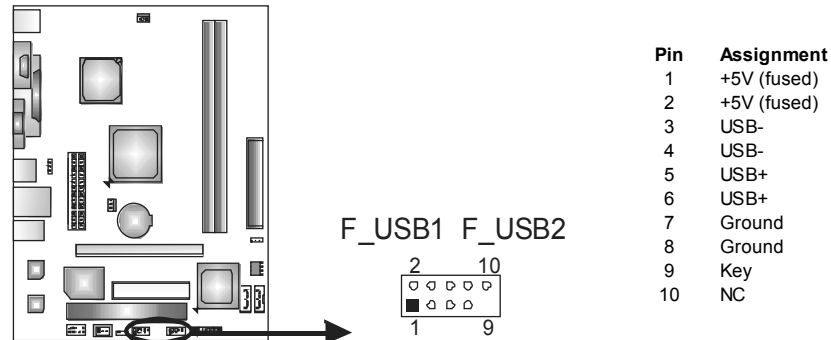
F_USB1 F_USB2

JUSBV1/JUSBV2: Power Source Headers for USB Ports

Pin 1-2 Close:

JUSBV1: +5V for USB ports at USB1/RJ45USB1.

JUSBV2: +5V for USB ports at front panel (F_USB1/F_USB2).

Pin 2-3 Close:

JUSBV1: +5V STB for USB ports at USB1/RJ45USB1.

JUSBV2: +5V STB for USB ports at front panel (F_USB1/F_USB2).

JUSBV1

JUSBV2

Pin 1-2 close

Pin 2-3 close
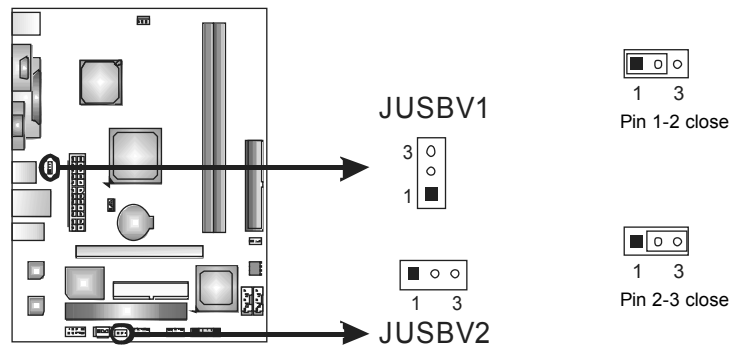
Note:

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

F_AUDIO1: 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
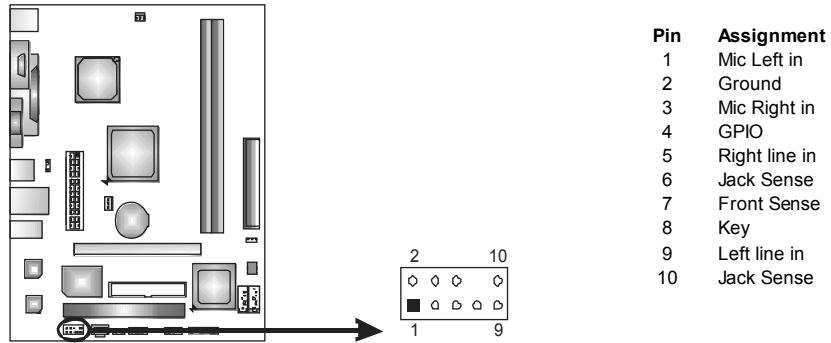
JSPDIFOUT1: Digital Audio-out Connector

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

Pin	Assignment
1	+5V
2	SPDIF_OUT
3	Ground
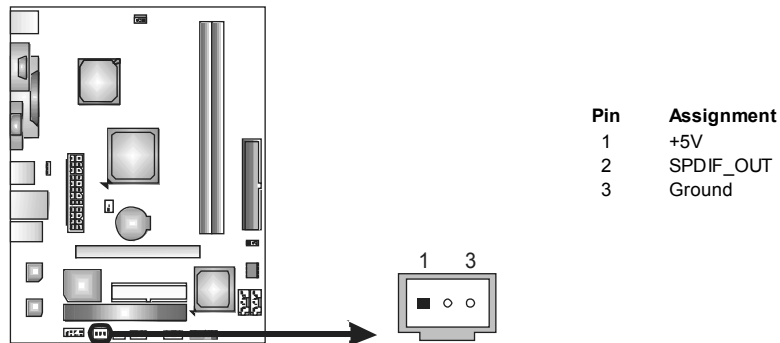
JCMOS1: Clear CMOS Header

Placing the jumper on pin2-3 allows user to restore the BIOS safe setting and the CMOS data. Please carefully follow the procedures to avoid damaging the motherboard.
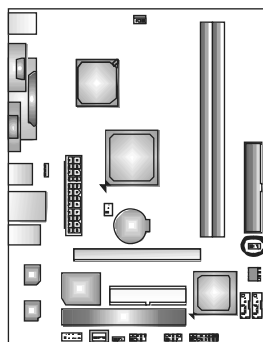
Pin 1-2 Close:
Normal Operation (Default).

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.

CHAPTER 4: RAID FUNCTIONS

4.1 OPERATING SYSTEM

Supports Windows XP, Windows Vista 32, and Windows 7

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.
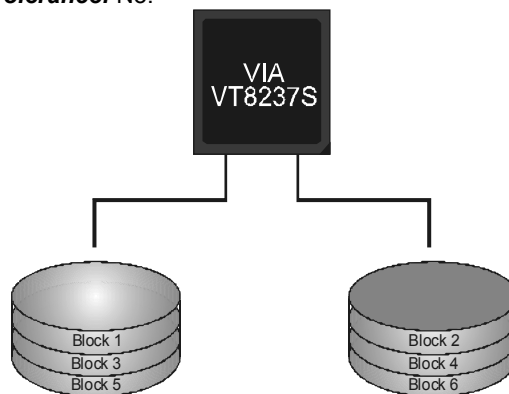
RAID 1:

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.
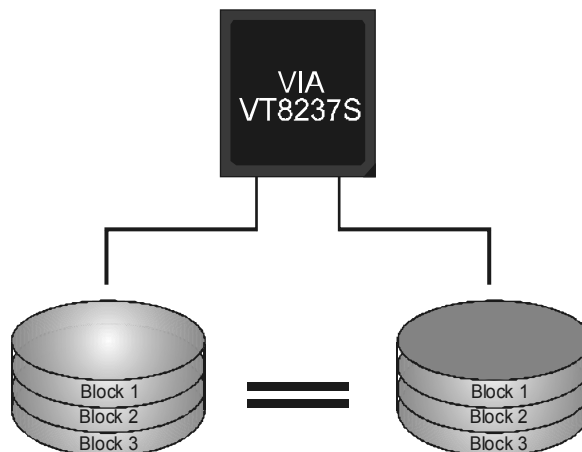
CHAPTER 5: USEFUL HELP

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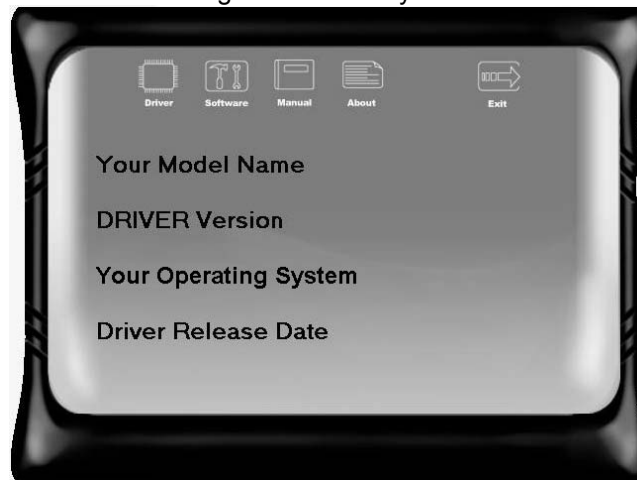
The setup guide will auto detect your motherboard and operating system.

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

A. Driver Installation

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

B. Software Installation

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

C. Manual

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

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

5.2 AMI BIOS BEEP CODE

Boot Block Beep Codes

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

POST BIOS Beep Codes

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

Troubleshooting POST BIOS Beep Codes

Number of Beeps	Troubleshooting Action
1, 3	Reseat the memory, or replace with known good modules.
6, 7	Fatal error indicating a serious problem with the system. Consult your system manufacturer. Before declaring the motherboard beyond all hope, eliminate the possibility of interference by a malfunctioning add-in card. Remove all expansion cards except the video adapter. ● If beep codes are generated when all other expansion cards are absent, consult your system manufacturer's technical support. ● If beep codes are not generated when all other expansion cards are absent, one of the add-in cards is causing the malfunction. Insert the cards back into the system one at a time until the problem happens again. This will reveal the malfunctioning card.
8	If the system video adapter is an add-in card, replace or reseat the video adapter. If the video adapter is an integrated part of the system board, the board may be faulty.

5.3 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 0protection function.
1. Remove the power cord from power supply for seconds.
2. Wait for seconds.
3. Plug in the power cord and boot up the system.

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

5.4 TROUBLESHOOTING

Probable	Solution
1. There is no power in the system. Power LED does not shine; the fan of the power supply does not work 2. Indicator light on keyboard does not shine.	1. Make sure power cable is securely plugged in. 2. Replace cable. 3. Contact technical support.
System is inoperative. Keyboard lights are on, power indicator lights are lit, and hard drives are running.	Using even pressure on both ends of the DIMM, press down firmly until the module snaps into place.
System does not boot from a hard disk drive, but can be booted from optical drive.	1. Check cable running from disk to disk controller board. Make sure both ends are securely plugged in; check the drive type in the standard CMOS setup. 2. Backing up the hard drive is extremely important. All hard disks are capable of breaking down at any time.
System only boots from an optical drive. Hard disks can be read, applications can be used, but system fails to boot from a hard disk.	1. Back up data and applications files. 2. Reformat the hard drive. Re-install applications and data using backup disks.
Screen message shows "Invalid Configuration" or "CMOS Failure."	Review system's equipment. Make sure correct information is in setup.
System cannot boot after user installs a second hard drive.	1. Set master/slave jumpers correctly. 2. Run SETUP program and select correct drive types. Call the drive manufacturers for compatibility with other drives.

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APPENDIX: SPEC IN OTHER LANGUAGES

GERMAN

Spezifikationen		
CPU	NanoBGA2 VIA CPU On-board VIA C7-D 1.8G CPU	Unterstützt Hyper-Threading Execute Disable Bit Extended Memory 64 Technology
FSB	VIA V4 BUS 800MHz	
Chipsatz	VIA CN896 VIA VT8237S	
Grafik	Chrome9 HC GFX	Max. 64/128/256MB 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 256MB/512MB/1GB DDR2 Max. 2GB Arbeitsspeicher Unterstützt DDR2 533 / 667	Ein-Kanal DDR2 Speichermodul registrierte DIMMs. ECC DIMMs werden nicht unterstützt.
IDE	Integrierter IDE-Controller	Ultra DMA 33 / 66 / 100 / 133 Bus Master-Modus Unterstützt PIO-Modus 0~4
SATA	Integrierter Serial ATA-Controller	Datentransferrate bis zu 3Gb/s Konform mit der SATA-Spezifikation Version 2.0
LAN	VIA VT6113	10 / 100 Mb/s Auto-Negotiation 10 / 100 / 1000 Mb/s Auto-Negotiation
Audio-Codec	VIA VT1708B	5.1-Kanal-Audioausgabe Unterstützt High-Definition Audio
Steckplätze	PCI-Steckplatz x1 PCI Express x16 Steckplatz x1	

Spezifikationen			
Onboard-Anschluss	IDE-Anschluss	x1	Jeder Anschluss unterstützt 2 IDE-Laufwerke
	Diskettenlaufwerkanschluss	x1	Jeder Anschluss unterstützt 2 Diskettenlaufwerke
	SATA-Anschluss	x2	Jeder Anschluss unterstützt 1 SATA-Laufwerk
	Fronttafelanschluss	x1	Unterstützt die Fronttafelfunktionen
	Front-Audioanschluss	x1	Unterstützt die Fronttafel-Audioanschlussfunktion
	S/PDIF Ausgangsanschluss	x1	Unterstützt die digitale Audioausgabefunktion
	CPU-Lüfter-Sockel	x1	CPU-Lüfterstromversorgungsanschluss
	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	
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	180 mm (B) X 223 mm (L)		
OS-Unterstützung	Windows XP / Vista / 7		Biostar behält sich das Recht vor, ohne Ankündigung die Unterstützung für ein Betriebssystem hinzuzufügen oder zu entfernen.

FRENCH

SPEC		
UC	NanoBGA2 VIA CPU On-board VIA C7-D 1.8G CPU	Prend en charge les technologies Hyper-Threading d'exécution de bit de désactivation de mémoire étendue 64
Bus frontal	VIA V4 BUS 800MHz	
Chipset	VIA CN896 VIA VT8237S	
Graphiques	Chrome9 HC GFX	Mémoire vidéo partagée maximale de 64/128/256 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 256Mo/512Mo/1Go Capacité mémoire maximale de 2Go Prend en charge la DDR2 533 / 667	Module de mémoire DDR2 à mode à simple 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 / 133 Prend en charge le mode PIO 0~4,
SATA	Contrôleur Serial ATA intégré :	Taux de transfert jusqu'à 3 Go/s. Conforme à la spécification SATA Version 2.0
LAN	VIA VT6113	10 / 100 Mb/s négociation automatique 10 / 100 / 1000 Mb/s négociation automatique
Codec audio	VIA VT1708B	Sortie audio à 5.1 voies Prise en charge de l'audio haute définition
Fentes	Fente PCI x1 Fente PCI Express x16 x1	

SPEC			
Connecteur embarqué	Connecteur IDE	x1	Chaque connecteur prend en charge 2 périphériques IDE
	Connecteur de disquette	x1	Chaque connector prend en charge 2 lecteurs de disquettes
	Connecteur SATA	x2	Chaque connecteur prend en charge 1 périphérique SATA
	Connecteur du panneau avant	x1	Prend en charge les équipements du panneau avant
	Connecteur Audio du panneau avant	x1	Prend en charge la fonction audio du panneau avant
	Connecteur de sortie S/PDIF	x1	Prend en charge la fonction de sortie audio numérique
	Embase de ventilateur UC	x1	Alimentation électrique du ventilateur UC
	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	
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	180mm (l) X 223 mm (H)		
Support SE	Windows XP / Vista / 7		Biostar se réserve le droit d'ajouter ou de supprimer le support de SE avec ou sans préavis.

ITALIAN

SPECIFICA		
CPU	NanoBGA2 VIA CPU On-board VIA C7-D 1.8G CPU	Supporto di Hyper-Threading Execute Disable Bit Tecnologia Extended Memory 64
FSB	VIA V4 BUS 800MHz	
Chipset	VIA CN896 VIA VT8237S	
Grafica	Chrome9 HC GFX	La memoria video condivisa massima è di 64/128/256MB
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 256MB/512MB/1GB Capacità massima della memoria 2GB Supporto di DDR2 533 / 667	Modulo di memoria DDR2 a canale singolo DIMM registrati e DIMM ECC non sono supportati
IDE	Controller IDE integrato	Modalità Bus Master Ultra DMA 33 / 66 / 100 / 133 Supporto modalità PIO Mode 0-4
SATA	Controller Serial ATA integrato	Velocità di trasferimento dei dati fino a 3 Gb/s. Compatibile specifiche SATA Versione 2.0.
LAN	VIA VT6113	Negoziazione automatica 10 / 100 Mb/s Negoziazione automatica 10 / 100 / 1000 Mb/s
Codec audio	VIA VT1708B	Uscita audio 5.1 canali Supporto audio High-Definition (HD)
Alloggi	Alloggio PCI x1 Alloggio PCI Express x16 x1	

SPECIFICA			
Connettori su scheda	Connettore IDE	x1	Ciascun connettore supporta 2 unità IDE
	Connettore floppy	x1	Ciascun connettore supporta 2 unità Floppy
	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 output S/PDIF	x1	Supporta la funzione d'output audio digitale
	Collettore ventolina CPU	x1	Alimentazione ventolina CPU
	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	
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	180 mm (larghezza) x 223 mm (altezza)		
Sistemi operativi supportati	Windows XP / Vista / 7		Biostar si riserva il diritto di aggiungere o rimuovere il supporto di qualsiasi sistema operativo senza preavviso.

SPANISH

Especificación		
CPU	NanoBGA2 VIA CPU On-board VIA C7-D 1.8G CPU	Admite Hyper-Threading Bit de deshabilitación de ejecución Tecnología Extended Memory 64
FSB	VIA V4 BUS 800MHz	
Conjunto de chips	VIA CN896 VIA VT8237S	
Gráficos	Chrome9 HC GFX	Memoria máxima de vídeo compartida de 64/128/256MB
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 256MB/512MB /1GB Capacidad máxima de memoria de 2GB Admite DDR2 de 533 / 667	Módulo de memoria DDR2 de canal Sencillo No admite DIMM registrados o DIMM compatibles con ECC
IDE	Controlador IDE integrado	Modo bus maestro Ultra DMA 33 / 66 / 100 / 133 Soporte los Modos PIO 0~4.
SATA	Controlador ATA Serie Integrado	Tasas de transferencia de hasta 3 Gb/s. Compatible con la versión SATA 2.0.
Red Local	VIA VT6113	Negociación de 10 / 100 Mb/s Negociación de 10 / 100 / 1000 Mb/s
Códecs de sonido	VIA VT1708B	Salida de sonido de 5.1 canales Soporte de sonido Alta Definición
Ranuras	Ranura PCI X1 Ranura PCI Express x16 X1	

Especificación			
Conectores en placa	Conector IDE	X1	Cada conector soporta 2 dispositivos IDE
	Conector disco flexible	X1	Cada conector soporta 2 unidades de disco flexible
	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 salida S/PDIF	X1	Soporta función de salida de sonido digital
	Cabecera de ventilador de CPU	X1	Fuente de alimentación de ventilador de CPU
	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	
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	180 mm. (A) X 223 mm. (H)		
Soporte de sistema operativo	Windows XP / Vista / 7		Biostar se reserva el derecho de añadir o retirar el soporte de cualquier SO con o sin aviso previo.

PORTUGUESE

ESPECIFICAÇÕES		
CPU	NanoBGA2 VIA CPU On-board VIA C7-D 1.8G CPU	Suporta as tecnologias Hyper-Threading Execute Disable Bit Extended Memory 64
FSB	VIA V4 BUS 800MHz	
Chipset	VIA CN896 VIA VT8237S	
Placa gráfica	Chrome9 HC GFX	Memória de vídeo máxima partilhada: 64/128/256 MB
Especificação 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	Ranhuras DIMM DDR2 x2 Cada módulo DIMM suporta uma memória DDR2 de 256MB/512MB/1GB Capacidade máxima de memória: 2GB Suporta módulos DDR2 533 / 667	Módulo de memória DDR2 de canal simples Os módulos DIMM registados e os DIMM ECC não são suportados
IDE	Controlador IDE integrado	Modo Bus master Ultra DMA 33 / 66 / 100 / 133 Suporta o modo PIO 0~4.
SATA	Controlador Serial ATA integrado	Velocidades de transmissão de dados até 3 Gb/s. Compatibilidade com a especificação SATA versão 2.0.
LAN	VIA VT6113	Auto negociação de 10 / 100 Mb/s Auto negociação de 10 / 100 / 1000 Mb/s
Codec de som	VIA VT1708B	Saída de áudio de 5.1 canais Suporta a especificação High-Definition Audio
Ranhuras	Ranhura PCI x1 Ranhura PCI Express x16 x1	

ESPECIFICAÇÕES			
Conectores na placa	Conector IDE	x1	Cada conector suporta 2 dispositivos IDE
	Conector da unidade de disquetes	x1	Cada conector suporta 2 unidades de disquetes
	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 de saída S/PDIF	x1	Suporta a saída de áudio digital
	Conector da ventoinha da CPU	x1	Alimentação da ventoinha da CPU
	Conector da ventoinha do sistema	x1	Alimentação da ventoinha do sistema
	Conector para limpeza do CMOS	x1	
	Conector USB	x2	Cada conector suporta 2 portas USB no painel frontal
	Conector de alimentação (24 pinos)	x1	
Entradas/Saídas no painel 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 audio	x3	
Tamanho da placa	180 mm (L) X 223 mm (A)		
Sistemas operativos suportados	Windows XP / Vista / 7		A Biostar reserva-se o direito de adicionar ou remover suporte para qualquer sistema operativo com ou sem aviso prévio.

POLISH

SPEC		
Procesor	NanoBGA2 VIA CPU On-board VIA C7-D 1.8G CPU	Obsługa Hyper-Threading Execute Disable Bit Extended Memory 64 Technology
FSB	VIA V4 BUS 800MHz	
Chipset	VIA CN896 VIA VT8237S	
Grafika	Chrome9 HC GFX	Maks. wielkość współdzielonej pamięci video wynosi 64/128/256MB
Pamięć główna	Gniazda DDR2 DIMM x 2 Każde gniazdo DIMM obsługuje moduły 256MB/512MB/1GB DDR2 Maks. wielkość pamięci 2GB Obsługa DDR2 533 / 667	Moduł pamięci DDR2 z trybem pojedynczego kanału Brak obsługi Registered DIMM oraz ECC DIMM
Super I/O	ITE 8712F Zapewnia najbardziej powszechne funkcje Super I/O. Interfejs Low Pin Count	Funkcje kontroli warunków pracy, Monitor H/W Kontroler prędkości wentylatora Funkcja ITE "Smart Guardian"
IDE	Zintegrowany kontroler IDE	Ultra DMA 33 / 66 / 100 / 133 Tryb Bus Master obsługa PIO tryb 0~4
SATA	Zintegrowany kontroler Serial ATA	Transfer danych do 3 Gb/s. Zgodność ze specyfikacją SATA w wersji 2.0.
LAN	VIA VT6113	10 / 100 Mb/s z automatyczną negocjacją szybkości 10 / 100 / 1000 Mb/s z automatyczną negocjacją szybkości
Kodek dźwiękowy	VIA VT1708B	5.1 kanałowe wyjście audio Obsługa High-Definition Audio
Gniazda	Gniazdo PCI　　　　　　　　　x1 Gniazdo PCI Express x16　　　x1	

SPEC			
Złącza wbudowane	Złącze IDE	x1	Każde złącze obsługuje 2 urządzenia IDE
	Złącze napędu dyskietek	x1	Każde złącze obsługuje 2 napędy dyskietek
	Złącze SATA	x2	Każde złącze obsługuje 1 urządzenie SATA
	Złącze panela przedniego	x1	Obsługa elementów panela przedniego
	Przednie złącze audio	x1	Obsługa funkcji audio na panelu przednim
	Złącze wyjścia S/PDIF	x1	Obsługa funkcji cyfrowego wyjścia audio
	Złącze główkowe wentylatora procesora x1		Zasilanie wentylatora procesora
	Złącze główkowe wentylatora systemowego	x2	Zasilanie wentylatora systemowego
	Złącze główkowe kasowania CMOS	x1	
	Złącze USB	x2	Każde złącze obsługuje 2 porty USB na panelu przednim
	Złącze zasilania (24 pinowe)	x1	
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	180 mm (S) X 223 mm (W)		
Obsługa systemu operacyjnego	Windows XP / Vista / 7		Biostar zastrzega sobie prawo dodawania lub odwoływania obsługi dowolnego systemu operacyjnego bez powiadomienia.

RUSSIAN

СПЕЦ		
CPU (центральный процессор)	NanoBGA2 VIA CPU On-board VIA C7-D 1.8G CPU	Поддержка технологий Hyper-Threading Execute Disable Bit Extended Memory 64 Technology
FSB	VIA V4 BUS 800МГц	
Набор микросхем	VIA CN896 VIA VT8237S	
Графика	Chrome9 HC GFX	Максимальная совместно используемая видео память составляет 64/128/256 МБ
Основная память	Слоты DDR2 DIMM x 2 Каждый модуль DIMM поддерживает 256МБ /512МБ/1ГБ DDR2 Максимальная ёмкость памяти 2ГБ Поддержка DDR2 533 / 667	Модуль памяти с одноканальным 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 / 133 Поддержка режима PIO 0~4,
SATA	Встроенное последовательное устройство управления ATA	скорость передачи данных до 3 гигабит/с. Соответствие спецификации SATA версия 2.0.
Локальная сеть	VIA VT6113	Автоматическое согласование 10 / 100 Мб/с Автоматическое согласование 10 / 100 / 1000 Мб/с
Звуковой кодек	VIA VT1708B	5.1канальный звуковой выход Звуковая поддержка High-Definition
Слоты	Слот PCI x1	
	Слот PCI Express x16 x1	

СПЕЦ			
Встроенный разъём	Разъём IDE	x1	Каждый разъём поддерживает 2 встроенных интерфейса накопителей
	Разъём НГМД	x1	Каждый разъём поддерживает 2 накопителя на гибких магнитных дисках
	Разъём SATA	x2	Каждый разъём поддерживает 1 устройство SATA
	Разъём на лицевой панели	x1	Поддержка устройств на лицевой панели
	Входной звуковой разъём	x1	Поддержка звуковых функций на лицевой панели
	Разъём вывода для S/PDIF	x1	Поддержка вывода цифровой звуковой функции
	Контактирующее приспособление вентилятора центрального процессора	x1	Источник питания для вентилятора центрального процессора
	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	
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	180 мм (Ш) X 223 мм (В)		
Поддержка OS	Windows XP / Vista / 7		Biostar сохраняет за собой право добавлять или удалять средства обеспечения для OS с или без предварительного уведомления.

ARABIC

المواصفات		
تدعم تقنيتHyper-Threading	NanoBGA2	وحدة المعالجة
Execute Disable Bit	VIA CPU On-board	المركزية
Extended Memory 64 Technology	VIA C7-D 1.8G CPU	
	بتردد VIA V4 BUS 800 ميجا هرتز	الناقل الأمامي الجانبي
	VIA CN896	مجموعة الشرائح
	VIA VT8237S	
أقصى سعة للذاكرة الفيديو المشتركة64/128/256ميجا بايت	Chrome9 HC GFX	بطاقة الرسومات
	عدد2 DDR2 DIMMقحة	
أحادية القناةDDR2وحدة ذاكرة	قحةDIMM تدعم ذاكرة من نوع DDR2 سعة 256/512 ميجا بايت	الذاكرة الرئيسية
ECC وتلك التي لا تتوافق مع DIMMلا تدعم رقائق الذاكرة	و1/جيجا بايت	
	سعة ذاكرة قصوى 2 جيجا بايت	
	تدعم الذاكرة من نوع DDR2 سعت 533 / 667ميجا بايت	
وسائل التحكم في البيئة:	ITE 8712F	
مراقب لمعرفة حالة الأجهزة	توفر وظيفة Super I/O. الأكثر استخداماً	Super I/O
مراقب في سرعة المروحة	تدعم تقنيةLow Pin Count Interface	
وظيفة"Smart Guardian" من ITE		
الناقل بتقنيةUltra DMA 33 / 66 / 100 / 133	متحكمIDEمتكامل	منفذ IDE
وضع رئيسي		
وضع تدعمPIO Mode 0~4		
نقل البيانات بسرعات تصل إلى 3 جيجابت/ثانية.	متحكمSerial ATAمتكامل	SATA
الإصدار SATAمطابقة لمواصفت 2.0.		
تفاوض تلقائي 100/10 ميجابايت / ثانية	VIA VT6113	شبكة داخلية
تفاوض تلقائي 100/10 ميجا بايت / ثانية و 1جيجابت/ثانية		100/10
قنوات لخرج الصوت5.1	VIA VT1708B	كوديك الصوت
تدعم تقنية الصوت عالي التعريف من		
	قحة PCI عدد 1	القحات
	قحة PCI Express x16 عدد 1	

المواصفات			
يدعم كل منفذ اثنين من أجهزة IDE	عدد 1	منفذ IDE	المنافذ على سطح اللوحة
يدعم محركين للأقراص المرنة	عدد 1	منفذ محرك أقراص مرنة	
يدعم كل منفذ واحد من أجهزة SATA	عدد 2	منفذ SATA	
يدعم تجهيزات اللوحة الأمامية	عدد 1	منفذ اللوحة الأمامية	
يدعم وظيفة الصوت باللوحة الأمامية	عدد 1	منفذ الصوت الأمامي	
يدعم وظيفة خرج الصوت الرقمي	عدد 1	منفذ خرج S/PDIF	
لتوصيل الطاقة لمروحة وحدة المعالجة مع وظيفة	عدد 1	وصلة مروحة وحدة المعالجة المركزية	
لتوصيل الطاقة لمروحة النظام	عدد 1	وصلة مروحة النظام	
	عدد 1	وصلة مسح CMOS	
يدعم كل منفذ قحتي USB باللوحة الأمامية	عدد 2	منفذ USB	
	عدد 1	منفذ توصيل الطاقة (24دبوس)	
	عدد 1	لوحة مفاتيح PS/2	منافذ دخل/خرج اللوحة الخلفية
	عدد 1	ماوس PS/2	
	عدد	منفذ تسلسلي	
	عدد 1	منفذ طابعة	
	عدد 1	منفذ VGA	
	عدد 1	منفذ شبكة اتصال محلية	
	عدد 4	منافذ USB	
	عدد 3	مقبس صوت	
	180 مم (عرض) X 223 مم (ارتفاع)		حجم اللوحة
تحتفظ Biostar بحقها في إضافة أو إزالة الدعم لأي نظام تشغيل بإخطار أو بدون إخطار .	Windows XP / Vista / 7		دعم أنظمة التشغيل

JAPANESE

仕様		
CPU	NanoBGA2 VIA CPU On-board VIA C7-D 1.8G CPU	Hyper-Threading Execute Disable Bit Extended Memory 64 Technology
FSB	VIA V4 BUS 800MHz	
チップセット	VIA CN896 VIA VT8237S	
グラフィックス	Chrome9 HC GFX	最大の共有ビデオメモリは64/128/256MBです
メインメモリ	DDR2 DIMMスロット x 2 各DIMMは256MB/512MB/1GB DDR2をサポート 最大メモリ容量2GB DDR2 533 / 667 をサポート	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 8712F もっとも一般に使用されるレガシーSuper I/O機能を採用しています。 低ピンカウントインターフェイス	環境コントロールイニシアチブ、 H/Wモニター ファン速度コントローラ/ モニター ITEの「スマートガーディアン」機能
IDE	統合IDEコントローラ	Ultra DMA 33 / 66 / 100 / 133バスマスタモード PIO Mode 0~4のサポート
SATA	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	VIA VT6113	10 / 100 Mb/秒のオートネゴシエーション 10 / 100 / 1000 Mb/秒のオートネゴシエーション
サウンド Codec	VIA VT1708B	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スロット　　　　　　　　　　x1 PCI Express x16スロット　　　　x1	

仕様			
オンボードコネクタ	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
	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
	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
	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
	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	
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	
	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	180 mm (幅) X 223 mm (高さ)		
OSサポート	Windows XP / Vista / 7		Biostarは事前のサポートなしにOSサポートを追加または削除する権利を留保します。

2009/11/17