FCC Information and Copyright

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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.
- The operating temperatures of the computer should be 0 to 45 degrees Celsius.

1.2 PACKAGE CHECKLIST

- HDD Cable X 1
- Serial ATA Cable X 2
- Rear I/O Panel for ATX Case X 1
- User's Manual X 1
- Fully Setup Driver CD X 1
- FDD Cable X 1 (optional)
- USB 2.0 Cable X1 (optional)
- Serial ATA Power Cable X 1 (optional)

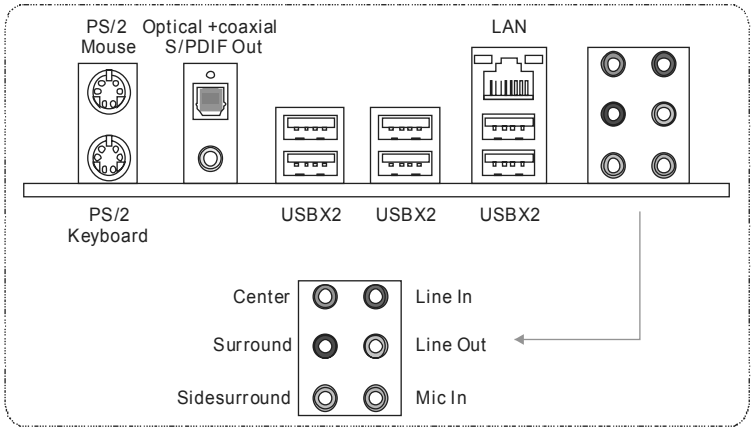
Note: The package contents may be different due to area or your motherboard version.

1.3 MOTHERBOARD FEATURES

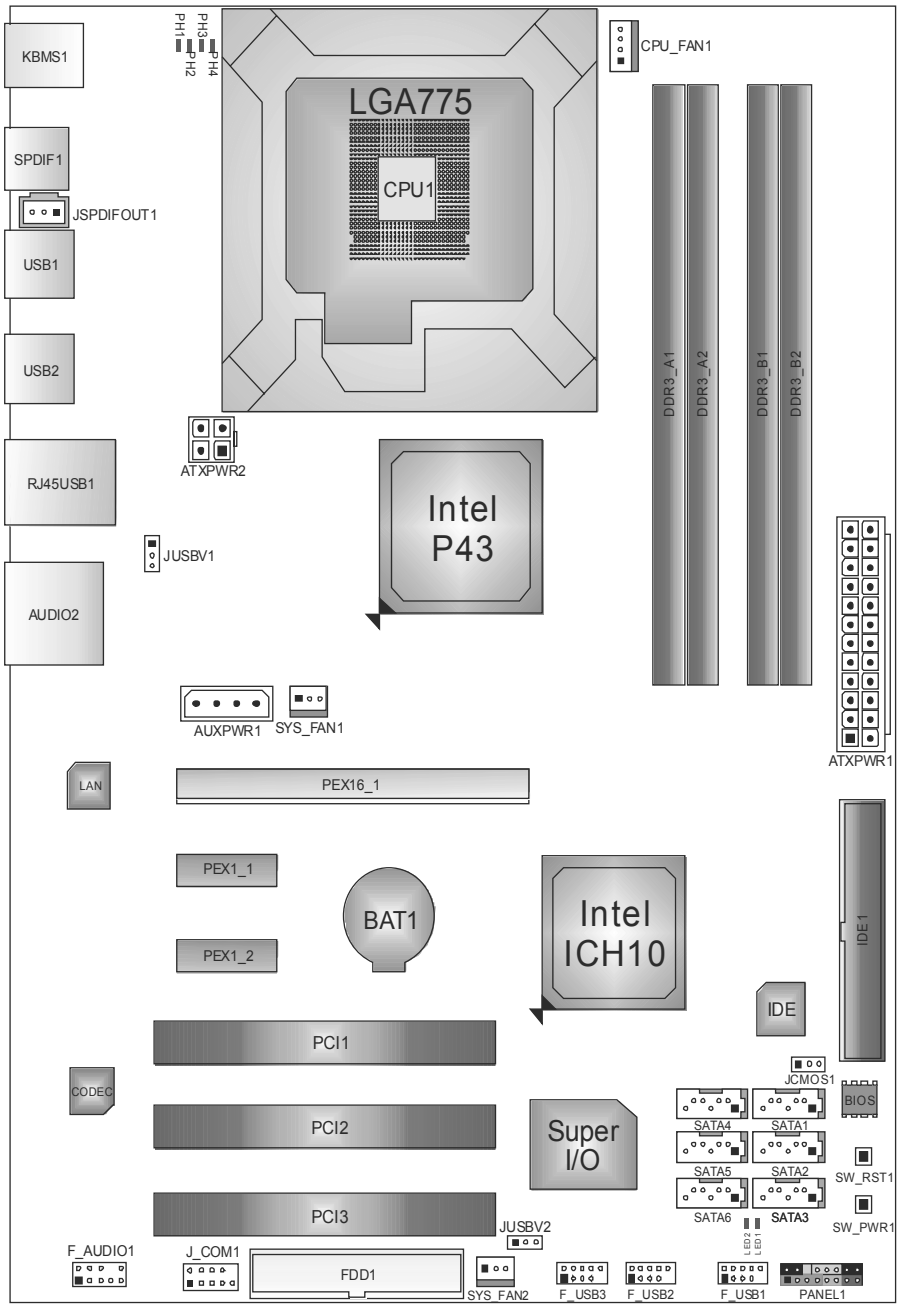
SPEC			
CPU	LGA 775 Intel Core2 Extreme / Core2 Duo / Core2 Quad / Pentium Dual-Core / Celeron Dual-Core / Celeron 4xx processor		Supports Execute Disable Bit / Enhanced Intel SpeedStep® / Intel Architecture-64 / Extended Memory 64 Technology / Virtualization Technology
FSB	Support 800 / 1066 / 1333 / 1600 MHz		
Chipset	Intel P43 Intel ICH10		
Super I/O	ITE 8718F Provides the most commonly used legacy Super I/O functionality. Low Pin Count Interface		Environment Control initiatives, Hardware Monitor Controller Fan Speed Controller ITE's "Smart Guardian" function
Main Memory	DIMM Slots x 4 Each DIMM supports 256MB / 512MB / 1GB / 2GB DDR3 Max Memory Capacity 8GB		Dual Channel Mode DDR3 memory module Supports DDR3 800 / 1066 / 1333 / 1600(OC) Registered DIMM and ECC DIMM is not supported (Detail memory support table, please refer to Page 9)
IDE	JMB368		Ultra DMA 33 / 66 / 100 / 133 Bus Master Mode supports PIO Mode 0~4
SATA 2	Integrated Serial ATA Controller		Data transfer rates up to 3.0 Gb/s. SATA Version 2.0 specification compliant
LAN	Realtek RTL 8111DL		10 / 100 Mb/s / 1Gb/s auto negotiation Half / Full duplex capability
Sound Codec	ALC888		7.1 channels audio out High Definition Audio
Slots	PCI slot PCI Express Gen2 x 16 slot PCI Express x 1 slot	x3 x1 x2	Supports PCI expansion cards Supports PCI-E x16 expansion cards Supports PCI-E x1 expansion cards
On Board Connectors	Floppy Connector IDE Connector SATA Connector	x1 x1 x6	Each connector supports 2 Floppy drives Each connector supports 2 IDE device Each connector supports 1 SATA devices

SPEC			
	Front Panel Connector	x1	Supports front panel facilities
	Front Audio Connector	x1	Supports front panel audio function
	S/PDIF out Connector	x1	Supports digital audio out function
	CPU Fan Header	x1	CPU Fan power supply (with Smart Fan function)
	System Fan Header	x2	System Fan Power supply
	Clear CMOS Header	x1	Restore CMOS data to factory default
	USB Connector	x3	Each connector supports 2 front panel USB ports
	Power Connector (24pin)	x1	Connects to Power supply
	Power Connector (4pin)	x2	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
	LAN port	x1	Connect to RJ-45 ethernet cable
	USB Port	x6	Connect to USB devices
	Audio Jack	x6	Provide Audio-In/Out and Mic. connection
	Optical +coaxial S/PDIF Out	x1	Provides digital audio out function
Board Size	220 (W) x 305 (L) mm		
OS Support	Windows XP / Vista 32 / Vista 64 / 7		Biostar reserves the right to add or remove support for any OS with or without notice

1.4 REAR PANEL CONNECTORS



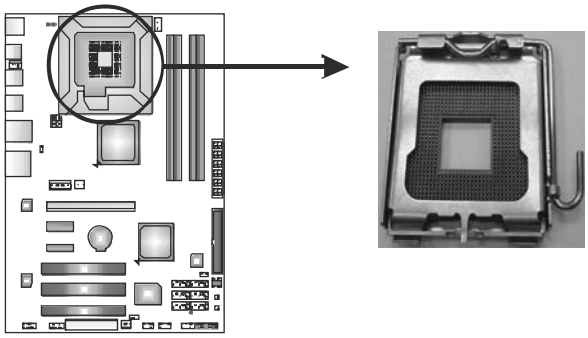
1.5 MOTHERBOARD LAYOUT



Note: ■ represents the 1st pin.

CHAPTER 2: HARDWARE INSTALLATION

2.1 INSTALLING CENTRAL PROCESSING UNIT (CPU)

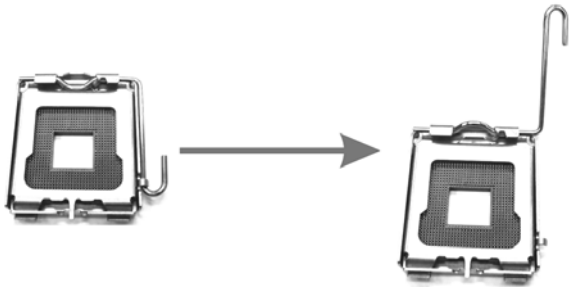


Special Notice:

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.

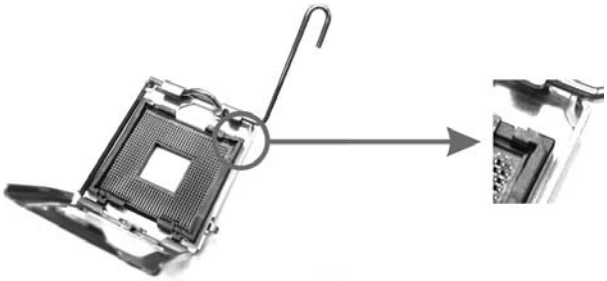
Pin Cap

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

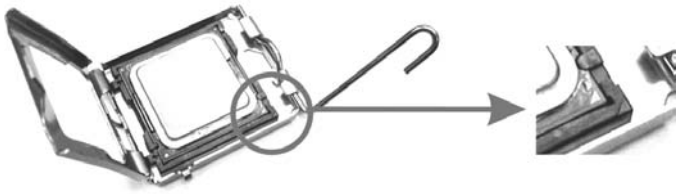


Step 2: Look for the triangular cut edge on socket, and the golden dot on CPU should point forwards this triangular cut edge. The CPU will fit only in the correct orientation.

Step 2-1:



Step 2-2:



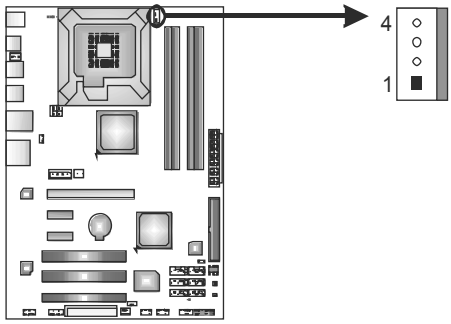
Step 3: Hold the CPU down firmly, and then lower the lever to locked position to complete the installation.

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 CPU_FAN1. This completes the installation.

2.2 FAN HEADERS

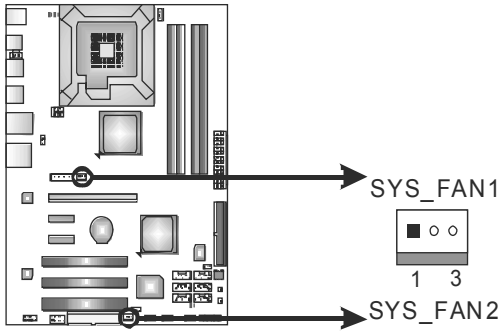
These fan headers support cooling-fans built in the computer. The fan cable and connector may be different according to the fan manufacturer. Connect the fan cable to the connector while matching the black wire to pin#1.

CPU_FAN1: CPU Fan Header



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

SYS_FAN1/SYS_FAN2: System Fan Headers



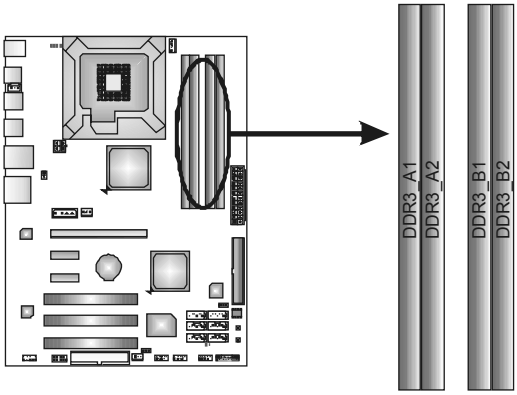
Pin	Assignment
1	Ground
2	+12V
3	FAN RPM rate sense

Note:

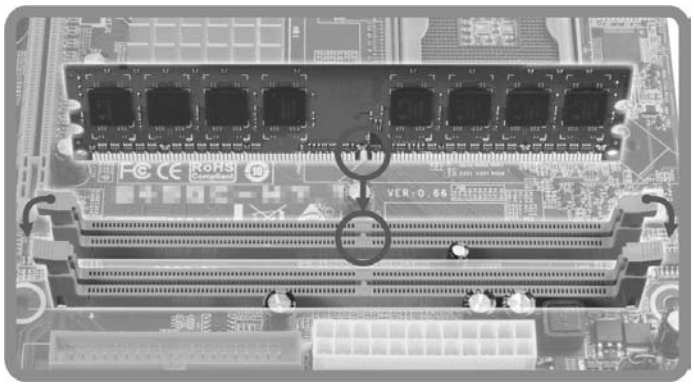
The SYS_FAN1/SYS_FAN2 support 3-pin head connectors; the CPU_FAN1 supports 4-pin head connector. When connecting with wires onto connectors, please note that the red wire is the positive and should be connected to pin#2, and the black wire is Ground and should be connected to GND.

2.3 Installing System Memory

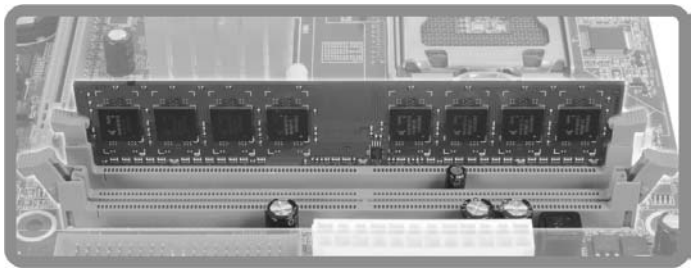
A. Memory Modules



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



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



B. Memory Capacity

DIMM Socket Location	DDR3 Module	Total Memory Size
DDR3_A1	256MB/512MB/1GB/2GB	Max is 8GB.
DDR3_A2	256MB/512MB/1GB/2GB	
DDR3_B1	256MB/512MB/1GB/2GB	
DDR3_B2	256MB/512MB/1GB/2GB	

C. Dual Channel Memory Installation

Please refer to the following requirements to activate Dual Channel function:

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

Dual Channel Status	DDR3_A1	DDR3_A2	DDR3_B1	DDR3_B2
Enabled	O	X	O	X
Enabled	X	O	X	O
Enabled	O	O	O	O

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

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

Note:

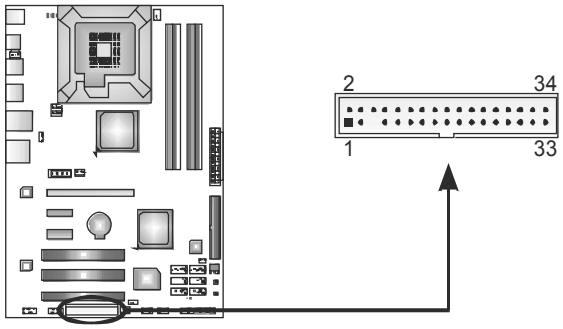
Due to chipset functional limitation, please refer to the table below to install your memory module.

	DDR3 800	DDR3 1066	DDR3 1333
FSB 800	O	X	X
FSB 1066	O	O	X
FSB 1333	O	O	O
FSB 1600	O	O	O

2.4 CONNECTORS AND SLOTS

FDD1: Floppy Disk Connector

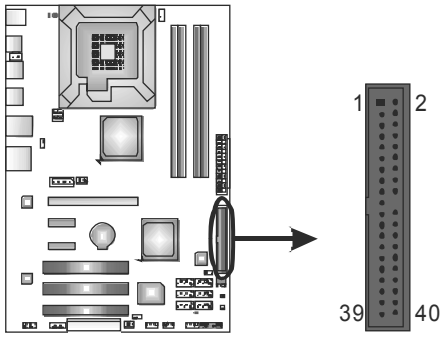
The motherboard provides a standard floppy disk connector that supports 360K, 720K, 1.2M, 1.44M and 2.88M floppy disk types. This connector supports the provided floppy drive ribbon cables.



IDE1: Hard Disk Connector

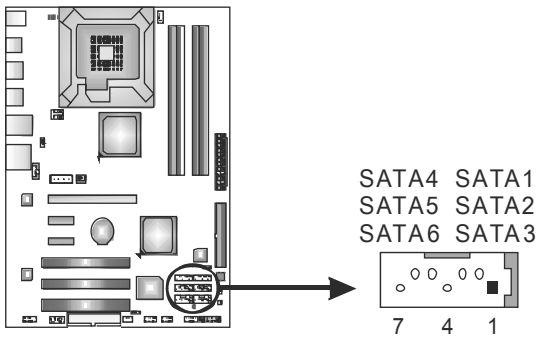
The motherboard has a 32-bit Enhanced PCI IDE Controller that provides PIO Mode 0~4, Bus Master, and Ultra DMA 33/66/100/133 functionality.

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



SATA1~SATA6: Serial ATA Connectors

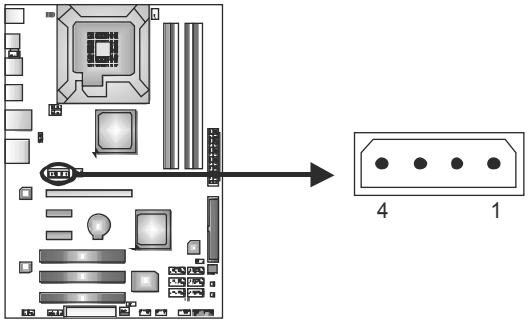
The motherboard has a PCI to SATA Controller with 6 channels SATA interface, it satisfies the SATA 2.0 spec and with transfer rate of 3.0Gb/s.



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

AUXPWR1: Auxiliary Power for Graphics

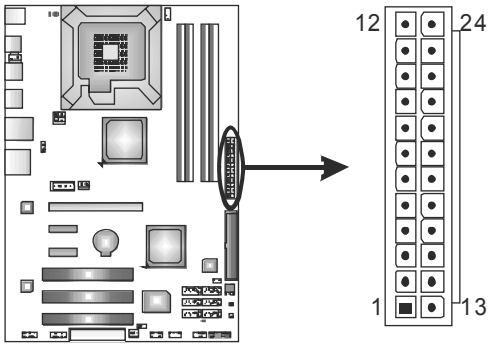
This connector is an auxiliary power connection for graphics cards. Exclusive power for the graphics card provides better graphics performance.



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

ATXPWR1: ATX Power Source Connector

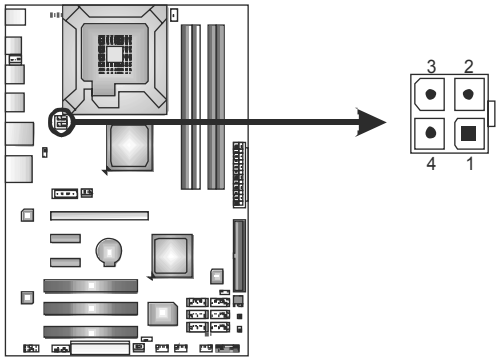
This connector allows user to connect 24-pin power connector on the ATX power supply.



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

ATXPWR2: ATX Power Source Connector

This connector provides +12V to CPU power circuit.



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

Note:

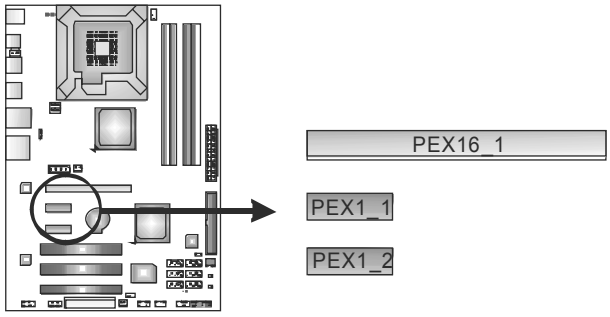
Before you power on the system, please make sure that both ATXPWR1 and ATXPWR2 connectors have been well plugged-in.

PEX16_1: PCI-Express Gen2 x16 Slot

- PCI-Express 2.0 compliant.
- Maximum theoretical realized bandwidth of 8GB/s simultaneously per direction, for an aggregate of 16GB/s totally.
- PCI-Express Gen2 supports a raw bit-rate of 5.0Gb/s on the data pins.
- 2X bandwidth over the PCI-Express 1.1 architecture.

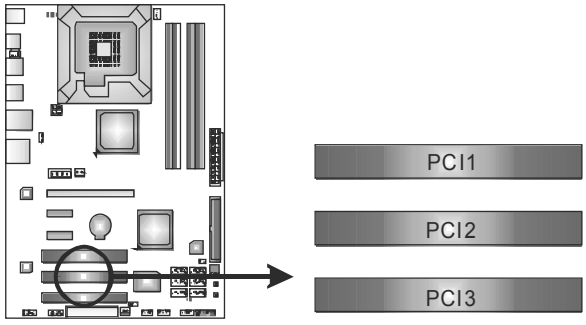
PEX1_1/PEX1_2: PCI-Express x1 Slots

- PCI-Express 1.1 compliant.
- Data transfer bandwidth up to 250MB/s per direction; 500MB/s in total.
- PCI-Express supports a raw bit-rate of 2.5Gb/s on the data pins.
- 2X bandwidth over the PCI architecture.



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.



CHAPTER 3: HEADERS & JUMPERS SETUP

3.1 How to Setup Jumpers

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

Pin opened

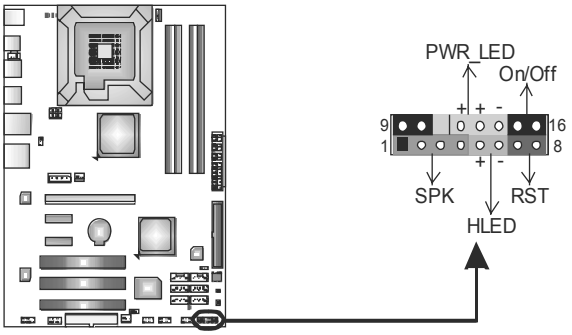
Pin closed

Pin1-2 closed

3.2 Detail Settings

PANEL1: Front Panel Header

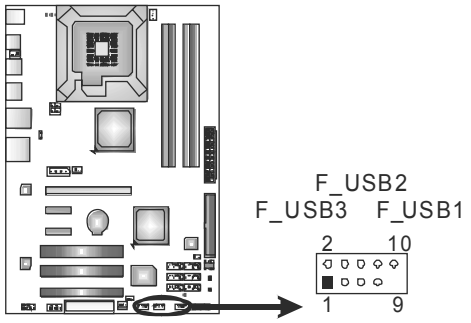
This 16-pin connector includes Power-on, Reset, HDD LED, Power LED, and speaker connection. It allows user to connect the PC case’s front panel switch functions.



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

F_USB1/F_USB2/F_USB3: Headers for USB 2.0 Ports at Front Panel

These headers allow 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:

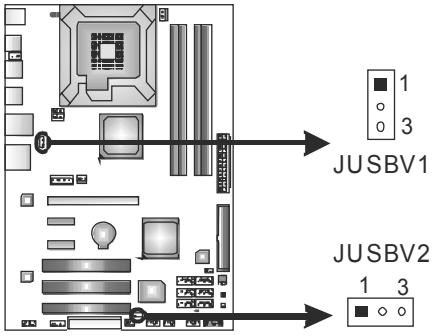
JUSBV1: +5V for USB ports at USB1/USB2/RJ45USB1.

JUSBV2: +5V for USB ports at F_USB1/F_USB2/F_USB3.

Pin 2-3 Close:

JUSBV1: +5V STB for USB ports at USB1/USB2/RJ45USB1.

JUSBV2: +5V STB for USB ports at F_USB1/F_USB2/F_USB3.

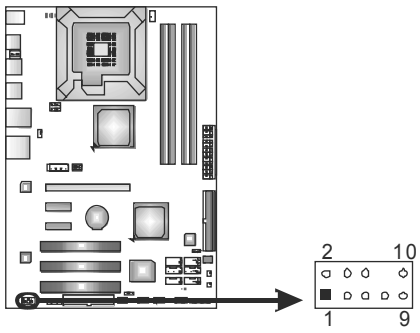


Pin 1-2 close

Pin 2-3 close

F_AUDIOF1: Front Panel Audio Header

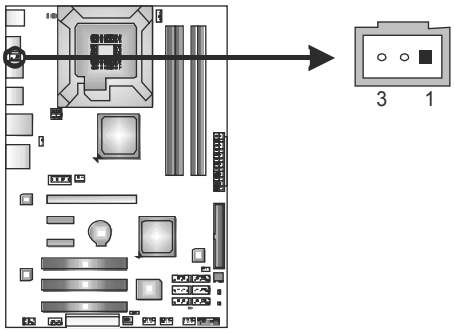
This header allows user to connect the front audio output cable with the PC front panel. This header allows only HD audio front panel connector; AC'97 connector is not acceptable.



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

JSPDIFOUT1: Digital Audio-out Connector

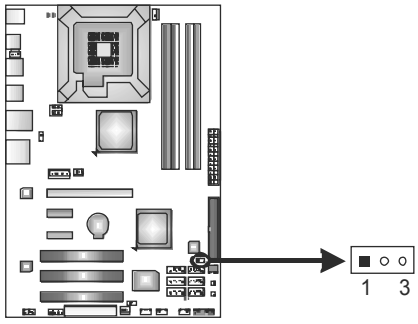
This connector allows user to connect the PCI bracket SPDIF output header.



Pin	Assignment
1	+5V
2	SPDIF_OUT
3	Ground

JCMOS1: Clear CMOS Header

Placing the jumper on pin2-3 allows user to restore the BIOS safe setting and the CMOS data. Please carefully follow the procedures to avoid damaging the motherboard.



Pin 1-2 Close:
Normal Operation (default).

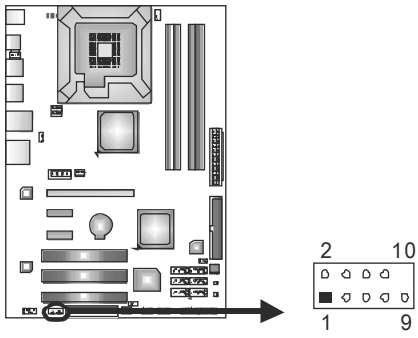
Pin 2-3 Close:
Clear CMOS data.

※ Clear CMOS Procedures:

1. Remove AC power line.
2. Set the jumper to “Pin 2-3 close”.
3. Wait for five seconds.
4. Set the jumper to “Pin 1-2 close”.
5. Power on the AC.
6. Reset your desired password or clear the CMOS data.

J_COM1: Serial port Connector

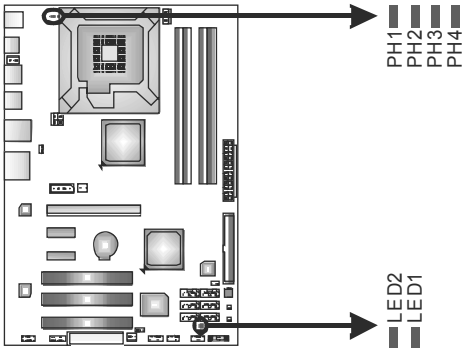
The motherboard has a Serial Port Connector for connecting RS-232 Port.



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

On-Board LED Indicators

There are 6 LED indicators on the motherboard showing system status.



LED1 & LED2: Debug Indicators

PH1 ~ PH4: Power Status Indicators

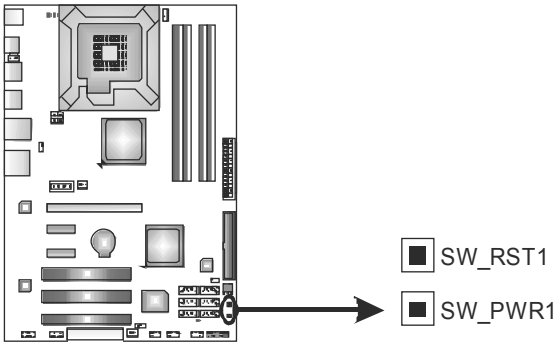
Please refer to the tables below for specific messages:

LED1	LED2	Message
ON	ON	Normal
ON	OFF	Memory Error
OFF	ON	VGA Error
OFF	OFF	Abnormal: CPU / Chipset error.

PH1 ~ PH4	Phase Indicator
ON	Phase Active
OFF	Phase Inactive

On-Board Buttons

There are 2 on-board buttons.



SW_RST1: Reset button.
SW_PWR1: Power Switch button.

CHAPTER 4: T-SERIES BIOS & SOFTWARE

4.1 T-SERIES BIOS

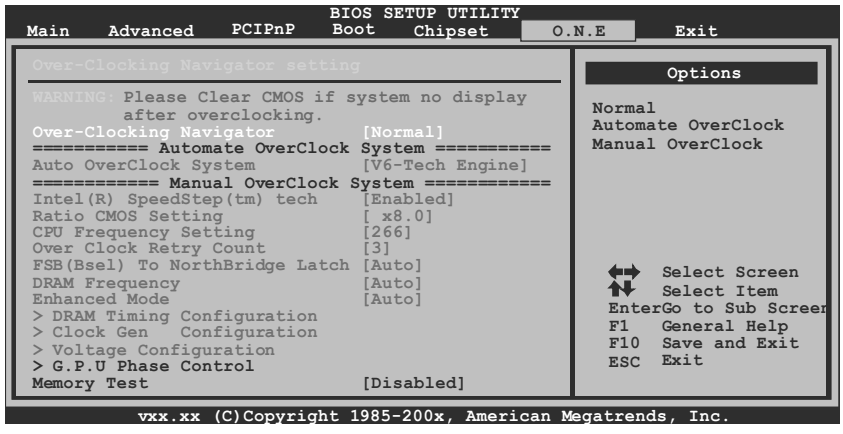
T-Series BIOS Features

- Overclocking Navigator Engine (O.N.E.)
- Memory Integration Test (M.I.T., under Overclock Navigator Engine)
- BIO-Flasher: Update BIOS file from USB Flash Drive or FDD
- Self Recovery System (S.R.S)
- Smart Fan Function
- CMOS Reloading Program

> *!! WARNING !!*
>
> For better system performance, the BIOS firmware is being continuously updated. The BIOS information described below in this manual is for your reference only and the actual BIOS information and settings on board may be different from this manual. For further information of setting up the BIOS, please refer to the BIOS Manual in the Setup CD.

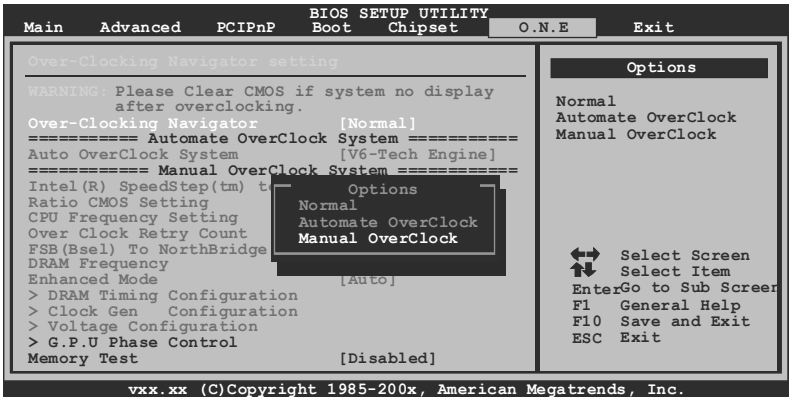
A. Overclocking Navigator Engine (O.N.E.)

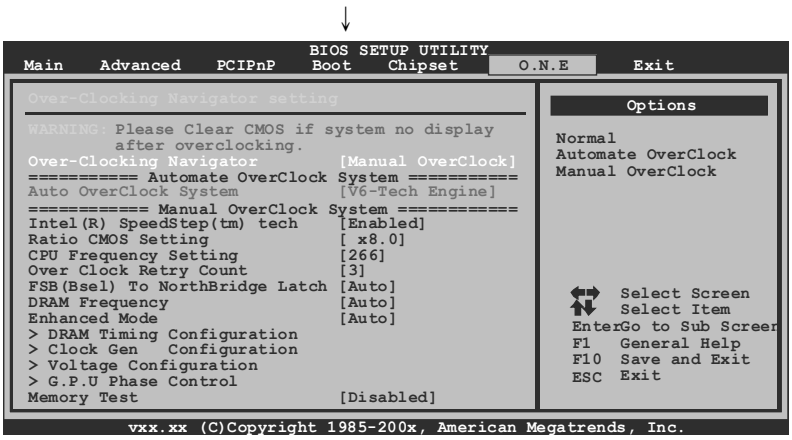
ONE provides two powerful overclocking engines: MOS and AOS for both Elite and Casual overclockers.



Manual Overclock System (M.O.S.)

MOS is designed for experienced overclock users.
It allows users to customize personal overclock settings.





Intel(R) SpeedStep(tm) Tech

This item allows you to enable SpeedStep technology for better power saving. SpeedStep is a technology built into some Intel processors that allows the clock speed of the processor to be dynamically changed by software.

Ratio CMOS Setting

This item allows you to set the CPU ratio frequency.

CPU Frequency Setting

CPU Frequency is directly in proportion to system performance. To maintain the system stability, CPU voltage needs to be increased also when raising CPU frequency.

Over Clock Retry Count

This item allows you to set the overclock fail retry times.

FSB(Bsel) To NorthBridge Latch

This item allows you to select the FSB Frequency.

DRAM Frequency

To get better system performance, sometimes downgrading the memory frequency is necessary when CPU frequency is adjusted over the upper limit.

Enhanced Mode

This item allows you to control the DDR3 RAM enhanced mode.

DRAM Timing Configuration

Enter this item for more advanced DRAM timing settings.

Clock Gen Configuration

Enter this item for more advanced Clock Gen settings.

Voltage Configuration

Enter this item for more advanced voltage settings.

G.P.U Phase Control

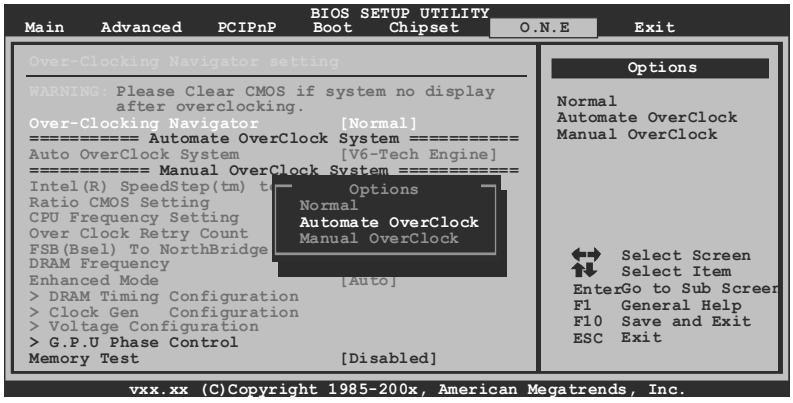
Enter this function for more power saving settings.

> ***NOTE***
>
> Overclock is an optional process, but not a "must-do" process; it is not recommended for inexperienced users. Therefore, we will not be responsible for any hardware damage which may be caused by overclocking. We also would not guarantee any overclocking performance.

Automatic Overclock System (A.O.S.)

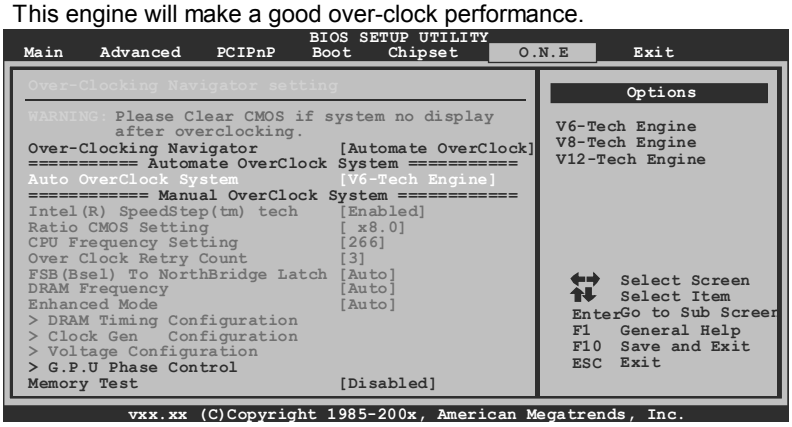
For beginners in overclock field, BET had developed an easy, fast, and powerful feature to increase the system performance, named A.O.S.

Based on many tests and experiments, A.O.S. provides 3 ideal overclock configurations that are able to raise the system performance in a single step.



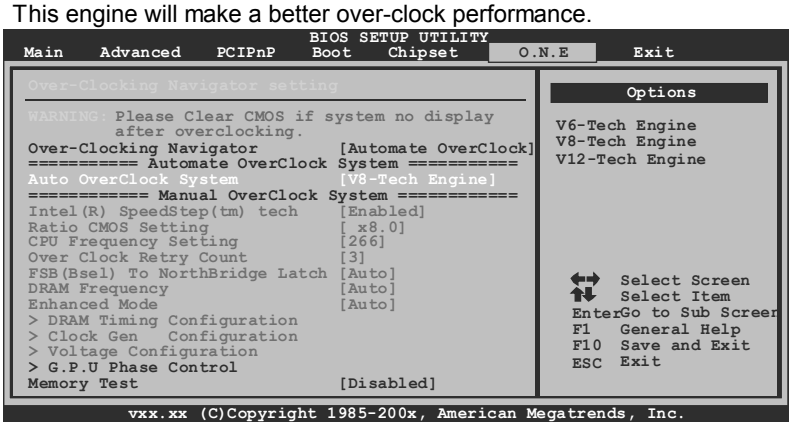
V6 Tech Engine

This engine will make a good over-clock performance.



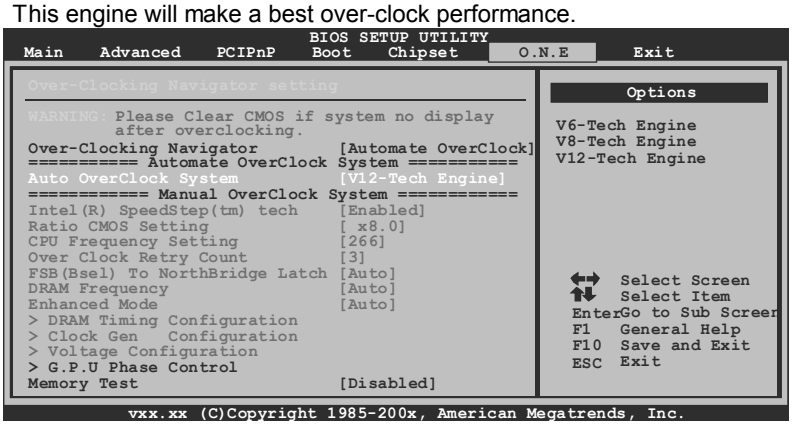
V8 Tech Engine

This engine will make a better over-clock performance.



V12 Tech Engine

This engine will make a best over-clock performance.



Notices:

Not all types of Intel CPU perform above overclock setting ideally; the difference will be based on the selected CPU model.

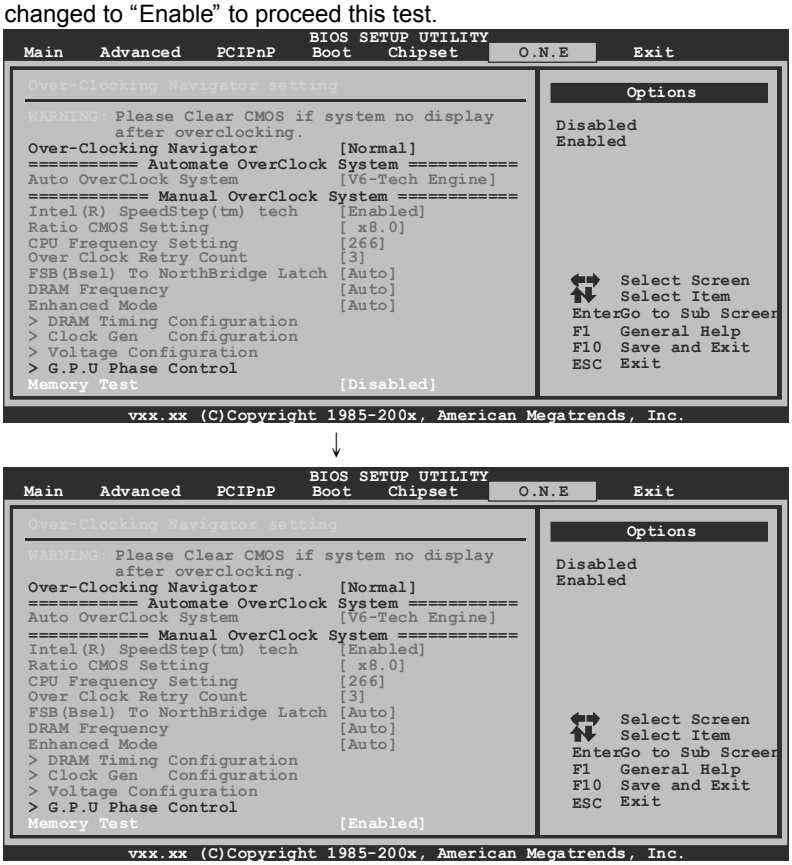
B. Memory Integration Test (M.I.T.)

This function is under "Overclocking Navigator Engine" item.

MIT allows users to test memory compatibilities, and no extra devices or software are needed.

Step 1

The default setting under this item is "Disabled"; the condition parameter should be changed to "Enable" to proceed this test.



Step 2

Save and Exit from CMOS setup and reboot the system to activate this test.

Run this test for 5 minutes (minimum) to ensure the memory stability.

Step 3

When the process is done, change the setting back from "Enable" to "Disable" to complete the test.

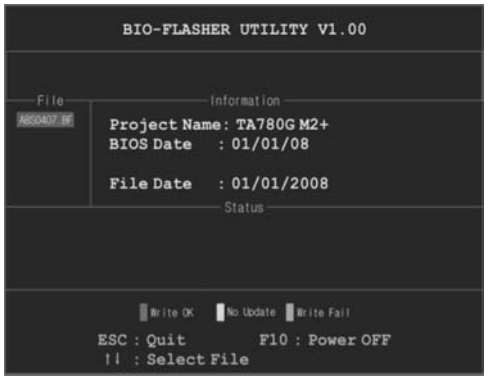
C. BIO-Flasher

BIO-Flasher is a BIOS flashing utility providing you an easy and simple way to update your BIOS via USB pen drive or floppy disk.

The BIO-Flasher is built in the BIOS chip. To enter the utility, **press <F12> during the Power-On Self Tests (POST)** procedure while booting up.

Updating BIOS with BIO-Flasher

1. Go to the website to download the latest BIOS file for the motherboard.
2. Then, save the BIOS file into a USB pen drive or a floppy disk.
3. Insert the USB pen drive or the floppy disk that contains the BIOS file to the USB port or the floppy disk drive.
4. Power on or reset the computer and then press **<F12>** during the **POST** process. A select dialog as the picture on the right appears. Select the device contains the BIOS file and press **<Enter>** to enter the utility.



5. The utility will show the BIOS files and their respective information. Select the proper BIOS file and press **<Enter>** then **<Y>** to perform the BIOS update process.
6. After the update process, the utility will ask you to reboot the system. Press **<Y>** to proceed. BIOS update completes.

- This utility only allows storage device with FAT32/16 format and single partition.
- Shutting down or resetting the system while updating the BIOS will lead to system boot failure.

D. Self Recovery System (S.R.S.)

This function can't be seen under BIOS setup; and is always on whenever the system starts up.

However, it can prevent system hang-up due to inappropriate overclock actions.

When the system hangs up, S.R.S. will automatically log in the default BIOS setting, and all overclock settings will be re-configured.

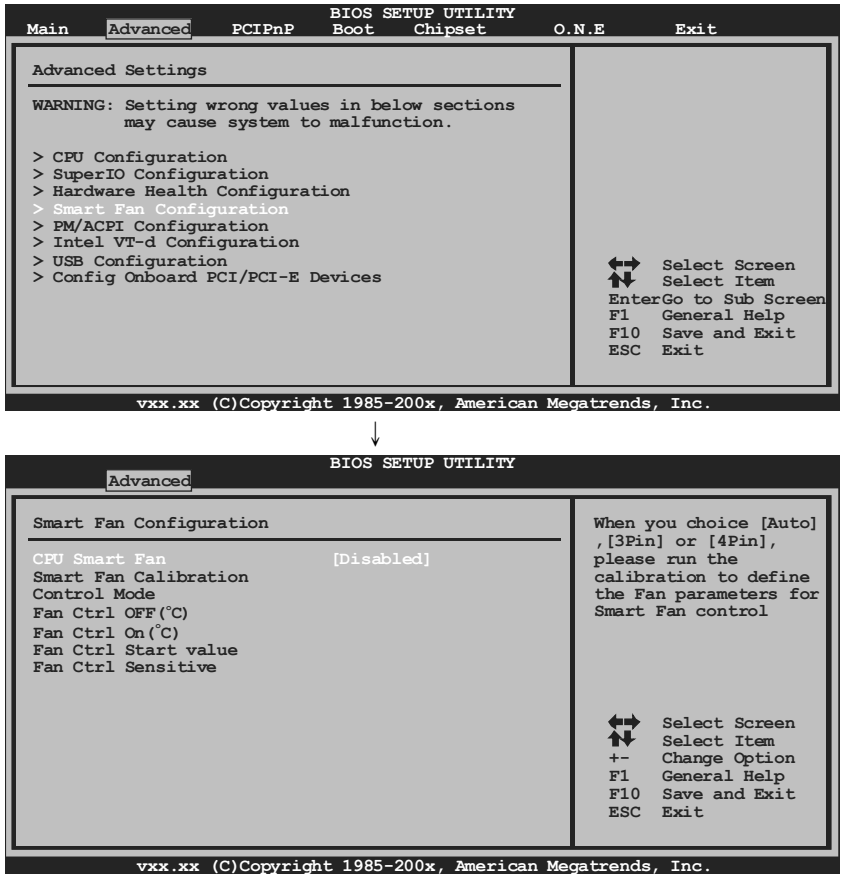
E. Smart Fan Function

Smart Fan Function is under "Smart Fan Configuration" in "Advanced Menu".

This is a brilliant feature to control CPU/System Temperature vs. Fan speed.

When enabling Smart Fan function, Fan speed is controlled automatically by CPU/System temperature.

This function will protect CPU/System from overheat problem and maintain the system temperature at a safe level.



Smart Fan Calibration

Choose this item and then the BIOS will automatically test and detect the CPU/System fan functions and show CPU/System fan speed.

Control Mode

This item provides several operation modes of the fan.

Fan Ctrl OFF(℃)

If the CPU/System temperature is lower than the set value, the CPU/ System fan will turn off. The range is from 0~127, with an interval of 1.

Fan Ctrl On(℃)

The CPU/System fan starts to work when CPU/System temperature arrives to this set value. The range is from 0~127, with an interval of 1.

Fan Ctrl Start Value

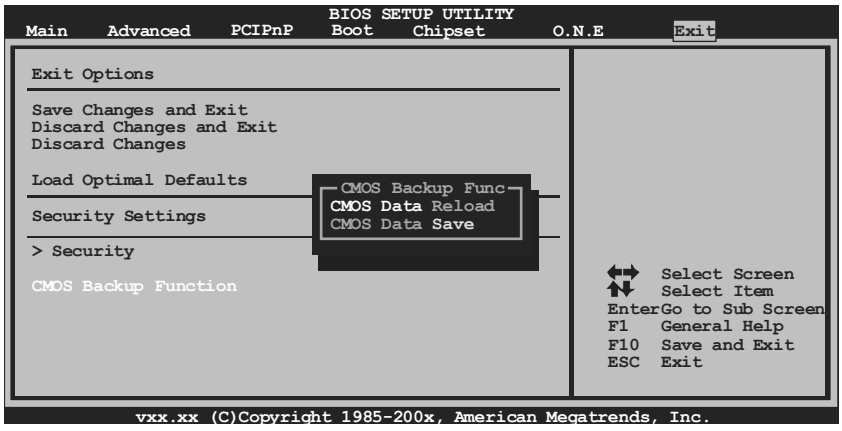
When CPU/System temperature arrives to the set value, the CPU/System fan will work under Smart Fan Function mode. The range is from 0~127, with an interval of 1.

Fan Ctrl Sensitive

Increasing the value of slope PWM will raise the speed of CPU/System fan. The range is from 1~127, with an interval of 1.

F. CMOS Reloading Program

It allows users to save different CMOS settings into BIOS-ROM.
Users are able to reload any saved CMOS setting for customizing system configurations. Moreover, users are able to save an ideal overclock setting during overclock operation.
There are 10 sets of record addresses in total, and users are able to name the CMOS data according to personal preference.



4.2 T-SERIES SOFTWARE

Installing T-Series Software

1. Insert the Setup CD to the optical drive. The drivers installation program would appear if the Auto-run function has been enabled.
2. Select **Software Installation**, and then click on the respective software title.
3. Follow the on-screen instructions to complete the installation.

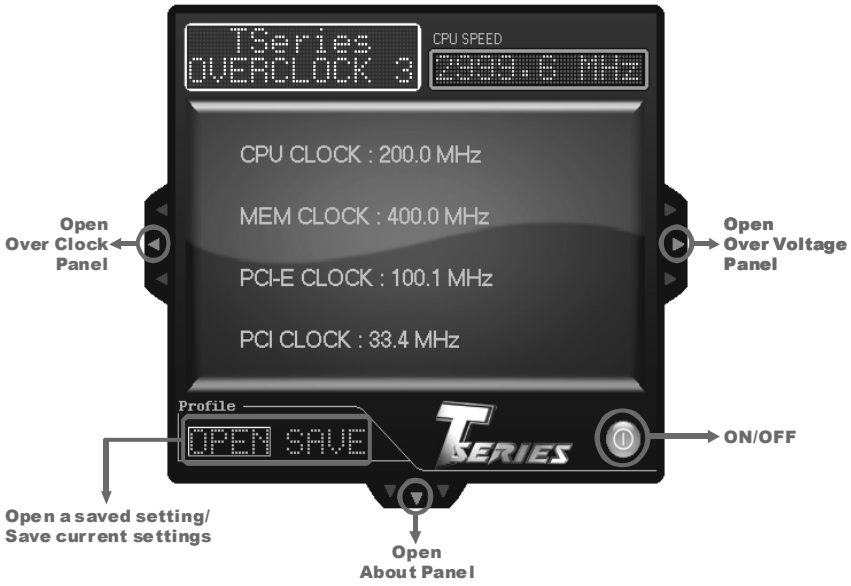
Launching T-Series Software

After the installation process, you will see the software icon "T-Utility OverClock III" / "HW Monitor" / "eHOT Line" / "Tseries BIOS Update" appears on the desktop. Double-click the icon to launch T-Series utility.

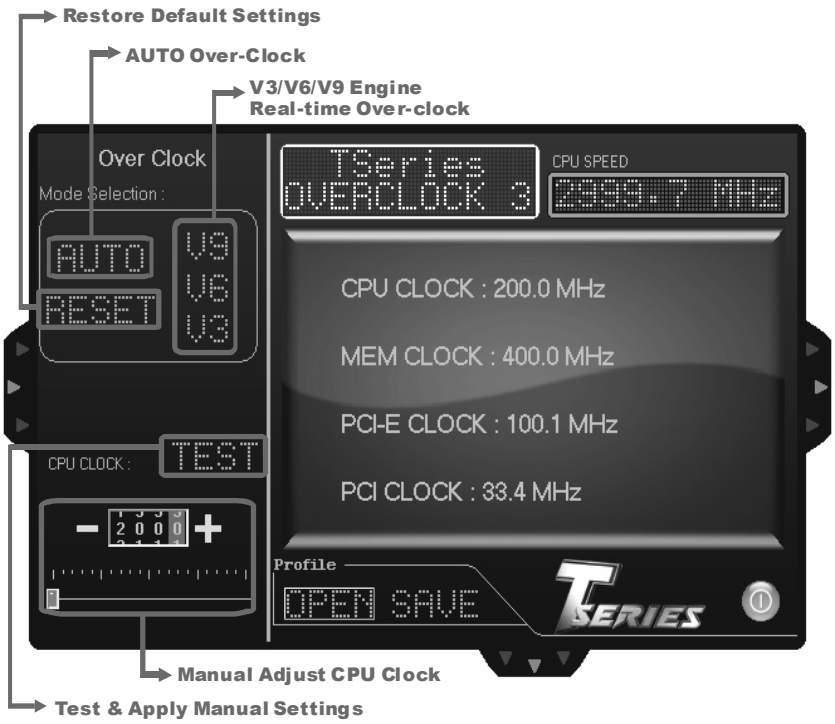
OverClock 3

OverClock 3 is equipped with friendly interface and solid over-clock features, and it will help you easily do over-clocking under windows environment.

Double-click the desktop icon, OverClock 3 will be launched; the first window you will see is **Main Panel**. In this panel you will see current CPU Speed and CPU/Memory/PCI-E/PCI Clock.

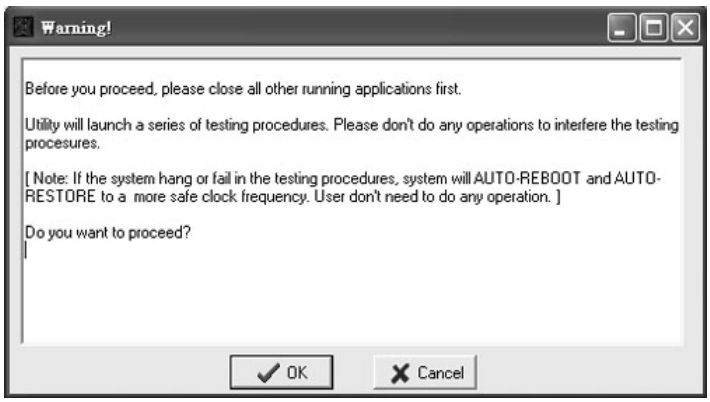


Over Clock Panel



AUTO

User can click this button and the utility will set the best and stable performance and frequency automatically. A warning dialog as below will show up to notify you that the system may become unstable, click on “OK” to continue.



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

V3 / V6 / V9

Provide user the ability to do real-time over-clock adjustment. For beginners in over-clock field, this is a powerful feature to increase system performance.

- **V3 Engine**
  This engine will make a good over-clock performance.
- **V6 Engine**
  This engine will make a better over-clock performance.
- **V9 Engine**
  This engine will make a best over-clock performance.

TEST

You can also manually adjust CPU clock by pressing +/- button or moving the level bar. After manually adjust the CPU clock, you should click TEST button and the utility will proceed a testing for current frequency. If the testing is ok, then the current frequency will be saved into system registry. If the testing fails, system will do a fail-safe rebooting. After reboot, the utility will restore to the hardware default setting.

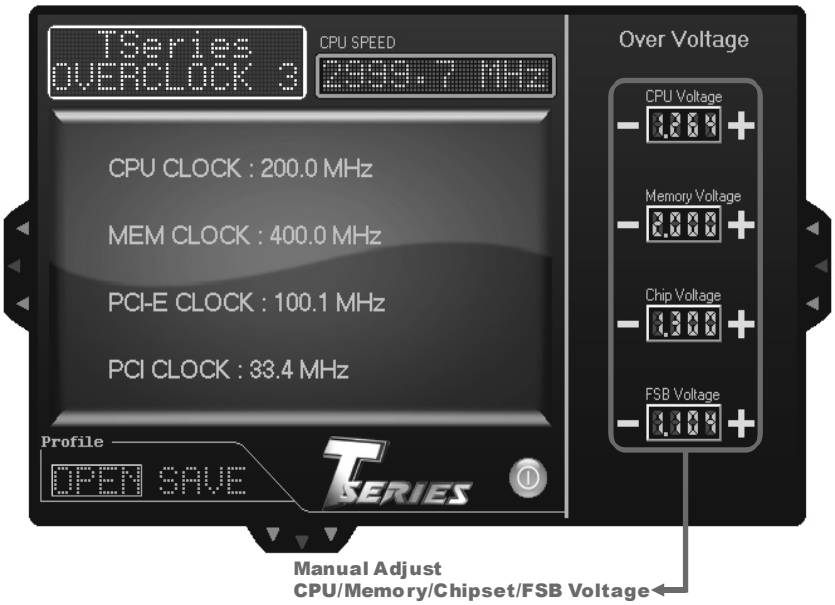
Warning

Manually over-clock is potentially dangerous, especially when the over-clocking percentage is over 110 %. We strongly recommend you test every speed you over-clock by click the TEST button. Or, you can just click AUTO over-clock button and let the Utility automatically get the best result for you.

RESET

Click this button and the utility will restore all values to the hardware default setting.

Over Voltage Panel



CPU Voltage

This function allows user to adjust CPU voltage. Click on "+" to increase or "-" to decrease the CPU voltage.

Memory Voltage

This function allows user to adjust Memory voltage. Click on "+" to increase or "-" to decrease the Memory voltage.

Chip Voltage

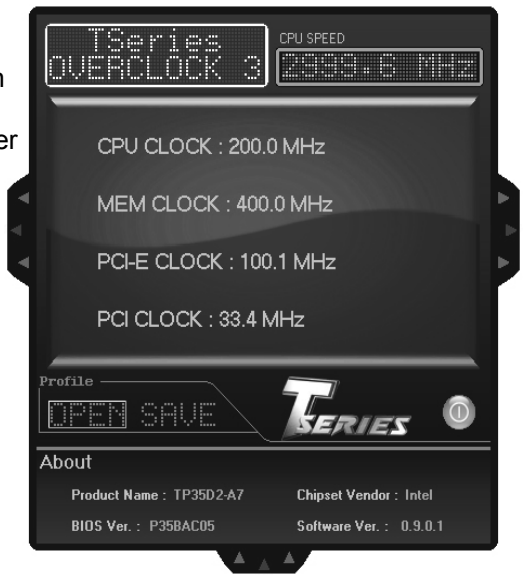
This function allows user to adjust Chipset voltage. Click on "+" to increase or "-" to decrease the Chipset voltage.

FSB Voltage

This function allows user to adjust FSB voltage. Click on "+" to increase or "-" to decrease the FSB voltage.

About Panel

In this panel, you can get model name and other system information that may related to over-clocking. You can also get the version number of this software.

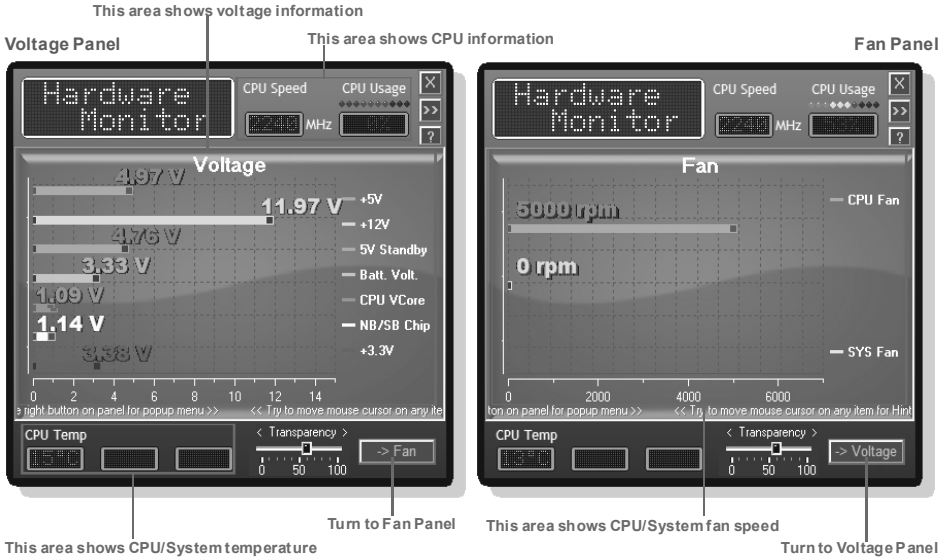


Note

Because the Over Clock and Over Voltage features are controlled by several separate chipset, the utility divides these features to separate panels. If one chipset is not on board, the correlative button in Main panel will be disabled, but it will not interfere with other panels' functions. This property can make the utility more robust.

Hardware Monitor

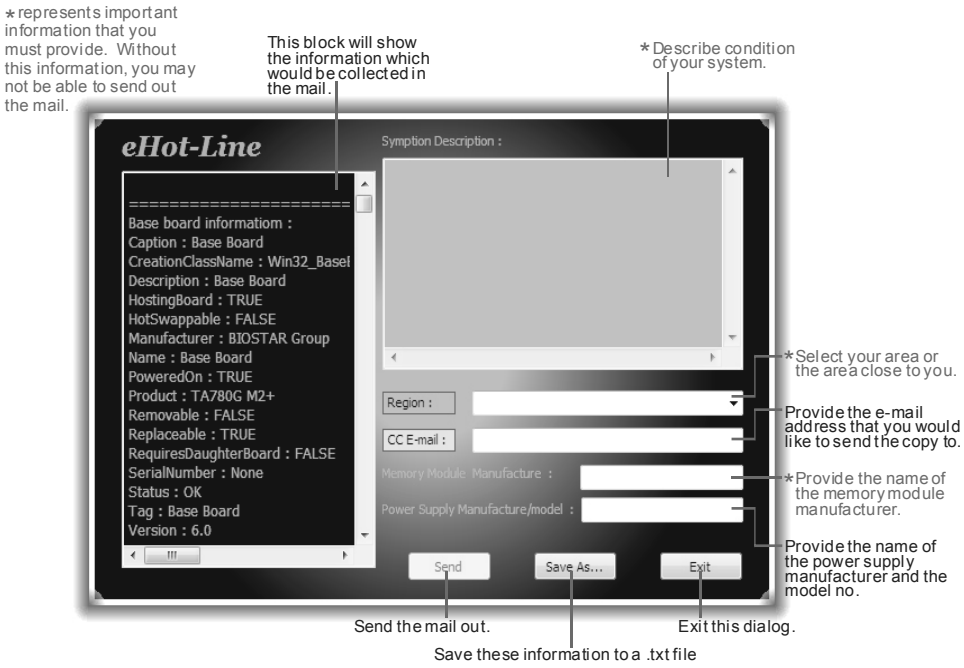
HW Monitor is a monitor utility that helps you to maintain the health of the PC. It provides real-time information of CPU/GPU/System temperature, fan speed, and voltage.



eHot-Line (Optional)

eHot-Line is a convenient utility that helps you to contact with our Tech-Support system. This utility will collect the system information which is useful for analyzing the problem you may have encountered, and then send these information to our tech-support department to help you fix the problem.

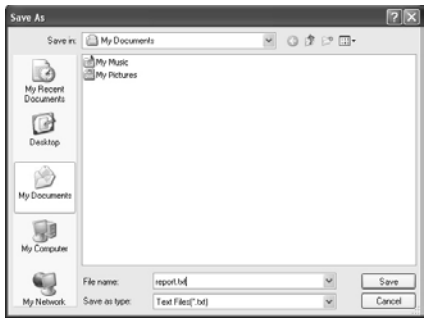
Before you use this utility, please set Outlook Express as your default e-mail client application program.



After filling up this information, click "**Send**" to send the mail out. A warning dialog would appear asking for your confirmation; click "**Send**" to confirm or "**Do Not Send**" to cancel.

If you want to save this information to a .txt file, click "**Save As…**" and then you will see a saving dialog appears asking you to enter file name.

Enter the file name and then click "**Save**". Your system information will be saved to a .txt file.



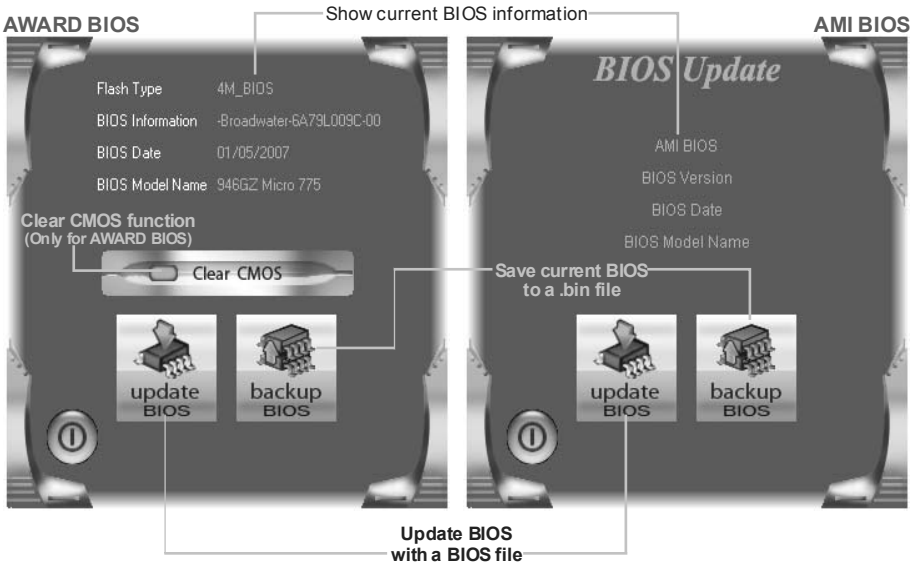
Open the saved .txt file, you will see your system information including motherboard/BIOS/CPU/video/ device/OS information. This information is also concluded in the sent mail.

We will not share customer's data with any other third parties, so please feel free to provide your system information while using eHot-Line service.

If you are not using Outlook Express as your default e-mail client application, you may need to save the system information to a .txt file and send the file to our tech support with other e-mail application. Go to the following web http://www.biostar.com.tw/app/en-us/about/contact.php for getting our contact information.

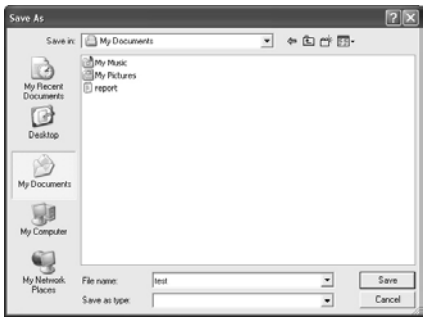
BIOS Update

BIOS Update is a convenient utility which allows you to update your motherboard BIOS under Windows system.



<Backup BIOS>

Once click on this button, the saving dialog will show. Choose the position to save file and enter file name. (We recommend that the file name should be English/number and no longer than 7 characters.) Then click **Save**.

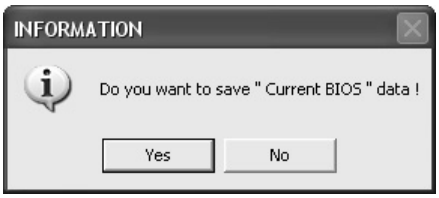


After the saving process, finish dialog will show. Click on **OK** to complete the BIOS Backup procedure.

<Update BIOS>

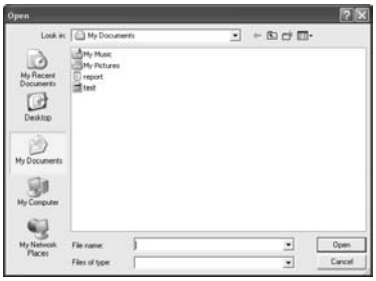
Before doing this, please download the proper BIOS file from the website.

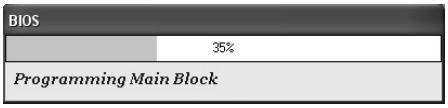
For AWARD BIOS, update BIOS procedure should be run with Clear CMOS function, so please check on Clear CMOS first.



Then click Update BIOS button, a dialog will show for asking you backup current BIOS. Click **Yes** for BIOS backup and refer to the Backup BIOS procedure; or click **No** to skip this procedure.

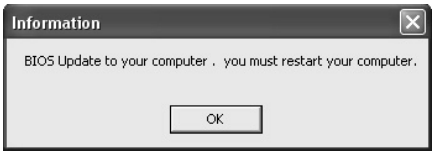
After the BIOS Backup procedure, the open dialog will show for requesting the BIOS file which is going to be updated. Please choose the proper BIOS file for updating, then click on **Open**.





The utility will update BIOS with the proper BIOS file, and this process may take minutes. Please do not open any other applications during this process.

After the BIOS Update process, click on **OK** to restart the system.



While the system boots up and the full screen logo shows, press 

<Delete> key to enter BIOS setup.

In the BIOS setup, use the **Load Optimized Defaults** function and then **Save and Exit Setup** to exit BIOS setup. BIOS Update is completed.

All the information and content above about the T-Series software are subject to be changed without notice. For better performance, the software is being continuously updated. The information and pictures described above are for your reference only. The actual information and settings on board may be slightly different from this manual.

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 EXTRA INFORMATION

CPU Overheated

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

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

In this case, please double check:

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

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

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

Or you can:

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

5.3 AMI BIOS BEEP CODE

Boot Block Beep Codes

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

POST BIOS Beep Codes

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

Troubleshooting POST BIOS Beep Codes

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

5.4 TROUBLESHOOTING

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

APPENDIX: SPEC IN OTHER LANGUAGES

GERMAN

Spezifikationen		
CPU	LGA 775 Intel Core2 Extreme / Core2 Duo / Core2 Quad / Pentium Dual-Core / Celeron Dual-Core / Celeron 4xx Prozessoren	Unterstützt Execute Disable Bit / Enhanced Intel SpeedStep® / Intel Architecture-64 / Extended Memory 64 Technology / Virtualization Technology
FSB	800 / 1066 / 1333 / 1600 MHz	
Chipsatz	Intel P43 Intel ICH10	
Super E/A	ITE 8718F Bietet die häufig verwendeten alten Super E/A-Funktionen. Low Pin Count-Schnittstelle	Umgebungskontrolle, Hardware-Überwachung Lüfterdrehzahl-Controller/-Überwachung "Smart Guardian"-Funktion von ITE
Arbeitsspeicher	DDR3 DIMM-Steckplätze x 4 Jeder DIMM unterstützt 256MB / 512MB / 1GB / 2GB DDR3. Max. 8GB Arbeitsspeicher	Dual-Kanal DDR3 Speichermodul Unterstützt DDR3 800 / 1066 / 1333 / 1600(OC) registrierte DIMMs. ECC DIMMs werden nicht unterstützt. (Detailgedächtnisunterstützungstabelle, beziehen sich auf Seite 9, bitte)
IDE	JMB368	Ultra DMA 33 / 66 / 100 / 133 Bus Master-Modus Unterstützt PIO-Modus 0~4,
SATA	Integrierter Serial ATA-Controller	Datentransferrate bis zu 3.0Gb/s Konform mit der SATA-Spezifikation Version 2.0.
LAN	Realtek RTL 8111DL	10 / 100 / 1000 Mb/s Auto-Negotiation Halb-/ Vollduplex-Funktion
HD Audio-Unterstützung	ALC888	Unterstützt High-Definition Audio 7.1-Kanal-Audioausgabe
Steckplätze	PCI-Steckplatz x3 PCI Express Gen2 x16 Steckplatz x1 PCI Express x 1-Steckplatz x2	

Spezifikationen			
Onboard-Anschluss	Diskettenlaufwerkanschluss	x1	Jeder Anschluss unterstützt 2 Diskettenlaufwerke
	IDE-Anschluss	x1	Jeder Anschluss unterstützt 2 IDE-Laufwerke
	SATA-Anschluss	x6	Jeder Anschluss unterstützt 1 SATA-Laufwerk
	Fronttafelanschluss	x1	Unterstützt die Fronttafelfunktionen
	Front-Audioanschluss	x1	Unterstützt die Fronttafel-Audioanschlussfunktion
	S/PDIF Ausgangsanschluss	x1	Unterstützt die digitale Audioausgabefunktion
	CPU-Lüfter-Sockel	x1	CPU-Lüfterstromversorgungsanschluss (mit Smart Fan-Funktion)
	System-Lüfter-Sockel	x2	System-Lüfter-Stromversorgungsanschluss
	"CMOS löschen"-Sockel	x1	
	USB-Anschluss	x3	Jeder Anschluss unterstützt 2 Fronttafel-USB-Anschlüsse
	Stromanschluss (24-polig)	x1	
	Stromanschluss (4-polig)	x2	
Rückseiten-E/A	PS/2-Tastatur	x1	
	PS/2-Maus	x1	
	LAN-Anschluss	x1	
	USB-Anschluss	x6	
	Audioanschluss	x6	
	Optisches +coaxial S/PDIF heraus	x1	
Platinengröße	220 mm (B) X 305 mm (L)		
OS-Unterstützung	Windows XP / Vista 32 / Vista 64 / 7		Biostar behält sich das Recht vor, ohne Ankündigung die Unterstützung für ein Betriebssystem hinzuzufügen oder zu entfernen.

FRENCH

SPEC		
UC	LGA 775 Processeurs Intel Core2 Extreme / Core2 Duo / Core2 Quad / Pentium Dual-Core / Celeron Dual-Core / Celeron 4xx	Prend en charge les technologies d'exécution de bit de désactivation / Intel SpeedStep® optimisée/ d'architecture Intel 64 / de mémoire étendue 64 / de virtualisation
Bus frontal	800 / 1066 / 1333 / 1600 MHz	
Chipset	Intel P43 Intel ICH10	
Super E/S	ITE 8718F 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 /moniteur de vitesse de ventilateur Fonction "Gardien intelligent" de l'ITE
Mémoire principale	Fentes DDR3 DIMM x 4 Chaque DIMM prend en charge des DDR3 de 256Mo / 512Mo / 1Go / 2Go Capacité mémoire maximale de 8Go	Module de mémoire DDR3 à mode à double voie Prend en charge la DDR3 800 / 1066 / 1333 / 1600(OC) Les DIMM à registres et DIMM avec code correcteurs d'erreurs ne sont pas prises en charge (La table de soutien de mémoire de détail, se rapportent à la page 9, svp)
IDE	JMB368	Mode principale de Bus Ultra DMA 33 / 66 / 100 / 133 Prend en charge le mode PIO 0~4,
SATA	Contrôleur Serial ATA intégré :	Taux de transfert jusqu'à 3.0Go/s. Conforme à la spécification SATA Version 2.0
LAN	Realtek RTL 8111DL	10 / 100 / 1000 Mb/s négociation automatique Half / Full duplex capability
Prise en charge audio HD	ALC888	Prise en charge de l'audio haute définition Sortie audio à 7.1 voies
Fentes	Fente PCI x3 Fente PCI Express Gen2 x16 x1 Fente PCI Express x1 x2	

SPEC			
Connecteur embarqué	Connecteur de disquette	x1	Chaque connector prend en charge 2 lecteurs de disquettes
	Connecteur IDE	x1	Chaque connecteur prend en charge 2 périphériques IDE
	Connecteur SATA	x6	Chaque connecteur prend en charge 1 périphérique SATA
	Connecteur du panneau avant	x1	Prend en charge les équipements du panneau avant
	Connecteur Audio du panneau avant	x1	Prend en charge la fonction audio du panneau avant
	Connecteur d'entrée CD	x1	Prend en charge la fonction d'entrée audio de CD
	Embase de ventilateur UC	x1	Alimentation électrique du ventilateur UC (avec fonction de ventilateur intelligent)
	Embase de ventilateur système	x2	Alimentation électrique du ventilateur système
	Embase d'effacement CMOS	x1	
	Connecteur USB	x3	Chaque connecteur prend en charge 2 ports USB de panneau avant
	Connecteur d'alimentation (24 broches)	x1	
	Connecteur d'alimentation (4 broches)	x2	
E/S du panneau arrière	Clavier PS/2	x1	
	Souris PS/2	x1	
	Port LAN	x1	
	Port USB	x6	
	Fiche audio	x6	
	+coaxial optique sortie S/PDIF	x1	
Dimensions de la carte	220 mm (l) X 305 mm (H)		
Support SE	Windows XP / Vista 32 / Vista 64 / 7		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 Core2 Extreme / Core2 Duo / Core2 Quad / Pentium Dual-Core / Celeron Dual-Core / Celeron 4xx	Supporto di Execute Disable Bit / Enhanced Intel SpeedStep® / Architettura Intel 64 / Tecnologia Extended Memory 64 / Tecnologia Virtualization
FSB	800 / 1066 / 1333 / 1600 MHz	
Chipset	Intel P43 Intel ICH10	
Super I/O	ITE 8718F Fornisce le funzionalità legacy Super I/O usate più comunemente. Interfaccia LPC (Low Pin Count)	Funzioni di controllo dell'ambiente: Monitoraggio hardware Controller / Monitoraggio velocità ventolina Funzione "Smart Guardian" di ITE
Memoria principale	Alloggi DIMM DDR3 x 4 Ciascun DIMM supporta DDR3 256MB / 512MB / 1GB / 2GB Capacità massima della memoria 8GB	Modulo di memoria DDR3 a canale doppio Supporto di DDR3 800 / 1066 / 1333 / 1600(OC) DIMM registrati e DIMM ECC non sono supportati (La tabella di sostegno di memoria del particolare, si riferisce alla pagina 9, per favore)
IDE	JMB368	Modalità Bus Master Ultra DMA 33 / 66 / 100 / 133 Supporto modalità PIO Mode 0-4
SATA	Controller Serial ATA integrato	Velocità di trasferimento dei dati fino a 3.0Gb/s. Compatibile specifiche SATA Versione 2.0.
LAN	Realtek RTL 8111DL	Negoziazione automatica 10 / 100 / 1000 Mb/s Capacità Half / Full Duplex
Supporto audio HD	ALC888	Supporto audio High-Definition (HD) Uscita audio 7.1 canali
Alloggi	Alloggio PCI x3 Alloggio PCI Express Gen2 x16 x1 Alloggio PCI Express x1 x2	

SPECIFICA			
Connettori su scheda	Connettore floppy	x1	Ciascun connettore supporta 2 unità Floppy
	Connettore IDE	x1	Ciascun connettore supporta 2 unità IDE
	Connettore SATA	x6	Ciascun connettore supporta 1 unità SATA
	Connettore pannello frontale	x1	Supporta i servizi del pannello frontale
	Connettore audio frontale	x1	Supporta la funzione audio pannello frontale
	Connettore output S/PDIF	x1	Supporta la funzione d'output audio digitale
	Collettore ventolina CPU	x1	Alimentazione ventolina CPU (con funzione Smart Fan)
	Collettore ventolina sistema	x2	Alimentazione ventolina di sistema
	Collettore cancellazione CMOS	x1	
	Connettore USB	x3	Ciascun connettore supporta 2 porte USB pannello frontale
	Connettore alimentazione (24 pin)	x1	
	Connettore alimentazione (4 pin)	x2	
I/O pannello posteriore	Tastiera PS/2	x1	
	Mouse PS/2	x1	
	Porta LAN	x1	
	Porta USB	x6	
	Connettore audio	x6	
	+coaxial ottico S/PDIF fuori	x1	
Dimensioni scheda	220 mm (larghezza) x 305 mm (altezza)		
Sistemi operativi supportati	Windows XP / Vista 32 / Vista 64 / 7		Biostar si riserva il diritto di aggiungere o rimuovere il supporto di qualsiasi sistema operativo senza preavviso.

SPANISH

Especificación			
CPU	LGA 775 Procesador Intel Core2 Extreme / Core2 Duo / Core2 Quad / Pentium Dual-Core / Celeron Dual-Core / Celeron 4xx		Admite Bit de deshabilitación de ejecución / Intel SpeedStep® Mejorado / Intel Architecture-64 / Tecnología Extended Memory 64 / Tecnología de virtualización
FSB	800 / 1066 / 1333 / 1600 MHz		
Conjunto de chips	Intel P43 Intel ICH10		
Súper E/S	ITE 8718F 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/monitor de velocidad de ventilador Función "Guardia inteligente" de ITE
Memoria principal	Ranuras DIMM DDR3 x 4 Cada DIMM admite DDR de 256MB / 512MB / 1GB / 2GB Capacidad máxima de memoria de 8GB		Módulo de memoria DDR3 de canal Doble Admite DDR3 de 800 / 1066 / 1333 / 1600(OC) No admite DIMM registrados o DIMM compatibles con ECC (La tabla de la ayuda de la memoria del detalle, refiere a la página 9, por favor)
IDE	JMB368		Modo bus maestro Ultra DMA 33 / 66 / 100 / 133 Soporte los Modos PIO 0~4,
SATA	Controlador ATA Serie Integrado		Tasas de transferencia de hasta 3.0 Gb/s. Compatible con la versión SATA 2.0.
Red Local	Realtek RTL 8111DL		Negociación de 10 / 100 / 1000 Mb/s Funciones Half / Full dúplex
Soporte de sonido HD	ALC888		Soporte de sonido de Alta Definición Salida de sonido de 7.1 canales
Ranuras	Ranura PCI Ranura PCI Express Gen2 x16 Ranura PCI express x 1	X3 X1 X2	

Especificación			
Conectores en placa	Conector disco flexible	X1	Cada conector soporta 2 unidades de disco flexible
	Conector IDE	X1	Cada conector soporta 2 dispositivos IDE
	Conector SATA	X6	Cada conector soporta 1 dispositivos SATA
	Conector de panel frontal	X1	Soporta instalaciones en el panel frontal
	Conector de sonido frontal	X1	Soporta funciones de sonido en el panel frontal
	Conector de salida S/PDIF	X1	Soporta función de salida de sonido digital
	Cabecera de ventilador de CPU	X1	Fuente de alimentación de ventilador de CPU (con función Smart Fan)
	Cabecera de ventilador de sistema	X2	Fuente de alimentación de ventilador de sistema
	Cabecera de borrado de CMOS	X1	
	Conector USB	X3	Cada conector soporta 2 puertos USB frontales
	Conector de alimentación (24 patillas)	X1	
	Conector de alimentación (4 patillas)	X2	
Panel trasero de E/S	Teclado PS/2	X1	
	Ratón PS/2	X1	
	Puerto de red local	X1	
	Puerto USB	X6	
	Conector de sonido	X6	
	+coaxial óptico salida S/PDIF	x1	
Tamaño de la placa	220 mm. (A) X 305 Mm. (H)		
Soporte de sistema operativo	Windows XP / Vista 32 / Vista 64 / 7		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 Core2 Extreme / Core2 Duo / Core2 Quad / Pentium Dual-Core / Celeron Dual-Core / Celeron 4xx	Suporta as tecnologias Execute Disable Bit / Enhanced Intel SpeedStep® / Intel Arquitecture -64 / Extended Memory 64 / Virtualization
FSB	800 / 1066 / 1333 / 1600 MHz	
Chipset	Intel P43 Intel ICH10	
Especificação Super I/O	ITE 8718F 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/Monitor da velocidade da ventoinha Função "Smart Guardian" da ITE
Memória principal	Ranhuras DIMM DDR3 x 4 Cada módulo DIMM suporta uma memória DDR3 de 256 MB / 512 MB / 1GB / 2GB Capacidade máxima de memória:8GB	Módulo de memória DDR3 de canal duplo Suporta módulos DDR3 800 / 1066 / 1333 / 1600(OC) Os módulos DIMM registados e os DIMM ECC não são suportados (A tabela da sustentação da memória do detalhe, consulta à página 9, por favor)
IDE	JMB368	Modo Bus master Ultra DMA 33 / 66 / 100 / 133 Suporta o modo PIO 0~4,
SATA	Controlador Serial ATA integrado	Velocidades de transmissão de dados até 3.0 Gb/s. Compatibilidade com a especificação SATA versão 2.0.
LAN	Realtek RTL 8111DL	Auto negociação de 10 / 100 / 1000 Mb/s Capacidade semi/full-duplex
Suporte para áudio de alta definição	ALC888	Suporta a especificação High-Definition Audio Saída de áudio de 7.1 canais
Ranhuras	Ranhura PCI x3 Ranhura PCI Express Gen2 x16 x1 Ranhura PCI Express x 1 x2	

ESPECIFICAÇÕES			
Conectores na placa	Conector da unidade de disquetes	x1	Cada conector suporta 2 unidades de disquetes
	Conector IDE	x1	Cada conector suporta 2 dispositivos IDE
	Conector SATA	x6	Cada conector suporta 1 dispositivo SATA
	Conector do painel frontal	x1	Para suporte de várias funções no painel frontal
	Conector de áudio frontal	x1	Suporta a função de áudio no painel frontal
	Conector de saída S/PDIF	x1	Suporta a saída de áudio digital
	Conector da ventoinha da CPU	x1	Alimentação da ventoinha da CPU (com a função Smart Fan)
	Conector da ventoinha do sistema	x2	Alimentação da ventoinha do sistema
	Conector para limpeza do CMOS	x1	
	Conector USB	x3	Cada conector suporta 2 portas USB no painel frontal
	Conector de alimentação (24 pinos)	x1	
	Conector de alimentação (4 pinos)	x2	
Entradas/Saídas no painel traseiro	Teclado PS/2	x1	
	Rato PS/2	x1	
	Porta LAN	x1	
	Porta USB	x6	
	Tomada de áudio	x6	
	+coaxial ótico saída S/PDIF	x1	
Tamanho da placa	220 mm (L) X 305 mm (A)		
Sistemas operativos suportados	Windows XP / Vista 32 / Vista 64 / 7		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 Core2 Extreme / Core2 Duo / Core2 Quad / Pentium Dual-Core / Celeron Dual-Core / Celeron 4xx	Obsługa Execute Disable Bit / Enhanced Intel SpeedStep® / Intel Architecture-64 / Extended Memory 64 Technology / Virtualization Technology
FSB	800 / 1066 / 1333 / 1600 MHz	
Chipset	Intel P43 Intel ICH10	
Pamięć główna	Gniazda DDR3 DIMM x 4 Każde gniazdo DIMM obsługuje moduły 256MB / 512MB / 1GB / 2GB Maks. wielkość pamięci 8GB	Moduł pamięci DDR3 z trybem podwójnego kanału Obsługa DDR3 800 / 1066 / 1333 / 1600(OC) Brak obsługi Registered DIMM oraz ECC DIMM (Szczegół pamięć tablica poparcia, ‚kierują Numerować strony 9, sprawiać przyjemność)
Super I/O	ITE 8718F Zapewnia najbardziej powszechne funkcje Super I/O. Interfejs Low Pin Count	Funkcje kontroli warunków pracy, Monitor H/W Kontroler/Monitor prędkości wentylatora Funkcja ITE "Smart Guardian"
IDE	JMB368	Ultra DMA 33 / 66 / 100 / 133 Tryb Bus Master obsługa PIO tryb 0~4,
SATA	Zintegrowany kontroler Serial ATA	Transfer danych do 3.0 Gb/s. Zgodność ze specyfikacją SATA w wersji 2.0.
LAN	Realtek RTL 8111DL	10 / 100 / 1000 Mb/s z automatyczną negocjacją szybkości Działanie w trybie połowicznego / pełnego dupleksu
Obsługa audio HD	ALC888	Obsługa High-Definition Audio 7.1 kanałowe wyjście audio
Gniazda	Gniazdo PCI x3 Gniazdo PCI Express Gen2 x16 x1 Gniazdo PCI Express x 1 x2	

SPEC			
Złącza wbudowane	Złącze napędu dyskietek	x1	Każde złącze obsługuje 2 napędy dyskietek
	Złącze IDE	x1	Każde złącze obsługuje 2 urządzenia IDE
	Złącze SATA	x6	Każde złącze obsługuje 1 urządzenie SATA
	Złącze panela przedniego	x1	Obsługa elementów panela przedniego
	Przednie złącze audio	x1	Obsługa funkcji audio na panelu przednim
	Złącze wyjścia S/PDIF	x1	Obsługa funkcji cyfrowego wyjścia audio
	Złącze główkowe wentylatora procesora	x1	Zasilanie wentylatora procesora (z funkcją Smart Fan)
	Złącze główkowe wentylatora systemowego	x2	Zasilanie wentylatora systemowego
	Złącze główkowe kasowania CMOS	x1	
	Złącze USB	x3	Każde złącze obsługuje 2 porty USB na panelu przednim
	Złącze zasilania (24 pinowe)	x1	
	Złącze zasilania (4 pinowe)	x2	
Back Panel I/O	Klawiatura PS/2	x1	
	Mysz PS/2	x1	
	Port LAN	x1	
	Port USB	x6	
	Gniazdo audio	x6	
	Optyczny +coaxial wyjścia S/PDIF	x1	
Wymiary płyty	220 mm (S) X 305 mm (W)		
Obsługa systemu operacyjnego	Windows XP / Vista 32 / Vista 64 / 7		Biostar zastrzega sobie prawo dodawania lub odwoływania obsługi dowolnego systemu operacyjnego bez powiadomienia.

RUSSIAN

СПЕЦ		
CPU (центральный процессор)	LGA 775 Процессор Intel Core2 Extreme / Core2 Duo / Core2 Quad / Pentium Dual-Core / Celeron Dual-Core / Celeron 4xx	Поддержка технологий Execute Disable Bit / Enhanced Intel SpeedStep® / Intel Architecture-64 / Extended Memory 64 Technology / технологии виртуализация
FSB	800 / 1066 / 1333 / 1600 МГц	
Набор микросхем	Intel P43 Intel ICH10	
Основная память	Слоты DDR3 DIMM x 4 Каждый модуль DIMM поддерживает 256 МБ / 512МБ / 1ГБ / 2ГБ DDR3 Максимальная ёмкость памяти 8ГБ	Модуль памяти с двухканальным режимом DDR3 Поддержка DDR3 800 / 1066 / 1333 / 1600(OC) Не поддерживает зарегистрированные модули DIMM and ECC DIMM (Таблица поддержки памяти детали, refer to страница 9, пожалуйста)
Super I/O	ITE 8718F Обеспечивает наиболее используемые действующие функциональные возможности Super I/O. Интерфейс с низким количеством выводов	Инициативы по охране окружающей среды, Аппаратный монитор Регулятор скорости вентилятора/ монитор Функция ITE "Smart Guardian" (Интеллектуальная защита)
IDE	JMB368	Режим "хозяина" шины Ultra DMA 33 / 66 / 100 / 133 Поддержка режима PIO 0~4,
SATA	Встроенное последовательное устройство управления ATA	скорость передачи данных до 3.0 гигабит/с. Соответствие спецификации SATA версия 2.0
Локальная сеть	Realtek RTL 8111DL	Автоматическое согласование 10 / 100 / 1000 Мб/с Частичная / полная дуплексная способность
Звуковая поддержка жесткого диска	ALC888	Звуковая поддержка High-Definition 7.1канальный звуковой выход
Слоты	Слот PCI x3 Слот PCI Express Gen2 x16 x1 Слот PCI Express x 1 x2	

СПЕЦ			
Встроенный разъём	Разъём НГМД	x1	Каждый разъём поддерживает 2 накопителя на гибких магнитных дисках
	Разъём IDE	x1	Каждый разъём поддерживает 2 встроенных интерфейса накопителей
	Разъём SATA	x6	Каждый разъём поддерживает 1 устройство SATA
	Разъём на лицевой панели	x1	Поддержка устройств на лицевой панели
	Входной звуковой разъём	x1	Поддержка звуковых функций на лицевой панели
	Разъём вывода для S/PDIF	x1	Поддержка вывода цифровой звуковой функции
	Контактирующее приспособление вентилятора центрального процессора	x1	Источник питания для вентилятора центрального процессора (с функцией интеллектуального вентилятора)
	Контактирующее приспособление вентилятора системы	x2	Источник питания для вентилятора системы
	Открытое контактирующее приспособление CMOS	x1	
	USB-разъём	x3	Каждый разъём поддерживает 2 USB-порта на лицевой панели
	Разъем питания (24 вывод)	x1	
	Разъем питания (4 вывод)	x2	
Задняя панель средств ввода-вывода	Клавиатура PS/2	x1	
	Мышь PS/2	x1	
	Порт LAN	x1	
	USB-порт	x6	
	Гнездо для подключения наушников	x6	
	Оптически +coaxial вывода для S/PDIF	x1	
Размер панели	220 мм (Ш) X 305 мм (В)		
Поддержка OS	Windows XP / Vista 32 / Vista 64 / 7		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 Core2 Extreme / Core2 Duo / Core2 Quad /Pentium Dual-Core / Celeron Dual-Core /Celeron 4xx بتردد يصل إلى		تدعم تقنيات Execute Disable Bit / Enhanced Intel SpeedStep® / Intel Architecture-64 / Extended Memory 64 Technology / Virtualization Technology
الناقل الأمامي الجانبي	ميجا هرتز 1600 / 1333 / 1066 / 800 تردد		
مجموعة الشرائح	Intel P43 Intel ICH10		
الذاكرة الرئيسية	فتحة DDR3 DIMM 256/512 سعة DDR3 تدعم ذاكرة من نوع DIMM تدعم كل فتحة بايت جيجا 1و بايت 2و بايت ميجا سعة ذاكرة قصوى 8 جيجا بايت	عدد4	مزدوجة القناة DDR3 وحدة ذاكرة تدعم الذاكرة من نوع 3DDR سعات 800 / 1066 / 1333 / 1600 (OC) ميجا بايت ECC وتلك التي لا تتوافق مع DIMM لا تدعم رقائق الذاكرة (رجاء ,9 صفحة ,طاولة يحيل دعم ذاكرة تفصيل)
Super I/O	ITE 8718F الأكثر استخداماً. Super I/O توفر وظيفة Low Pin Count Interface تدعم تقنية		وسائل التحكم في البيئة: مراقب لمعرفة حالة الأجهزة مراقب في سرعة المروحة ITE من "Smart Guardian" وظيفة
منفذ IDE	JMB368		وضع رئيسي 133 / 100 / 66 / 33 Ultra DMA تقنية PIO Mode 0~4 تدعم وضع
SATA	متكامل Serial ATA متحكم		جيجابت/ثانية. 3.0 نقل البيانات بسرعات تصل إلى 2.0. الإصدار SATA مطابقة لمواصفات
شبكة داخلية	Realtek RTL 8111DL		تفاوض تلقائي 10/100 ميجا بايت / ثانية و1 جيجا بت/ثانية إمكانية النقل المزدوج الكامل/النصفي
دعم الصوت عالي التعريف	ALC888		تدعم تقنية الصوت عالي التعريف من 7.1 قنوات لخرج الصوت
القنوات	فتحة PCI فتحة PCI Express x16 Gen2 فتحة PCI Express x1	عدد 3 عدد 1 عدد 2	

المواصفات			
المنافذ على سطح اللوحة	منفذ محرك أقراص مرنة	عدد 1	يدعم محركين للأقراص المرنة
	منفذ IDE	عدد 1	يدعم كل منفذ اثنين من أجهزة IDE
	منفذ SATA	عدد 6	يدعم كل منفذ واحد من أجهزة SATA
	منفذ اللوحة الأمامية	عدد 1	يدعم تجهيزات اللوحة الأمامية
	منفذ الصوت الأمامي	عدد 1	يدعم وظيفة الصوت باللوحة الأمامية
	منفذ خرج S/PDIF	عدد 1	يدعم وظيفة خرج الصوت الرقمي
	وصلة مروحة وحدة المعالجة المركزية	عدد 1	لتوصيل الطاقة لمروحة وحدة المعالجة مع وظيفة Smart Fan
	وصلة مروحة النظام	عدد 2	لتوصيل الطاقة لمروحة النظام
	وصلة مسح CMOS	عدد 1	
	منفذ USB	عدد 3	يدعم كل منفذ فتحتي USB باللوحة الأمامية
	منفذ توصيل الطاقة (24بنوس)	عدد 1	
	منفذ توصيل الطاقة (4دبابيس)	عدد 2	
منافذ دخل/خرج اللوحة الخلفية	لوحة مفاتيح PS/2	عدد 1	
	ماوس PS/2	عدد 1	
	منفذ شبكة اتصال محلية	عدد 1	
	منافذ USB	عدد 6	
	مقبس صوت	عدد 6	
	محور مدّحد +بصريّة منفذ خرج S/PDIF	عدد 1	
حجم اللوحة	220 مم (عرض) X 305 مم (ارتفاع)		
دعم أنظمة التشغيل	Windows XP / Vista 32 / Vista 64 / 7		بحقها في إضافة أو إزالة الدعم لأي نظام تشغيل بإخطار Biostar تحتفظ أو بدون إخطار.

JAPANESE

仕様		
CPU	LGA 775 Intel Core2 Extreme / Core2 Duo / Core2 Quad / Pentium Dual-Core / Celeron Dual-Core / Celeron 4xx processor	Execute Disable Bit / Enhanced Intel SpeedStep® / Intel Architecture-64 / Extended Memory 64 Technology / Virtualization Technologyをサポートします
FSB	800 / 1066 / 1333 / 1600 MHz	
チップセット	Intel P43 Intel ICH10	
メインメモリ	DDR3 DIMMスロット x 4 各DIMMは 256MB / 512MB / 1GB / 2GB DDR3を サポート 最大メモリ容量8GB	デュアル チャンネルモードDDR3メモリモジュール DDR3 800 / 1066 / 1333 / 1600(OC)をサポート 登録済みDIMMとECC DIMMはサポートされません (細部の記憶サポートテーブルは、ページを、参照する9)
Super I/O	ITE 8718F 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	JMB368	Ultra DMA 33 / 66 / 100 / 133バスマスタモード PIO Mode 0~4のサポート、
SATA	統合シリアルATAコントローラ	最高3.0 Gb/秒のデータ転送速度 SATAバージョン2.0仕様に準拠。
LAN	Realtek RTL 8111DL	10 / 100 / 1000 Mb/秒のオートネゴシエーション 半/全二重機能
HDオーディオのサポート	ALC888 ハイデフィニションオーディオのサポート 7.1 チャンネルオーディオアウト	
スロット	PCIスロット x3 PCI Express x16 Gen2スロット x1 PCI Express x 1スロット x2	

仕様			
オンボードコネクタ	フロッピーコネクタ	x1	各コネクタは2つのフロッピードライブをサポートします
	IDEコネクタ	x1	各コネクタは2つのIDEデバイスをサポートします
	SATAコネクタ	x6	各コネクタは1つのSATAデバイスをサポートします
	フロントパネルコネクタ	x1	フロントパネル機能をサポートします
	フロントオーディオコネクタ	x1	フロントパネルオーディオ機能をサポートします
	S/PDIFアウトコネクタ	x1	デジタルオーディオアウト機能をサポートします
	CPUファンヘッダ	x1	CPUファン電源装置(スマートファン機能を搭載)
	システムファンヘッダ	x2	システムファン電源装置
	CMOSクリアヘッダ	x1	
	USBコネクタ	x3	各コネクタは2つのフロントパネルUSBポートをサポートします
	電源コネクタ(24ピン)	x1	
	電源コネクタ(4ピン)	x2	
背面パネルI/O	PS/2キーボード	x1	
	PS/2マウス	x1	
	LANポート	x1	
	USBポート	x6	
	オーディオジャック	x6	
	光学+coaxial S/PDIFアウト	x1	
ボードサイズ	220 mm (幅) X 305 mm (高さ)		
OSサポート	Windows XP / Vista 32 / Vista 64 / 7		Biostarは事前のサポートなしにOSサポートを追加または削除する権利を留保します。

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