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

CHAPTER 1: INTRODUCTION

1.1 BEFORE YOU START

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

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

1.2 PACKAGE CHECKLIST

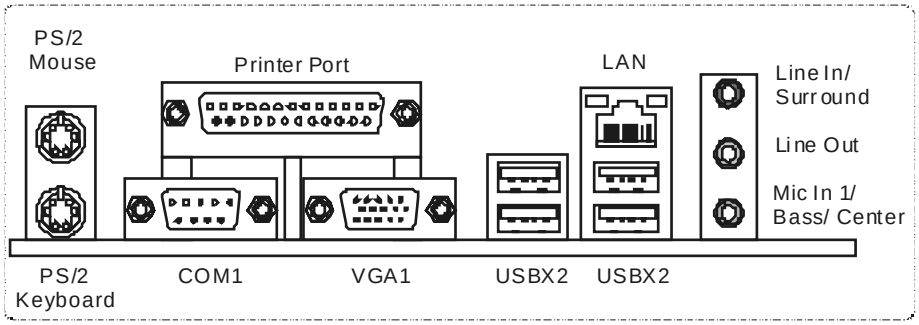
- HDD Cable X 1
- User's Manual X 1
- Fully Setup Driver CD X 1
- Rear I/O Panel for ATX Case X 1
- FDD Cable X 1 (optional)
- Serial ATA Cable X 1 (optional)
- USB 2.0 Cable X1 (optional)
- S/PDIF Cable X 1 (optional)

1.3 MOTHERBOARD FEATURES

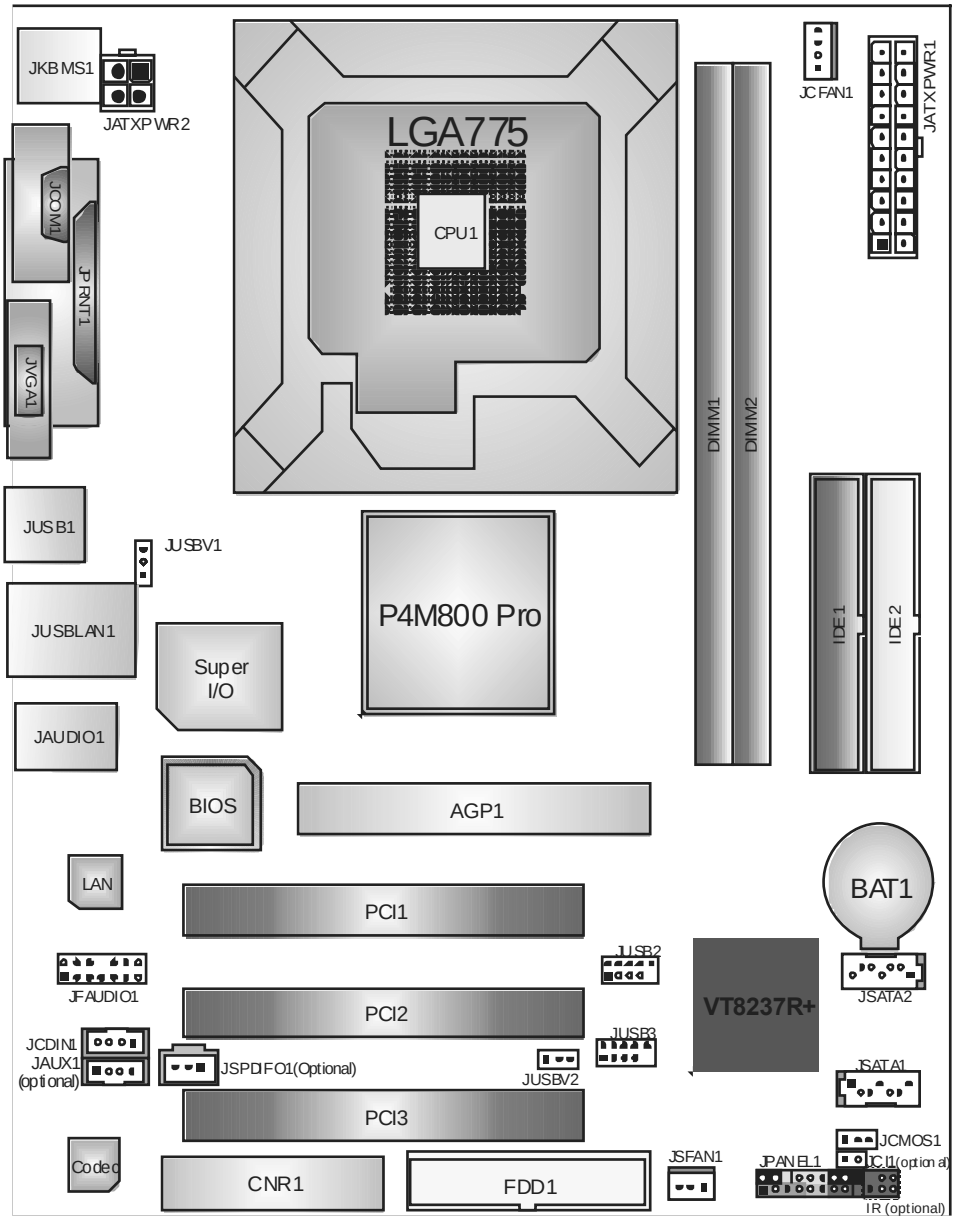
SPEC			
CPU	LGA 775 Supports Intel Core2Duo / Pentium 4 / Pentium D / Celeron D processor up to 3.8 GHz		Supports Hyper-Threading Technology / Execute Disable Bit/ Enhanced Intel SpeedStep® / Intel Extended Memory 64 technology
FSB	400 / 533 / 800 / 1066 MHz		
Chipset	VIA P4M800 PRO VIA VT8237R+		
Graphic	Integrated in UniChrome Pro Chipset		Max Shared Video Memory is 64 MB
Super I/O	ITE IT8705 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 Supports DDR 400 / 333 Each DIMM supports 256MB/512MB/1GB DDR Max Memory Capacity 2GB		Single Channel Mode DDR memory module Registered DIMM and ECC DIMM is not supported
IDE	Integrated IDE Controller		Ultra DMA 33~133 Bus Master Mode supports PIO Mode 0~4,
SATA	Integrated Serial ATA Controller		Data transfer rates up to 1.5 Gb/s. SATA Version 1.0 specification compliant.
LAN PHY	Realtek RTL8201CL		10 / 100 Mb/s auto negotiation Half / Full duplex capability
Sound Codec	ALC655 / ALC658		6 channels audio out AC'97 Version 2.3
Slots	AGP slot CNR slot PCI slot	x1 x1 x3	Supports AGP expansion cards Supports CNR expansion cards Supports PCI expansion cards
On Board Connector	Floppy connector IDE Connector SATA Connector Front Panel Connector	x1 x2 x2 x1	Each connector supports 2 Floppy drives Each connector supports 2 IDE device Each connector supports 1 SATA devices Supports front panel facilities

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

1.4 REAR PANEL CONNECTORS



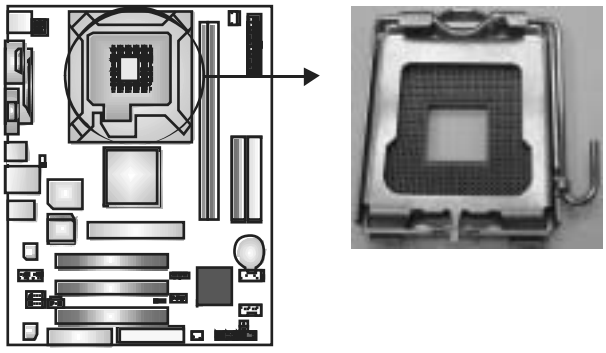
1.5 MOTHERBOARD LAYOUT



Note: ■ represents the 1st pin.

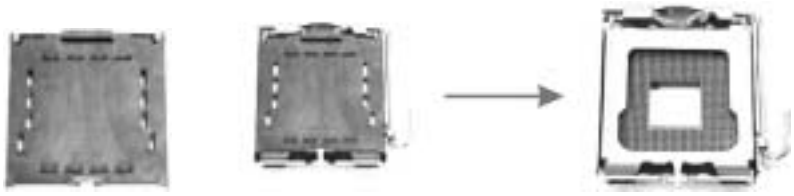
CHAPTER 2: HARDWARE INSTALLATION

2.1 INSTALLING CENTRAL PROCESSING UNIT (CPU)



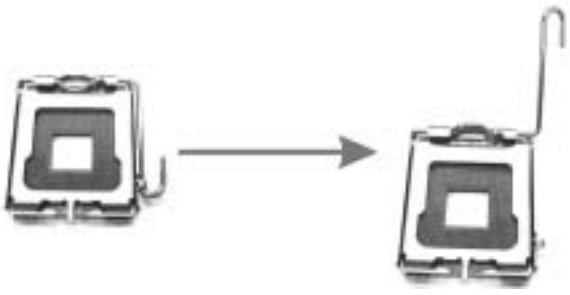
Special Notice:

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.



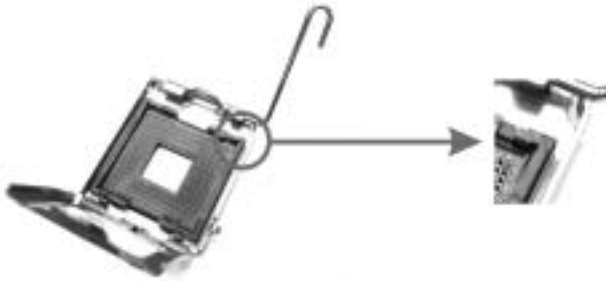
Pin Cap

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

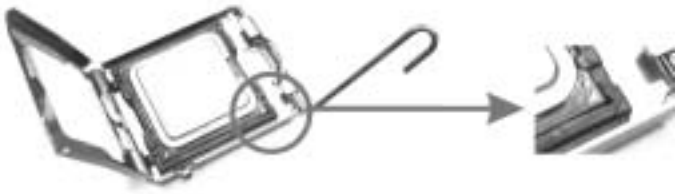


Step 2: Look for the triangular cut edge on socket, and the golden dot on CPU should point forwards this triangular cut edge. The CPU will fit only in the correct orientation.

Step 2-1:



Step 2-2:



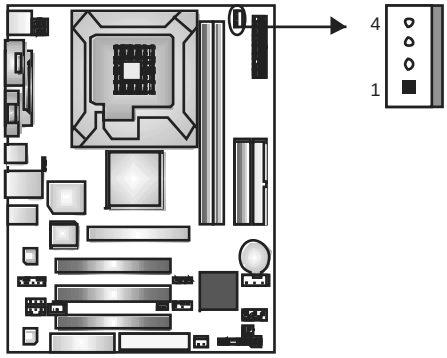
Step 3: Hold the CPU down firmly, and then lower the lever to locked position to complete the installation.

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

2.2 FAN HEADERS

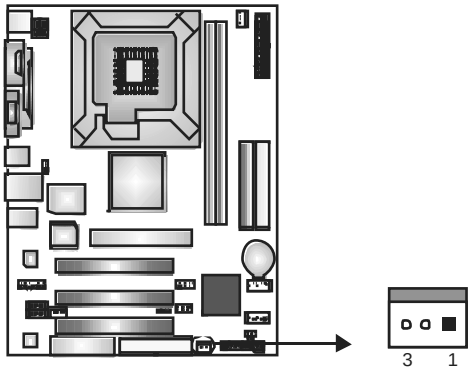
These fan headers support cooling-fans built in the computer. The fan cable and connector may be different according to the fan manufacturer. Connect the fan cable to the connector while matching the black wire to pin#1.

JCFAN1: CPU Fan Header



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

JSFAN1: System Fan Header



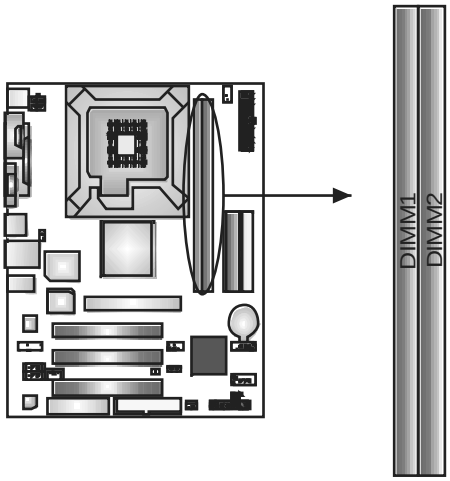
Pin	Assignment
1	Ground
2	+12V
3	FAN RPM rate sense

Note:

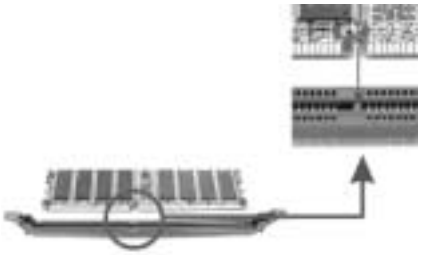
The JCFAN1 and JSFAN1 support 4-pin and 3-pin head connectors. When connecting with wires onto connectors, please note that the red wire is the positive and should be connected to pin#2, and the black wire is Ground and should be connected to GND.

2.3 INSTALLING SYSTEM MEMORY

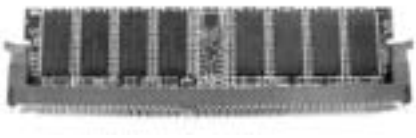
A. Memory Modules



1. Unlock a DIMM slot by pressing the retaining clips outward. Align a DIMM on the slot such that the notch on the DIMM matches the break on the Slot.



2. Insert the DIMM vertically and firmly into the slot until the retaining chip snap back in place and the DIMM is properly seated.



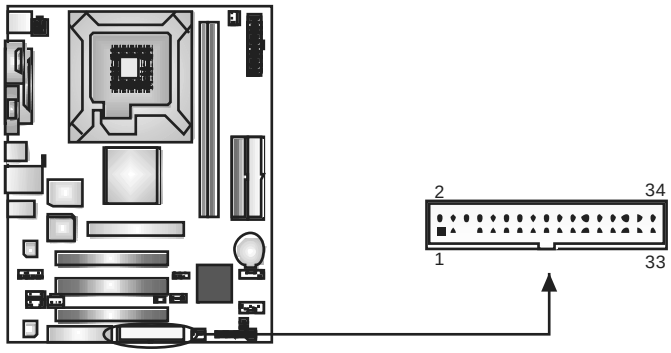
B. Memory Capacity

DIMM Socket Location	DDR Module	Total Memory Size
DIMM1	256MB/512MB/1GB	Max is 2GB.
DIMM2	256MB/512MB/1GB	

2.4 CONNECTORS AND SLOTS

FDD1: Floppy Disk Connector

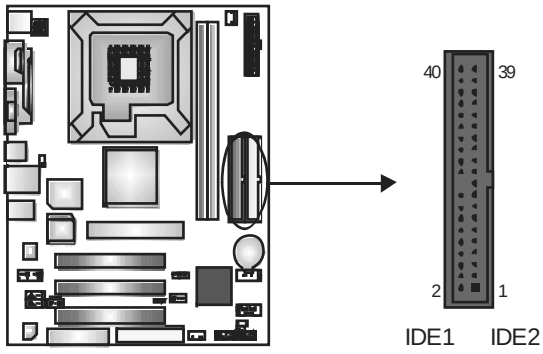
The motherboard provides a standard floppy disk connector that supports 360K, 720K, 1.2M, 1.44M and 2.88M floppy disk types. This connector supports the provided floppy drive ribbon cable.



IDE1/IDE2: Hard Disk Connectors

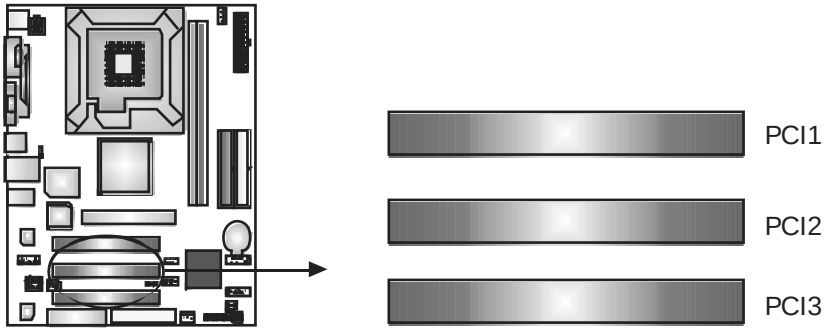
The motherboard has a 32-bit Enhanced PCI IDE Controller that provides PIO Mode 0~4, Bus Master, and Ultra DMA 33/66/100/133 functionality. It has two HDD connectors - IDE1 (primary) and IDE2 (secondary).

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



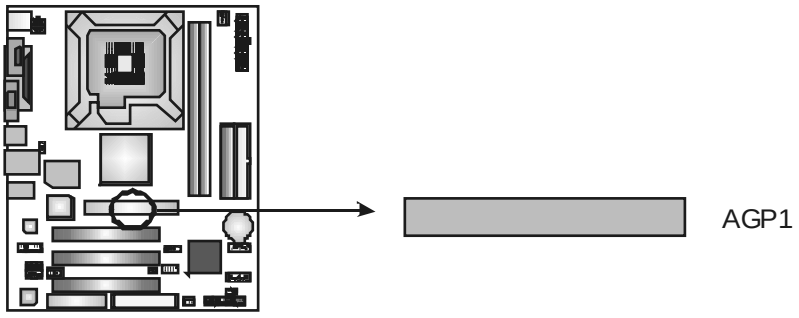
PCI1~PCI3: Peripheral Component Interconnect Slots

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



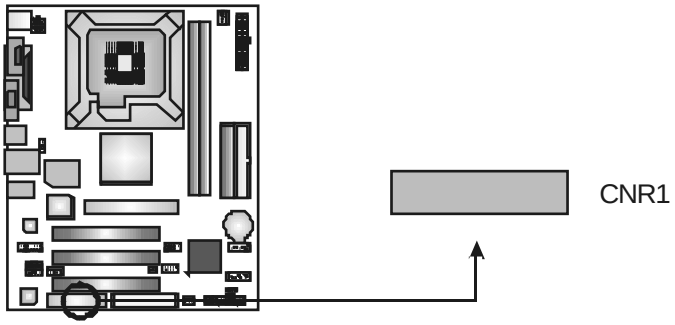
AGP1: Accelerated Graphics Port Slot

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



CNR1: Communication Network Riser Slot

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



CHAPTER 3: HEADERS & JUMPERS SETUP

3.1 HOW TO SETUP JUMPERS

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

Pin opened

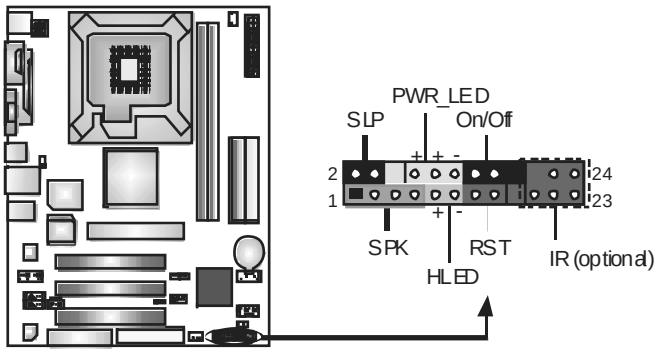
Pin closed

Pin1-2 closed

3.2 DETAIL SETTINGS

JPANEL1: Front Panel Header

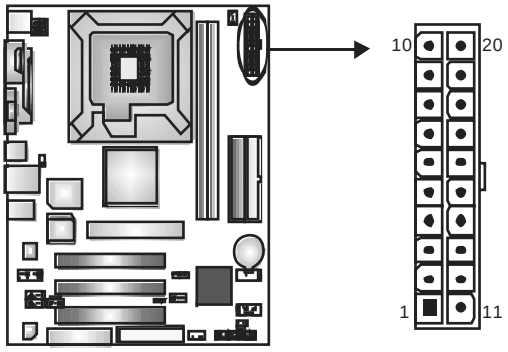
This 24-pin connector includes Power-on, Reset, HDD LED, Power LED, Sleep button, speaker and IrDA (optional) Connection. It allows user to connect the PC case's front panel switch functions.



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

JATXPWR1: ATX Power Source Connector

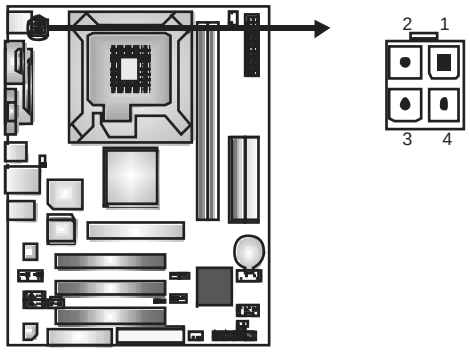
This connector allows user to connect 20-pin power connector on the ATX power supply.



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

JATXPWR2: ATX Power Source Connector

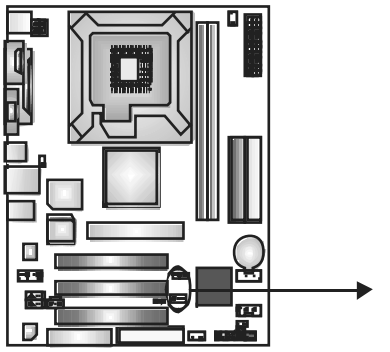
By connecting this connector, it will provide +12V to CPU power circuit.



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

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

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



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

JUSBV1/JUSBV2: Power Source Headers for USB ports

Pin 1-2 Close:

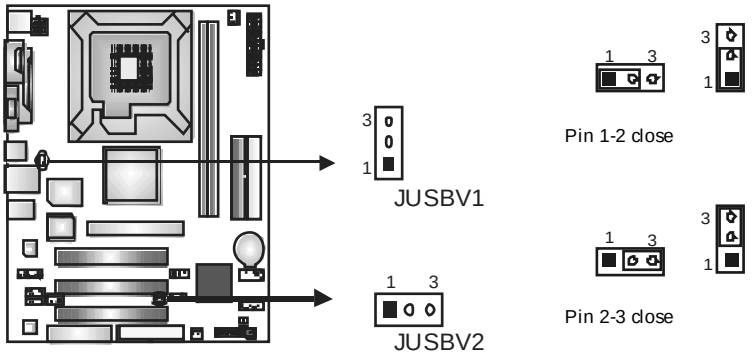
JUSBV1: +5V for USB ports at JUSB1 and JUSBLAN1.

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

Pin 2-3 Close:

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

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

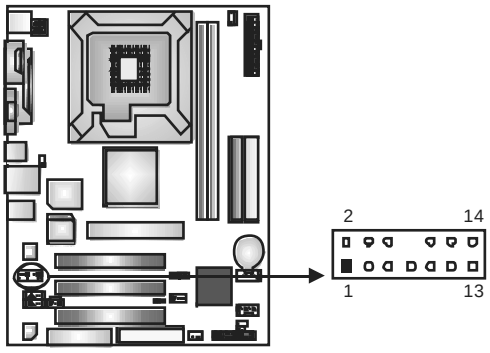


Note:

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

JFAUDIO1: Front Panel Audio Header

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

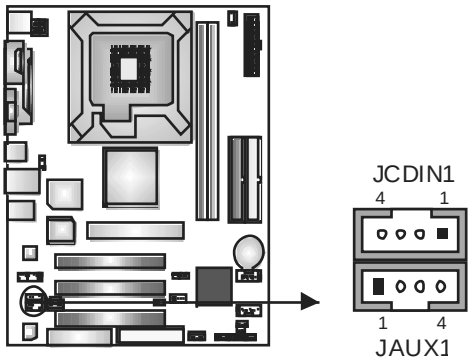


Pin	Assignment
1	Mic-in/Stereo MIC-in R
2	Ground
3	Stereo MIC-in L
4	Audio power
5	Right line-out/ Speaker-out Right
6	Right line-out/ Speaker-out Right
7	Reserved
8	Key
9	Left line-out/ Speaker-out Left
10	Left line-out/ Speaker-out Left
11	Right line-in (optional)
12	Right line-in (optional)
13	Left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

JCDIN1: CD-ROM Audio-in Connector

JAUX1: Audio-in Connector (Optional)

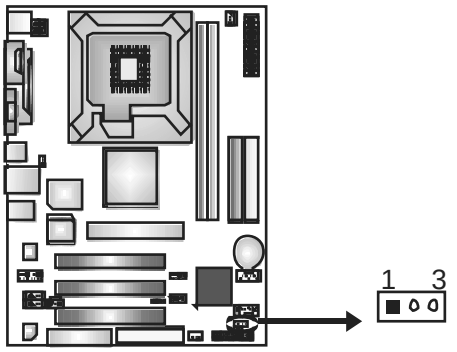
This connector allows user to connect the audio source from the variaty devices, like CD-ROM, DVD-ROM, PCI sound card, PCI TV turner card etc.



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).

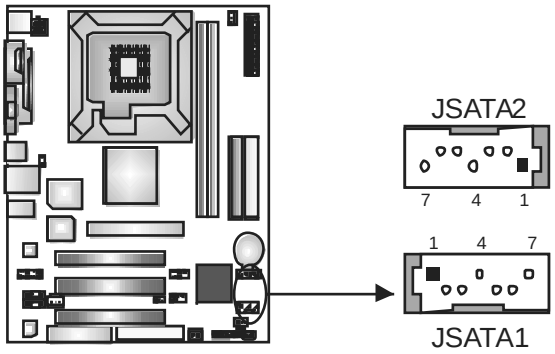
Pin 2-3 Close:
Clear CMOS data.

※ 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.

JSATA1/JSATA2: Serial ATA Connectors

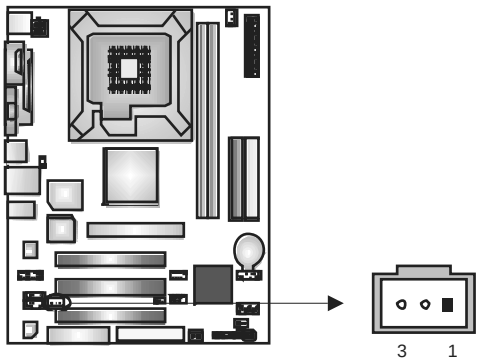
The motherboard has a PCI to SATA Controller with 2 channels SATA interface, it satisfies the SATA 1.0 spec and with transfer rate of 1.5Gb/s.



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

JSPDIFO1: Digital Audio-out Connector (Optional)

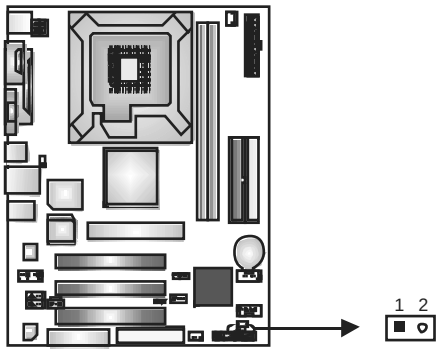
This connector allows user to connect the PCI bracket SPDIF output header.



Pin	Assignment
1	+5V
2	SPDIF_OUT
3	Ground

JCI1: Chassis Open Header (Optional)

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



Pin	Assignment
1	Case open signal
2	Ground

CHAPTER 4: RAID FUNCTIONS

4.1 OPERATION SYSTEM

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

4.2 RAID ARRAYS

RAID supports the following types of RAID arrays:

RAID 0: RAID 0 defines a disk striping scheme that improves disk read and write times for many applications.

RAID 1: RAID 1 defines techniques for mirroring data.

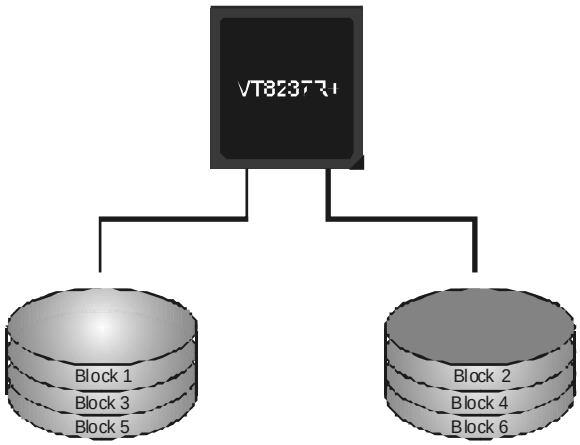
4.3 HOW RAID WORKS

RAID 0:

The controller "stripes" data across multiple drives in a RAID 0 array system. It breaks up a large file into smaller blocks and performs disk reads and writes across multiple drives in parallel. The size of each block is determined by the stripe size parameter, which you set during the creation of the RAID set based on the system environment. This technique reduces overall disk access time and offers high bandwidth.

Features and Benefits

- ***Drives:*** Minimum 1, and maximum is up to 6 or 8. Depending on the platform.
- ***Uses:*** Intended for non-critical data requiring high data throughput, or any environment that does not require fault tolerance.
- ***Benefits:*** provides increased data throughput, especially for large files. No capacity loss penalty for parity.
- ***Drawbacks:*** Does not deliver any fault tolerance. If any drive in the array fails, all data is lost.
- ***Fault Tolerance:*** No.



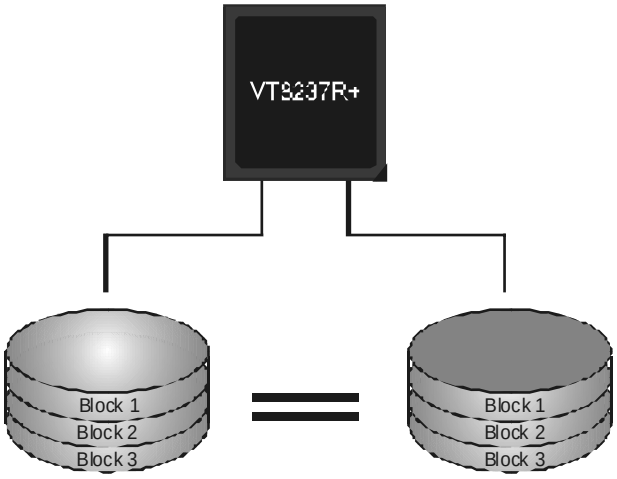
RAID 1:

Every read and write is actually carried out in parallel across 2 disk drives in a RAID 1 array system. The mirrored (backup) copy of the data can reside on the same disk or on a second redundant drive in the array. RAID 1 provides a hot-standby copy of data if the active volume or drive is corrupted or becomes unavailable because of a hardware failure.

RAID techniques can be applied for high-availability solutions, or as a form of automatic backup that eliminates tedious manual backups to more expensive and less reliable media.

Features and Benefits

- ***Drives:*** Minimum 2, and maximum is 2.
- ***Uses:*** RAID 1 is ideal for small databases or any other application that requires fault tolerance and minimal capacity.
- ***Benefits:*** Provides 100% data redundancy. Should one drive fail, the controller switches to the other drive.
- ***Drawbacks:*** Requires 2 drives for the storage space of one drive. Performance is impaired during drive rebuilds.
- ***Fault Tolerance:*** Yes.

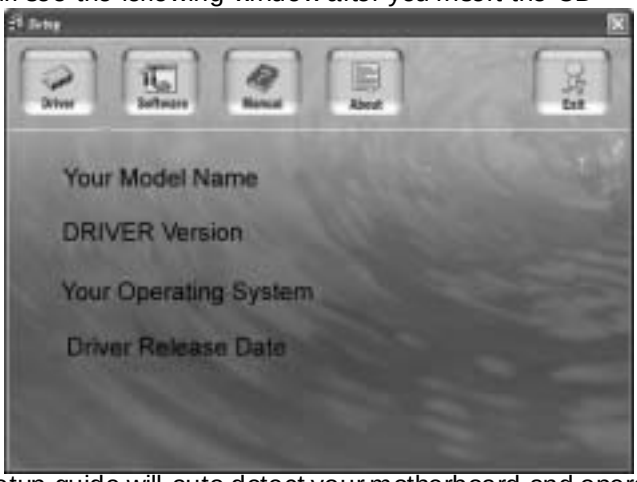


CHAPTER 5: USEFUL HELP

5.1 DRIVER INSTALLATION NOTE

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

You will see the following window after you insert the CD



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

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

A. Driver Installation

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

B. Software Installation

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

C. Manual

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

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

5.2 AWARD BIOS BEEP CODE

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

5.3 EXTRA INFORMATION

A. BIOS Update

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

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

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

B. CPU Overheated

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

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

In this case, please double check:

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

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

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

Or you can:

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

5.4 TROUBLESHOOTING

Probable	Solution
1. No power to the system at all Power light don't illuminate, fan inside power supply does not turn on. 2. Indicator light on key board 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.

This page is intentionally left blank

APPENDENCIES: SPEC IN OTHER LANGUAGE

GERMAN

Spezifikationen		
CPU	LGA 775 Intel Core2Duo / Pentium 4 / Pentium D / Celeron D Prozessoren mit bis zu 3,8 GHz	Unterstützt Hyper-Threading / Execute Disable Bit / Enhanced Intel SpeedStep® / Extended Memory 64 Technology
FSB	400 / 533 / 800 / 1066 MHz	
Chipsatz	VIA P4M800 PRO VIA VT8237R+	
Grafik	Integrierter UniChrome Pro Chipsatz	Max. 64MB gemeinsam benutzter Videospeicher
Super E/A	ITE IT8705 Bietet die häufig verwendeten alten Super E/A-Funktionen. Low Pin Count-Schnittstelle	Umgebungskontrolle, Hardware-Überwachung Lüfterdrehzahl-Controller "Smart Guardian"-Funktion von ITE
Arbeitsspeicher	DDR DIMM-Steckplätze x 2 Unterstützt DDR 400 / 333 Jeder DIMM unterstützt 256/512MB/1GB DDR. Max. 2GB Arbeitsspeicher	Ein-Kanal DDR Speichermodul registrierte DIMMs. ECC DIMMs werden nicht unterstützt.
IDE	Integrierter IDE-Controller	Unterstützt PIO-Modus 0~4, Ultra DMA 33 / 66 / 100 / 133Bus Master-Modus
SATA	Integrierter Serial ATA-Controller	Konform mit der SATA-Spezifikation Version 1.0. Datentransferrate bis zu 1.5Gb/s
LAN PHY	Realtek RTL8201CL	10 / 100 Mb/s Auto-Negotiation Halb-/ Vollduplex-Funktion
Audio-Codec	ALC655 / ALC658	6-Kanal-Audioausgabe AC'97 Version 2.3
Steckplätze	AGP-Steckplatz x1 CNR-Steckplatz x1 PCI-Steckplatz x3	
Onboard-Anschluss	Diskettenlaufwerkanschluss x1 IDE-Anschluss x2	Jeder Anschluss unterstützt 2 Diskettenlaufwerke Jeder Anschluss unterstützt 2 IDE-Laufwerke

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

FRANCE

SPEC		
UC	LGA 775 Processeurs Intel Core 2 Duo / Pentium 4 / Pentium D / Celeron D jusqu'à 3,8 GHz	Prend en charge les technologies Hyper-Threading / d'exécution de bit de désactivation / Intel SpeedStep® optimisée / de mémoire étendue 64
Bus frontal	400 / 533 / 800 / 1066 MHz	
Chipset	VIA P4M800 PRO VIA VT8237R+	
Graphiques	Integré dans la chipset UniChrome Pro	Mémoire vidéo partagée maximale de 64 Mo
Super E/S	ITE IT8705 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 DDR DIMM x 2 Prend en charge la DDR 400 / 333 Chaque DIMM prend en charge des DDR de 256 Mo /512 Mo / 1Go Capacité mémoire maximale de 2 Go	Module de mémoire DDR à mode à simple voie Les DIMM à registres et DIMM avec code correcteurs d'erreurs sont pas prises en charge
IDE	Contrôleur IDE intégré	Prend en charge le mode PIO 0~4, Mode principale de Bus Ultra DMA 33 / 66 / 100 / 133
SATA	Contrôleur Serial ATA intégré :	Conforme à la spécification SATA Version 1.0 Taux de transfert jusqu'à 1.5 Go/s.
LAN PHY	Realtek RTL8201CL	10 / 100 Mb/s négociation automatique Half / Full duplex capability
Codec audio	ALC655 / ALC658	Sortie audio à 6 voies AC'97 Version 2.3
Fentes	Fente AGP x1 Fente CNR x1 Fente PCI x3	
Connecteur embarqué	Connecteur de disquette x1	Chaque connector prend en charge 2 lecteurs de disquettes
	Connecteur IDE x2	Chaque connecteur prend en charge 2 périphériques IDE
	Connecteur SATA x2	Chaque connecteur prend en charge 1 périphérique SATA

SPEC			
	Connecteur du panneau avant	x1	Prend en charge les équipements du panneau avant
	Connecteur Audio du panneau avantx1	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 (en option)	x1	Prend en charge la fonction de sortie audio numérique
	Embase de ventilateur UC	x1	Alimentation électrique du ventilateur UC (avec fonction de ventilateur intelligent)
	Embase de ventilateur système	x1	Alimentation électrique du ventilateur système
	Embase d'ouverture de châssis (en option)	x1	Pour la fonction de détection d'intrus dans le châssis
	Embase d'effacement CMOS	x1	
	Connecteur USB	x2	Chaque connecteur prend en charge 2 ports USB de panneau avant
	Connecteur d'alimentation (20 broches)	x1	
	Connecteur d'alimentation (4 broches)	x1	
E/S du panneau arrière	Clavier PS/2	x1	
	Souris PS/2	x1	
	Port série	x1	
	Port d'imprimante	x1	
	Port VGA	x1	
	Port LAN	x1	
	Port USB	x4	
	Fiche audio	x3	
Dimensions de la carte	201 mm (l) X 244 mm (H)		
Fonctionnalités spéciales	Prise en charge RAID 0 / 1		
Support SE	Windows 2K / XP		Biostar se réserve le droit d'ajouter ou de supprimer le support de SE avec ou sans préavis.

ITALIAN

SPECIFICA			
CPU	LGA 775 Processore Intel Core2Duo / Pentium 4 / Pentium D / Celeron D fino a 3.8 GHz		Supporto di Hyper-Threading / Execute Disable Bit / Enhanced Intel SpeedStep® / Tecnologia Extended Memory 64
FSB	400 / 533 / 800 / 1066 MHz		
Chipset	VIA P4M800 PRO VIA VT8237R+		
Grafica	Integrata nel Chipset UniChrome Pro		La memoria video condivisa massima è di 64MB
Super I/O	ITE IT8705 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 DDR x 2 Supporto di DDR 400 / 333 Ciascun DIMM supporta DDR 256MB /512MB / 1GB Capacità massima della memoria 2GB		Modulo di memoria DDR a canale singolo DIMM registrati e DIMM ECC non sono supportati
IDE	Controller IDE integrato		Supporto modalità PIO Mode 0-4 Modalità Bus Master Ultra DMA 33 / 66 / 100 / 133
SATA	Controller Serial ATA integrato		Compatibile specifiche SATA Versione 1.0. Velocità di trasferimento dei dati fino a 1.5 Gb/s.
LAN PHY	Realtek RTL8201CL		Negoziazione automatica 10 / 100 Mb/s Capacità Half / Full Duplex
Codec audio	ALC655 / ALC658		Uscita audio 6 canali AC'97 Versione 2.3
Alloggi	Alloggio AGP Alloggio CNR Alloggio PCI	x1 x1 x3	
Connettori su scheda	Connettore floppy Connettore IDE Connettore SATA	x1 x2 x2	Ciascun connettore supporta 2 unità Floppy Ciascun connettore supporta 2 unità IDE Ciascun connettore supporta 1 unità SATA

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

SPANISH

Especificación		
CPU	LGA 775 Procesador Intel Core2Duo / Pentium 4 / Pentium D / Celeron D hasta 3,8 GHz	Admite Hyper-Threading / Bit de deshabilitación de ejecución / Intel SpeedStep® Mejorado / Tecnología Extended Memory 64
FSB	400 / 533 / 800 / 1066 MHz	
Conjunto de chips	VIA P4M800 PRO VIA VT8237R+	
Gráficos	Integrados en el conjunto de chips UniChrome Pro	Memoria máxima de vídeo compartida de 64MB
Súper E/S	ITE IT8705 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 DDR x 2 Admite DDR de 400 / 333 Cada DIMM admite DDR de 256MB / 512MB / 1GB Capacidad máxima de memoria de 2GB	Módulo de memoria DDR de canal Sencillo No admite DIMM registrados o DIMM compatibles con ECC
IDE	Controlador IDE integrado	Soporte los Modos PIO 0~4, Modo bus maestro Ultra DMA 33 / 66 / 100 / 133
SATA	Controlador ATA Serie Integrado	Compatible con la versión SATA 1.0. Tasas de transferencia de hasta 1.5 Gb/s.
Red Local	Realtek RTL8201CL	Negociación de 10 / 100 Mb/s Funciones Half / Full dúplex
Códecs de sonido	ALC655 / ALC658	Salida de sonido de 6 canales AC'97 Versión 2.3
Ranuras	Ranura AGP X1 Ranura CNR X1 Ranura PCI X3	
Conectores en placa	Conector disco flexible X1	Cada conector soporta 2 unidades de disco flexible

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

PORTUGUESE

ESPECIFICAÇÕES		
CPU	LGA 775 Processador Intel Core 2 Duo / Pentium 4 / Pentium D / Celeron D até 3,8 GHz	Suporta as tecnologias Hyper-Threading / Execute Disable Bit / Enhanced Intel SpeedStep® / Extended Memory 64
FSB	400 / 533 / 800 / 1066 MHz	
Chipset	VIA P4M800 PRO VIA VT8237R+	
Placa gráfica	Integrada no chipset UniChrome Pro	Memória de vídeo máxima partilhada: 64 MB
Especificação Super I/O	ITE IT8705 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 DDR x 2 Suporta módulos DDR 400 / 333 Cada módulo DIMM suporta uma memória DDR de 256MB / 512 MB / 1 GB Capacidade máxima de memória: 2 GB	Módulo de memória DDR de canal simples Os módulos DIMM registados e os DIMM ECC não são suportados
IDE	Controlador IDE integrado	Suporta o modo PIO 0~4, Modo Bus master Ultra DMA 33 / 66 / 100 / 133
SATA	Controlador Serial ATA integrado	Compatibilidade com a especificação SATA versão 1.0. Velocidades de transmissão de dados até 1.5 Gb/s.
LAN PHY	Realtek RTL8201CL	Auto negociação de 10 / 100 MB/s Capacidade semi/full-duplex
Codec de som	ALC655 / ALC658	Saída de áudio de 6 canais AC'97 Versão 2.3
Ranhuras	Ranhura AGP x1 Ranhura CNR x1 Ranhura PCI x3	
Conectores na placa	Conector da unidade de disquetes x1	Cada conector suporta 2 unidades de disquetes
	Conector IDE x2	Cada conector suporta 2 dispositivos IDE
	Conector SATA x2	Cada conector suporta 1 dispositivo SATA

ESPECIFICAÇÕES			
	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 (opcional)	x1	Suporta a saída de áudio digital
	Conector da ventoinha da CPU	x1	Alimentação da ventoinha da CPU (com a função Smart Fan)
	Conector da ventoinha do sistema	x1	Alimentação da ventoinha do sistema
	Conector para detecção da abertura do chassis(opcional)	x1	Para detectar qualquer intrusão no chassis
	Conector para limpeza do CMOS	x1	
	Conector USB	x2	Cada conector suporta 2 portas USB no painel frontal
	Conector de alimentação (20 pinos)	x1	
	Conector de alimentação (4 pinos)	x1	
Entradas/ 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 áudio	x3	
Tamanho da placa	201 mm (L) X 244 mm (A)		
Características especiais	Suporta as funções RAID 0 / 1		
Sistemas operativos suportados	Windows 2K / XP		A Biostar reserva-se o direito de adicionar ou remover suporte para qualquer sistema operativo com ou sem aviso prévio.

POLISH

SPEC		
Procesor	LGA 775 Procesor Intel Core2Duo / Pentium 4 / Pentium D / Celeron D do 3,8 GHz	Obsługa Hyper-Threading / Execute Disable Bit / Enhanced Intel SpeedStep® / Extended Memory 64 Technology
FSB	400 / 533 / 800 / 1066 MHz	
Chipset	VIA P4M800 PRO VIA VT8237R+	
Grafika	Zintegrowana w chipsecie UniChrome Pro	Maks. wielkość współdzielonej pamięci video wynosi 64MB
Pamięć główna	Gniazda DDR DIMM x 2 Obsługa DDR 400 / 333 Każde gniazdo DIMM obsługuje moduły 256MB / 512MB / 1GB DDR Maks. wielkość pamięci 2GB	Moduł pamięci DDR z trybem pojedynczego kanału Brak obsługi Registered DIMM oraz ECC DIMM
Super I/O	ITE IT8705 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	obsługa PIO tryb 0~4, Ultra DMA 33 / 66 / 100 / 133 Tryb Bus Master
SATA	Zintegrowany kontroler Serial ATA	Zgodność ze specyfikacją SATA w wersji 1.0. Transfer danych do 1.5 Gb/s.
LAN PHY	Realtek RTL8201CL	10 / 100 Mb/s z automatyczną negocjacją szybkości Działanie w trybie połowicznego / pełnego dupleksu
Kodek dźwiękowy	ALC655 / ALC658	6 kanałowe wyjście audio AC'97 w wersji 2.3
Gniazda	Gniazdo AGP x1 Gniazdo CNR x1 Gniazdo PCI x3	
Złącza wbudowane	Złącze napędu dyskietek x1 Złącze IDE x2 Złącze SATA x2 Złącze panela przedniego x1	Każde złącze obsługuje 2 napędy dyskietek Każde złącze obsługuje 2 urządzenia IDE Każde złącze obsługuje 1 urządzenie SATA Obsługa elementów panela przedniego

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

RUSSIAN

СПЕЦ.			
CPU (центральный процессор)	LGA 775 Процессор Intel Core2Duo / Pentium 4 / Pentium D / Celeron D до 3.8 ГГц		Поддержка технологий Hyper-Threading / Execute Disable Bit / Enhanced Intel SpeedStep® / Extended Memory 64 Technology
FSB	400 / 533 / 800 / 1066 МГц		
Набор микросхем	VIA P4M800 PRO VIA VT8237R+		
Графика	Встроенная в набор микросхем UniChrome Pro		Максимальная совместно используемая видео память составляет 64 МБ
Основная память	Слоты DDR DIMM x 2 Поддержка DDR 400 / 333 Каждый модуль DIMM поддерживает 256MB / 512МБ / 1ГБ DDR Максимальная ёмкость памяти 2 ГБ		Модуль памяти с одноканальным режимом DDR Не поддерживает зарегистрированные модули DIMM and ECC DIMM
Super I/O	ITE IT8705 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 1.5 гигабит/с. Соответствие спецификации SATA версия 1.0.
Локальная сеть	Realtek RTL8201CL		Автоматическое согласование 10 / 100 Мб/с Частичная / полная дуплексная способность
Звуковой кодек	ALC655 / ALC658		Шестиканальный звуковой выход AC'97 Версия 2.3
Слоты	Слот AGP Слот CNR Слот PCI	x1 x1 x3	
Встроенный разъём	Разъём НГМД	x1	Каждый разъём поддерживает 2 накопителя на гибких магнитных дисках
	Разъём IDE	x2	Каждый разъём поддерживает 2 встроенных интерфейса накопителей

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

ARABIC

	المواصفات	
وحدة المعالجة المركزية	LGA 775 معالجات Intel Core2Duo / Pentium 4 / Pentium D / Celeron D بتردد يصل إلى 8.3 جيجا هرتز	تدعم تقنيات Hyper-Threading / Execute Disable Bit / Enhanced Intel SpeedStep® / Extended Memory 64 Technology
الناقل الأمامي الجانبي	ميجا 1066 / 800 / 533 / 400 تردد هرتز	
مجموعة الشرائح	VIA P4M800 PRO VIA VT8237R+	
بطاقة الرسومات	UniChrome Pro مدمجة في رقائق	ميجا بايت 64 أقصى سعة لذاكرة الفيديو المشتركة
الذاكرة الرئيسية	فتحة DDR DIMM عدد 2 تدعم الذاكرة من نوع DDR 400 / 333 سعات ميجا بايت تدعم كل فتحة DIMM ذاكرة من نوع DDR ميجا بايت و 1 جيجا 512/ ميجا بايت 256 سعة بايت سعة ذاكرة قصوى 2 جيجا بايت	وحدة ذاكرة DDR أحادية القناة لا تدعم رقائق الذاكرة DIMM المسجلة وتلك التي لا تتوافق مع ECC
Super I/O	ITE IT8705 توفر وظيفة Super I/O. الأكثر استخداماً تدعم تقنية Low Pin Count Interface	وسائل التحكم في البيئة: مراقب لمعرفة حالة الأجهزة مراقب في سرعة المروحة وظيفة "Smart Guardian" من ITE
منفذ IDE	متكامل IDE متحكم	تدعم وضع PIO Mode 0~4 ناقل بتقنية Ultra DMA 33 / 66 / 100 / 133 وضع رئيسي
SATA	متكامل Serial ATA متحكم	الإصدار SATA 1.0. مطابقة لمواصفات نقل البيانات بسرعات تصل إلى 1.5 جيجابت/ثانية.
شبكة داخلية	Realtek RTL8201CL	تفاوض تلقائي 100/10 ميجا بايت / ثنية إمكانية النقل المزدوج الكامل/النصفي
كوديك الصوت	ALC655 / ALC658	قنوات لخرج الصوت 6 الإصدار AC'97 من 2.3

المواصفات			
الفتحات	فتحةAGP	عدد 1	
	فتحة CNR	عدد 1	
	فتحةPCI	عدد 3	
المنافذ على سطح اللوحة	مقذمحرك أقراص مرنة	عدد 1	يدعم محركين للأقراص المرنة
	مقذIDE	عدد 2	IDEيدعم كل منفذ اثنين من أجهزة
	مقذSATA	عدد 2	SATAيدعم كل منفذ واحد من أجهزة
	مقذاللوحة الأملمية	عدد 1	يدعم تجهيزات اللوحة الأمامية
	مقذالصوت الأملمي	عدد 1	يدعم وظيفة الصوت باللوحة الأمامية
	مقذCD-IN	عدد 1	يدعم وظيفة دخل صوت القرص المدمج
	مقذخرجS/PDIF(اختياري)	عدد 1	يدعم وظيفة خرج الصوت الرقمي
	وصلةمروحةوحدةالمعلجةالمركزية	عدد 1	)Smart Fanلتوصيل الطاقة لمروحة وحدة المعلجة (مع وظيفة
	وصلةمروحةالنظام	عدد 1	لتوصيل الطاقة لمروحة النظام
	وصلةفتحالهيكل(اختياري)	عدد 1	للكشف عن اختراق الهيكل
	وصلةمسحCMOS	عدد 1	
	مقذUSB	عدد 2	باللوحة الأماميةUSBيدعم كل منفذ فتحتي
	مقذتوصيلالطقة (20دبوس)	عدد 1	
	مقذتوصيلالطقة (4دبابيس)	عدد 1	
منافذ دخل/خرج اللوحة الخلفية	لوحة مفاتيحPS/2	عدد 1	
	مؤس PS/2	عدد 1	
	مقذتسلسلي	عدد 1	
	مقذطابعة	عدد 1	
	مقذ VGA	عدد 1	
	مقذشبكة اتصل محلية	عدد 1	
	منافذUSB	عدد 4	
	مقبس صوت	عدد3	
حجم اللوحة	201مم (عرض)X 244مم(ارتفاع)		
مزايا خاصة	RAID 0 / 1تدعم تقنية		
دعم أنظمة التشغيل	Windows 2K / XP		بحقها في إضافة أو إزالة الدعم لأي نظام تشغيل بإخطار أو Biostarتحتفظ بدون إخطار.

JAPANESE

仕様		
CPU	LGA 775 Intel Core2Duo / Pentium 4 / Pentium D / Celeron D processor up to 3.8 GHz	Hyper-Threading / Execute Disable Bit / Enhanced Intel SpeedStep® / Extended Memory 64 Technology をサポートします
FSB	400 / 533 / 800 / 1066 MHz	
チップセット	VIA P4M800 PRO VIA VT8237R+	
グラフィックス	UniChrome Pro チップセットに統合	最大の共有ビデオメモリは64MBです
メインメモリ	DDR DIMMスロット x 2 DDR 400 / 333をサポート 各DIMMは256/512MB/1GB DDRをサポート 最大メモリ容量2GB	シングル チャンネルモードDDR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 IT8705 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	PIO Mode 0~4のサポート、 Ultra DMA 33 / 66 / 100 / 133バスマスタモード
SATA	統合シリアルATAコントローラ	SATAバージョン1.0仕様に準拠。 最高1.5 Gb/秒のデータ転送速度
LAN PHY	Realtek RTL8201CL	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	ALC655 / ALC658	6チャンネルオーディオアウト AC'97バージョン2.3
スロット	AGPスロット x1 CNRスロット x1 PCIスロット x3	
オンボードコネクタ	フロッピーコネクタ x1 IDEコネクタ x2	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 各コネクタは2つのIDEデバイスをサポートします

仕様			
	SATAコネクタ	x2	各コネクタは1つのSATAデバイスをサポートします
	フロントパネルコネクタ	x1	フロントパネル機能をサポートします
	フロントオーディオコネクタ	x1	フロントパネルオーディオ機能をサポートします
	CDインコネクタ	x1	CDオーディオイン機能をサポートします
	S/PDIFアウトコネクタ(オプション)	x1	デジタルオーディオアウト機能をサポートします
	CPUファンヘッダ	x1	CPUファン電源装置(スマートファン機能を搭載)
	システムファンヘッダ	x1	システムファン電源装置
	シャーシオープンヘッダ(オプション)	x1	シャーシ侵入検出機能
	CMOSクリアヘッダ	x1	
	USBコネクタ	x2	各コネクタは2つのフロントパネルUSBポートをサポートします
	電源コネクタ(20ピン)	x1	
	電源コネクタ(4ピン)	x1	
背面パネルI/O	PS/2キーボード	x1	
	PS/2マウス	x1	
	シリアルポート	x1	
	プリンタポート	x1	
	VGAポート	x1	
	LANポート	x1	
	USBポート	x4	
	オーディオジャック	x3	
ボードサイズ	201 mm (幅) X 244 mm (高さ)		
特殊機能	RAID 0 / 1のサポート		
OSサポート	Windows 2K / XP		Biostarは事前のサポートなしにOSサポートを追加または削除する権利を留保します。

2007/01/16

P4M800Pro-D1 BIOS SETUP

BIOS Setup

Introduction

This manual discussed Phoenix-Award™ Setup program built into the ROM BIOS. The Setup program allows users to modify the basic system configuration. This special information is then stored in battery-backed RAM so that it retains the Setup information when the power is turned off.

The Phoenix-Award BIOS™ installed in your computer system's ROM (Read Only Memory) is a custom version of an industry standard BIOS. This means that it supports Intel Pentium ® 4 processor input/output system. The BIOS provides critical low-level support for standard devices such as disk drives and serial and parallel ports.

Adding important has customized the Phoenix-Award BIOS™, but nonstandard, features such as virus and password protection as well as special support for detailed fine-tuning of the chipset controlling the entire system.

The rest of this manual is intended to guide you through the process of configuring your system using Setup.

Plug and Play Support

These PHOENIX-AWARD BIOS supports the Plug and Play Version 1.0A specification. ESCD (Extended System Configuration Data) write is supported.

EPA Green PC Support

This PHOENIX-AWARD BIOS supports Version 1.03 of the EPA Green PC specification.

APM Support

These PHOENIX-AWARD BIOS supports Version 1.1&1.2 of the Advanced Power Management (APM) specification. Power management features are implemented via the System Management Interrupt (SMI). Sleep and Suspend power management modes are supported. Power to the hard disk drives and video monitors can be managed by this PHOENIX-AWARD BIOS.

ACPI Support

Phoenix-Award ACPI BIOS support Version 1.0b of Advanced Configuration and Power interface specification (ACPI). It provides ASL code for power management and device configuration capabilities as defined in the ACPI specification, developed by Microsoft, Intel and Toshiba.

PCI Bus Support

This PHOENIX-AWARD BIOS also supports Version 3.0 of the Intel PCI (Peripheral Component Interconnect) local bus specification.

DRAM Support

DDR2 SDRAM (Double Data Rate Two Synchronous DRAM) are supported.

Supported CPUs

This PHOENIX-AWARD BIOS supports the Intel CPU.

Using Setup

In general, you use the arrow keys to highlight items, press <Enter> to select, use the <PgUp> and <PgDn> keys to change entries, press <F1> for help and press <Esc> to quit. The following table provides more detail about how to navigate in the Setup program by using the keyboard.

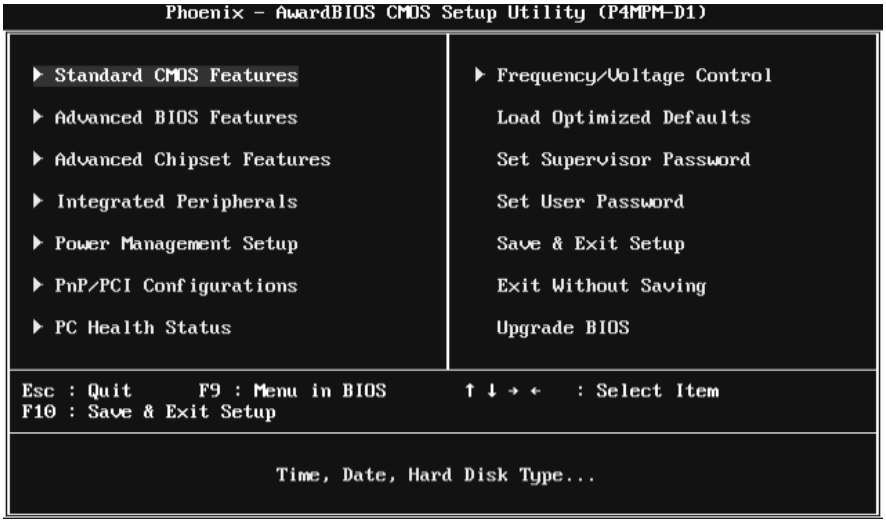
Keystroke	Function
Up arrow	Move to previous item
Down arrow	Move to next item
Left arrow	Move to the item on the left (menu bar)
Right arrow	Move to the item on the right (menu bar)
Move Enter	Move to the item you desired
PgUp key	Increase the numeric value or make changes
PgDn key	Decrease the numeric value or make changes
+ Key	Increase the numeric value or make changes
- Key	Decrease the numeric value or make changes
Esc key	Main Menu – Quit and not save changes into CMOS Status Page Setup Menu and Option Page Setup Menu – Exit Current page and return to Main Menu
F1 key	General help on Setup navigation keys
F5 key	Load previous values from CMOS
F7 key	Load the optimized defaults
F10 key	Save all the CMOS changes and exit

1 Main Menu

Once you enter Phoenix-Award BIOS™ CMOS Setup Utility, the Main Menu will appear on the screen. The Main Menu allows you to select from several setup functions. Use the arrow keys to select among the items and press <Enter> to accept and enter the sub-menu.

> *!! WARNING !!*
>
> The information about BIOS defaults on manual (**Figure 1,2,3,4,5,6,7,8,9**) is just for reference, please refer to the BIOS installed on board, for update information.

■ **Figure 1: Main Menu**



Standard CMOS Features

This submenu contains industry standard configurable options.

Advanced BIOS Features

This submenu allows you to configure enhanced features of the BIOS.

Advanced Chipset Features

This submenu allows you to configure special chipset features.

Integrated Peripherals

This submenu allows you to configure certain IDE hard drive options and Programmed Input/Output features.

Power Management Setup

This submenu allows you to configure the power management features.

PnP/PCI Configurations

This submenu allows you to configure certain "Plug and Play" and PCI options.

PC Health Status

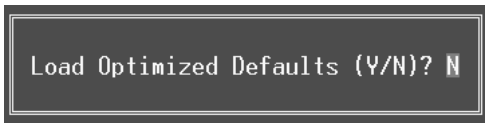
This submenu allows you to monitor the hardware of your system.

Frequency/ Voltage Control

This submenu allows you to change CPU Vcore Voltage and CPU/PCI clock. **(However, this function is strongly recommended not to use. Setting the voltage and clock improperly may damage your CPU or M/B!)**

Load Optimized Defaults

This selection allows you to reload the BIOS when the system is having problems particularly with the boot sequence. These configurations are factory settings optimized for this system. A confirmation message will be displayed before defaults are set.



Set Supervisor Password

Setting the supervisor password will prohibit everyone except the supervisor from making changes using the CMOS Setup Utility. You will be prompted with to enter a password.

Set User Password

If the Supervisor Password is not set, then the User Password will function in the same way as the Supervisor Password. If the Supervisor Password is set and the User Password is set, the "User" will only be able to view configurations but will not be able to change them.

Save & Exit Setup

Save all configuration changes to CMOS(memory) and exit setup. Confirmation message will be displayed before proceeding.

Exit Without Saving

Abandon all changes made during the current session and exit setup. confirmation message will be displayed before proceeding.

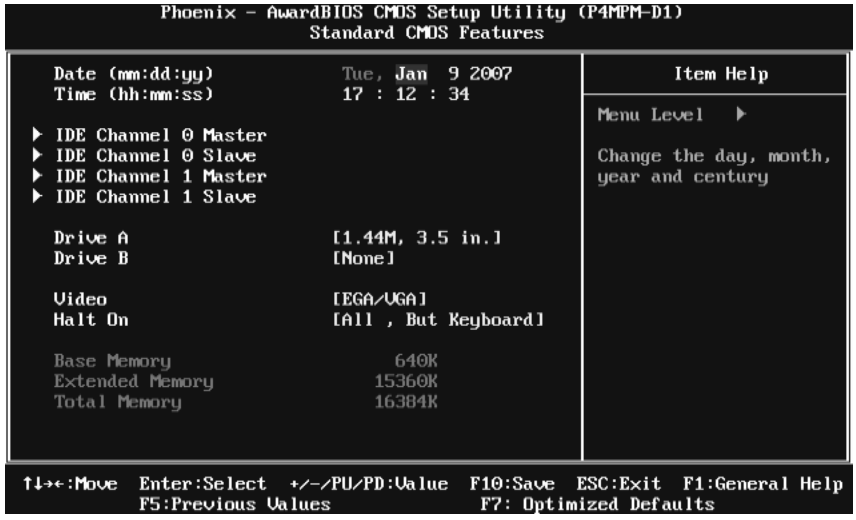
Upgrade BIOS

This submenu allows you to upgrade bios.

2 Standard CMOS Features

The items in Standard CMOS Setup Menu are divided into 10 categories. Each category includes no, one or more than one setup items. Use the arrow keys to highlight the item and then use the<PgUp> or <PgDn> keys to select the value you want in each item.

- **Figure 2: Standard CMOS Setup**



Main Menu Selections

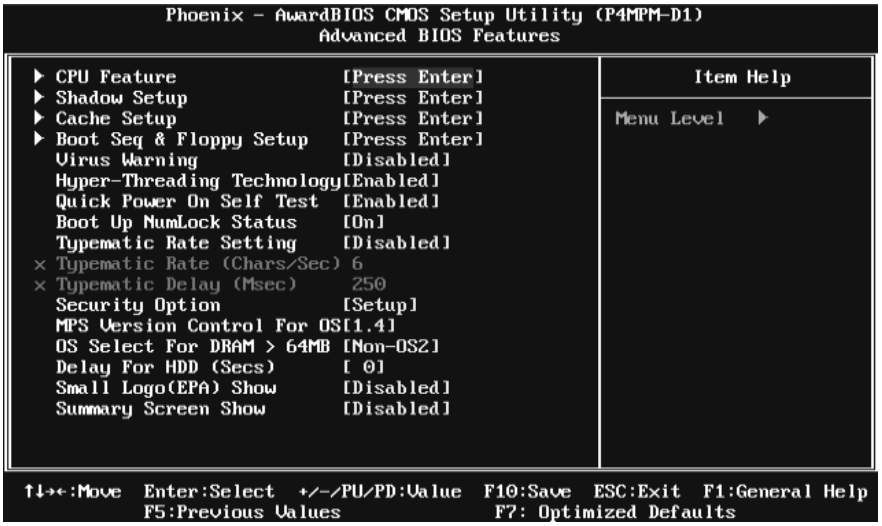
This table shows the selections that you can make on the Main Menu.

Item	Options	Description
Date	mm : dd : yy	Set the system date. Note that the 'Day' automatically changes when you set the date.
Time	hh : mm : ss	Set the system internal clock.
IDE Channel 0 Master	Options are in its sub menu.	Press <Enter> to enter the sub menu of detailed options
IDE Channel 0 Slave	Options are in its sub menu.	Press <Enter> to enter the sub menu of detailed options.

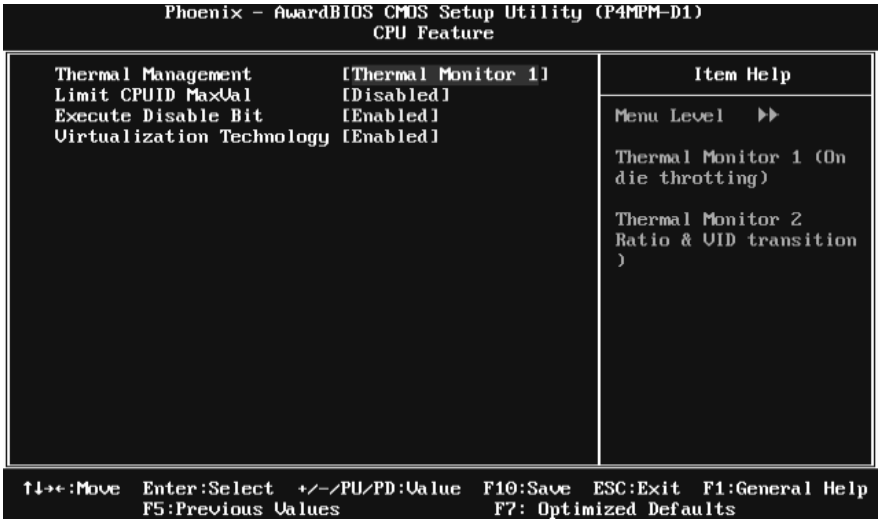
Item	Options	Description
IDE Channel 1 Master	Options are in its sub menu.	Press <Enter> to enter the sub menu of detailed options.
IDE Channel 1 Slave	Options are in its sub menu.	Press <Enter> to enter the sub menu of detailed options.
Drive A Drive B	360K, 5.25 in 1.2M, 5.25 in 720K, 3.5 in 1.44M, 3.5 in 2.88M, 3.5 in None	Select the type of floppy disk drive installed in your system.
Video	EGA/VGA CGA 40 CGA 80 MONO	Select the default video device.
Halt On	All Errors No Errors All, but Keyboard All, but Diskette All, but Disk/ Key	Select the situation in which you want the BIOS to stop the POST process and notify you.
Base Memory	N/A	Displays the amount of conventional memory detected during boot up.
Extended Memory	N/A	Displays the amount of extended memory detected during boot up.
Total Memory	N/A	Displays the total memory available in the system.

3 Advanced BIOS Features

- **Figure 3: Advanced BIOS Setup**



CPU Feature



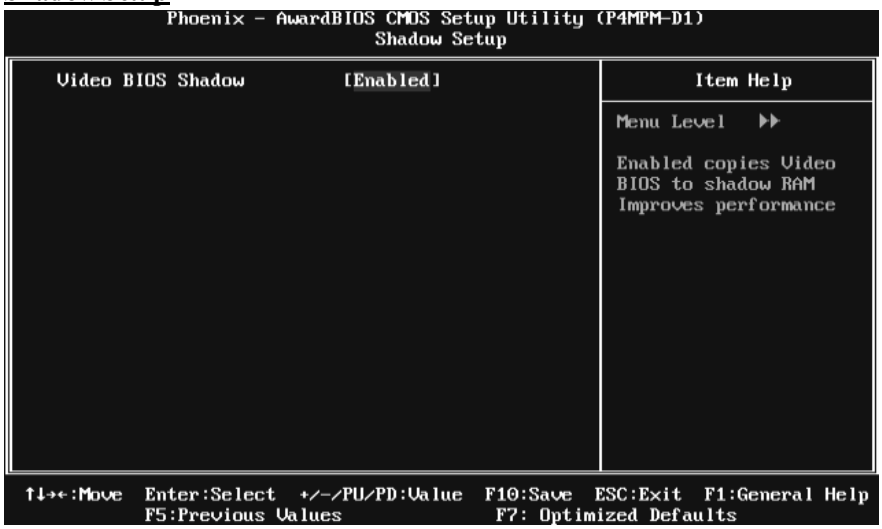
Thermal Management
This option allows you to select the way to control the " Thermal Management."
The Choices: Thermal Monitor 1 (default), Thermal Monitor 2.

Limit CPUID MaxVal
Set Limit CPUID MaxVal to 3, it should be "Disabled" for WinXP.
The Choices: Disabled (default), Enabled.

Execute Disable Bit
When disabled, forces the XD feature flag to always return 0.
The Choices: Enabled (default), Disabled.

Virtualization Technology
When enabled, a VMM can utilize the additional hardware capabilities provided by Vanderpool Technology.
The Choices: Enabled (default), Disabled.

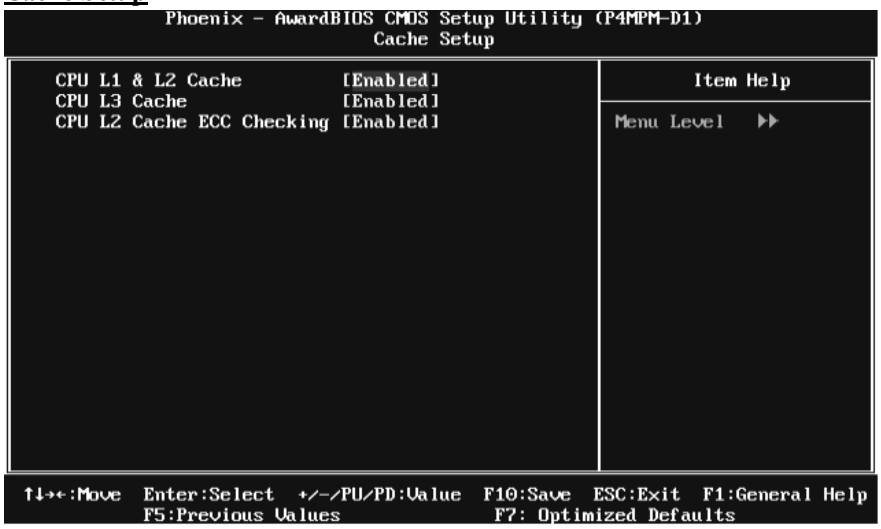
Shadow Setup



Video BIOS Shadow
Enabled copies Video BIOS to shadow RAM Improves performance.

Enabled (default)	Optional ROM is enabled.
Disabled	Optional ROM is disabled.

Cache Setup



CPU L1 & L2 Cache
Depending on the CPU/chipset in use, you may be able to increase memory access time with this option.

Enabled (default)	Enable cache.
Disabled	Disable cache.

CPU L3 Cache
Depending on the CPU/chipset in use, you may be able to increase memory access time with this option.

Enabled (default)	Enable cache.
Disabled	Disable cache.

CPU L2 Cache ECC Checking
This item allows you to enable/disable CPU L2 Cache ECC Checking.
The Choices: Enabled (default), Disabled.

Boot Seq & Floppy Setup

This item allows you to setup boot seq & Floppy.

Hard Disk Boot Priority

These BIOS attempt to arrange the Hard Disk boot sequence automatically. This will depend on which Hard Disk is installed.

The Choices: Pri. Master, Pri. Slave, Sec. Master, Sec. Slave, USB HDD0, USB HDD1, USB HDD2, and Bootable Add-in Cards.

First/ Second/ Third Boot Device
These BIOS attempt to load the operating system from the devices in the sequence selected in these items.
The Choices: Floppy, LS120, Hard Disk, CDROM, ZIP100, USB-FDD, USB-ZIP, USB-CDROM, LAN, Disabled.

Boot Other Device
When enabled, BIOS will try to load the operating system from other device when it failed to load from the three devices above.
The Choices: Enabled (default), Disabled

Swap Floppy Drive
For systems with two floppy drives, this option allows you to swap logical drive assignments.
The Choices: Disabled (default), Enabled.

Boot Up Floppy Seek
Enabling this option the motherboard will test the floppy drives to determine if they have 40 or 80 tracks. Disabling this option reduces the time it takes to boot-up.
The Choices: Enabled (default), Disabled.

Virus Warning

This option allows you to choose the VIRUS Warning feature that is used to protect the IDE Hard Disk boot sector. If this function is enabled and an attempt is made to write to the boot sector, BIOS will display a warning message on the screen and sound an alarm beep.

Disabled (default)	Virus protection is disabled.
Enabled	Virus protection is activated.

Hyper-Threading Technology

This option allows you to enable or disabled Hyper-Threading Technology. "Enabled" for Windows XP and Linux 2.4.x (OS optimized for Hyper-Threading Technology). "Disable" for other OS (OS not optimized for Hyper-Threading Technology).
The Choices: Enabled (default), Disabled.

Quick Power On Self Test

Enabling this option will cause an abridged version of the Power On Self-Test (POST) to execute after you power up the computer.

Disabled	Normal POST.
Enabled (default)	Enable quick POST.

Boot Up NumLock Status

Selects the NumLock. State after power on.
The Choices: On (default) Numpad is number keys.
Off Numpad is arrow keys.

Typematic Rate Setting

When a key is held down, the keystroke will repeat at a rate determined by the keyboard controller. When enabled, the typematic rate and typematic delay can be configured.
The Choices: Disabled (default), Enabled.

Typematic Rate (Chars/Sec)

Sets the rate at which a keystroke is repeated when you hold the key down.
The Choices: 6 (default)**,** 8, 10, 12, 15, 20, 24, 30.

Typematic Delay (Msec)

Sets the delay time after the key is held down before it begins to repeat the keystroke.
The Choices: 250 (default)**,** 500, 750, 1000.

Security Option

This option will enable only individuals with passwords to bring the system online and/or to use the CMOS Setup Utility.
System: A password is required for the system to boot and is also required to access the Setup Utility.
Setup (default): A password is required to access the Setup Utility only.
This will only apply if passwords are set from the Setup main menu.

MPS Version Control For OS

The BIOS supports version 1.1 and 1.4 of the Intel multiprocessor specification.
Select version supported by the operation system running on this computer.
The Choices: 1.4 (default), 1.1.

OS Select For DRAM > 64MB

A choice other than Non-OS2 is only used for OS2 systems with memory exceeding 64MB.
The Choices: Non-OS2 (default), OS2.

Delay For HDD (Secs)

This item allows you to select the timing of Delay for HDD.
Min= 0 Max= 15 Key in a DEC number.
The Choices: 0 (default).

Small Logo(EPA) Show

This item allows you to select whether the "Small Logo" shows. Enabled (default) "Small Logo" shows when system boots up. Disabled No "Small Logo" shows when system boots
The Choices: Enabled, **Disabled** (default).

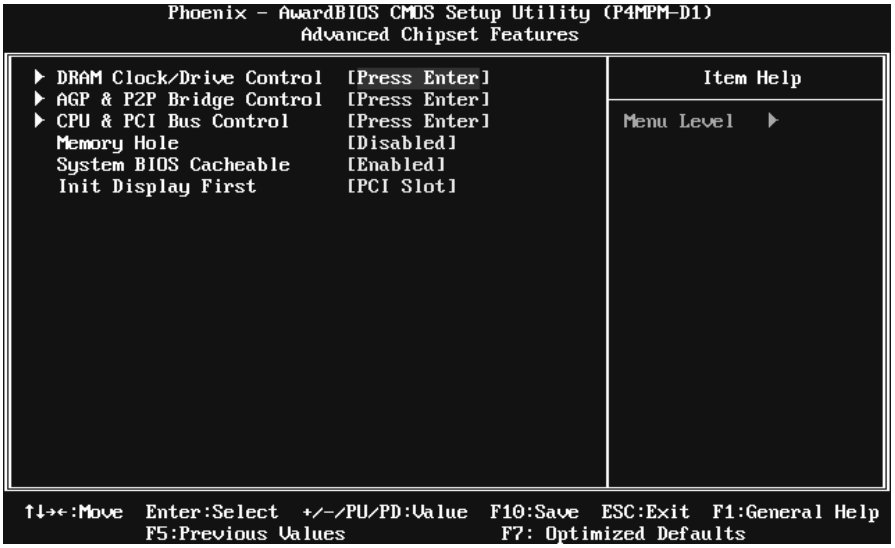
Summary Screen Show

This item allows you to enable/disable the summary screen. Summary screen means system configuration and PCI device listing.
The Choices: Disabled (default), Enabled.

4 Advanced Chipset Features

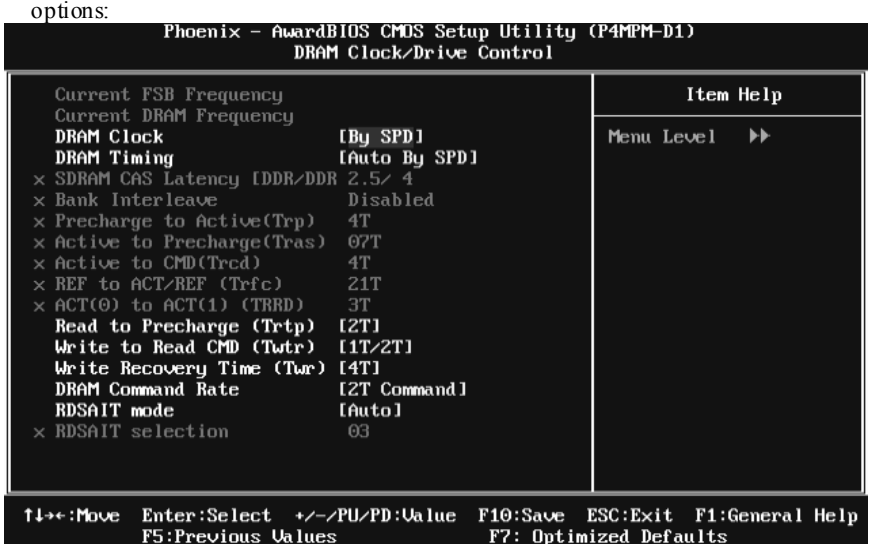
This submenu allows you to configure the specific features of the chipset installed on your system. This chipset manage bus speeds and access to system memory resources, such as DRAM. It also coordinates communications with the PCI bus. The default settings that came with your system have been optimized and therefore should not be changed unless you are suspicious that the settings have been changed incorrectly.

- **Figure 4: Advanced Chipset Setup**



DRAM Clock/Drive Control

To control the DRAM Clock, highlight the "Press Enter" next to the "DRAM Clock" label and press the enter key. The submenu will appear, providing you the following options:



DRAM Clock
This item determines DRAM clock following 100MHz, 133MHz or By SPD.
The Choices: By SPD (default), 100MHz, 133MHz, 166 MHz, 200 MHz, 266 MHz.

DRAM Timing
This item determines DRAM clock/ timing follow SPD or not.
The Choices: Auto By SPD (default), Manual, Turbo, Ultra.

SDRAM CAS Latency
When DRAM is installed, the number of clock cycles of CAS latency depends on the DRAM timing.
The Choices: 2.5/4 (default), 1.5/2, 2/3, 3/5.

Bank Interleave
This item allows you to enable or disable the bank interleave feature.
The Choices: Disabled (default), 2 Bank, 4 Bank, 8 Bank.

Precharge to Active (Trp)
This item allows you to specify the delay from precharge command to activate command.
The Choices: 4T (default)., 2T, 3T, 5T.

Active to Precharge (Tras)
This item allows you to specify the minimum bank active time.
The Choices: 07T (default), 05T~20T.

Active to CMD (Trcd)
Use this item to specify the delay from the activation of a bank to the time that a read or write command is accepted.
The Choices: 4T (default),2T, 3T, 5T.

REF to ACT/REF (Trfc)
The Choices: 21T (default). 08T~71T.

ACT(0) to ACT(1) (TRRD)
This item allows you to determine the selection for REF to ACT(1) (TRRD)
The Choices: 3T (default), 2T, 4T, 5T.

Read to Precharge (Trtp)
This item allows you to determine the selection for Read to Precharge (Trtp)
The Choices: 2T (default),3T.

Write to Read CMD (Twtr)
This item allows you to determine the selection for Write to Read CMD (Twtr)
The Choices: 1T/2T (default),2T/3T.

Write Recovery Time (Twr)
This item allows you to determine the selection for Write Recovery Time (Twr)
The Choices: 4T (default), 2T, 3T, 5T.

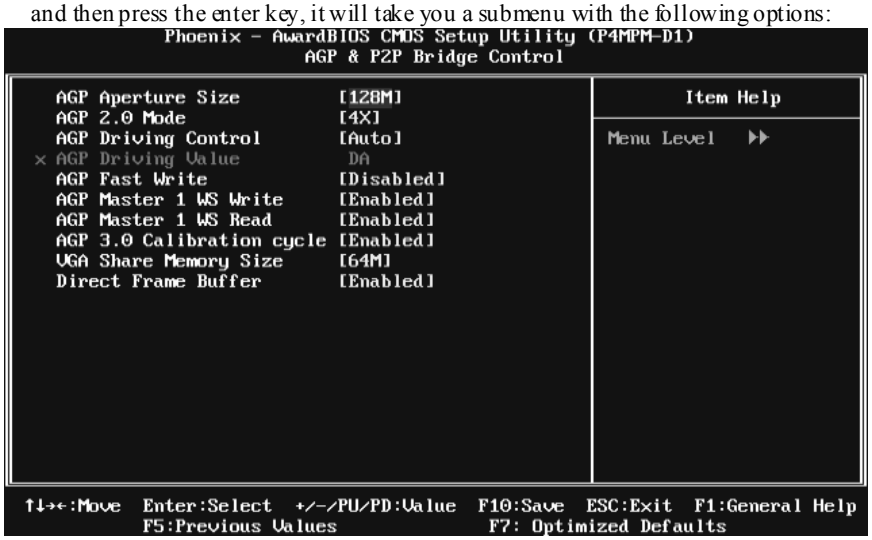
DRAM Command Rate
This item controls clock cycle that must occur between the last valid write operation and the next command.
The Choices: 2T Command (default), 1T Command.

RDSAIT mode
This item allows you to determine the selection for RDSAIT mode
The Choices: Auto (default), Manual.

RASAIT selection
This item allows you to determine the selection for RDSAIT
The Choices: 03 (default), Min=0000, Max=003F, Key in a HEX number.

AGP & P2P Bridge Control

If you highlight the literal "Press Enter" next to the "AGP &P2P Bridge Control" label and then press the enter key, it will take you a submenu with the following options:



AGP Aperture Size
Select the size of the Accelerated Graphics Port (AGP) aperture. The aperture is a portion of the PCI memory address range dedicated for graphics memory address space. Host cycles that hit the aperture range are forwarded to the AGP without any translation.
The Choices: 32M, 64M, **128M** (default), 256M, 512M, 1G.

AGP 2.0 Mode
This item allows you to select the AGP Mode.
The Choices: 4X (default), 2X, 1X.

AGP Driving Control
By choosing "Auto" the system BIOS will the AGP output Buffer Drive strength P Ctrl by AGP Card. By choosing " Manual", it allows user to set AGP output Buffer Drive strength P Ctrl by manual.
The Choices: Auto (default), Manual.

AGP Driving Value
While AGP driving control item set to "Manual", it allows user to set AGP driving.
The Choices: DA (default), Min=0000, Max=00FF, key in a HEX number.

AGP Fast Write
This item allows you to disable or enable AGP Fast Write function.
The Choices: Disabled (default), Enabled.

AGP Master 1 WS Write
When Enabled, writes to the AGP (Accelerated Graphics Port) are executed with one wait states.
The Choices: Enabled (default), Disabled.

AGP Master 1 WS Read
When Enabled, read to the AGP (Accelerated Graphics Port) are executed with one wait states.
The Choices: Enabled (default), Disabled.

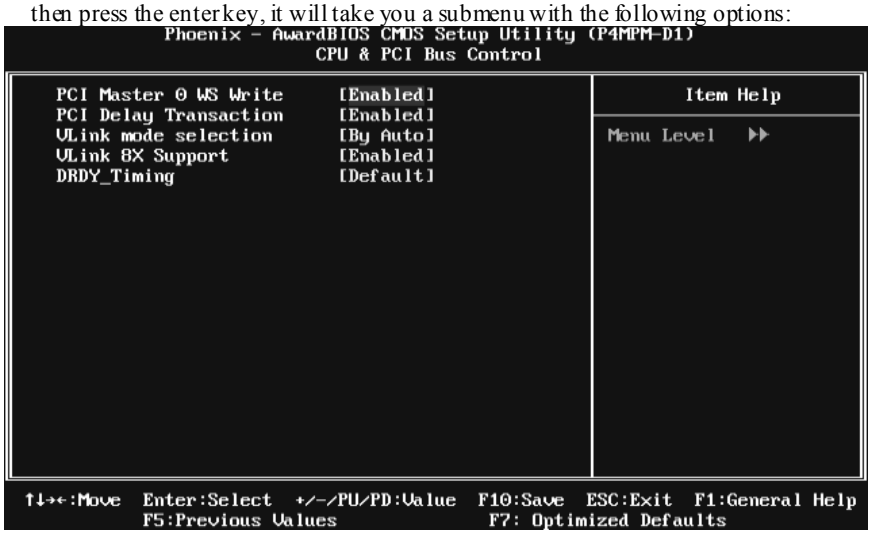
AGP 3.0 Calibration cycle
This item allows you to disable or enable AGP 3.0 Calibration Cycle.
The Choices: Enabled (default), Disabled.

VGA Share Memory Size
This item allows you to select the VGA share memory size.
The Choices: 64M (default), Disabled, 32M, 16M.

Direct Frame Buffer
This item allows you to disabled or enabled direct frame buffer
The Choices: Enabled (default), Disabled.

CPU & PCI Bus Control

If you highlight the literal "Press Enter" next to the "CPU & PCI Bus Control" label and then press the enter key, it will take you a submenu with the following options:



PCI Master 0 WS Write
When enabled, writes to the PCI bus are executed with zero-wait states.
The Choices: Enabled (default), Disabled.

PCI Delay Transaction
The chipset has an embedded 32-bit posted write buffer to support delay transactions cycles.
Select Enabled to support compliance with PCI specification.
The Choices: Enabled (default), Disabled.

Vlink mode selection
This item allows you to select Vlink mode.
The Choices: By Auto (default), Mode 0, Mode 1, Mode2, Mode3, Mode4.

VLink 8X Support
This item allows you to enable or disable VLink 8X support.
The Choices: Enabled (default), Disabled.

DRDY_Timing
This item allows you to determine the selection for DRDY_Timing.
The Choices: Default (default), Slowest, Optimize.

Memory Hole

You can reserve this area of system memory for ISA adapter ROM. When this area is reserved it cannot be cached. The user information of peripherals that need to use this area of system memory usually2 discussed their memory requirements.
The Choices: Disabled (default), 15M-16M.

System BIOS Cacheable

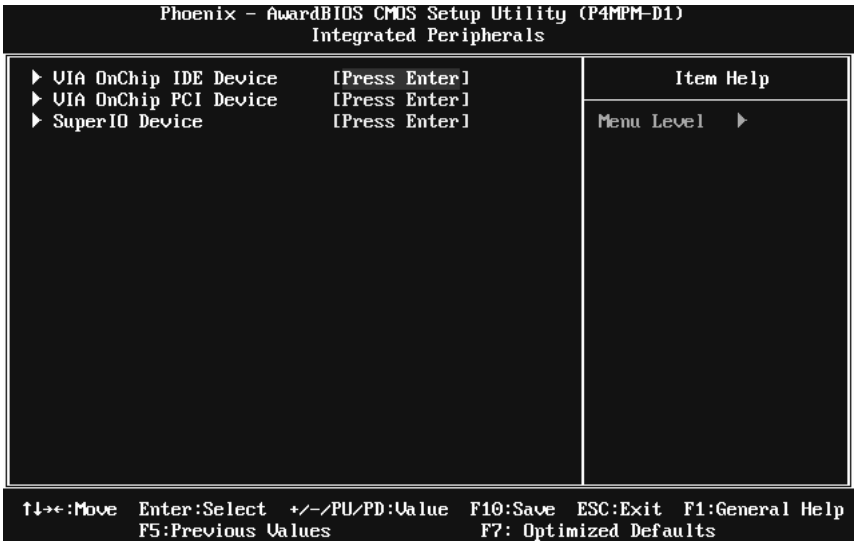
Selecting the "Enabled" option allows caching of the system BIOS ROM at F0000h-FFFFFh which can improve system performance. However, any programs writing to this area of memory will cause conflicts and result in system errors.
The Choices: Enabled (default), Disabled.

Init Display First

With systems that have multiple video cards, this option determines whether the primary display uses a PCI Slot or an AGP Slot.
The Choices: PCI Slot (default), AGP.

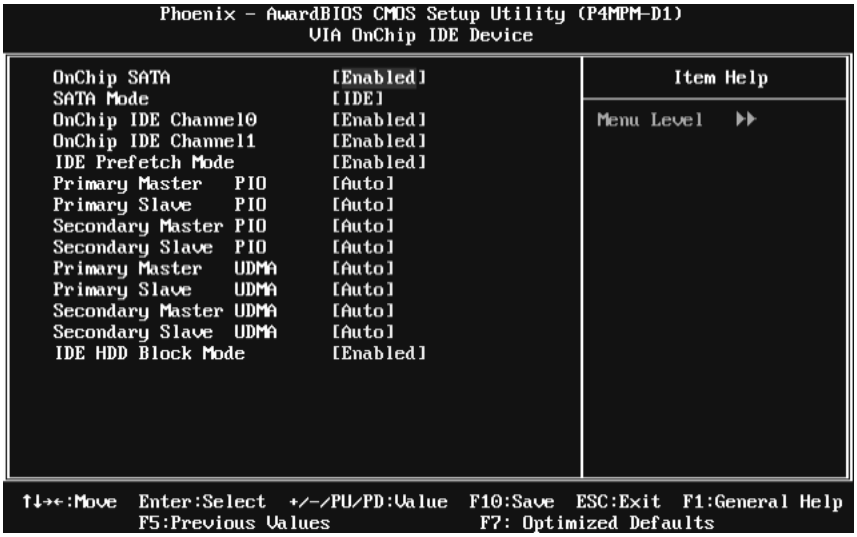
5 Integrated Peripherals

■ **Figure 5. Integrated Peripherals**



VIA OnChip IDE Device

If you highlight the literal "Press Enter" next to the "VIA OnChip IDE Device" label and then press the enter key, it will take you a submenu with the following options:



OnChip SATA
This option allows you to enable the onchip Serial ATA.
The Choices: Enabled (default), Disabled.

SATA Mode
This option allows you to select SATA Mode.
The Choices: IDE (default), RAID.

OnChip IDE Channel 0/1
The motherboard chipset contains a PCI IDE interface with support for two IDE channels. Select "Enabled" to activate the first and/or second IDE interface. Select " Disabled" to deactivate an interface if you are going to install a primary and/or secondary add-in IDE interface.
The Choices: Enabled (default), Disabled.

IDE Prefetch Mode
The " onboard" IDE drive interface supports IDE prefetching for faster drive access. If the interface does not support prefetching, or if you install a primary and/or secondary add-in IDE interface, set this option to "Disabled".
The Choices: Enabled (default), Disabled.

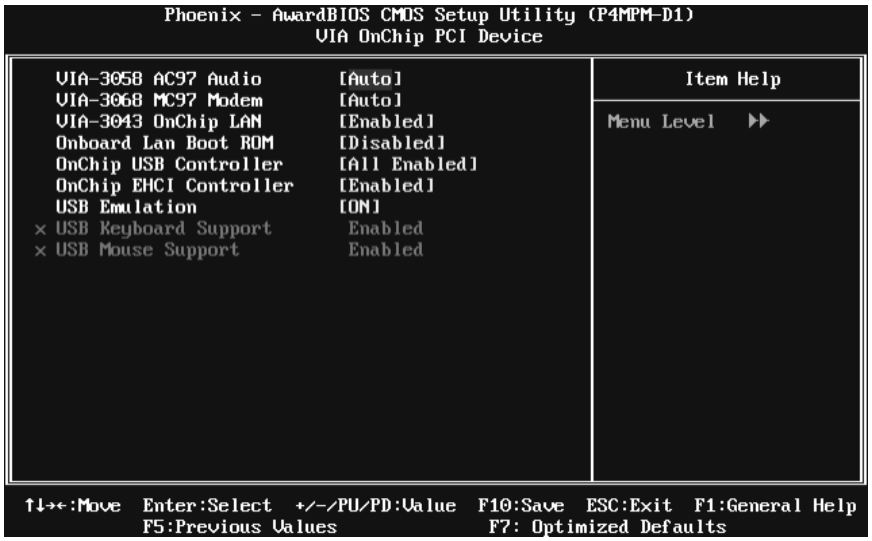
Primary / Secondary Master / Slave PIO
The IDE PIO (Programmed Input / Output) fields let you set a PIO mode (0-4) for each of the IDE devices that the onboard IDE interface supports. Modes 0 to 4 will increase performance progressively. In Auto mode, the system automatically determines the best mode for each device.
The Choices: Auto (default), Mode0, Mode1, Mode2, Mode3, Mode4.

Primary / Secondary Master / Slave UDMA
Ultra DMA/100 functionality can be implemented if it is supported by the IDE hard drives in your system. As well, your operating environment requires a DMA driver (Windows 95 OSR2 or a third party IDE bus master driver). If your hard drive and your system software both support Ultra DMA/100, select Auto to enable BIOS support.
The Choices: Auto (default), Disabled.

IDE HDD Block Mode
Block mode is also called block transfer, multiple commands, or multiple sector read / write. If your IDE hard drive supports block mode (most new drives do), select Enabled for automatic detection of the optimal number of block mode (most new drives do), select Enabled for automatic detection of the optimal number of block read / write per sector where the drive can support.
The Choices: Enabled (default), Disabled.

VIA OnChip PCI Device

If you highlight the literal "Press Enter" next to the "VIA OnChip PCI Device" label and then press the enter key, it will take you a submenu with the following options:



VIA-3058 AC97 Audio
This option allows you to control the onboard AC97 audio.
The Choices: Auto (default), Disabled.

VIA-3068 MC97 Modem
This option allows you to control the onboard MC97 modem.
The Choices: Auto (default), Disabled.

VIA-3043 OnChip LAN
This option allows you to control the onboard VIA-3043 OnChip LAN.
The Choices: Enabled (default), Disabled

Onboard Lan Boot ROM
Decide whether to invoke the boot ROM of the onboard LAN chip.
The Choices: Disable (default), Enabled.

OnChip USB Controller
This option should be enabled if your system has a USB installed on the system board. You will need to disable this feature if you add a higher performance controller.
The Choices: All Enabled (default), All Disabled, 1&2 USB Port, 2&3 USB Port, 1&3 USB Port, 1 USB Port, 2 USB Port, 3 USB Port.

Onchip EHCI Controller
This item allows you to enable or disable the onchip EHCI controller.
The Choices: Enabled (default), Disabled.

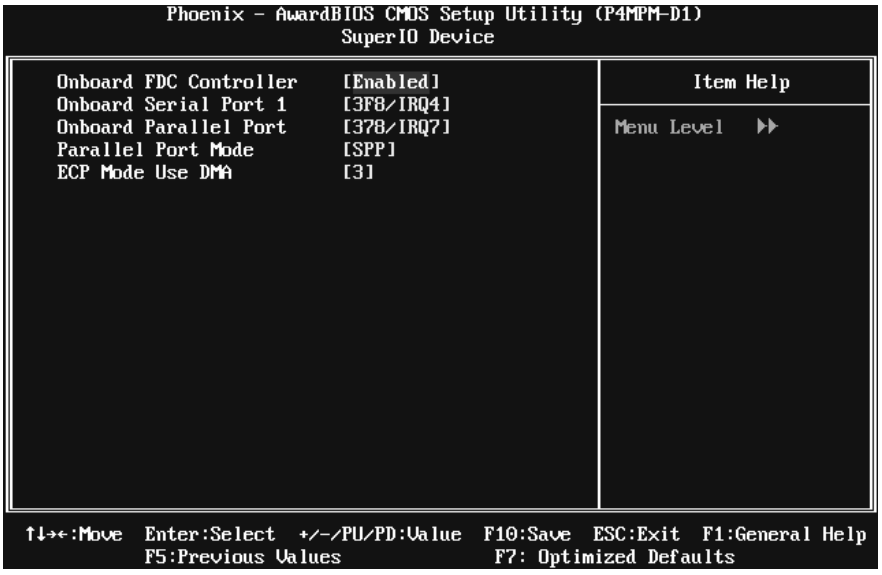
USB Emulation
The Choices:

ON (default)	Support USB legacy Keyboard, Mouse and Storage.
OFF	Do not support any USB device on Dos.
KB/MS	Support USB legacy Keyboard and Mouse, NO support USB Storage.

USB Mouse/Keyboard Support
Enables support for USB attached mouse/keyboard.
The Choices: Enabled (default), Disabled

Super IO Device

Press Enter to configure the Super I/O Device.



Onboard FDC Controller

Select Enabled if your system has a floppy disk controller (FDC) installed on the system board and you wish to use it. If install and FDC or the system has no floppy drive, select Disabled in this field.
The Choices: Enabled (default), Disabled.

Onboard Serial Port 1
Select an address and corresponding interrupt for the first and second serial ports.
The Choices: 3F8/IRQ4 (default), Disabled, Auto, 2F8/IRQ3, 3E8/IRQ4, 2E8/IRQ3.

Onboard Parallel Port
This item allows you to determine access onboard parallel port controller with which I/O Address.
The Choices: 378/IRQ7 (default), 278/IRQ5, 3BC/IRQ7, Disabled.

Parallel Port Mode
The default value is SPP.
The Choices:

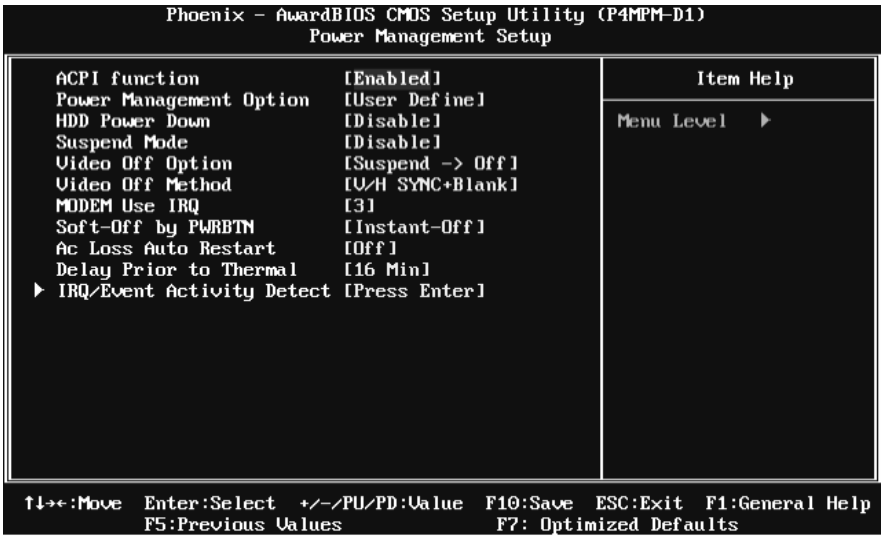
SPP (default)	Using Parallel Port as Standard Printer Port.
EPP	Using Parallel Port as Enhanced Parallel Port.
ECP	Using Parallel Port as Extended Capabilities Port.
ECP+EPP	Using Parallel Port as ECP & EPP mode.

ECP Mode Use DMA
Select a DMA Channel for the port.
The Choices: 3 (default), 1.

6 Power Management Setup

The Power Management Setup Menu allows you to configure your system to utilize energy conservation and power up/power down features.

- **Figure 6: Power Management Setup**



ACPI function

This item displays the status of the Advanced Configuration and Power Management (ACPI).
The Choices: Enabled (default), Disabled.

Power Management Option

This category allows you to select the type (or degree) of power saving and is directly related to the following modes:
1.HDD Power Down.
2.Suspend Mode.

There are four options of Power Management, three of which have fixed mode settings

Min. Saving

Minimum power management.
Suspend Mode = 1 hr.
HDD Power Down = 15 min

Max. Saving

Maximum power management only available for sl CPU's.
Suspend Mode = 1 min.
HDD Power Down = 1 min.

User Define (default)

Allows you to set each mode individually.

When not disabled, each of the ranges are from 1 min. to 1 hr. except for HDD Power Down which ranges from 1 min. to 15 min. and disable.

HDD Power Down

When enabled, the hard disk drive will power down and after a set time of system inactivity. All other devices remain active.
The Choices: Disabled (default), 1 Min, 2 Min, 3 Min, 4 Min, 5 Min, 6 Min, 7 Min, 8 Min, 9 Min, 10 Min, 11 Min, 12 Min, 13 Min, 14 Min, 15 Min.

Suspend Mode

The item allows you to select the suspend type under ACPI operating system.
The Choices: Disabled (default), 1 Min, 2 Min, 4 Min, 6 Min, 8 Min, 10 Min, 20 Min, 30 Min, 40 Min, 1 Hour.

Video Off Option

This field determines when to activate the video off feature for monitor power management.
The Choices: Suspend→Off (default), Always on.

Video Off Method

This option determines the manner in which the monitor is goes blank.

V/H SYNC+Blank (default)
This selection will cause the system to turn off the vertical and horizontal synchronization ports and write blanks to the video buffer.

Blank Screen
This option only writes blanks to the video buffer.

DPMS Support
Initial display power management signaling.

MODEM Use IRQ

This determines the IRQ, which can be applied in MODEM use.
The Choices: 3 (default)/ 4 / 5 / 7 / 9 / 10 / 11 / NA.

Soft-Off by PWR-BTN

Pressing the power button for more than 4 seconds forces the system to enter the Soft-Off state when the system has "hung".
The Choices: Instant-Off (default), Delay 4 Sec.

Ac Loss Auto Restart

This field determines the action the system will automatically take when power is restored to a system that had lost power previously without any subsequent manual intervention. There are 3 sources that provide current to the CMOS area that retains these Power-On instructions; the motherboard battery (3V), the Power Supply (5VSB), and the Power Supply (3.3V). While AC is not supplying power, the motherboard uses the motherboard battery (3V). If AC power is supplied and the Power Supply is not turned on, 5VSB from the Power Supply is used. When the Power Supply is eventually turned on 3.3V from the Power Supply will be used.

There are 3 options: "Former-Sts", "On", "Off".
"Off" (default) Means always set CMOS to the "Off" status when AC power is lost.
"On" Means always set CMOS to the "On" status when AC power is lost.
"Former-Sts" Means to maintain the last status of the CMOS when AC power is lost.

For example: If set to " Former-Sts" and AC power is lost when system is live, then after AC power is restored, the system will automatically power on. If AC power is lost when system is not live, system will remain powered off.

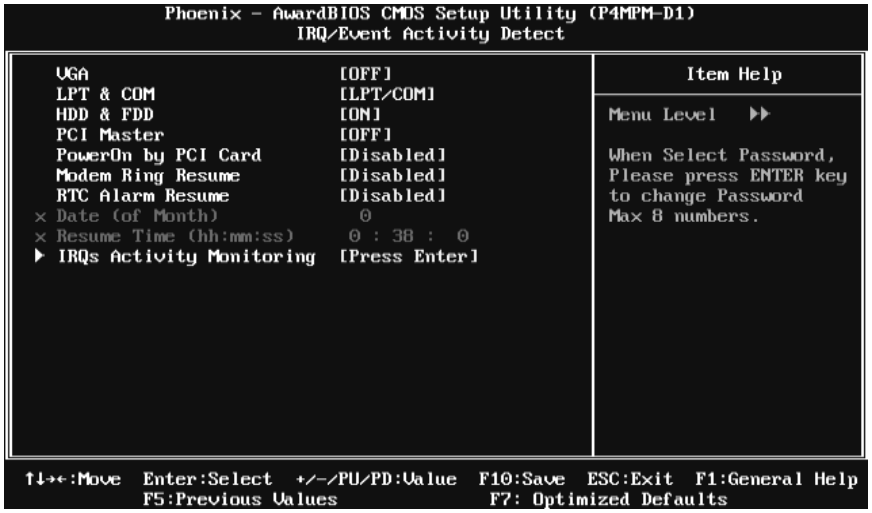
Delay Prior to Thermal

Set this item to enable the CPU Thermal function to engage after the specified time.

The Choices: 4 Min, 8 Min, **16Min** (default), 32 Min.

IRQ/Event Activity Detect

If you highlight the literal "Press Enter" next to the "IRQ/Event Activity Detect" label and then press the enter key, it will take you a submenu with the following options:



VGA
When set to On, any event occurring at a VGA Port will awaken a system which has been powered down.
The Choices: Off (default), On.

LPT & COM
When this option is set to On, any event occurring at a COM (serial)/LPT (printer) port will awaken a system which has been powered down.
The Choices: LPT/COM (default), COM, LPT, NONE.

HDD & FDD
When this option is set to On, any event occurring on a hard drive or a floppy drive will awaken a system which has been powered down.
The Choices: On (default), Off.

PCI Master
When set to On, you need a LAN add-on card which supports the power function. It should also support the wake-up on LAN jump.
The Choices: Off (default), On.

PowerOn by PCI Card
When you select Enabled, a PME signal from PCI card returns the system to Full ON state.
The Choices: Disabled (default), Enabled.

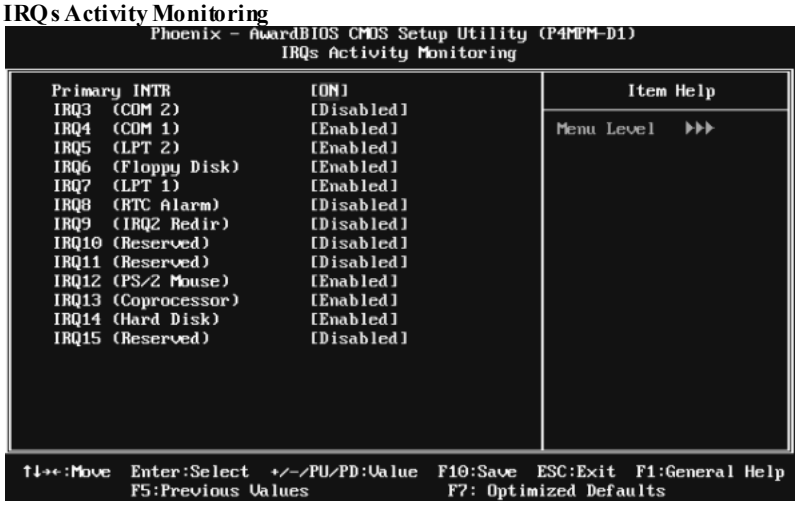
Modem Ring Resume
This item allows you to disable or enable Modem Ring Resume function.
The Choices: Disabled (default), Enabled.

RTC Alarm Resume
When "Enabled", you can set the date and time at which the RTC (real-time clock) alarm awakens the system from Suspend mode.
The Choices: Disabled (default), Enabled.

Date (of Month)
You can choose which month the system will boot up. This field is only configurable when "RTC Resume" is set to "Enabled".

Resume Time (hh:mm:ss)
You can choose the hour, minute and second the system will boot up. This field is only configurable when " RTC Resume" is set to "Enabled".

IRQs Activity Monitoring



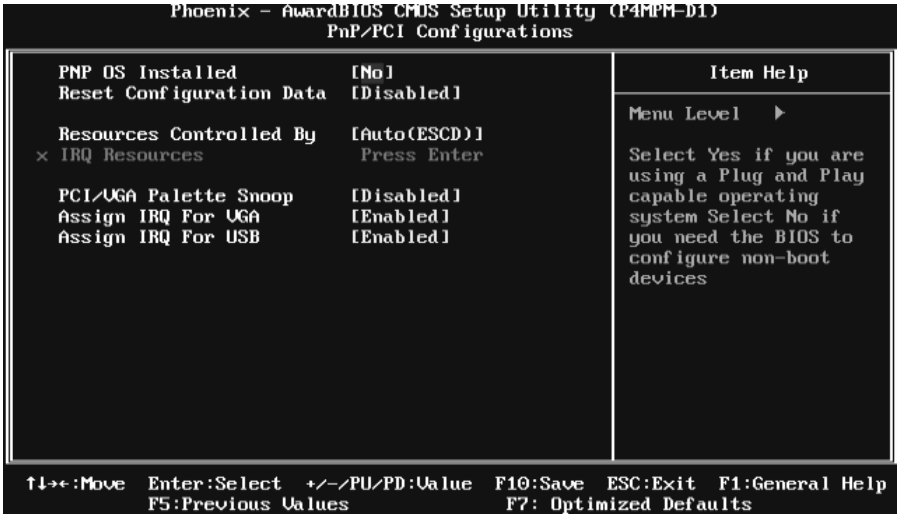
Press Enter to access another sub menu used to configure the different wake up events (i.e. wake on LPT & COMM activity).

Primary INTR	On
IRQ3 (COM2)	Disabled
IRQ4 (COM1)	Enabled
IRQ5 (LPT2)	Enabled
IRQ6 (Floppy Disk)	Enabled
IRQ7 (LPT1)	Enabled
IRQ8 (RTC Alarm)	Disabled
IRQ9 (IRQ2 Redir)	Disabled
IRQ10 (Reserved)	Disabled
IRQ11 (Reserved)	Disabled
IRQ12 (PS/2 Mouse)	Enabled
IRQ13 (Coprocessor)	Enabled
IRQ14 (Hard Disk)	Enabled
IRQ15 (Reserved)	Disabled

7 PnP/PCI Configurations

This section describes configuring the PCI bus system. PCI, or Personal Computer Interconnect, is a system which allows I/O devices to operate at speeds nearing the speed of the CPU itself uses when communicating with its own special components. This section covers some very technical items and it is strongly recommended that only experienced users should make any changes to the default settings.

- **Figure 7: PnP/PCI Configurations**



PNP OS Installed

When set to YES, BIOS will only initialize the PnP cards used for the boot sequence (VGA, IDE, SCSI). The rest of the cards will be initialized by the PnP operating system like Window™ 95. When set to NO, BIOS will initialize all the PnP cards. For non-PnP operating systems (DOS, Netware™), this option must set to NO.
The Choices: No (default), Yes.

Reset Configuration Data

The system BIOS supports the PnP feature which requires the system to record which resources are assigned and protects resources from conflict.
Every peripheral device has a node, which is called ESCD. This node records which resources are assigned to it. The system needs to record and update ESCD to the memory locations. These locations (4K) are reserved in the system BIOS. If the Disabled (default) option is chosen, the system's ESCD will update only when the new configuration varies from the last one. If the Enabled option is chosen, the system is forced to update ESCDs and then is automatically set to the "Disabled" mode.

The above settings will be shown on the screen only if "Manual" is chosen for the resources controlled by function.
Legacy is the term, which signifies that a resource is assigned to the ISA Bus and provides non-PnP ISA add-on cards. PCI / ISA PnP signifies that a resource is assigned to the PCI Bus or provides for ISA PnP add-on cards and peripherals.
The Choices: Disabled (default), Enabled.

Resources Controlled By

By Choosing **"Auto(ESCD)"** (default), the system BIOS will detect the system resources and automatically assign the relative IRQ and DMA channel for each peripheral. By Choosing "Manual", the user will need to assign IRQ & DMA for add-on cards. Be sure that there are no IRQ/DMA and I/O port conflicts.
The Choices: Auto (ESCD) (default), Manual.

IRQ Resources

This submenu will allow you to assign each system interrupt a type, depending on the type of device using the interrupt. When you press the "Press Enter" tag, you will be directed to a submenu that will allow you to configure the system interrupts. This is only configurable when "Resources Controlled By" is set to "Manual".

IRQ-3	assigned to	PCI Device
IRQ-4	assigned to	PCI Device
IRQ-5	assigned to	PCI Device
IRQ-7	assigned to	PCI Device
IRQ-9	assigned to	PCI Device
IRQ-10	assigned to	PCI Device
IRQ-11	assigned to	PCI Device
IRQ-12	assigned to	PCI Device
IRQ-14	assigned to	PCI Device
IRQ-15	assigned to	PCI Device

PCI / VGA Palette Snoop

Choose Disabled or Enabled. Some graphic controllers which are not VGA compatible take the output from a VGA controller and map it to their display as a way to provide boot information and VGA compatibility.
However, the color information coming from the VGA controller is drawn from the palette table inside the VGA controller to generate the proper colors, and the graphic controller needs to know what is in the palette of the VGA controller. To do this, the non-VGA graphic controller watches for the Write access to the VGA palette and registers the snoop data. In PCI based systems, where the VGA controller is on the PCI bus and a non-VGA Graphic controller is on an ISA bus, the Write Access to the palette will not show up on the ISA bus if the PCI VGA controller responds to the Write.

In this case, the PCI VGA controller should not respond to the Write, it should only snoop the data and permit the access to be forwarded to the ISA bus. The non-VGA ISA graphic controller can then snoop the data on the ISA bus. Unless you have the above situation, you should disable this option.

Disabled (default)	Disables the function.
Enabled	Enables the function.

Assign IRQ For VGA

This item allows the users to choose which IRQ to assign for the VGA.

The Choices: Enabled (default), Disabled.

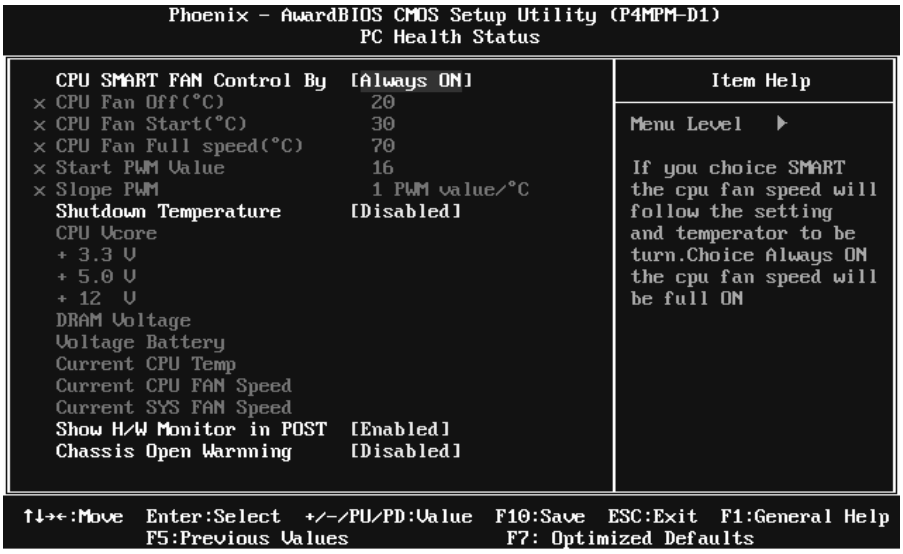
Assign IRQ For USB

This item allows the users to choose which IRQ to assign for the USB.

The Choices: Enabled (default), Disabled.

8 PC Health Status

- **Figure 8: PC Health Status**



CPU SMART FAN Control by

Choose "smart" to reduce the noise caused by CPU FAN.
The Choices: Smart, **Always On** (default).

CPU Fan Off<℃>

If the CPU Temperature is lower than the set value, FAN will turn off.
The Choices: Min=0; Max=127; Key in a DEC number.

CPU Fan Start<℃>

CPU fan starts to work under smart fan function when arrive this set value.
The Choices: Min=0; Max=127; Key in a DEC number.

CPU Fan Full speed <℃>

When CPU temperature is reach the set value, the CPU fan will work under Full Speed.
The Choices: Min=0; Max=127; Key in a DEC number.

Start PWM Value

When CPU temperature arrives to the set value, the CPU fan will work under Smart Fan Function mode. The range is from 0~127, with an interval of 1.
The Choices: Min=0; Max=127; Key in a DEC number.

Slope PWM

Increasing the value of slope PWM will raise the speed of CPU fan.
The Choices: 1 PWM Value/℃ (default), 2 PWM Value/℃, 4 PWM Value/℃, 8 PWM Value/℃,16 PWM Value/℃,32 PWM Value/℃, 64PWM Value/℃.

Shutdown Temperature

This item allows you to set up the CPU shutdown Temperature. This item only effective under Windows 98 ACPI mode.
The Choices: 90℃/167℉ (default) , 60℃/140℉, 65℃/149℉, 70℃/158℉, 75℃/167℉, 80℃/176℉, 85℃/185℉, Disabled.

CPU Vcore,+ 3.3V, +5.0V,+12V,DRAM Voltage,Voltage Battery

Detect the system's voltage and battery status automatically.

Current CPU Temp

This field displays the current temperature of CPU.

Current CPU FAN Speed

This field displays the current speed of CPU fan.

Current SYS FAN Speed

This field displays the current speed SYSTEM fan.

Show H/W Monitor in POST

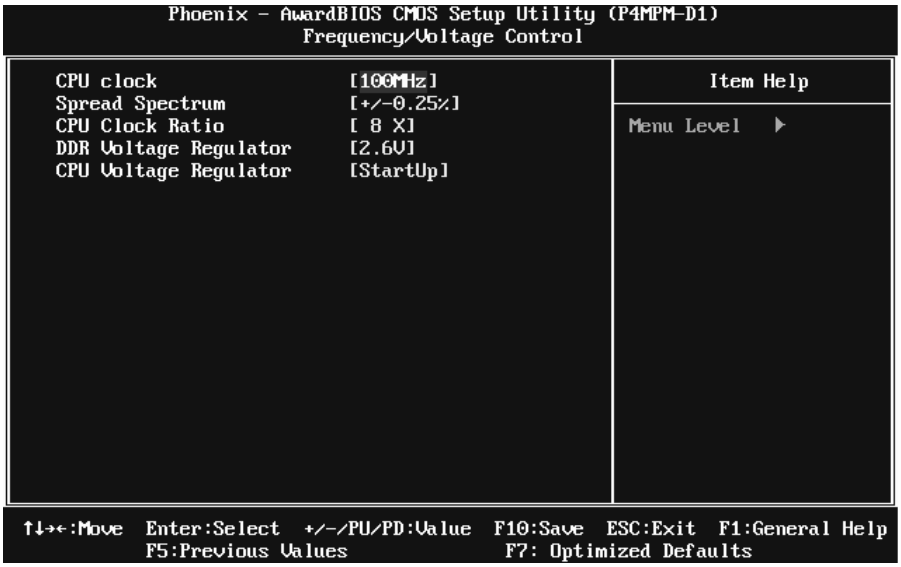
If you computer contain a monitoring system, it will show PC health status during POST stage. The item offers several delay time to select you want.
The Choices: Enabled (default), Disabled.

Chassis Open Warning

This item allows you to enable or disable Chassis Open Warning beep.
The Choices: Disabled (default)., Enabled.

9 Frequency/ Voltage Control

- **Figure 9: Frequency/ Voltage Control**



CPU CLOCK

This item allows you to select CPU Clock, and CPU over clocking.
Min= 100 Max= 400 Key in a DEC number.

The Choices: 100Mhz (default),.

Spread Spectrum

This item allows you to enable/disable the Spread Spectrum function.

The Choices: +/-0.25% (default), -0.5%, -1.0%, +/-0.5%, Disabled.

CPU Clock Ratio

This item allows you to select the CPU Ratio.
Min= 8 Max= 50 ; Key in a DEC number.
The Choices: 8X (default).

DDR Voltage Regulator

This item allows you to select DDR Voltage.
The Choices: 2.6V (default), 2.9V, 2.8V, 2.7V.

CPU Voltage Regulator

This item allows you to select CPU Voltage.
The Choices: StartUp (default), +0.012V~+0.787V.

Special Notice:
If unfortunately, the system's frequency that you are selected is not functioning, there are two methods of booting-up the system.

Method 1:
Clear the COMS data by setting the JCOMS1 ((2-3) closed)) as "ON" status. All the CMOS data will be loaded as defaults setting.

Method 2:
Press the <Insert> key and Power button simultaneously, after that keep-on pressing the <Insert> key until the power-on screen showed. This action will boot-up the system according to FSB of the processor.