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CHAPTER 1: INTRODUCTION

1.1 BEFORE YOU START

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

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

1.2 PACKAGE CHECKLIST

- ✚ HDD Cable X 1 (optional)
- ✚ Serial ATA Cable X 3
- ✚ 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.

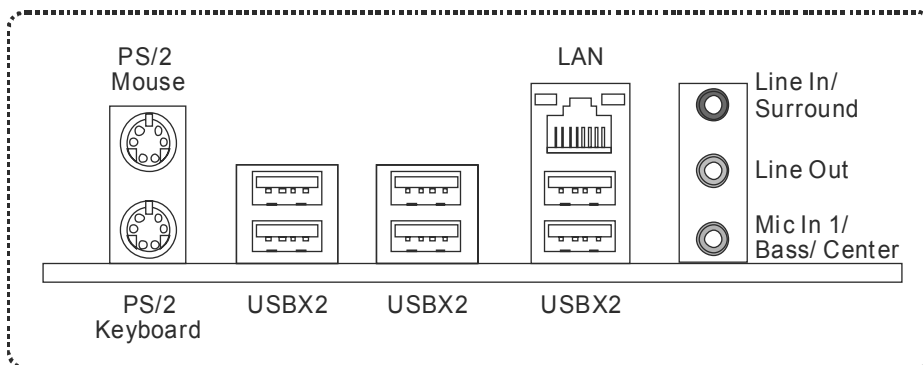
1.3 MOTHERBOARD FEATURES

	<i>TP45E Combo</i>	<i>TP43E Combo</i>
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	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	Support 800 / 1066 / 1333 / 1600 MHz
Chipset	Intel P45 Intel ICH10	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	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	DDR3 x 2, each DIMM supports 256MB / 512MB / 1GB / 2GB DDR2 x 2, each DIMM supports 256MB / 512MB / 1GB / 2GB / 4GB DDR3 Max Memory Capacity 4GB DDR2 Max Memory Capacity 8GB Dual Channel Mode DDR2 & DDR3 memory module Supports DDR2 1066 / 800 / 667 Supports DDR3 1333 / 1066 / 800 Registered DIMM and ECC DIMM is not supported	DDR3 x 2, each DIMM supports 256MB / 512MB / 1GB / 2GB DDR2 x 2, each DIMM supports 256MB / 512MB / 1GB / 2GB / 4GB DDR3 Max Memory Capacity 4GB DDR2 Max Memory Capacity 8GB Dual Channel Mode DDR2 & DDR3 memory module Supports DDR2 1066 / 800 / 667 Supports DDR3 1333 / 1066 / 800 Registered DIMM and ECC DIMM is not supported
IDE	JMicro JMB368 Ultra DMA 33 / 66 / 100 / 133 Bus Master Mode supports PIO Mode 0~4	JMicro 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	Integrated Serial ATA Controller Data transfer rates up to 3.0 Gb/s. SATA Version 2.0 specification compliant
LAN	Realtek RTL 8111C / 8111D / 8111DL 10 / 100 Mb/s / 1Gb/s auto negotiation Half / Full duplex capability	Realtek RTL8111C / 8111D / 8111DL 10 / 100 Mb/s / 1Gb/s auto negotiation Half / Full duplex capability

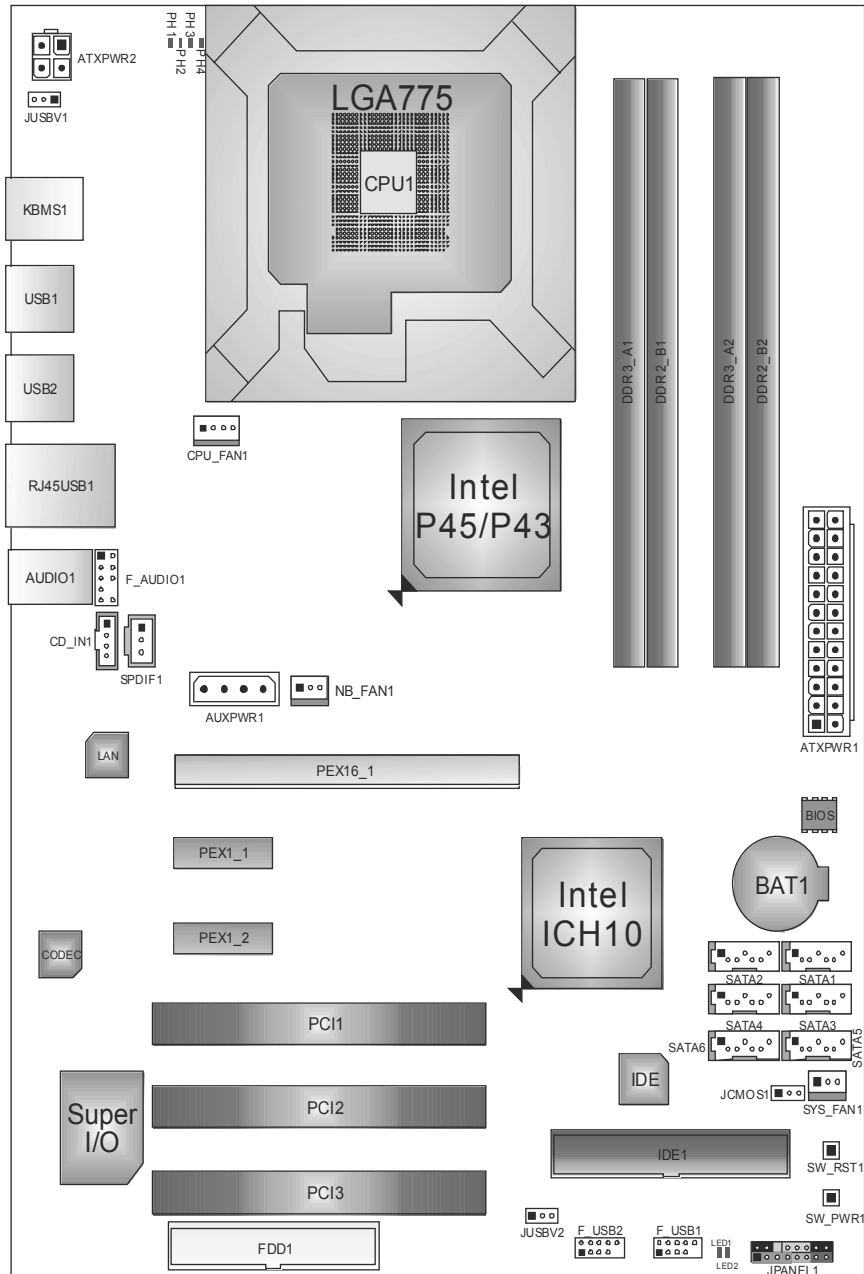
TP45E Combo/TP43E Combo

	TP45E Combo		TP43E Combo	
Sound Codec	ALC662 5.1 channels audio out High Definition Audio		ALC662 5.1 channels audio out High Definition Audio	
Slots	PCI slot	x3	PCI slot	x3
	PCI Express Gen2 x 16 slot	x1	PCI Express Gen2 x 16 slot	x1
	PCI Express x 1 slot	x2	PCI Express x 1 slot	x2
On Board Connector	Floppy connector	x1	Floppy connector	x1
	IDE Connector	x1	IDE Connector	x1
	SATA Connector	x6	SATA Connector	x6
	Front Panel Connector	x1	Front Panel Connector	x1
	Front Audio Connector	x1	Front Audio Connector	x1
	CD-in Connector	x1	CD-in Connector	x1
	S/PDIF out Connector	x1	S/PDIF out Connector	x1
	CPU Fan header	x1	CPU Fan header	x1
	System Fan header	x2	System Fan header	x2
	Clear CMOS header	x1	Clear CMOS header	x1
	USB connector	x2	USB connector	x2
	Power Connector (24pin)	x1	Power Connector (24pin)	x1
	Power Connector (4pin)	x2	Power Connector (4pin)	x2
Back Panel I/O	PS/2 Keyboard	x1	PS/2 Keyboard	x1
	PS/2 Mouse	x1	PS/2 Mouse	x1
	LAN port	x1	LAN port	x1
	USB Port	x6	USB Port	x6
	Audio Jack	x3	Audio Jack	x3
Board Size	220 (W) x 305 (L) mm		220 (W) x 305 (L) mm	
OS Support	Windows 2000 / XP / Vista / 7 Biostar Reserves the right to add or remove support for any OS with or without notice		Windows 2000 / XP / Vista / 7 Biostar Reserves the right to add or remove support for any OS with or without notice	

1.4 REAR PANEL CONNECTORS



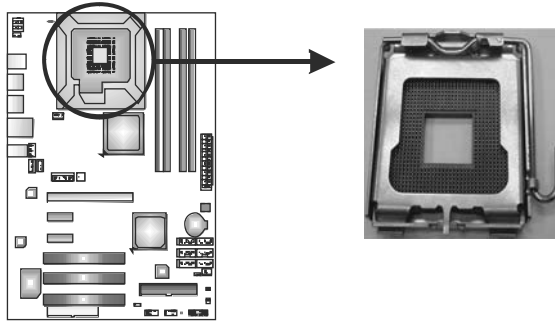
1.5 MOTHERBOARD LAYOUT



Note: ■ represents the 1st pin.

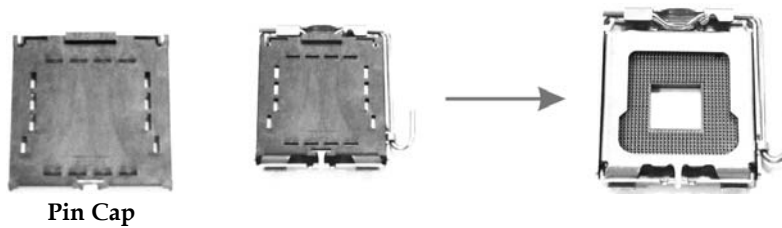
CHAPTER 2: HARDWARE INSTALLATION

2.1 INSTALLING CENTRAL PROCESSING UNIT (CPU)

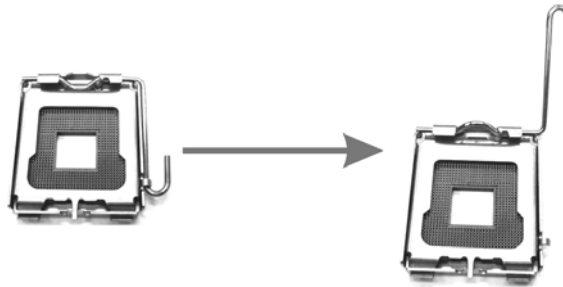


Special Notice:

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.



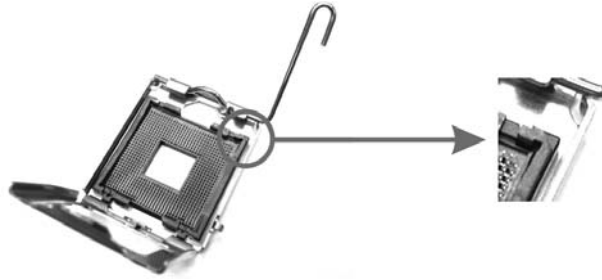
Step 1: Pull the socket locking lever out from the socket and then raise the lever up to a 90-degree angle.



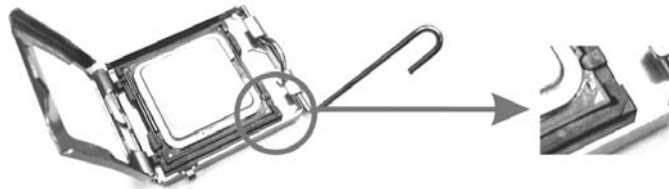
Motherboard Manual

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

Step 2-1:



Step 2-2:



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

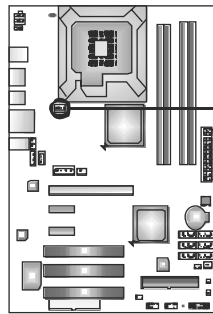


Step 4: Put the CPU Fan and heatsink assembly on the CPU and buckle it on the retention frame. Connect the CPU FAN power cable into the CPU_FAN1. This completes the installation.

2.2 FAN HEADERS

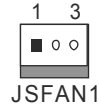
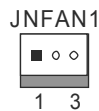
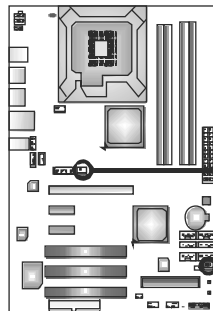
These fan headers support cooling-fans built in the computer. The fan cable and connector may be different due to the fan manufacturer. Connect the fan cable to the connector while matching the black wire to pin#1.

CPU_FAN1: CPU Fan Header



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

NB_FAN1/SYS_FAN1: System Fan Headers



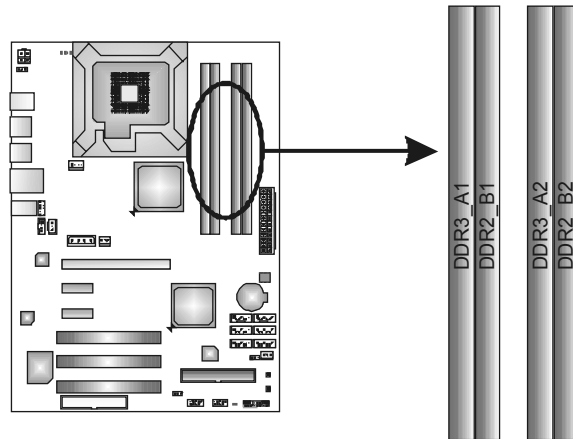
Pin	Assignment
1	Ground
2	+12V
3	FAN RPM rate sense

Note:

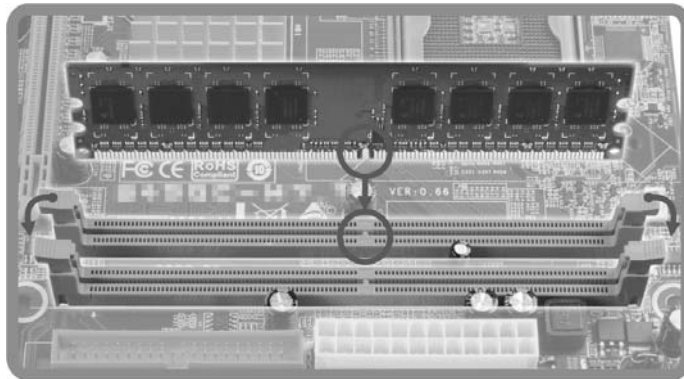
The NB_FAN1/SYS_FAN1 support 3-pin head connectors; the CPU_FAN1 supports 4-pin head connector. When connecting with wires onto connectors, please note that the red wire is the positive and should be connected to pin#2, and the black wire is Ground and should be connected to GND.

2.3 INSTALLING SYSTEM MEMORY

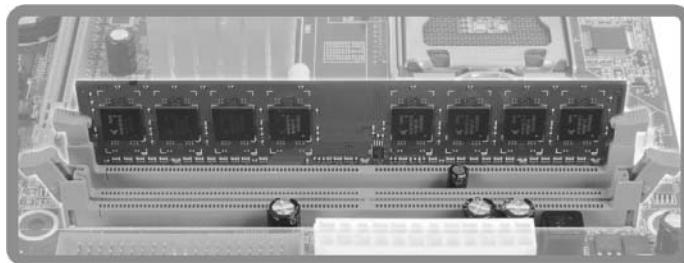
A. Memory Modules



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	Memory Module	Total Memory Size
DDR3_A1	256MB/512MB/1GB/2GB	DDR3 Max: 4GB
DDR2_B1	256MB/512MB/1GB/2GB/4GB	
DDR3_A2	256MB/512MB/s1GB/2GB	DDR2 Max: 8GB
DDR2_B2	256MB/512MB/1GB/2GB/4GB	

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	DDR2_B1	DDR3_A2	DDR2_B2
Enabled	O	X	O	X
Enabled	X	O	X	O

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

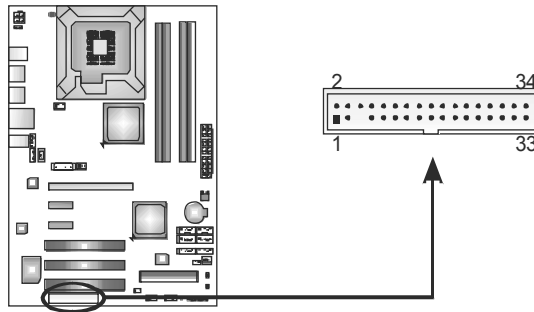
The DRAM bus width of the memory module must be the same (x8 or x16)

Attention: Do NOT install DDR2 & DDR3 memory modules simultaneously, or the system will not work normally.

2.4 CONNECTORS AND SLOTS

FDD1: Floppy Disk Connector

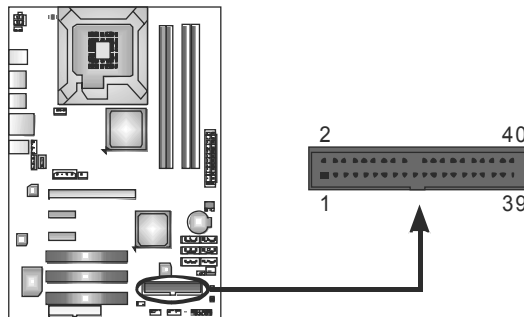
The motherboard provides a standard floppy disk connector that supports 360K, 720K, 1.2M, 1.44M and 2.88M floppy disk types. This connector supports the provided floppy drive ribbon cables.



IDE1: Hard Disk Connector

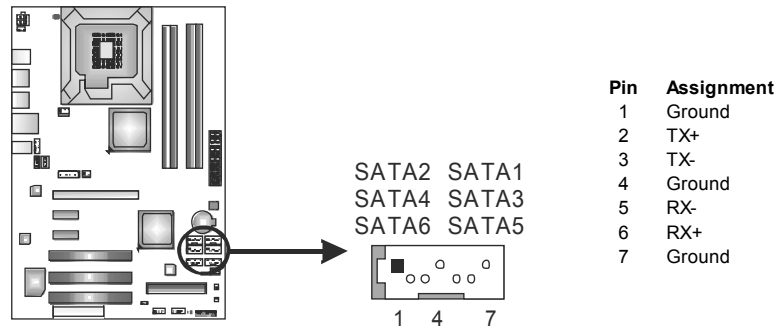
The motherboard has a 32-bit Enhanced PCI IDE Controller that provides PIO Mode 0~4, Bus Master, and Ultra DMA 33/66/100/133 functionality.

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



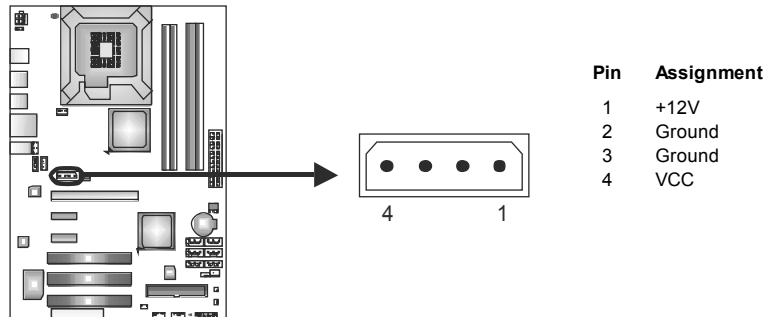
SATA1~SATA6: Serial ATA Connectors

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.



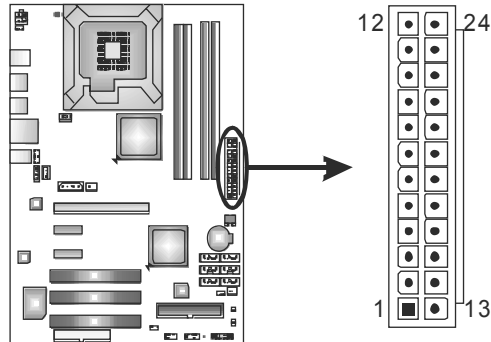
AUXPWR1: Auxiliary Power for Graphics

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



ATXPWR1: ATX Power Source Connector

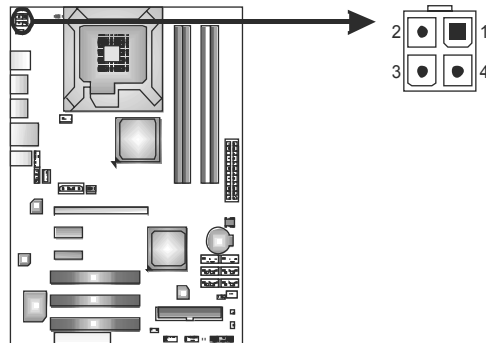
This connector allows user to connect 24-pin power connector on the ATX power supply.



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:

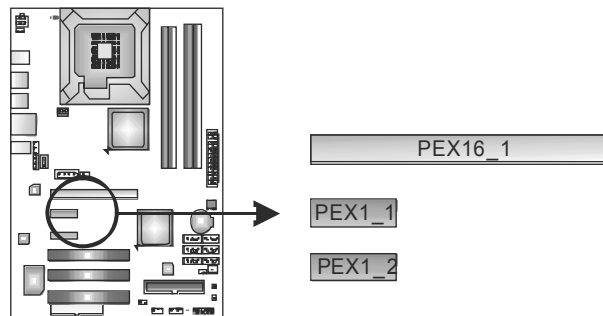
Before power on the system, please make sure that both ATXPWR1 and ATXPWR2 connectors have been well plugged-in.

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.

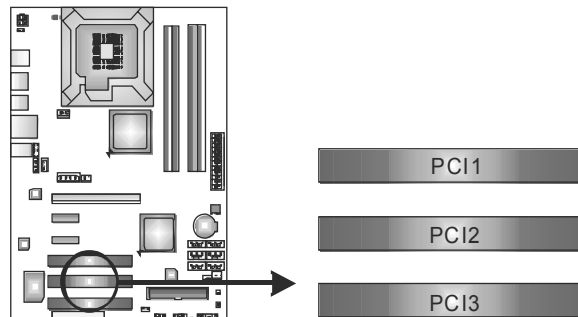
PEX1_1/PEX1_2: PCI-Express x1 Slots

- 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

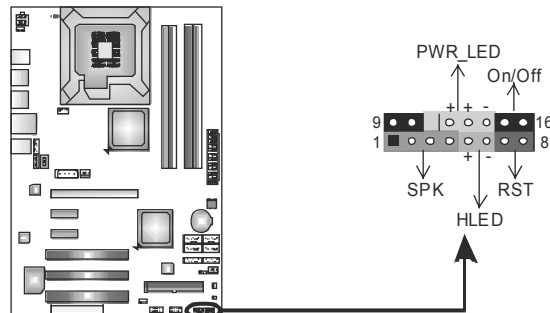


Pin1-2 closed

3.2 DETAIL SETTINGS

JPANEL1: Front Panel Header

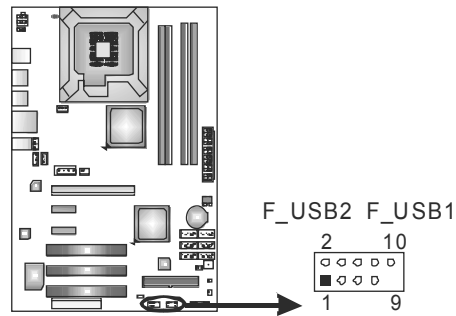
This 16-pin connector includes Power-on, Reset, HDD LED, Power LED, and speaker connection. It allows user to connect the PC case's front panel switch functions.



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

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

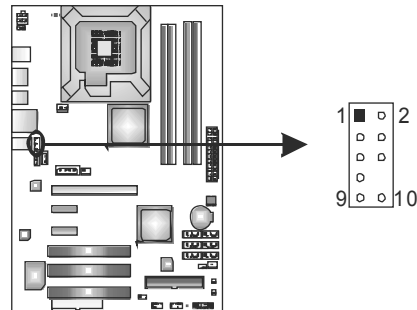
This header allows user to connect additional USB cable on the PC front panel, and also can be connected with internal USB devices, like USB card reader.



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

F_AUDIO1: Front Panel Audio Header

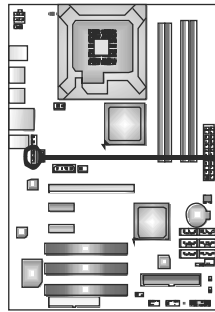
This header allows user to connect the front audio output cable with the PC front panel. This header allows only HD audio front panel connector; AC'97 connector is not acceptable.



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

CD_IN1: CD-ROM Audio-in Connector

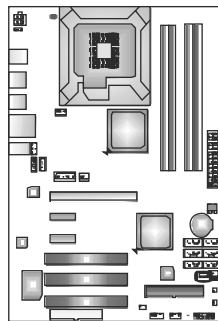
This connector allows user to connect the audio source from the variety devices, like CD-ROM, DVD-ROM, PCI sound card, PCI TV turner card etc..



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

JCMOS1: Clear CMOS Header

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).



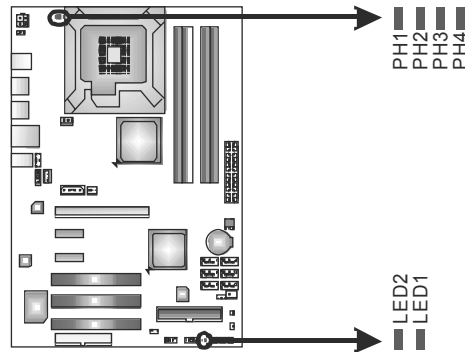
Pin 2-3 Close:
Clear CMOS data.

※ 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.

On-Board LED Indicators

There are 6 LED indicators showing system status.



LED1 & LED2: Debug Indicators

PH1 ~ PH4: Power Status Indicators

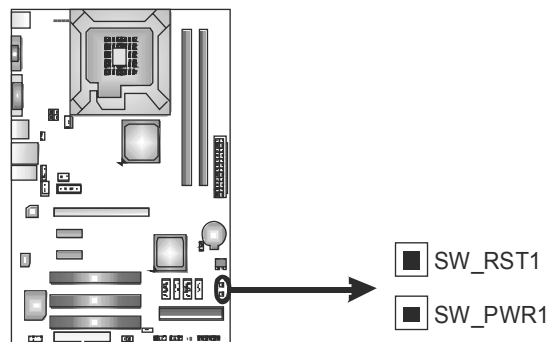
Please refer to the tables below for specific messages:

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 Disable

On-Board Buttons

There are 2 on-board buttons.



SW_RST1: Reset button.

SW_PWR1: Power Switch button.

JUSBV1/JUSBV2: Power Source Headers for USB Ports

Pin 1-2 Close:

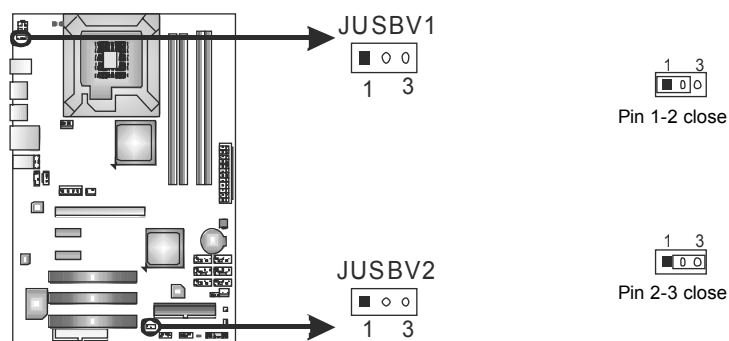
JUSBV1: +5V for USB ports at USB1/USB2/RJ45USB1.

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

Pin 2-3 Close:

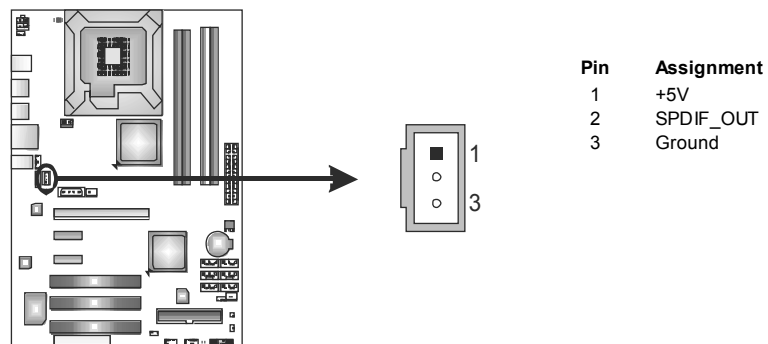
JUSBV1: +5V STB for USB ports at USB1/USB2/RJ45USB1.

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



SPDIF1: Digital Audio-out Connector

SPDIF1 is for connecting the PCI bracket SPDIF output.



CHAPTER 4: T-SERIES BIOS & SOFTWARE

4.1 T-SERIES BIOS

T-Series BIOS Features

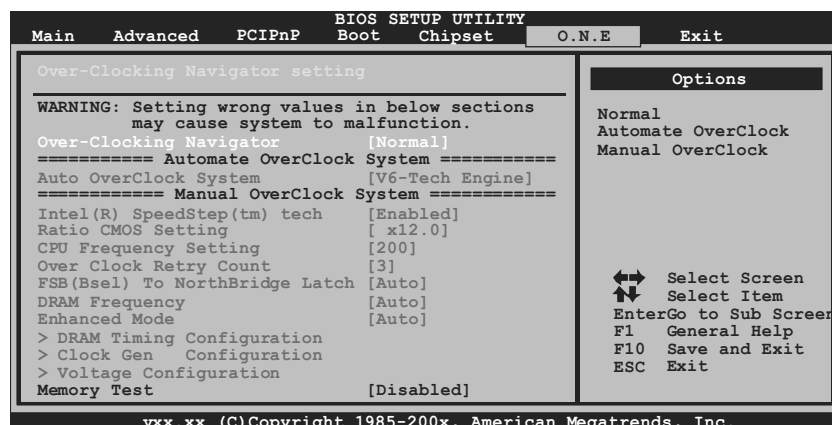
- Overclocking Navigator Engine (O.N.E.)
- Memory Integration Test (M.I.T., under Overclock Navigator Engine)
- BIO-Flasher: Update BIOS file from USB Flash Drive or FDD
- Self Recovery System (S.R.S)
- Smart Fan Function
- CMOS Reloading Program

!! 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.

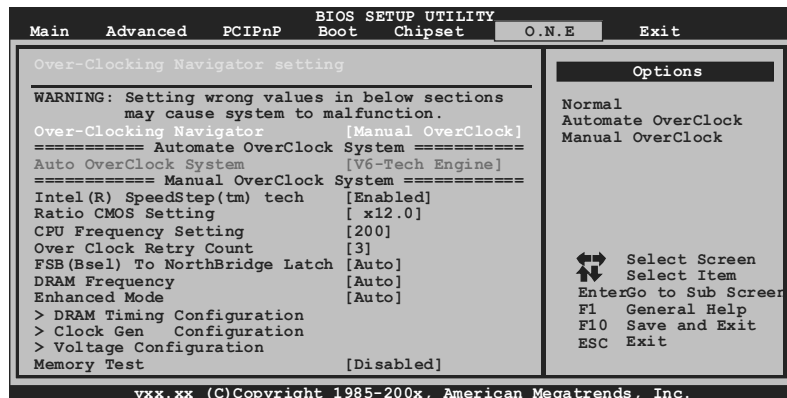
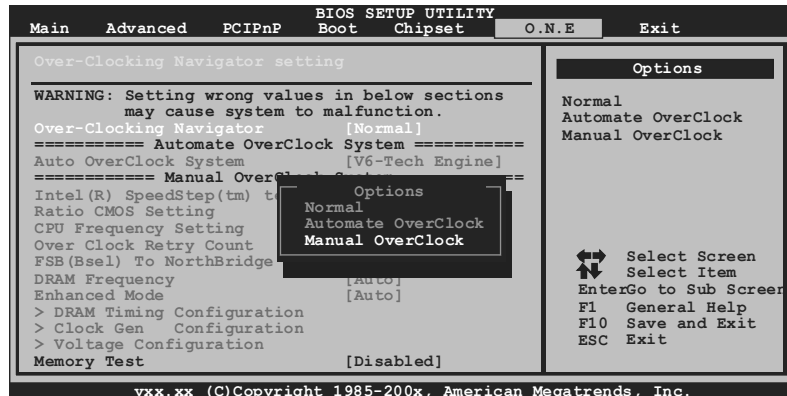
A. Overclocking Navigator Engine (O.N.E.)

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 DDR2 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.

ALL Voltage Configuration

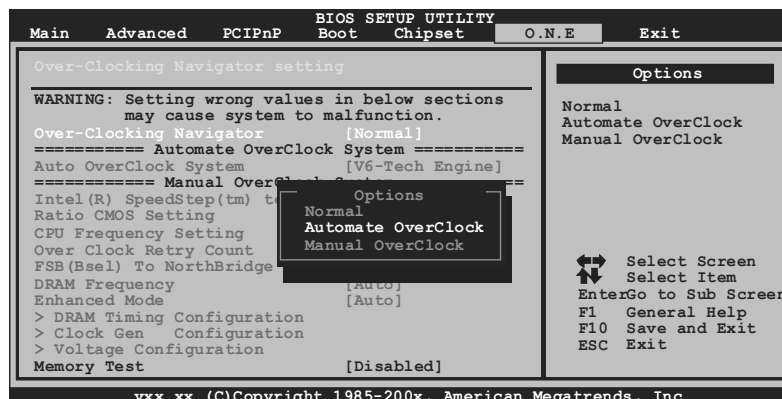
Enter this item for more advanced voltage settings.

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.)

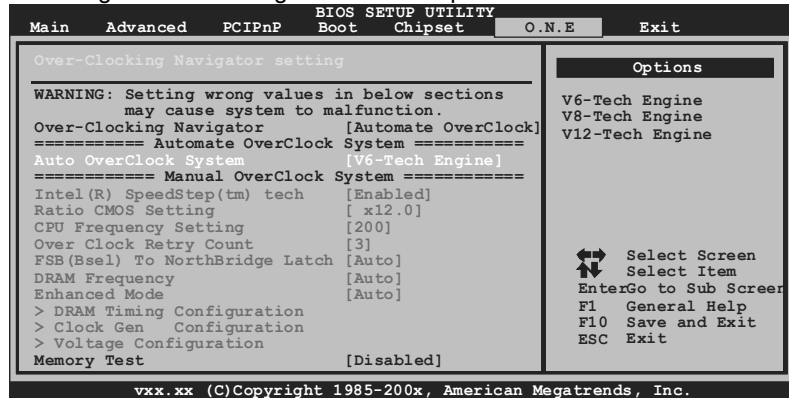
For beginners in overclock field, BET had developed an easy, fast, and powerful feature to increase the system performance, named A.O.S. Based on many tests and experiments, A.O.S. provides 3 ideal overclock configurations that are able to raise the system performance in a single step.



Motherboard Manual

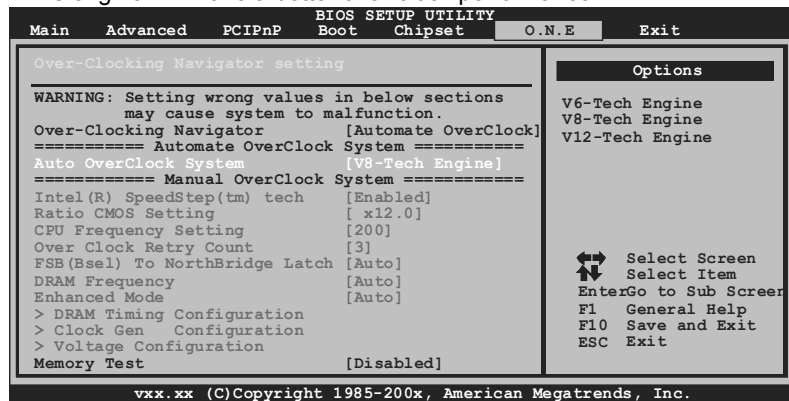
V6 Tech Engine

This engine will make a good over-clock performance.



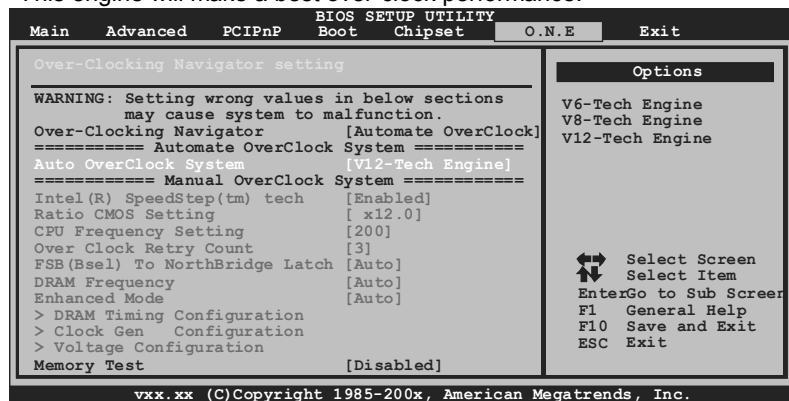
V8 Tech Engine

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.

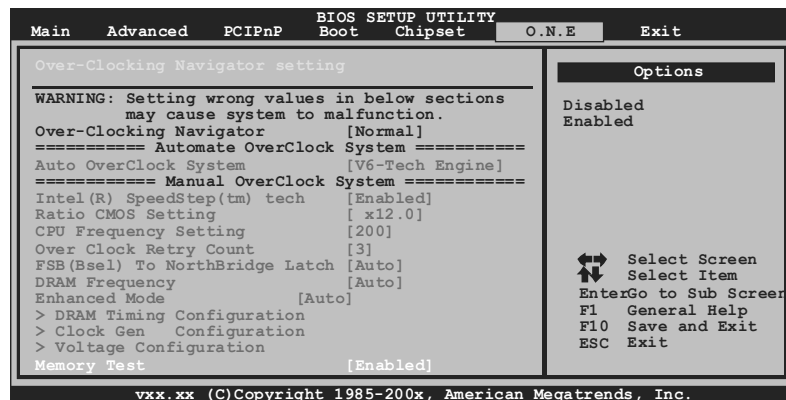
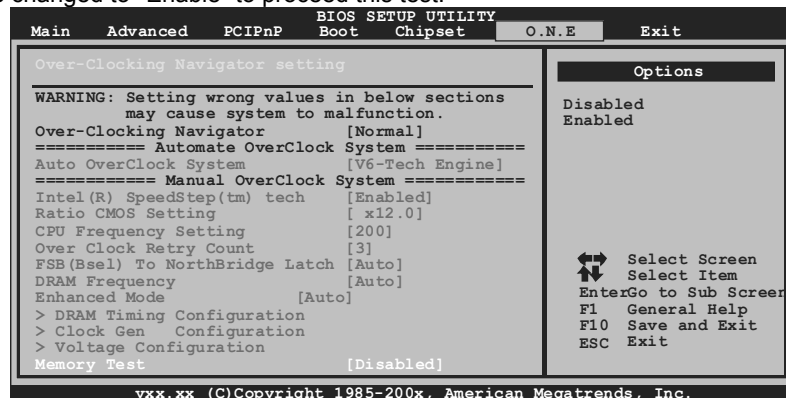
B. Memory Integration Test (M.I.T.)

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.

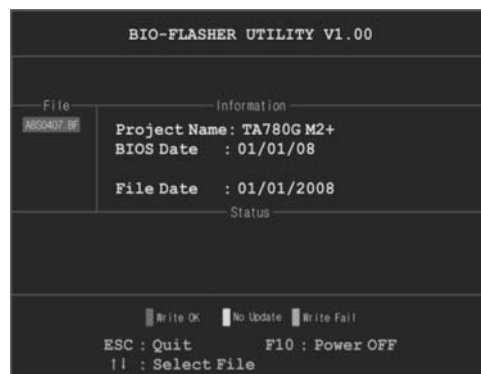
C. BIO-Flasher

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.

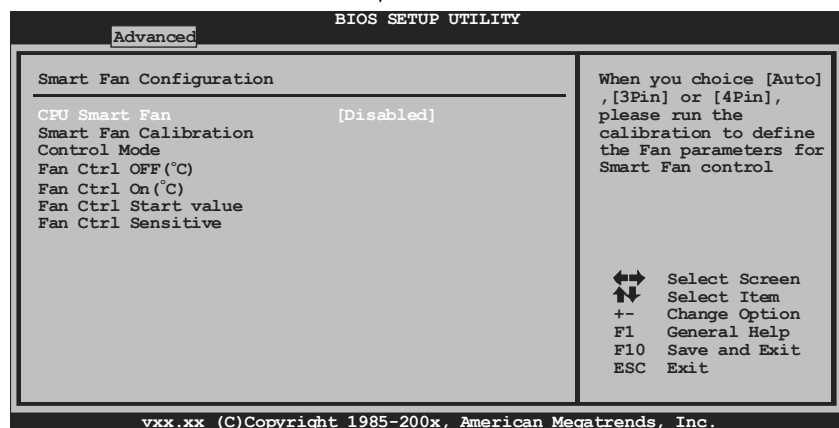
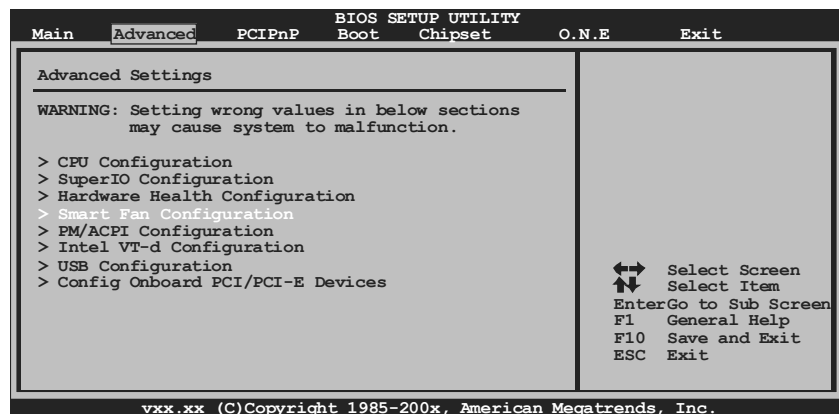
E. Smart Fan Function

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(°C)

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(°C)

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

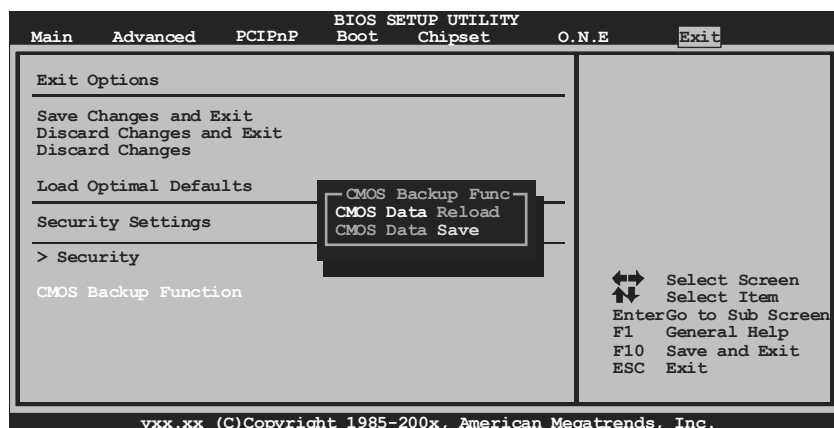
Increasing the value of slope PWM will raise the speed of CPU/System fan. The range is from 1~127, with an interval of 1.

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.

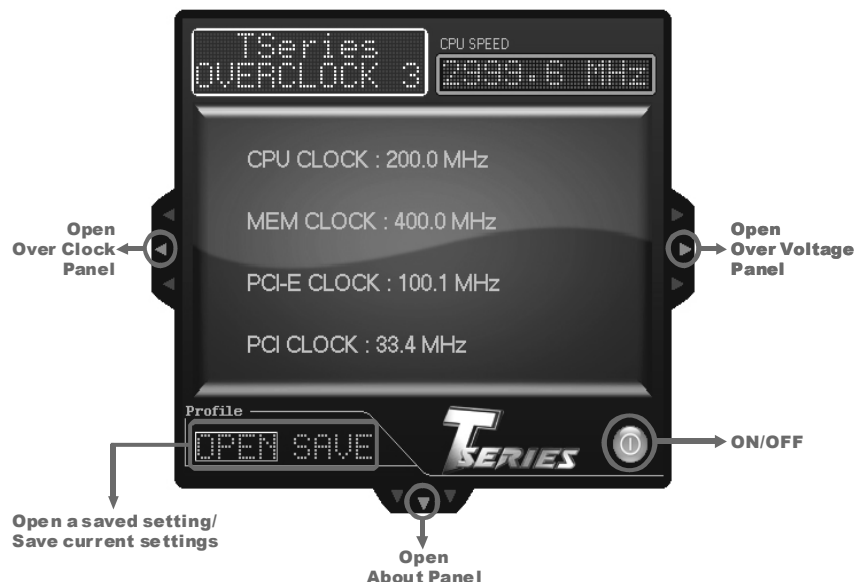
Launching T-Series Software

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.

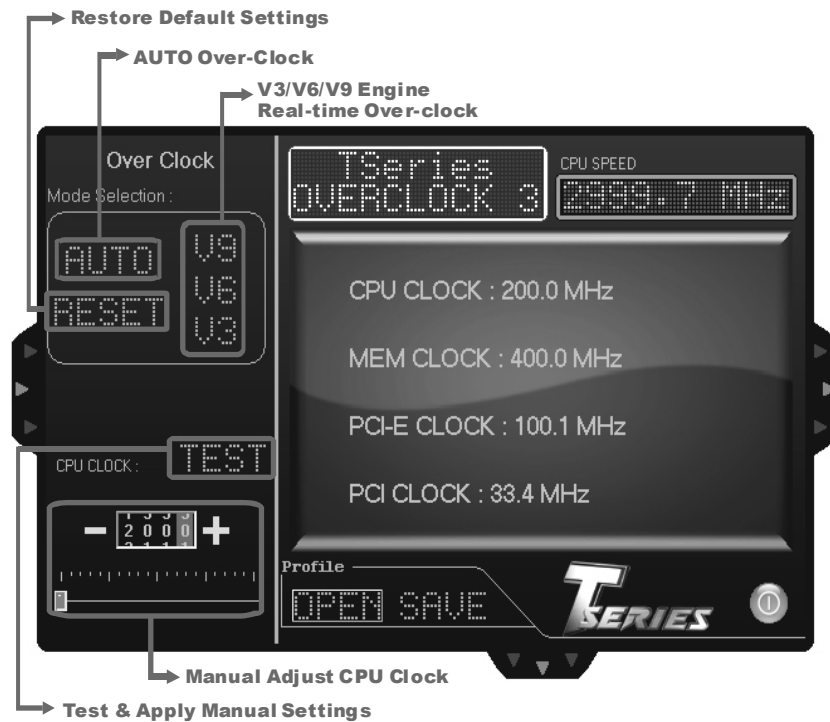
OverClock 3

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.

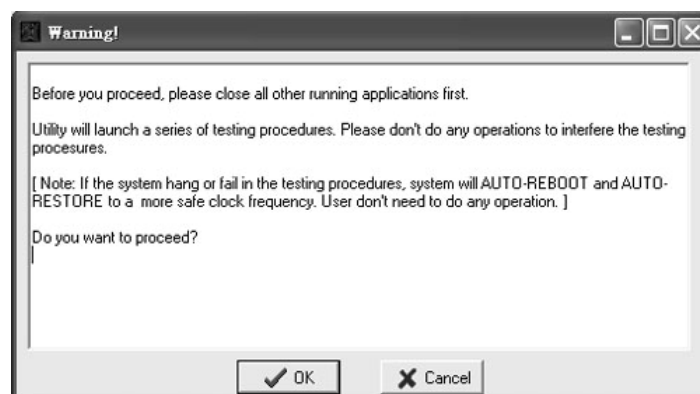


Over Clock Panel



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.

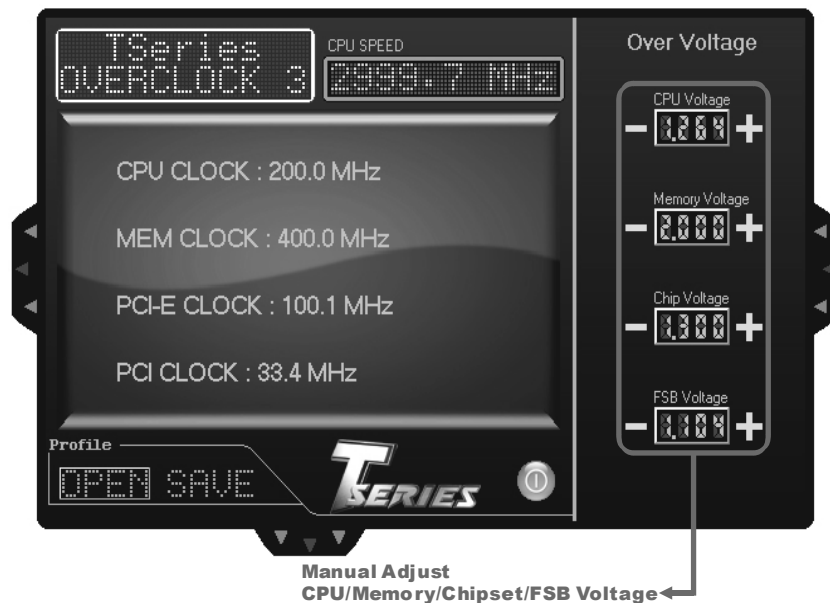
Warning

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

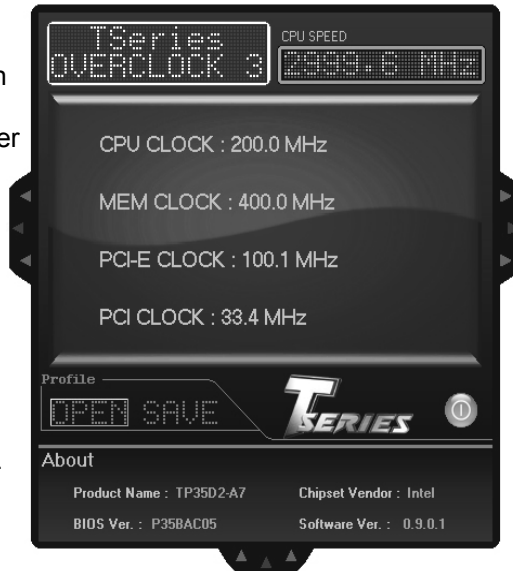
This function allows user to adjust FSB voltage. Click on “+” to increase or “-” to decrease the FSB voltage.

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.

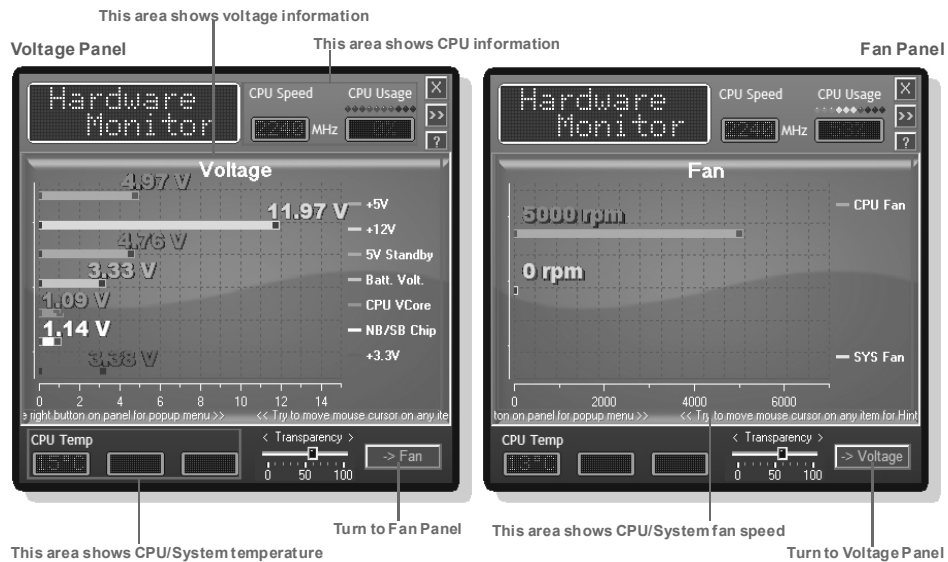
Note

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)

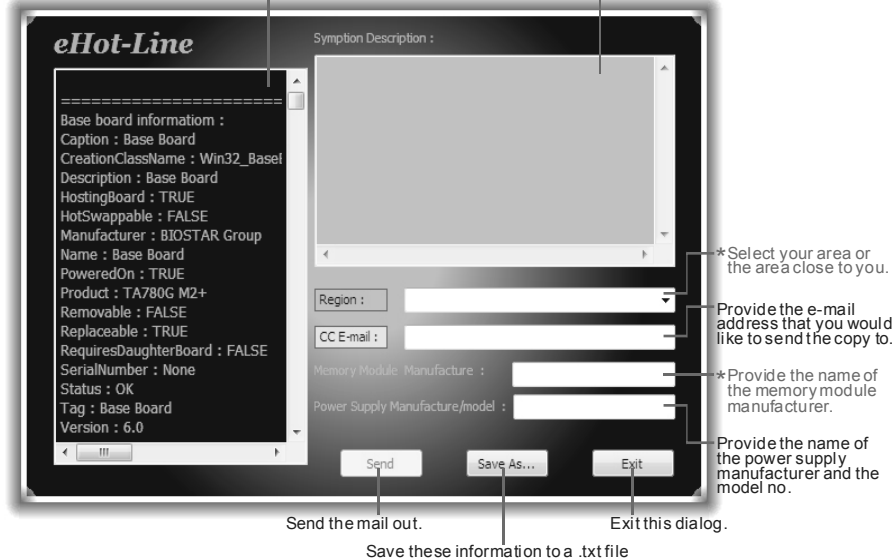
eHot-Line is a convenient utility that helps you to contact with our Tech-Support system. This utility will collect the system information which is useful for analyzing the problem you may have encountered, and then send these information to our tech-support department to help you fix the problem.

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

* represents important information that you must provide. Without this information, you may not be able to send out the mail.

This block will show the information which would be collected in the mail.

* Describe condition of your system.



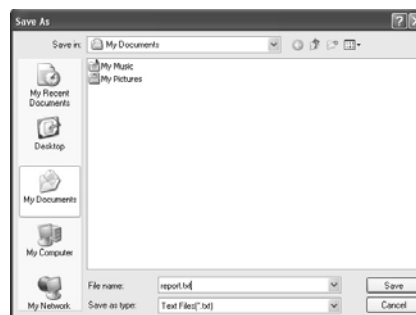
The screenshot shows the eHot-Line utility window. It has a title bar 'eHot-Line'. On the left, there is a text area titled 'Base board information :' containing system details like 'Caption : Base Board', 'CreationClassName : Win32_Base', 'Description : Base Board', 'HostingBoard : TRUE', 'HotSwappable : FALSE', 'Manufacturer : BIOSTAR Group', 'Name : Base Board', 'PoweredOn : TRUE', 'Product : TA780G M2+', 'Removable : FALSE', 'Replaceable : TRUE', 'RequiresDaughterBoard : FALSE', 'SerialNumber : None', 'Status : OK', 'Tag : Base Board', and 'Version : 6.0'. To the right of this is a large text area for 'Symptom Description :'. Below these are input fields for 'Region :', 'CC E-mail :', 'Memory Module: Manufacture :', and 'Power Supply Manufacture/model :'. At the bottom are three buttons: 'Send', 'Save As...', and 'Exit'. Annotations with arrows point to various parts: one points to the base board information text area, another to the symptom description area, a third to the 'Send' button, a fourth to the 'Save As...' button, and a fifth to the 'Exit' button. There are also asterisked notes on the right side of the form: '* Select your area or the area close to you.' pointing to the Region field, '* Provide the e-mail address that you would like to send the copy to.' pointing to the CC E-mail field, '* Provide the name of the memory module manufacturer.' pointing to the Memory Module field, and '* Provide the name of the power supply manufacturer and the model no.' pointing to the Power Supply field.

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.



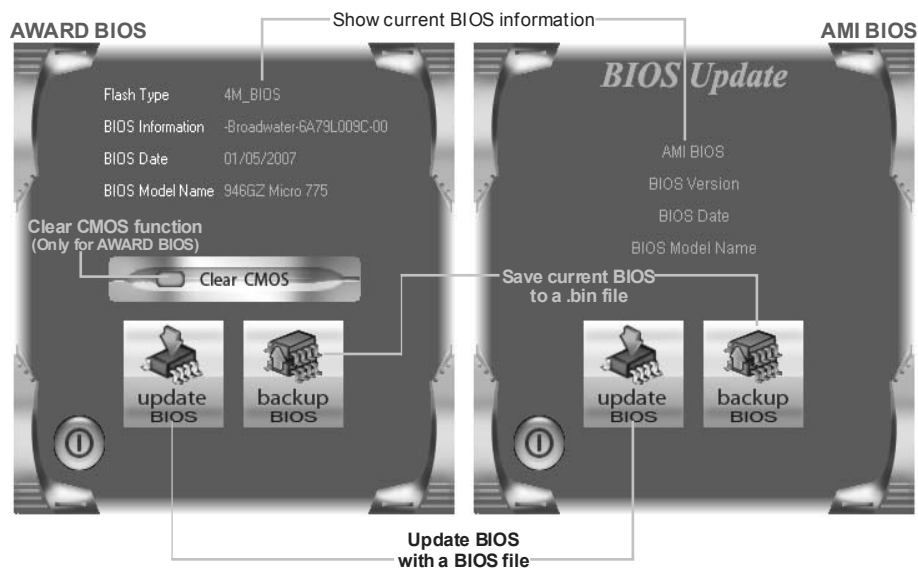
We will not share customer's data with any other third parties,
so please feel free to provide your system information while using
eHot-Line service.



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.

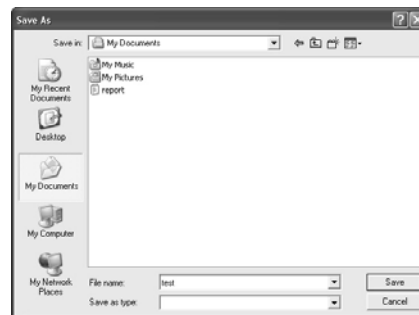
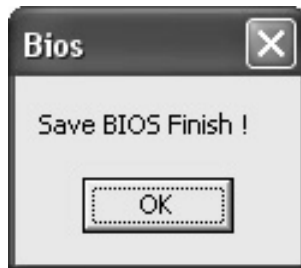
BIOS Update

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**.

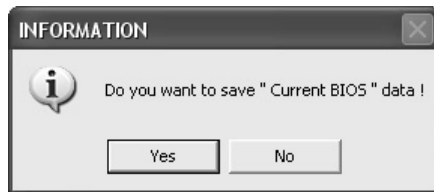
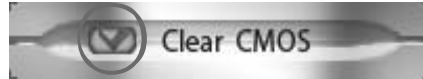


After the saving process, finish dialog will show. Click on **OK** to complete the BIOS Backup procedure.

<Update BIOS>

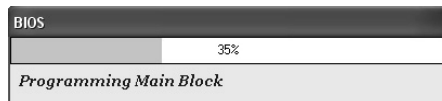
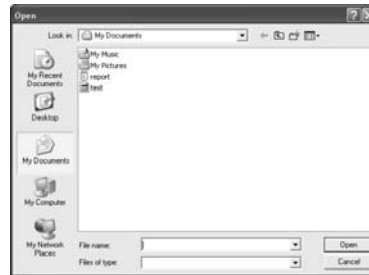
Before doing this, please download the proper BIOS file from the website.

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



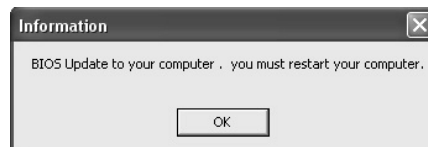
Then click Update BIOS button, a dialog will show for asking you backup current BIOS. Click **Yes** for BIOS backup and refer to the Backup BIOS procedure; or click **No** to skip this procedure.


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.



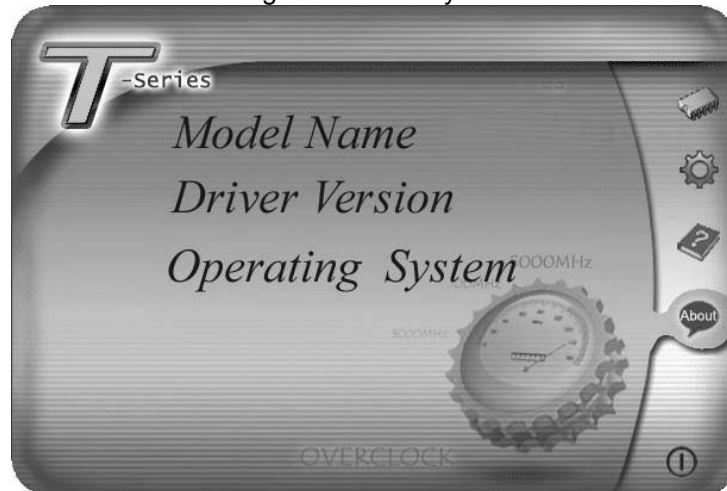
All the information and content above about the T-Series software are subject to be changed without notice. For better performance, the software is being continuously updated. The information and pictures described above are for your reference only. The actual information and settings on board may be 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	<p>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.</p> <ul style="list-style-type: none"> ● 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
<ol style="list-style-type: none"> 1. There is no power in the system. Power LED does not shine; the fan of the power supply does not work 2. Indicator light on keyboard does not shine. 	<ol style="list-style-type: none"> 1. Make sure power cable is securely plugged in. 2. Replace cable. 3. Contact technical support.
System is inoperative. Keyboard lights are on, power indicator lights are lit, and hard drives are running.	Using even pressure on both ends of the DIMM, press down firmly until the module snaps into place.
System does not boot from a hard disk drive, but can be booted from optical drive.	<ol style="list-style-type: none"> 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.	<ol style="list-style-type: none"> 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.	<ol style="list-style-type: none"> 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

	TP45E Combo	TP43E Combo
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	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	800 / 1066 / 1333 / 1600 MHz
Chipsatz	Intel P45 Intel ICH10	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	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 x 2, jeder DIMM unterstützt 256MB / 512MB / 1GB / 2GB DDR2 x 2, jeder DIMM unterstützt 256MB / 512MB / 1GB / 2GB / 4GB DDR3 Max. 4GB Arbeitsspeicher DDR2 Max. 8GB Arbeitsspeicher Dual-Kanal DDR2 & DDR3 Speichermodul Unterstützt DDR2 1066 / 800 / 667 Unterstützt DDR3 1333 / 1066 / 800 registrierte DIMMs. ECC DIMMs werden nicht unterstützt.	DDR3 x 2, jeder DIMM unterstützt 256MB / 512MB / 1GB / 2GB DDR2 x 2, jeder DIMM unterstützt 256MB / 512MB / 1GB / 2GB / 4GB DDR3 Max. 4GB Arbeitsspeicher DDR2 Max. 8GB Arbeitsspeicher Dual-Kanal DDR2 & DDR3 Speichermodul Unterstützt DDR2 1066 / 800 / 667 Unterstützt DDR3 1333 / 1066 / 800 registrierte DIMMs. ECC DIMMs werden nicht unterstützt.
IDE	JMicro JMB368 Ultra DMA 33 / 66 / 100 / 133 Bus Master-Modus Unterstützt PIO-Modus 0~4,	JMicro 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.	Integrierter Serial ATA-Controller Datentransferrate bis zu 3.0Gb/s Konform mit der SATA-Spezifikation Version 2.0.

TP45E Combo/TP43E Combo

	TP45E Combo	TP43E Combo
LAN	Realtek RTL 8111C / 8111D / 8111DL 10 / 100 / 1000 Mb/s Auto-Negotiation Halb-/ Vollduplex-Funktion	Realtek RTL8111C / 8111D / 8111DL 10 / 100 / 1000 Mb/s Auto-Negotiation Halb-/ Vollduplex-Funktion
HD	ALC662	ALC662
Audio-Unterstützung	Unterstützt High-Definition Audio 5.1-Kanal-Audioausgabe	Unterstützt High-Definition Audio 5.1-Kanal-Audioausgabe
Steckplätze	PCI-Steckplatz x3 PCI Express Gen2 x16 Steckplatz x1 PCI Express x 1-Steckplatz x2	PCI-Steckplatz x3 PCI Express Gen2 x16 Steckplatz x1 PCI Express x 1-Steckplatz x2
Onboard-Anschluss	Diskettenlaufwerkanschluss x1 IDE-Anschluss x1 SATA-Anschluss x6 Fronttafelanschluss x1 Front-Audioanschluss x1 CD-IN-Anschluss x1 S/PDIF Ausgangsanschluss x1 CPU-Lüfter-Sockel x1 System-Lüfter-Sockel x2 "CMOS löschen"-Sockel x1 USB-Anschluss x2 Stromanschluss (24-polig) x1 Stromanschluss (4-polig) x2	Diskettenlaufwerkanschluss x1 IDE-Anschluss x1 SATA-Anschluss x6 Fronttafelanschluss x1 Front-Audioanschluss x1 CD-IN-Anschluss x1 S/PDIF Ausgangsanschluss x1 CPU-Lüfter-Sockel x1 System-Lüfter-Sockel x2 "CMOS löschen"-Sockel x1 USB-Anschluss x2 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 x3	PS/2-Tastatur x1 PS/2-Maus x1 LAN-Anschluss x1 USB-Anschluss x6 Audioanschluss x3
Platinengröße	220 mm (B) X 305 mm (L)	220 mm (B) X 305 mm (L)
OS-Unterstützung	Windows 2000 / XP / Vista / 7 Biostar behält sich das Recht vor, ohne Ankündigung die Unterstützung für ein Betriebssystem hinzuzufügen oder zu entfernen.	Windows 2000 / XP / Vista / 7 Biostar behält sich das Recht vor, ohne Ankündigung die Unterstützung für ein Betriebssystem hinzuzufügen oder zu entfernen.

FRENCH

	TP45E Combo	TP43E Combo
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	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	800 / 1066 / 1333 / 1600 MHz
Chipset	Intel P45 Intel ICH10	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	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	DDR3 x 2, chaque DIMM prend en charge de 256Mo / 512Mo / 1Go / 2Go DDR2 x 2, chaque DIMM prend en charge de 256Mo / 512Mo / 1Go / 2Go / 4Go DDR3 Capacité mémoire maximale de 4Go DDR2 Capacité mémoire maximale de 8Go Module de mémoire DDR2 & DDR3 à mode à double voie Prend en charge la DDR2 1066 / 800 / 667 Prend en charge la DDR3 1333 / 1066 / 800 Les DIMM à registres et DIMM avec code correcteurs d'erreurs ne sont pas prises en charge	DDR3 x 2, chaque DIMM prend en charge de 256Mo / 512Mo / 1Go / 2Go DDR2 x 2, chaque DIMM prend en charge de 256Mo / 512Mo / 1Go / 2Go / 4Go DDR3 Capacité mémoire maximale de 4Go DDR2 Capacité mémoire maximale de 8Go Module de mémoire DDR2 & DDR3 à mode à double voie Prend en charge la DDR2 1066 / 800 / 667 Prend en charge la DDR3 1333 / 1066 / 800 Les DIMM à registres et DIMM avec code correcteurs d'erreurs ne sont pas prises en charge
IDE	JMicro JMB368 Mode principale de Bus Ultra DMA 33 / 66 / 100 / 133 Prend en charge le mode PIO 0~4,	JMicro 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	Contrôleur Serial ATA intégré : Taux de transfert jusqu'à 3.0Go/s. Conforme à la spécification SATA Version 2.0

TP45E Combo/TP43E Combo

	TP45E Combo		TP43E Combo	
LAN	Realtek RTL 8111C / 8111D / 8111DL 10 / 100 / 1000 Mb/s négociation automatique Half / Full duplex capability		Realtek RTL8111C / 8111D / 8111DL 10 / 100 / 1000 Mb/s négociation automatique Half / Full duplex capability	
Prise en charge audio HD	ALC662 Prise en charge de l'audio haute définition Sortie audio à 5.1 voies		ALC662 Prise en charge de l'audio haute définition Sortie audio à 5.1 voies	
Fentes	Fente PCI	x3	Fente PCI	x3
	Fente PCI Express Gen2 x16	x1	Fente PCI Express Gen2 x16	x1
	Fente PCI Express x1	x2	Fente PCI Express x1	x2
Connecteur embarqué	Connecteur de disquette	x1	Connecteur de disquette	x1
	Connecteur IDE	x1	Connecteur IDE	x1
	Connecteur SATA	x6	Connecteur SATA	x6
	Connecteur du panneau avant	x1	Connecteur du panneau avant	x1
	Connecteur Audio du panneau avant	x1	Connecteur Audio du panneau avant	x1
	Connecteur d'entrée CD	x1	Connecteur d'entrée CD	x1
	Connecteur de sortie S/PDIF	x1	Connecteur de sortie S/PDIF	x1
	Embase de ventilateur UC	x1	Embase de ventilateur UC	x1
	Embase de ventilateur système	x2	Embase de ventilateur système	x2
	Embase d'effacement CMOS	x1	Embase d'effacement CMOS	x1
	Connecteur USB	x2	Connecteur USB	x2
	Connecteur d'alimentation (24 broches)	x1	Connecteur d'alimentation (24 broches)	x1
	Connecteur d'alimentation (4 broches)	x2	Connecteur d'alimentation (4 broches)	x2
E/S du panneau arrière	Clavier PS/2	x1	Clavier PS/2	x1
	Souris PS/2	x1	Souris PS/2	x1
	Port LAN	x1	Port LAN	x1
	Port USB	x6	Port USB	x6
	Fiche audio	x3	Fiche audio	x3
Dimensions de la carte	220 mm (l) X 305 mm (H)		220 mm (l) X 305 mm (H)	
Support SE	Windows 2000 / XP / Vista / 7 Biostar se réserve le droit d'ajouter ou de supprimer le support de SE avec ou sans préavis.		Windows 2000 / XP / Vista / 7 Biostar se réserve le droit d'ajouter ou de supprimer le support de SE avec ou sans préavis.	

ITALIAN

	TP45E Combo	TP43E Combo
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	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	800 / 1066 / 1333 / 1600 MHz
Chipset	Intel P45 Intel ICH10	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	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	DDR3 x 2, ciascun DIMM supporta 256MB / 512MB / 1GB / 2GB DDR2 x 2, ciascun DIMM supporta 256MB / 512MB / 1GB / 2GB / 4GB DDR3 Capacità massima della memoria 4GB DDR2 Capacità massima della memoria 8GB Modulo di memoria DDR2 & DDR3 a canale doppio Supporto di DDR2 1066 / 800 / 667 Supporto di DDR3 1333 / 1066 / 800 DIMM registrati e DIMM ECC non sono supportati	DDR3 x 2, ciascun DIMM supporta 256MB / 512MB / 1GB / 2GB DDR2 x 2, ciascun DIMM supporta 256MB / 512MB / 1GB / 2GB / 4GB DDR3 Capacità massima della memoria 4GB DDR2 Capacità massima della memoria 8GB Modulo di memoria DDR2 & DDR3 a canale doppio Supporto di DDR2 1066 / 800 / 667 Supporto di DDR3 1333 / 1066 / 800 DIMM registrati e DIMM ECC non sono supportati
IDE	JMicro JMB368 Modalità Bus Master Ultra DMA 33 / 66 / 100 / 133 Supporto modalità PIO Mode 0-4	JMicro 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.	Controller Serial ATA integrato Velocità di trasferimento dei dati fino a 3.0Gb/s. Compatibile specifiche SATA Versione 2.0.

TP45E Combo/TP43E Combo

	TP45E Combo	TP43E Combo
LAN	Realtek RTL 8111C / 8111D / 8111DL Negoziazione automatica 10 / 100 / 1000 Mb/s Capacità Half / Full Duplex	Realtek RTL8111C / 8111D / 8111DL Negoziazione automatica 10 / 100 / 1000 Mb/s Capacità Half / Full Duplex
Supporto audio HD	ALC662 Supporto audio High-Definition (HD) Uscita audio 5.1 canali	ALC662 Supporto audio High-Definition (HD) Uscita audio 5.1 canali
Alloggi	Alloggio PCI x3 Alloggio PCI Express Gen2 x16 x1 Alloggio PCI Express x1 x2	Alloggio PCI x3 Alloggio PCI Express Gen2 x16 x1 Alloggio PCI Express x1 x2
Connettori su scheda	Connettore floppy x1 Connettore IDE x1 Connettore SATA x6 Connettore pannello frontale x1 Connettore audio frontale x1 Connettore CD-in x1 Connettore output SPDIF x1 Collettore ventolina CPU x1 Collettore ventolina sistema x2 Collettore cancellazione CMOS x1 Connettore USB x2 Connettore alimentazione x1 (24 pin) Connettore alimentazione x2 (4 pin)	Connettore floppy x1 Connettore IDE x1 Connettore SATA x6 Connettore pannello frontale x1 Connettore audio frontale x1 Connettore CD-in x1 Connettore output SPDIF x1 Collettore ventolina CPU x1 Collettore ventolina sistema x2 Collettore cancellazione CMOS x1 Connettore USB x2 Connettore alimentazione x1 (24 pin) Connettore alimentazione x2 (4 pin)
I/O pannello posteriore	Tastiera PS/2 x1 Mouse PS/2 x1 Porta LAN x1 Porta USB x6 Connettore audio x3	Tastiera PS/2 x1 Mouse PS/2 x1 Porta LAN x1 Porta USB x6 Connettore audio x3
Dimensioni scheda	220 mm (larghezza) x 305 mm (altezza)	220 mm (larghezza) x 305 mm (altezza)
Sistemi operativi supportati	Windows 2000 / XP / Vista / 7 Biostar si riserva il diritto di aggiungere o rimuovere il supporto di qualsiasi sistema operativo senza preavviso.	Windows 2000 / XP / Vista / 7 Biostar si riserva il diritto di aggiungere o rimuovere il supporto di qualsiasi sistema operativo senza preavviso.

SPANISH

	TP45E Combo	TP43E Combo
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	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	800 / 1066 / 1333 / 1600 MHz
Conjunto de chips	Intel P45 Intel ICH10	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	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	DDR3 x 2, cada DIMM admite de 256MB / 512MB / 1GB / 2GB DDR2 x 2, cada DIMM admite de 256MB / 512MB / 1GB / 2GB / 4GB DDR3 Capacidad máxima de memoria de 4GB DDR2 Capacidad máxima de memoria de 8GB Módulo de memoria DDR2 & DDR3 de canal Doble Admite DDR2 de 1066 / 800 / 667 Admite DDR3 de 1333 / 1066 / 800 No admite DIMM registrados o DIMM compatibles con ECC	DDR3 x 2, cada DIMM admite de 256MB / 512MB / 1GB / 2GB DDR2 x 2, cada DIMM admite de 256MB / 512MB / 1GB / 2GB / 4GB DDR3 Capacidad máxima de memoria de 4GB DDR2 Capacidad máxima de memoria de 8GB Módulo de memoria DDR2 & DDR3 de canal Doble Admite DDR2 de 1066 / 800 / 667 Admite DDR3 de 1333 / 1066 / 800 No admite DIMM registrados o DIMM compatibles con ECC
IDE	JMicro JMB368 Modo bus maestro Ultra DMA 33 / 66 / 100 / 133 Soporte los Modos PIO 0~4,	JMicro 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.	Controlador ATA Serie Integrado Tasas de transferencia de hasta 3.0 Gb/s. Compatible con la versión SATA 2.0.

TP45E Combo/TP43E Combo

	TP45E Combo		TP43E Combo	
Red Local	Realtek RTL 8111C / 8111D / 8111DL		Realtek RTL8111C / 8111D / 8111DL	
	Negociación de 10 / 100 / 1000 Mb/s		Negociación de 10 / 100 / 1000 Mb/s	
	Funciones Half / Full dúplex		Funciones Half / Full dúplex	
Soporte de sonido HD	ALC662		ALC662	
	Soporte de sonido de Alta Definición		Soporte de sonido de Alta Definición	
	Salida de sonido de 5.1 canales		Salida de sonido de 5.1 canales	
Ranuras	Ranura PCI	X3	Ranura PCI	X3
	Ranura PCI Express Gen2 x16	X1	Ranura PCI Express Gen2 x16	X1
	Ranura PCI express x 1	X2	Ranura PCI express x 1	X2
Conectores en placa	Conector disco flexible	X1	Conector disco flexible	X1
	Conector IDE	X1	Conector IDE	X1
	Conector SATA	X6	Conector SATA	X6
	Conector de panel frontal	X1	Conector de panel frontal	X1
	Conector de sonido frontal	X1	Conector de sonido frontal	X1
	Conector de entrada de CD	X1	Conector de entrada de CD	X1
	Conector de salida S/PDIF	X1	Conector de salida S/PDIF	X1
	Cabecera de ventilador de CPU	X1	Cabecera de ventilador de CPU	X1
	Cabecera de ventilador de sistema	X2	Cabecera de ventilador de sistema	X2
	Cabecera de borrado de CMOS	X1	Cabecera de borrado de CMOS	X1
	Conector USB	X2	Conector USB	X2
	Conector de alimentación	X1	Conector de alimentación	X1
	(24 patillas)		(24 patillas)	
	Conector de alimentación	X2	Conector de alimentación	X2
	(4 patillas)		(4 patillas)	
Panel trasero de E/S	Teclado PS/2	X1	Teclado PS/2	X1
	Ratón PS/2	X1	Ratón PS/2	X1
	Puerto de red local	X1	Puerto de red local	X1
	Puerto USB	X6	Puerto USB	X6
	Conector de sonido	X3	Conector de sonido	X3
Tamaño de la placa	220 mm. (A) X 305 Mm. (H)		220 mm. (A) X 305 Mm. (H)	
Soporte de sistema operativo	Windows 2000 / XP / Vista / 7		Windows 2000 / XP / Vista / 7	
	Biostar se reserva el derecho de añadir o retirar el soporte de cualquier SO con o sin aviso previo.		Biostar se reserva el derecho de añadir o retirar el soporte de cualquier SO con o sin aviso previo.	

PORTUGUESE

	TP45E Combo	TP43E Combo
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 Architecture -64 / Extended Memory 64 / Virtualization	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 Architecture -64 / Extended Memory 64 / Virtualization
FSB	800 / 1066 / 1333 / 1600 MHz	800 / 1066 / 1333 / 1600 MHz
Chipset	Intel P45 Intel ICH10	Intel P43 Intel ICH10
Especificação o 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	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	DDR3 x 2, cada módulo DIMM suporta uma memória de 256 MB / 512 MB / 1GB / 2GB DDR2 x 2, cada módulo DIMM suporta uma memória de 256 MB / 512 MB / 1GB / 2GB / 4GB DDR3 Capacidade máxima de memória:4 GB DDR2 Capacidade máxima de memória:8 GB Módulo de memória DDR2 & DDR3 de canal duplo Suporta módulos DDR2 1066 / 800 / 667 Suporta módulos DDR3 1333 / 1066 / 800 Os módulos DIMM registados e os DIMM ECC não são suportados	DDR3 x 2, cada módulo DIMM suporta uma memória de 256 MB / 512 MB / 1GB / 2GB DDR2 x 2, cada módulo DIMM suporta uma memória de 256 MB / 512 MB / 1GB / 2GB / 4GB DDR3 Capacidade máxima de memória:4 GB DDR2 Capacidade máxima de memória:8 GB Módulo de memória DDR2 & DDR3 de canal duplo Suporta módulos DDR2 1066 / 800 / 667 Suporta módulos DDR3 1333 / 1066 / 800 Os módulos DIMM registados e os DIMM ECC não são suportados
IDE	JMicro JMB368 Modo Bus master Ultra DMA 33 / 66 / 100 / 133 Suporta o modo PIO 0~4,	JMicro 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.	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 8111C / 8111D / 8111DL Auto negociação de 10 / 100 / 1000 Mb/s Capacidade semi/full-duplex	Realtek RTL8111C / 8111D / 8111DL Auto negociação de 10 / 100 / 1000 Mb/s Capacidade semi/full-duplex

TP45E Combo/TP43E Combo

	TP45E Combo		TP43E Combo	
Suporte para áudio de alta definição	ALC662		ALC662	
	Suporta a especificação High-Definition Audio		Suporta a especificação High-Definition Audio	
	Saída de áudio de 5.1 canais		Saída de áudio de 5.1 canais	
Ranhuras	Ranhura PCI	x3	Ranhura PCI	x3
	Ranhura PCI Express Gen2 x16	x1	Ranhura PCI Express Gen2 x16	x1
	Ranhura PCI Express x 1	x2	Ranhura PCI Express x 1	x2
Conectores na placa	Conector da unidade de disquetes	x1	Conector da unidade de disquetes	x1
	Conector da para impressora	x1	Conector da para impressora	x1
	Porta série	x1	Porta série	x1
	Conector IDE	x1	Conector IDE	x1
	Conector SATA	x6	Conector SATA	x6
	Conector do painel frontal	x1	Conector do painel frontal	x1
	Conector de áudio frontal	x1	Conector de áudio frontal	x1
	Conector para entrada de CDs	x1	Conector para entrada de CDs	x1
	Conector de saída S/PDIF	x1	Conector de saída S/PDIF	x1
	Conector da ventoinha da CPU	x1	Conector da ventoinha da CPU	x1
	Conector da ventoinha do sistema	x2	Conector da ventoinha do sistema	x2
	Conector para limpeza do CMOS	x1	Conector para limpeza do CMOS	x1
	Conector USB	x2	Conector USB	x2
	Conector de alimentação (24 pinos)	x1	Conector de alimentação (24 pinos)	x1
	Conector de alimentação (4 pinos)	x2	Conector de alimentação (4 pinos)	x2
Entradas/Saídas no painel traseiro	Teclado PS/2	x1	Teclado PS/2	x1
	Rato PS/2	x1	Rato PS/2	x1
	Porta LAN	x1	Porta LAN	x1
	Porta USB	x6	Porta USB	x6
	Tomada de áudio	x3	Tomada de áudio	x3
Tamanho da placa	220 mm (L) X 305 mm (A)		220 mm (L) X 305 mm (A)	
Sistemas operativos suportados	Windows 2000 / XP / Vista / 7 A Biostar reserva-se o direito de adicionar ou remover suporte para qualquer sistema operativo com ou sem aviso prévio.		Windows 2000 / XP / Vista / 7 A Biostar reserva-se o direito de adicionar ou remover suporte para qualquer sistema operativo com ou sem aviso prévio.	

POLISH

	TP45E Combo	TP43E Combo
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	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	800 / 1066 / 1333 / 1600 MHz
Chipset	Intel P45 Intel ICH10	Intel P43 Intel ICH10
Pamięć główna	DDR3 x 2, każde gniazdo DIMM obsługuje moduły 256MB / 512MB / 1GB / 2GB DDR2 x 2, każde gniazdo DIMM obsługuje moduły 256MB / 512MB / 1GB / 2GB / 4GB DDR3 Maks. wielkość pamięci 4GB DDR2 Maks. wielkość pamięci 8GB Moduł pamięci DDR2 & DDR3 z trybem podwójnego kanału Obsługa DDR2 1066 / 800 / 667 Obsługa DDR3 1333 / 1066 / 800 Brak obsługi Registered DIMM oraz ECC DIMM	DDR3 x 2, każde gniazdo DIMM obsługuje moduły 256MB / 512MB / 1GB / 2GB DDR2 x 2, każde gniazdo DIMM obsługuje moduły 256MB / 512MB / 1GB / 2GB / 4GB DDR3 Maks. wielkość pamięci 4GB DDR2 Maks. wielkość pamięci 8GB Moduł pamięci DDR2 & DDR3 z trybem podwójnego kanału Obsługa DDR2 1066 / 800 / 667 Obsługa DDR3 1333 / 1066 / 800 Brak obsługi Registered DIMM oraz ECC DIMM
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"	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	JMicro JMB368 Ultra DMA 33 / 66 / 100 / 133 Tryb Bus Master obsługa PIO tryb 0~4,	JMicro 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.	Zintegrowany kontroler Serial ATA Transfer danych do 3.0 Gb/s. Zgodność ze specyfikacją SATA w wersji 2.0.
LAN	Realtek RTL 8111C / 8111D / 8111DL 10 / 100 / 1000 Mb/s z automatyczną negocjacją szybkości Działanie w trybie połowicznego / pełnego dupleksu	Realtek RTL8111C / 8111D / 8111DL 10 / 100 / 1000 Mb/s z automatyczną negocjacją szybkości Działanie w trybie połowicznego / pełnego dupleksu

TP45E Combo/TP43E Combo

	TP45E Combo		TP43E Combo	
Obsługa audio HD	ALC662 Obsługa High-Definition Audio 5.1 kanałowe wyjście audio		ALC662 Obsługa High-Definition Audio 5.1 kanałowe wyjście audio	
Gniazda	Gniazdo PCI x3 Gniazdo PCI Express Gen2 x16 x1 Gniazdo PCI Express x 1 x2		Gniazdo PCI x3 Gniazdo PCI Express Gen2 x16 x1 Gniazdo PCI Express x 1 x2	
Złącza wbudowane	Złącze napędu dyskietek x1 Złącze IDE x1 Złącze SATA x6 Złącze panela przedniego x1 Przednie złącze audio x1 Złącze wejścia CD x1 Złącze wyjścia S/PDIF x1 Złącze główkowe wentylatora procesora x1 Złącze główkowe wentylatora systemowego x2 Złącze główkowe kasowania CMOS x1 Złącze USB x2 Złącze zasilania (24 pinowe) x1 Złącze zasilania (4 pinowe) x2		Złącze napędu dyskietek x1 Złącze IDE x1 Złącze SATA x6 Złącze panela przedniego x1 Przednie złącze audio x1 Złącze wejścia CD x1 Złącze wyjścia S/PDIF x1 Złącze główkowe wentylatora procesora x1 Złącze główkowe wentylatora systemowego x2 Złącze główkowe kasowania CMOS x1 Złącze USB x2 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 x3		Klawiatura PS/2 x1 Mysz PS/2 x1 Port LAN x1 Port USB x6 Gniazdo audio x3	
Wymiary płyty	220 mm (S) X 305 mm (W)		220 mm (S) X 305 mm (W)	
Obsługa systemu operacyjnego	Windows 2000 / XP / Vista / 7 Biostar zastrzega sobie prawo dodawania lub odwoływania obsługi dowolnego systemu operacyjnego bez powiadomienia.		Windows 2000 / XP / Vista / 7 Biostar zastrzega sobie prawo dodawania lub odwoływania obsługi dowolnego systemu operacyjnego bez powiadomienia.	

RUSSIAN

	TP45E Combo	TP43E Combo
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	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	800 / 1066 / 1333 / 1600 МГц
Набор микросхем	Intel P45 Intel ICH10	Intel P43 Intel ICH10
Основная память	DDR3 x 2, каждый модуль DIMM поддерживает 256 МБ / 512МБ / 1ГБ / 2ГБ DDR2 x 2, каждый модуль DIMM поддерживает 256 МБ / 512МБ / 1ГБ / 2ГБ / 4 ГБ DDR3 Максимальная ёмкость памяти 4ГБ DDR2 Максимальная ёмкость памяти 8ГБ Модуль памяти с двухканальным режимом DDR2 & DDR3 Поддержка DDR2 1066 / 800 / 667 Поддержка DDR3 1333 / 1066 / 800 Не поддерживает зарегистрированные модули DIMM and ECC DIMM	DDR3 x 2, каждый модуль DIMM поддерживает 256 МБ / 512МБ / 1ГБ / 2ГБ DDR2 x 2, каждый модуль DIMM поддерживает 256 МБ / 512МБ / 1ГБ / 2ГБ / 4 ГБ DDR3 Максимальная ёмкость памяти 4ГБ DDR2 Максимальная ёмкость памяти 8ГБ Модуль памяти с двухканальным режимом DDR2 & DDR3 Поддержка D DR2 1066 / 800 / 667 Поддержка DDR3 1333 / 1066 / 800 Не поддерживает зарегистрированные модули DIMM and ECC DIMM
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)	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	JMicro JMB368 Режим "хозяина" шины Ultra DMA 33 / 66 / 100 / 133 Поддержка режима PIO 0~4,	JMicro 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.	Встроенное последовательное устройство управления ATA скорость передачи данных до 3.0 гигабит/с. Соответствие спецификации SATA версия 2.0.

TP45E Combo/TP43E Combo

	TP45E Combo		TP43E Combo	
Локальная сеть	Realtek RTL 8111C / 8111D / 8111DL		Realtek RTL8111C / 8111D / 8111DL	
	Автоматическое согласование 10 / 100 / 1000 Мб/с		Автоматическое согласование 10 / 100 / 1000 Мб/с	
	Частичная / полная дуплексная способность		Частичная / полная дуплексная способность	
Звуковая поддержка жесткого диска	ALC662		ALC662	
	Звуковая поддержка High-Definition		Звуковая поддержка High-Definition	
	5.1канальный звуковой выход		5.1канальный звуковой выход	
Слоты	Слот PCI	x3	Слот PCI	x3
	Слот PCI Express Gen2 x16	x1	Слот PCI Express Gen2 x16	x1
	Слот PCI Express x 1	x2	Слот PCI Express x 1	x2
Встроенный разъем	Разъем НГМД	x1	Разъем НГМД	x1
	Разъем IDE	x1	Разъем IDE	x1
	Разъем SATA	x6	Разъем SATA	x6
	Разъем на лицевой панели	x1	Разъем на лицевой панели	x1
	Входной звуковой разъем	x1	Входной звуковой разъем	x1
	Разъем ввода для CD	x1	Разъем ввода для CD	x1
	Разъем вывода для S/PDIF	x1	Разъем вывода для S/PDIF	x1
	Контактирующее приспособление вентилятора центрального процессора	x1	Контактирующее приспособление вентилятора центрального процессора	x1
	Контактирующее приспособление вентилятора системы	x2	Контактирующее приспособление вентилятора системы	x2
	Открытое контактирующее приспособление CMOS	x1	Открытое контактирующее приспособление CMOS	x1
	USB-разъем	x2	USB-разъем	x2
	Разъем питания (24 вывод)	x1	Разъем питания (24 вывод)	x1
	Разъем питания (4 вывод)	x2	Разъем питания (4 вывод)	x2
Задняя панель средств ввода-вывода	Клавиатура PS/2	x1	Клавиатура PS/2	x1
	Мышь PS/2	x1	Мышь PS/2	x1
	Порт LAN	x1	Порт LAN	x1
	USB-порт	x6	USB-порт	x6
	Гнездо для подключения наушников	x3	Гнездо для подключения наушников	x3
Размер панели	220 мм (Ш) X 305 мм (В)		220 мм (Ш) X 305 мм (В)	
Поддержка OS	Windows 2000 / XP / Vista / 7 Biostar сохраняет за собой право добавлять или удалять средства обеспечения для OS с или без предварительного уведомления.		Windows 2000 / XP / Vista / 7 Biostar сохраняет за собой право добавлять или удалять средства обеспечения для OS с или без предварительного уведомления.	

ARABIC

TP43E Combo	TP45E Combo	
LGA 775 Intel Core2 Extreme / Core2 Duo / Core2 Quad / Pentium Dual-Core / Celeron Dual-Core / Celeron 4xx Execute Disable Bit / Enhanced Intel SpeedStep® / Intel Architecture-64 / Extended Memory 64 Technology / Virtualization Technology	LGA 775 Intel Core2 Extreme / Core2 Duo / Core2 Quad / Pentium Dual-Core / Celeron Dual-Core / Celeron 4xx Execute Disable Bit / Enhanced Intel SpeedStep® / Intel Architecture-64 / Extended Memory 64 Technology / Virtualization Technology	وحدة المعالجة المركزية
ميغا هرتز 800 / 1066 / 1333 / 1600 تردد	ميغا هرتز 800 / 1066 / 1333 / 1600 تردد	النقل الأممي الجانبي
Intel P43 Intel ICH10	Intel P45 Intel ICH10	مجموعة الشرائح
نوع من ذاكرة تدعم DIMM فتحة كل تدعم 2, DDR3 x باي جيجا 1 أو بايت 2 بايت ميغا 256/512 سعة من ذاكرة تدعم DIMM فتحة كل تدعم 2, DDR2 x بايت 2 جيجو 4 أو بايت ميغا 256/512 سعة نوع باي جيجا أو بايت جيجا 4 قصوى ذاكرة تسعة DDR3 بايت جيجا 8 قصوى ذاكرة تسعة DDR2 القناة مزدوجة DDR2 & DDR3 ذاكرة وحدة 667 / 800 / 1066 ساعات DDR2 نوع من الذاكرة تدعم 800 / 1066 / 1333 ساعات DDR3 نوع من الذاكرة تدعم ECC وتلك التي لا تتوافق مع DIMM لا تدعم رقائق الذاكرة	نوع من ذاكرة تدعم DIMM فتحة كل تدعم 2, DDR3 x باي جيجا 1 أو بايت 2 بايت ميغا 256/512 سعة من ذاكرة تدعم DIMM فتحة كل تدعم 2, DDR2 x بايت 2 جيجو 4 أو بايت ميغا 256/512 سعة وعن باي جيجا أو بايت جيجا 4 قصوى ذاكرة تسعة DDR3 بايت جيجا 8 قصوى ذاكرة تسعة DDR2 القناة مزدوجة DDR2 & DDR3 ذاكرة وحدة 667 / 800 / 1066 ساعات DDR2 نوع من الذاكرة تدعم 800 / 1066 / 1333 ساعات DDR3 نوع من الذاكرة تدعم ECC وتلك التي لا تتوافق مع DIMM لا تدعم رقائق الذاكرة	الذاكرة الرئيسية
ITE 8718F الأكثر استخداماً Super I/O وظيفية Low Pin Count Interface تدعم تقنية وسائل التحكم في البيئة: مراقب لمعرفة حالة الأجهزة مراقب في سرعة المروحة ITE من "Smart Guardian" وظيفية	ITE 8718F الأكثر استخداماً Super I/O وظيفية Low Pin Count Interface تدعم تقنية وسائل التحكم في البيئة: مراقب لمعرفة حالة الأجهزة مراقب في سرعة المروحة ITE من "Smart Guardian" وظيفية	Super I/O
JMicro JMB368 متحكم IDE وضع رئيسي 33 / 66 / 100 / 133 Ultra DMA النقل بتقنية PIO Mode 0 ~ 4 دعم وضع	JMicro JMB368 متحكم IDE وضع رئيسي 33 / 66 / 100 / 133 Ultra DMA النقل بتقنية PIO Mode 0 ~ 4 دعم وضع	منفذ IDE

TP45E Combo/TP43E Combo

TP43E Combo		TP45E Combo	
<p>SATA</p> <p>متكامل Serial ATA متحكم جيجابت/ثانية. 3.0 نقل البيانات بسرعة تصل إلى 2.0 الإصدار SATA مطابقة لمواصفات</p>		<p>SATA</p> <p>متكامل Serial ATA متحكم جيجابت/ثانية. 3.0 نقل البيانات بسرعة تصل إلى 2.0 الإصدار SATA مطابقة لمواصفات</p>	
<p>شبكة داخلية</p> <p>Realtek RTL 8111C / 8111D / 8111DL تفاوض تلقائي 100/10 ميجابايت / ثانية و 1 جيجابت/ثانية إمكانية النقل المزدوج الكامل/النصف</p>		<p>شبكة داخلية</p> <p>Realtek RTL 8111C / 8111D / 8111DL تفاوض تلقائي 100/10 ميجابايت / ثانية و 1 جيجابت/ثانية إمكانية النقل المزدوج الكامل/النصف</p>	
<p>دعم الصوت عالي التعريف</p> <p>ALC662 تدعم تقنية الصوت عالي التعريف من 5.1 قنوات لخرج الصوت</p>		<p>دعم الصوت عالي التعريف</p> <p>ALC662 تدعم تقنية الصوت عالي التعريف من 5.1 قنوات لخرج الصوت</p>	
<p>التحات</p> <p>عدد 3 قحة PCI عدد 1 قحة PCI Express x 16 Gen2 عدد 2 قحة PCI Express x 1</p>		<p>التحات</p> <p>عدد 3 قحة PCI عدد 1 قحة PCI Express x 16 Gen2 عدد 2 قحة PCI Express x 1</p>	
<p>المنفذ على سطح اللوحة</p> <p>عدد 1 منفذ محرك أقراص مرنة عدد 1 منفذ IDE عدد 6 منفذ SATA عدد 1 منفذ اللوحة الأممية عدد 1 منفذ الصوت الأممي عدد 1 منفذ CD-IN عدد 1 منفذ خرج S/PDIF عدد 1 وصلة مروحة وحدة المعالجة المركزية عدد 2 وصلة مروحة النظام عدد 1 وصلة مسح CMOS عدد 2 منفذ USB عدد 1 منفذ توصيل الطاقة (24 دبوس) عدد 2 منفذ توصيل الطاقة (4 دبوس)</p>		<p>المنفذ على سطح اللوحة</p> <p>عدد 1 منفذ محرك أقراص مرنة عدد 1 منفذ IDE عدد 6 منفذ SATA عدد 1 منفذ اللوحة الأممية عدد 1 منفذ الصوت الأممي عدد 1 منفذ CD-IN عدد 1 منفذ خرج S/PDIF عدد 1 وصلة مروحة وحدة المعالجة المركزية عدد 2 وصلة مروحة النظام عدد 1 وصلة مسح CMOS عدد 2 منفذ USB عدد 1 منفذ توصيل الطاقة (24 دبوس) عدد 2 منفذ توصيل الطاقة (4 دبوس)</p>	
<p>منفذ دخل/خرج اللوحة الخلفية</p> <p>عدد 1 لوحة مفاتيح PS/2 عدد 1 ملوس PS/2 عدد 1 منفذ شبكة اتصال محلية عدد 6 منافذ USB عدد 3 مقيس صوت</p>		<p>منفذ دخل/خرج اللوحة الخلفية</p> <p>عدد 1 لوحة مفاتيح PS/2 عدد 1 ملوس PS/2 عدد 1 منفذ شبكة اتصال محلية عدد 6 منافذ USB عدد 3 مقيس صوت</p>	
<p>حجم اللوحة</p> <p>220 مم (عرض) X 305 مم (ارتفاع)</p>		<p>حجم اللوحة</p> <p>220 مم (عرض) X 305 مم (ارتفاع)</p>	
<p>دعم أنظمة التشغيل</p> <p>Windows 2000 / XP / Vista / 7 بحقها في إضافة أو إزالة الدعم لأي نظام تشغيل بلخطار Biostar أو بدون إخطار.</p>		<p>دعم أنظمة التشغيل</p> <p>Windows 2000 / XP / Vista / 7 بحقها في إضافة أو إزالة الدعم لأي نظام تشغيل بلخطار Biostar أو بدون إخطار.</p>	

JAPANESE

	TP45E Combo	TP43E Combo
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	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	800 / 1066 / 1333 / 1600 MHz
チップセット	Intel P45 Intel ICH10	Intel P43 Intel ICH10
メインメモリ	DDR3 x 2, 各DIMMは 256MB / 512MB / 1GB / 2GBをサポート DDR2 x 2, 各DIMMは 256MB / 512MB / 1GB / 2GB / 4GBをサポート DDR3最大メモリ容量4GB DDR2最大メモリ容量8GB デュアル チャンネルモードDDR2 & DDR3 メモリモ ジュール DDR2 1066 / 800 / 667をサポート DDR3 1333 / 1066 / 800をサポート 登録済みDIMMとECC DIMMはサポートされません	DDR3 x 2, 各DIMMは 256MB / 512MB / 1GB / 2GBをサポート DDR2 x 2, 各DIMMは 256MB / 512MB / 1GB / 2GB / 4GBをサポート DDR3最大メモリ容量4GB DDR2最大メモリ容量8GB デュアル チャンネルモードDDR2 & DDR3 メモリモ ジュール DDR2 1066 / 800 / 667をサポート DDR3 1333 / 1066 / 800をサポート 登録済みDIMMとECC DIMMはサポートされません
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	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	JMicro JMB368 Ultra DMA 33 / 66 / 100 / 133バスマスタモード PIO Mode 0~4のサポート、	JMicro JMB368 Ultra DMA 33 / 66 / 100 / 133バスマスタモード PIO Mode 0~4のサポート、

TP45E Combo/TP43E Combo

	TP45E Combo	TP43E Combo
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。	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 8111C / 8111D / 8111DL 10 / 100 / 1000 Mb/秒のオートネゴシエーション 半/全二重機能	Realtek RTL8111C / 8111D / 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	ALC662 ハイデフィニションオーディオのサポート 5.1 チャンネルオーディオアウト	ALC662 ハイデフィニションオーディオのサポート 5.1 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	PCIスロット x3 PCI Express x16 Gen2スロット x1 PCI Express x 1スロット x2
オンボードコネクタ	フロッピーコネクタ x1 IDEコネクタ x1 SATAコネクタ x6 フロントパネルコネクタ x1 フロントオーディオコネクタ x1 CDインコネクタ x1 S/PDIFアウトコネクタ x1 CPUファンヘッダ x1 システムファンヘッダ x2 CMOSクリアヘッダ x1 USBコネクタ x2 電源コネクタ(24ピン) x1 電源コネクタ(4ピン) x2	フロッピーコネクタ x1 IDEコネクタ x1 SATAコネクタ x6 フロントパネルコネクタ x1 フロントオーディオコネクタ x1 CDインコネクタ x1 S/PDIFアウトコネクタ x1 CPUファンヘッダ x1 システムファンヘッダ x2 CMOSクリアヘッダ x1 USBコネクタ x2 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 x3	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 x3
ボードサイズ	220 mm (幅) X 305 mm (高さ)	220 mm (幅) X 305 mm (高さ)
OSサポート	Windows 2000 / XP / Vista / 7 Biostarは事前のサポートなしにOSサポートを追加または削除する権利を留保します。	Windows 2000 / XP / Vista / 7 Biostarは事前のサポートなしにOSサポートを追加または削除する権利を留保します。

2009/09/22