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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.

1.2 PACKAGE CHECKLIST

- ✚ IDE Cable X 1
- ✚ Serial ATA Cable X 4
- ✚ 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)
- ✚ S/PDIF out Cable X 1 (optional)
- ✚ Serial ATA Power Cable X 2 (optional)

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

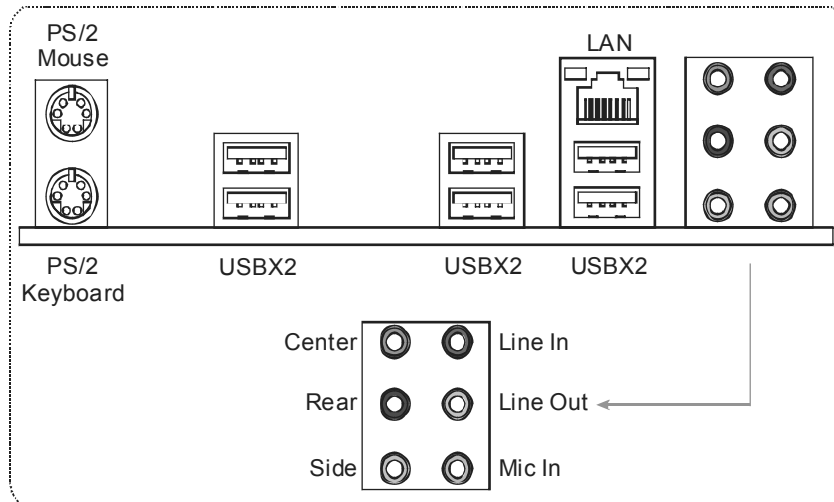
1.3 MOTHERBOARD FEATURES

| | <i>TP45 HP</i> | <i>TP43 HP</i> |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CPU | LGA 775 Intel Core2Duo / Core2Quad / 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 Core2Duo / Core2Quad / 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 | Fintek F71887F 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 | Fintek F71887F 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 DDR2 Max Memory Capacity 8GB Dual Channel Mode DDR2 memory module Supports DDR2 1066 / 800 / 667 Registered DIMM and ECC DIMM is not supported | DIMM Slots x 4 Each DIMM supports 256MB / 512MB / 1GB / 2GB DDR2 Max Memory Capacity 8GB Dual Channel Mode DDR2 memory module Supports DDR2 1066 / 800 / 667 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 10 / 100 Mb/s / 1Gb/s auto negotiation Half / Full duplex capability | Realtek RTL 8111C 10 / 100 Mb/s / 1Gb/s auto negotiation Half / Full duplex capability |
| Sound Codec | ALC888 7.1 channels audio out High Definition Audio | ALC888 7.1 channels audio out High Definition Audio |
| Slots | PCI slot x2 PCI Express Gen2 x16 slot (x16/x8) x1 PCI Express Gen2 x16 slot (x8) x1 PCI Express x 1 slot x2 | PCI slot x2 PCI Express Gen2 x16 slot x1 PCI Express x16 slot (x4) x1 PCI Express x 1 slot x1 |

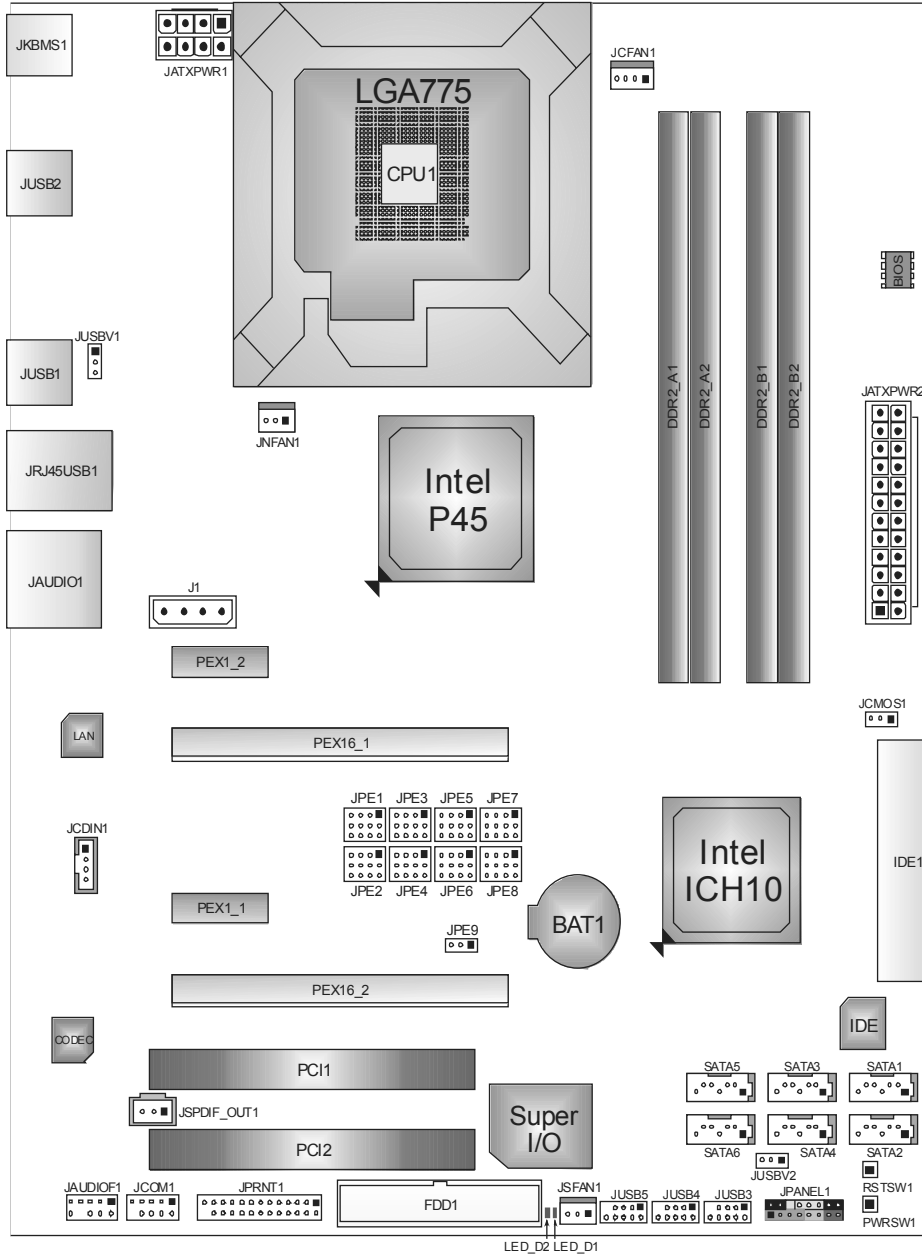
TP45 HP/TP43 HP

| | TP45 HP | TP43 HP | | |
|------------------------|--------------------------------------------------------------------------------------------------------------------|------------------------|--------------------------------------------------------------------------------------------------------------------|----|
| On Board Connector | Floppy connector | x1 | Floppy connector | x1 |
| | Printer Port Connector | x1 | Printer Port Connector | x1 |
| | Serial port Connector | x1 | Serial port 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 |
| | S/PDIF out connector | x1 | S/PDIF out connector | x1 |
| | CD-in Connector | x1 | CD-in 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 | x3 | USB connector | x3 |
| | Power Connector (24pin) | x1 | Power Connector (24pin) | x1 |
| | Power Connector (8pin) | x1 | Power Connector (8pin) | x1 |
| Power Connector (4pin) | x1 | Power Connector (4pin) | x1 | |
| 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 | x6 | Audio Jack | x6 |
| Board Size | 244 (W) x 305 (L) mm | | 244 (W) x 305 (L) mm | |
| OS Support | Windows 2000 / XP / VISTA Biostar Reserves the right to add or remove support for any OS with or without notice | | Windows 2000 / XP / VISTA Biostar Reserves the right to add or remove support for any OS with or without notice | |

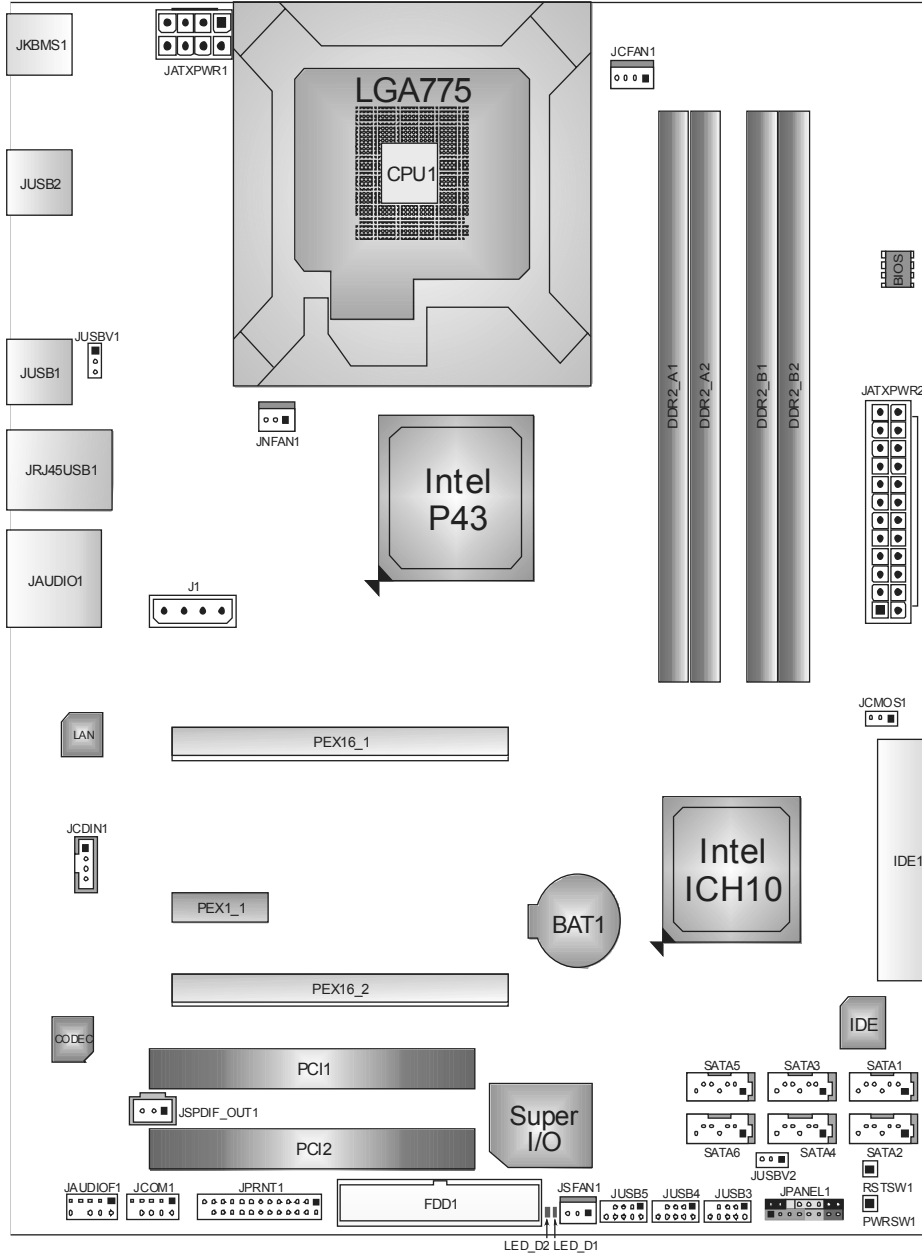
1.4 REAR PANEL CONNECTORS



1.5 MOTHERBOARD LAYOUT (TP45 HP)



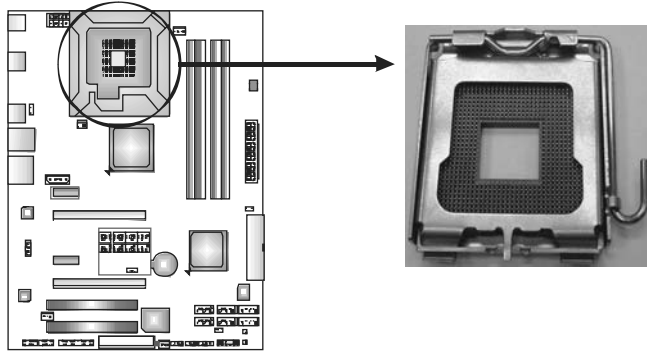
1.6 MOTHERBOARD LAYOUT (TP43 HP)



Note: ■ represents the 1st pin.

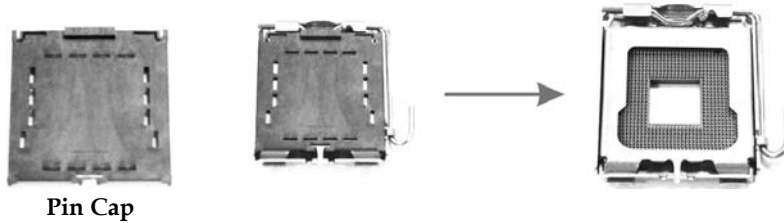
CHAPTER 2: HARDWARE INSTALLATION

2.1 INSTALLING CENTRAL PROCESSING UNIT (CPU)

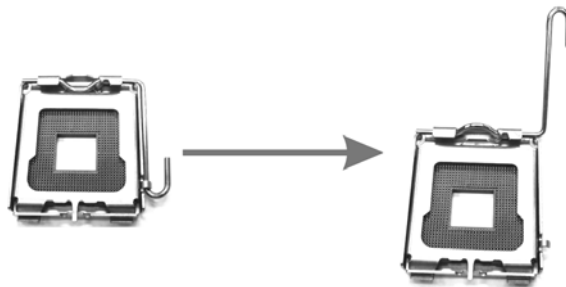


Special Notice:

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.

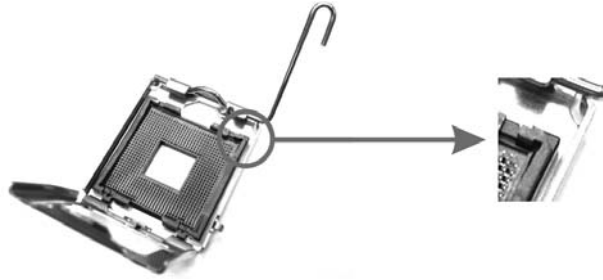


Step 1: Pull the socket locking lever out from the socket and then raise the lever up to a 90-degree angle.

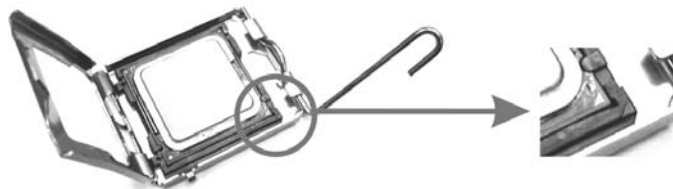


Step 2: Look for the triangular cut edge on socket, and the golden dot on CPU should point forwards this triangular cut edge. The CPU will fit only in the correct orientation.

Step 2-1:



Step 2-2:



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

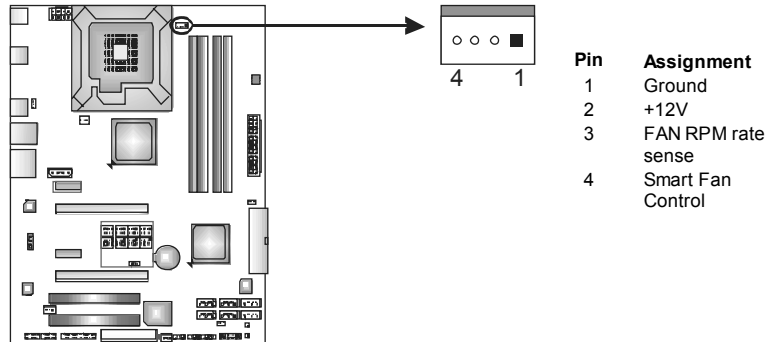


Step 4: Put the CPU Fan and heatsink assembly on the CPU and buckle it on the retention frame. Connect the CPU FAN power cable into the JCFAN1. This completes the installation.

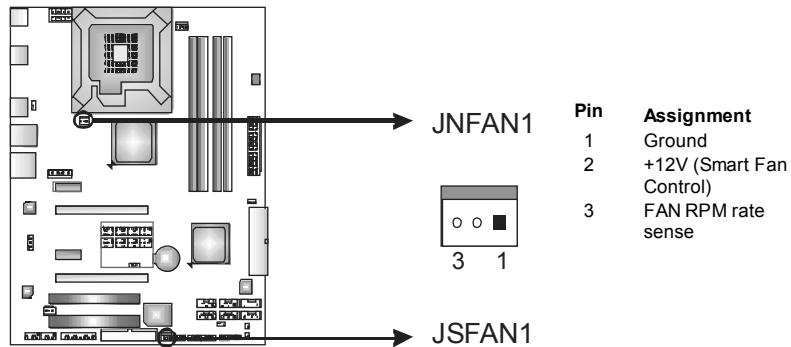
2.2 FAN HEADERS

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

JCFAN1: CPU Fan Header



JSFAN1/JNFAN1: System Fan Headers

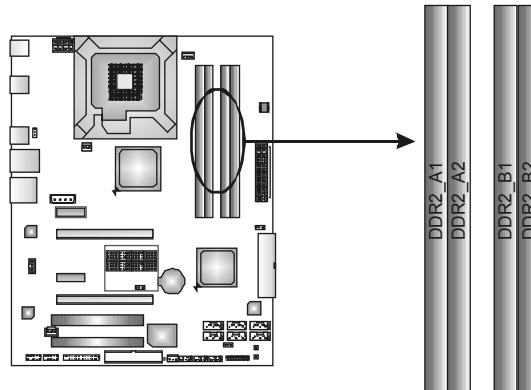


Note:

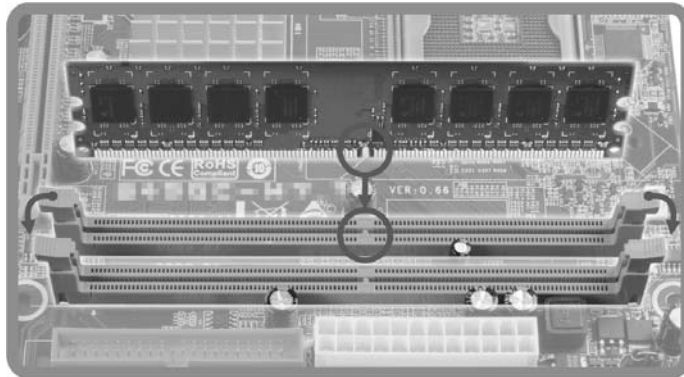
The JSFAN1/JNFAN1 support 3-pin head connectors, and the JCFAN1 supports 4-pin head connector. When connecting with wires onto connectors, please note that the red wire is the positive and should be connected to pin#2, and the black wire is Ground and should be connected to GND.

2.3 INSTALLING SYSTEM MEMORY

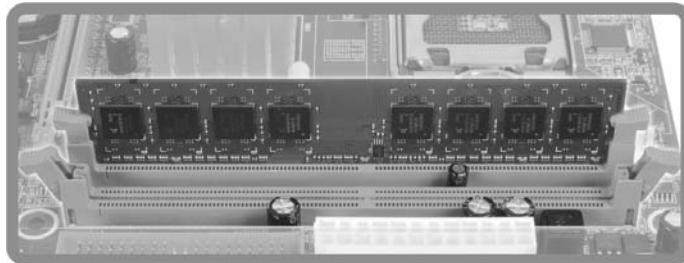
A. Memory Modules



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 | DDR2 Module | Total Memory Size |
|----------------------|---------------------|-------------------|
| DDR2_A1 | 256MB/512MB/1GB/2GB | Max is 8GB. |
| DDR2_A2 | 256MB/512MB/1GB/2GB | |
| DDR2_B1 | 256MB/512MB/1GB/2GB | |
| DDR2_B2 | 256MB/512MB/1GB/2GB | |

C. Dual Channel Memory installation

To trigger the Dual Channel function of the motherboard, the memory module must meet the following requirements:

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

| Dual Channel Status | DDR2_A1 | DDR2_A2 | DDR2_B1 | DDR2_B2 |
|---------------------|---------|---------|---------|---------|
| Enabled | O | X | O | X |
| Enabled | X | O | X | O |
| Enabled | O | O | O | O |

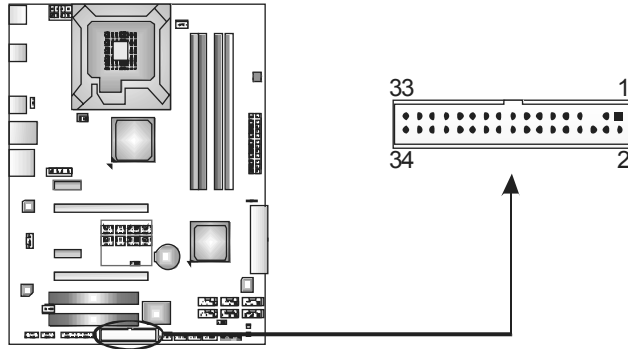
(O means memory installed, X means memory not installed.)

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

2.4 CONNECTORS AND SLOTS

FDD1: Floppy Disk Connector

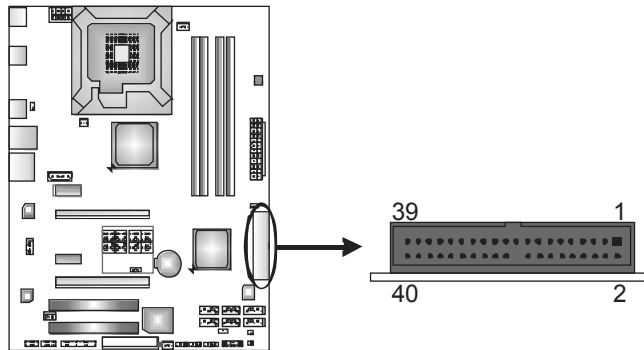
The motherboard provides a standard floppy disk connector that supports 360K, 720K, 1.2M, 1.44M and 2.88M floppy disk types. This connector supports the provided floppy drive ribbon cables.



IDE1: IDE/ATAPI 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 drives.



**PEX16_1: PCI-Express Gen2 x16 (x16/CrossFire x8 Speed) Slot
(For TP45 HP Only)**

- PCI-Express 2.0 compliant.
- Maximum theoretical realized bandwidth of 8GB/s(4GB/s CrossFire) simultaneously per direction, for an aggregate of 16GB/s(8GB/s CrossFire) totally.
- PEX16_1 slot is reserved for graphics or video cards. The design of this motherboard supports dual PCI-Express graphics cards using CrossFire technology with multiple displays. When using CrossFire, this slot is master and runs with x8 speed.
- To configure for CrossFire, please refer to the instructions of configuring JPE1~JPE9.

**PEX16_2: PCI-Express Gen2 x16 (NC/CrossFire x8 Speed) Slot
(For TP45 HP Only)**

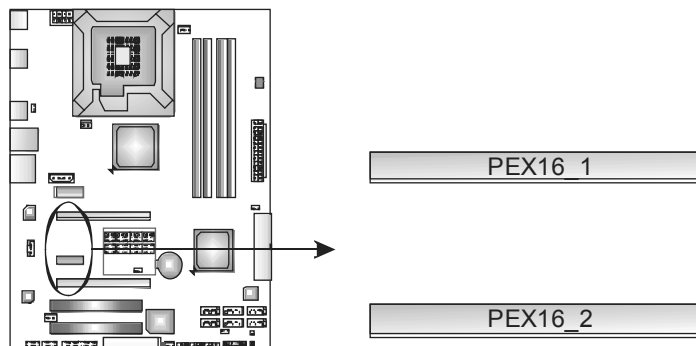
- PCI-Express 2.0 compliant.
- Maximum theoretical realized bandwidth of 4GB/s simultaneously per direction, for an aggregate of 8GB/s totally.
- PEX16_2 slot is reserved for graphics or video cards. The design of this motherboard supports dual PCI-Express graphics cards using CrossFire technology with multiple displays. This slot is slave when using CrossFire. If PEX16_1 is set to x16 speed, then PEX16_2 would not be functional.

PEX16_1: PCI-Express Gen2 x16 Slot (For TP43 HP Only)

- PCI-Express 2.0 compliant.
- Maximum theoretical realized bandwidth of 8GB/s simultaneously per direction, for an aggregate of 16GB/s totally.
- 2X bandwidth over the PCI-Express 1.1 architecture.

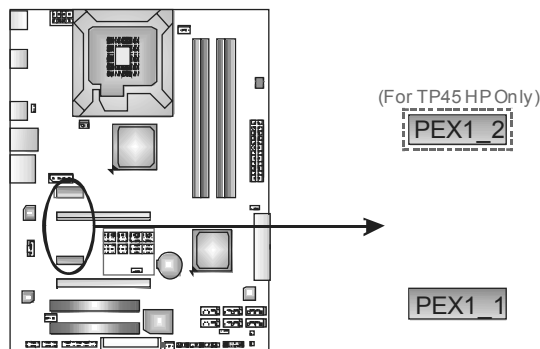
PEX16_2: PCI-Express x16 (x4 Speed) Slot (For TP43 HP Only)

- PCI-Express 1.1 compliant.
- Maximum theoretical realized bandwidth of 1GB/s simultaneously per direction, for an aggregate of 2GB/s totally.
- x4 Speed by Chipset Specification.
- If this slot is inserted with PCI-E x4 device, then PEX1_1 will not be functional.



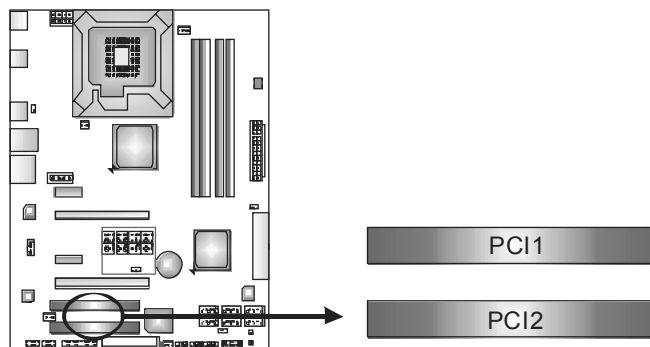
PEX1_1/PEX1_2(for TP45 HP Only): PCI-Express x1 Slots

- 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.
- For TP43 HP, if PEX16_2 is inserted with PCI-E x4 device, then PEX1_1 will not be functional.



PCI1~PCI2: Peripheral Component Interconnect Slots

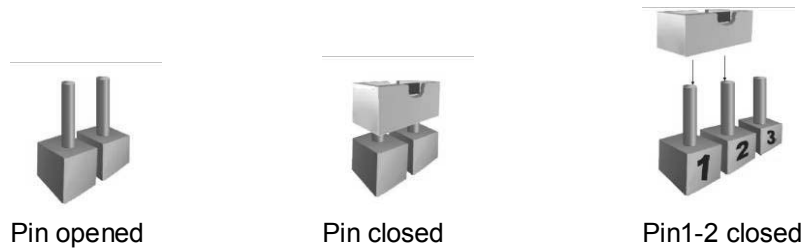
This motherboard is equipped with 2 standard PCI slots. PCI stands for Peripheral Component Interconnect, and it is a bus standard for expansion cards. This PCI slot is designated as 32 bits.



CHAPTER 3: HEADERS & JUMPERS SETUP

3.1 HOW TO SETUP JUMPERS

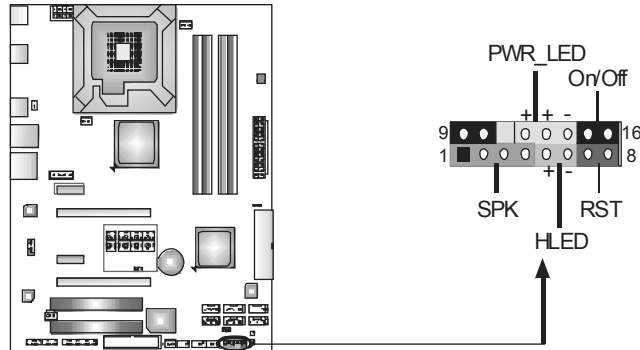
The illustration shows how to set up jumpers. When the jumper cap is placed on pins, the jumper is “close”, if not, that means the jumper is “open”.



3.2 DETAIL SETTINGS

JPANEL1: Front Panel Header

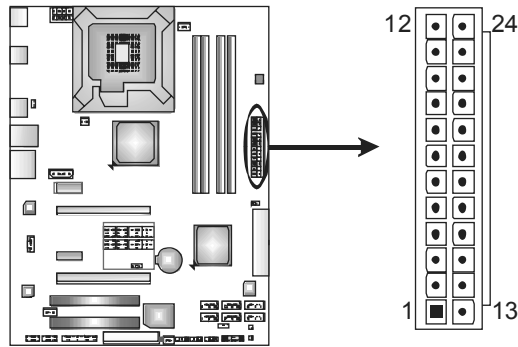
This 16-pin connector includes Power-on, Reset, HDD LED, Power LED, and speaker connection. It allows user to connect the PC case’s front panel switch functions.



| 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 | |

JATXPWR2: ATX Power Source Connector

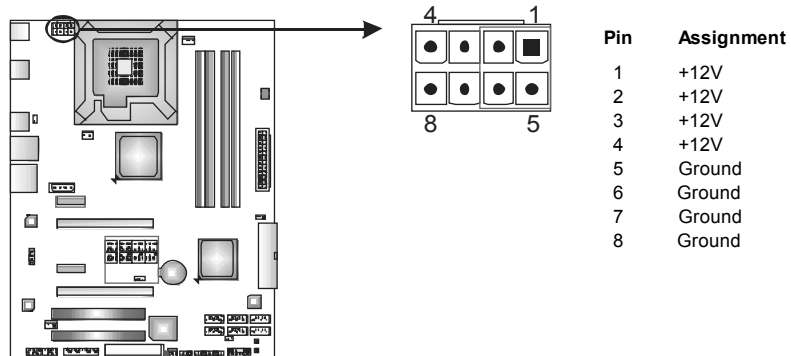
This connector allows user to connect 24-pin power connector on the ATX power supply.



| 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 |

JATXPWR1: ATX Power Source Connector

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



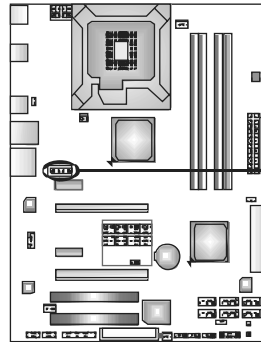
Note:

Before power on the system, please make sure that both JATXPWR1 and JATXPWR2 connectors have been plugged-in.

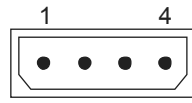
If the CPU power plug is 4-pin, please plug it into Pin 1-2-5-6 of JATXPWR1.

J1: Auxiliary Power for Graphics

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

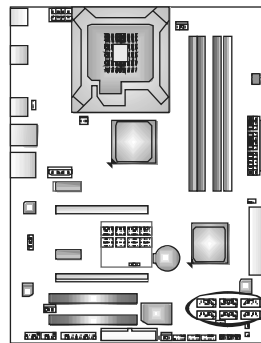


| Pin | Assignment |
|-----|------------|
| 1 | +12V |
| 2 | Ground |
| 3 | Ground |
| 4 | VCC |

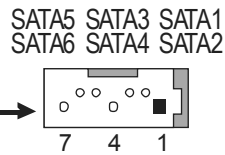


SATA1~SATA6: Serial ATA Connectors

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.

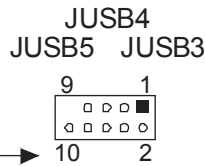
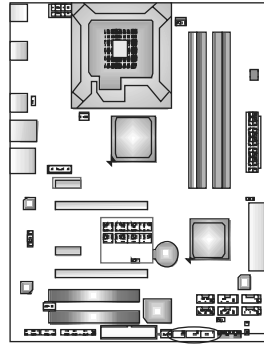


| Pin | Assignment |
|-----|------------|
| 1 | Ground |
| 2 | TX+ |
| 3 | TX- |
| 4 | Ground |
| 5 | RX- |
| 6 | RX+ |
| 7 | Ground |



JUSB3/JUSB4/JUSB5: Headers for USB 2.0 Ports at Front Panel

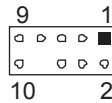
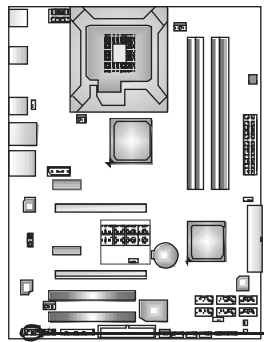
This header allows user to connect additional USB cable on the PC front panel, and also can be connected with internal USB devices, like USB card reader.



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

JAUDIOF1: Front Panel Audio Header

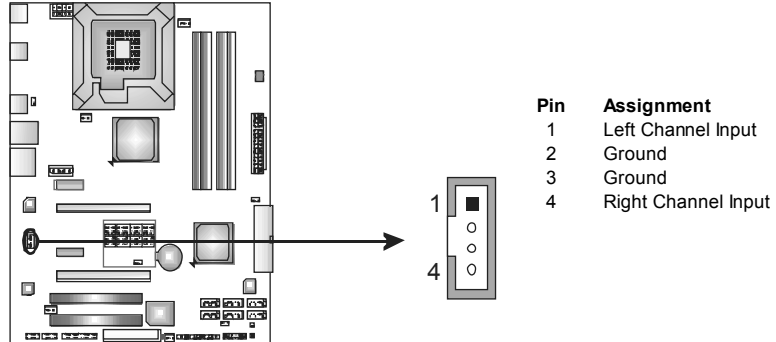
This header allows user to connect the front audio output cable with the PC front panel. This header allows only HD audio front panel connector; AC'97 connector is not acceptable.



| 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 |

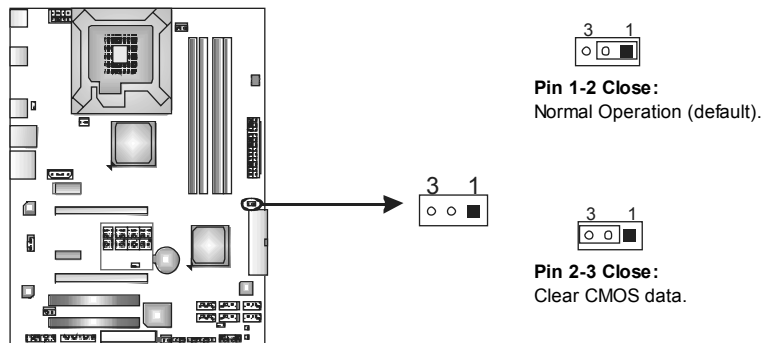
JCDIN1: CD-ROM Audio-in Connector

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



JCMOS1: Clear CMOS Header

By placing the jumper on pin2-3, it allows user to restore the BIOS safe setting and the CMOS data, please carefully follow the procedures to avoid damaging the motherboard.



※ 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.

JUSBV1/JUSBV2: Power Source Headers for USB/PS2 Ports

Pin 1-2 Close:

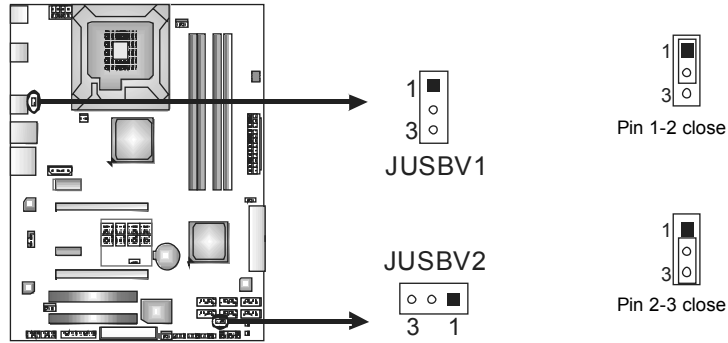
JUSBV1: +5V for USB/PS2 ports at JKBMS1/JUSB1/JUSB2/JRJ45USB1.

JUSBV2: +5V for USB ports at JUSB3/JUSB4/JUSB5.

Pin 2-3 Close:

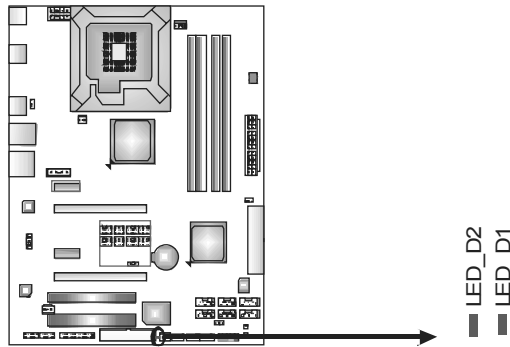
JUSBV1: +5V STB for USB/PS2 ports at JKBMS1/JUSB1/JUSB2/JRJ45USB1.

JUSBV2: +5V STB for USB ports at JUSB3/JUSB4/JUSB5.



On-Board LED Indicators

There are 2 LED indicators on the motherboard to show system status.



LED_D1 and LED_D2:

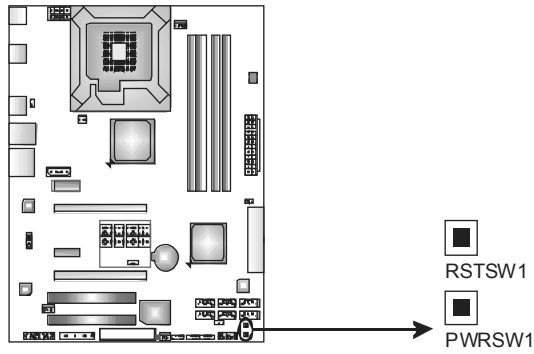
These 2 LED indicate system power on diagnostics.

Please refer to the table below for different messages:

| LED_D1 | LED_D2 | Message |
|--------|--------|--------------------------------|
| ON | ON | Normal |
| ON | OFF | Memory Error |
| OFF | ON | VGA Error |
| OFF | OFF | Abnormal: CPU / Chipset error. |

On-Board Buttons

There are 2 on-board buttons.



PWRSW1:

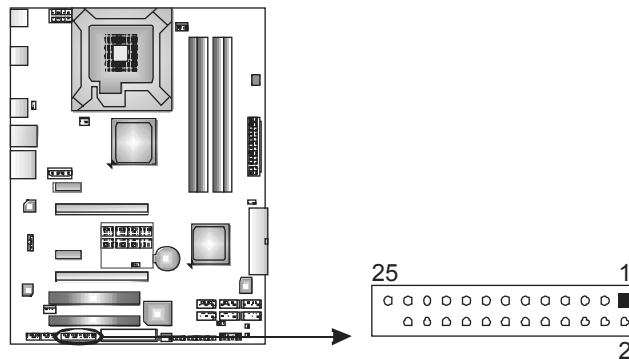
This is an on-board Power Switch button.

RSTSW1:

This is an on-board Reset button.

JPRNT1: Printer Port Connector

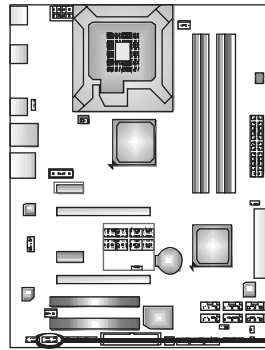
This header allows you to connect printer on the PC.



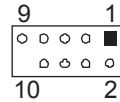
| Pin | Assignment | Pin | Assignment |
|-----|------------|-----|------------|
| 1 | -Strobe | 14 | Ground |
| 2 | -ALF | 15 | Data 6 |
| 3 | Data 0 | 16 | Ground |
| 4 | -Error | 17 | Data 7 |
| 5 | Data 1 | 18 | Ground |
| 6 | -Init | 19 | -ACK |
| 7 | Data 2 | 20 | Ground |
| 8 | -Scltin | 21 | Busy |
| 9 | Data 3 | 22 | Ground |
| 10 | Ground | 23 | PE |
| 11 | Data 4 | 24 | Ground |
| 12 | Ground | 25 | SCLT |
| 13 | Data 5 | 26 | Key |

JCOM1: Serial port Connector

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

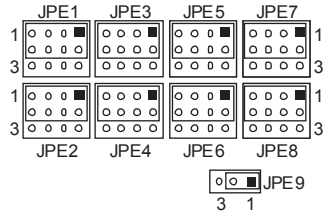
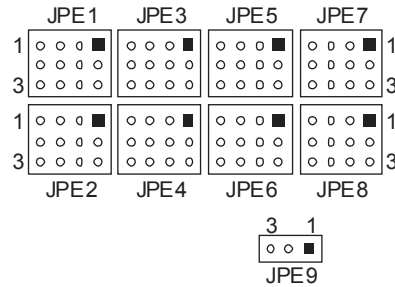
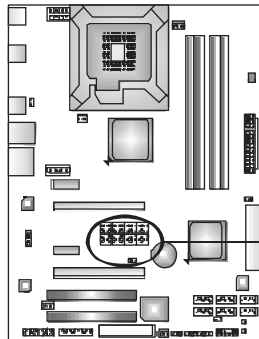


| Pin | Assignment |
|-----|---------------------|
| 1 | Carrier detect |
| 2 | Received data |
| 3 | Transmitted data |
| 4 | Data terminal ready |
| 5 | Signal ground |
| 6 | Data set ready |
| 7 | Request to send |
| 8 | Clear to send |
| 9 | Ring indicator |
| 10 | Key |

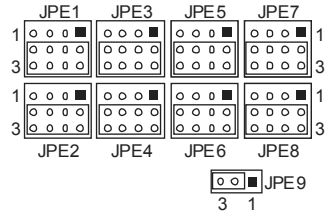


JPE1~JPE9: CrossFire Switch Jumpers (For TP45 HP Only)

The setting of these jumpers determines the operation mode of PEX16_1 and PEX16_2. If you want to use the CrossFire function, these jumpers should be set to Pin 2-3 close; and PEX16_1 and PEX16_2 will both run with x8 speed. If these jumpers are set to Pin 1-2 close, PEX16_1 will run with x16 speed and PEX16_2 will not be functional.



Pin 1-2 Close
 Normal Operation
 PEX16_1: x16 Speed
 PEX16_2: Not Functional



Pin 2-3 Close:
 CrossFire Operation
 PEX16_1: x8 Speed
 PEX16_2: x8 Speed

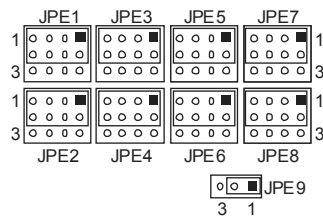
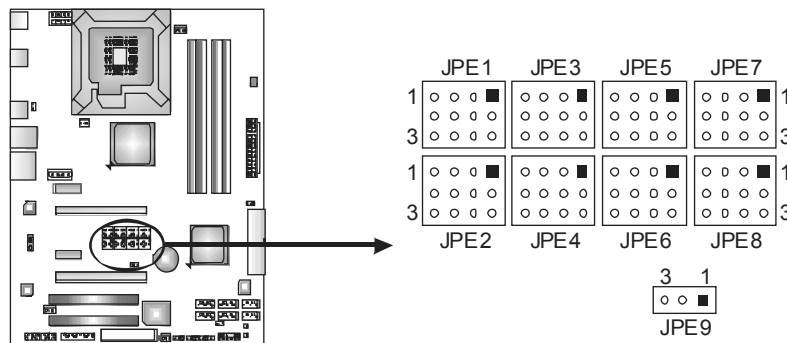
CHAPTER 4: CROSSFIRE FUNCTION (FOR TP45 HP)

4.1 REQUIREMENTS

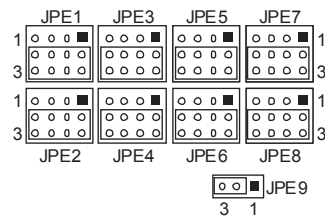
- Only Windows XP/Vista supports CrossFire (Dual Video) function.
- Two identical CrossFire-ready graphics cards that are ATI certified.
- The graphics card driver should support CrossFire technology.
- The power supply unit must provide at least the minimum power required by the system, or the system will be unstable. A power supply above 500W is recommended under CrossFire mode.

4.2 INSTALLING CROSSFIRE-READY GRAPHICS CARDS

Step 1: Power off the computer and set JPE1~JPE9 to Pin2-3 close.

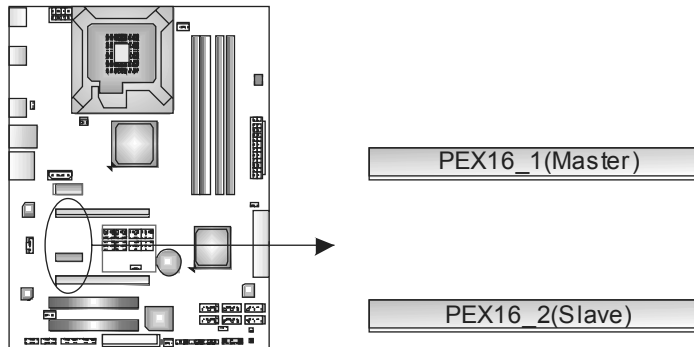


Pin 1-2 Close
 Normal Operation
 PEX16_1: x16 Speed
 PEX16_2: Not Functional



Pin 2-3 Close:
 CrossFire Operation
 PEX16_1: x8 Speed
 PEX16_2: x8 Speed

Step 2: Insert the two CrossFire-Ready graphics cards into PEX16_1 (Master) and PEX16_2 (Slave)



Notice: Make sure both the graphics cards are seated into slots completely.

Step 3: Connect a 4-pin ATX power cable to Auxiliary Power Connector (J1), this will ensure the stabilization of your system.

Step 4: Connect the CrossFire Bridge with two graphics cards. Installation completes.

NOTE

1. TP43 HP does not support CrossFire function.
2. For more detail information of hardware/software installation and configuration of CrossFire function, please visit following web-sites:
<http://ati.amd.com/technology/crossfire/tutorials.html>
<http://ati.amd.com/technology/crossfire/howitworksdemo.html>

CHAPTER 5: T-SERIES BIOS & SOFTWARE

5.1 T-SERIES BIOS

T-Series BIOS Features

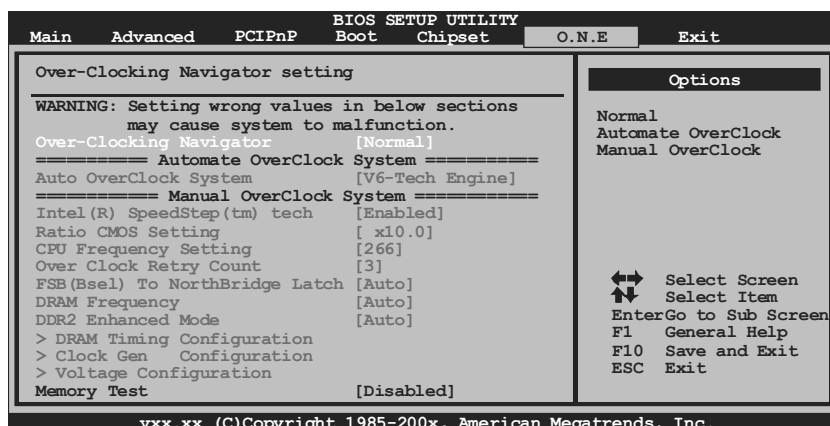
- Overclocking Navigator Engine (O.N.E.)
- Memory Integration Test (M.I.T., under Overclock Navigator Engine)
- BIO-Flasher: Update BIOS file from USB Flash Drive or FDD
- Self Recovery System (S.R.S)
- Smart Fan Function
- CMOS Reloading Program

!! 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.

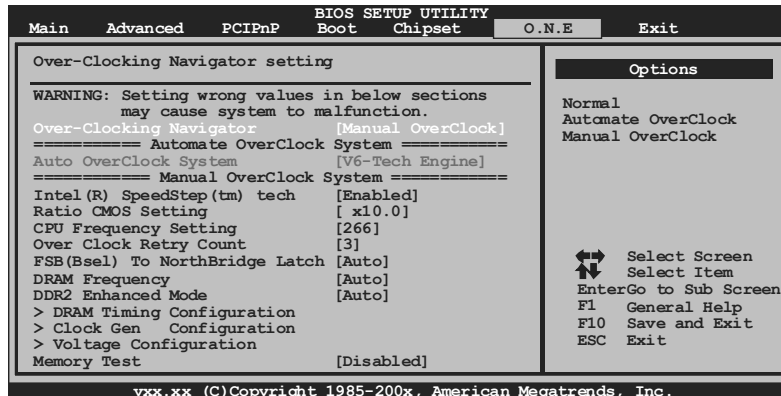
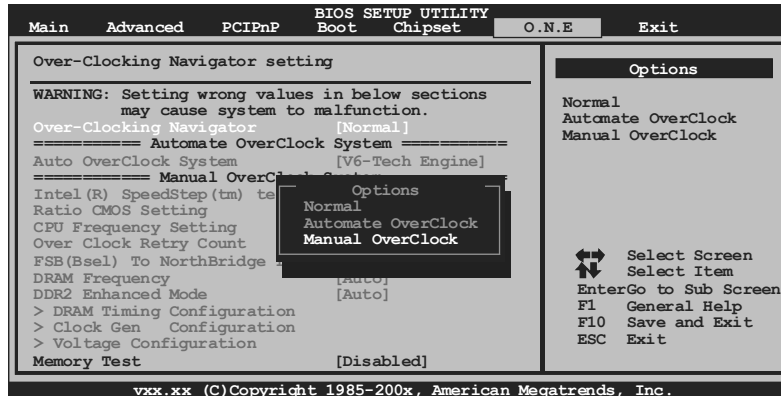
A. Overclocking Navigator Engine (O.N.E.)

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.

DDR2 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.

Voltage Configuration

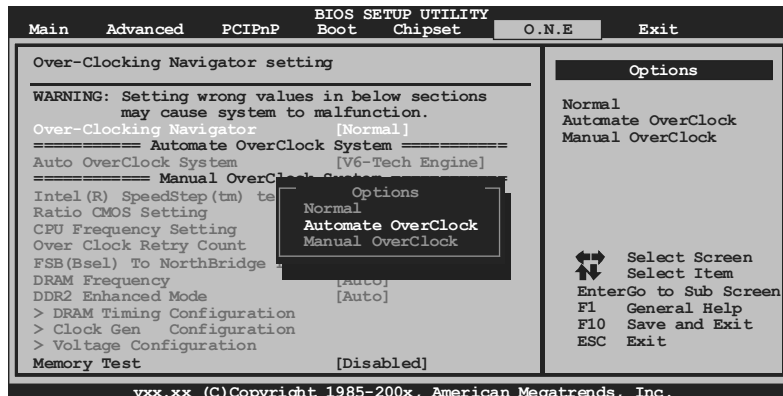
Enter this item for more advanced voltage settings.

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.

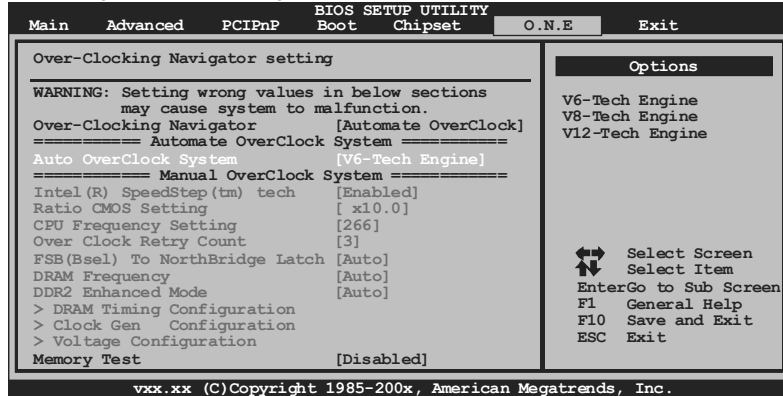
Automatic Overclock System (A.O.S.)

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.



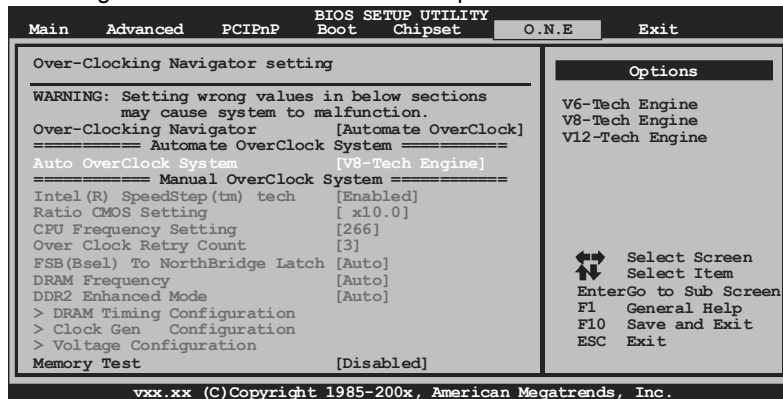
V6 Tech Engine

This engine will make a good over-clock performance.



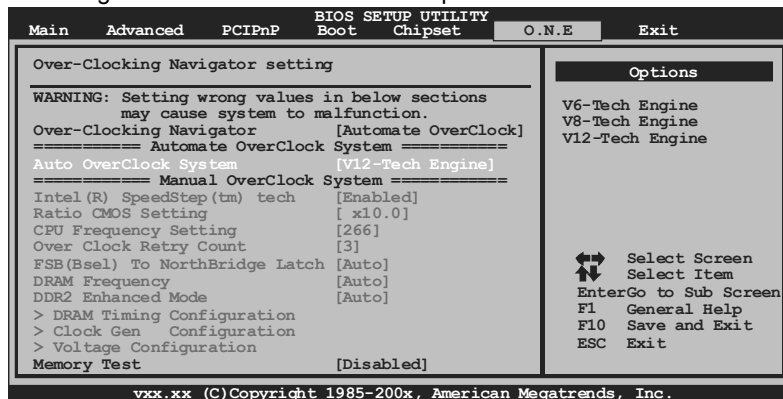
V8 Tech Engine

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.

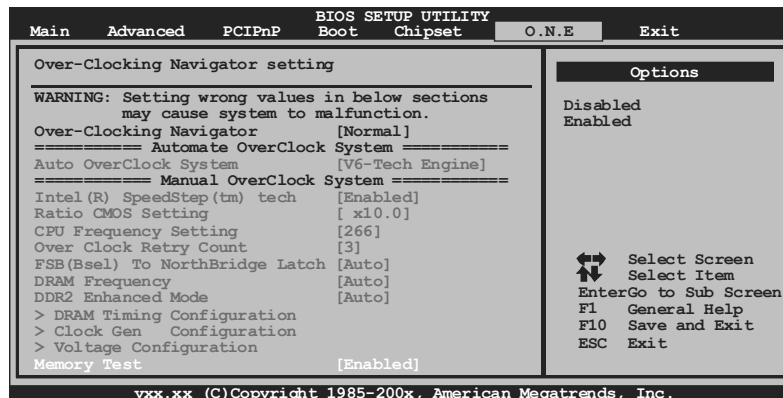
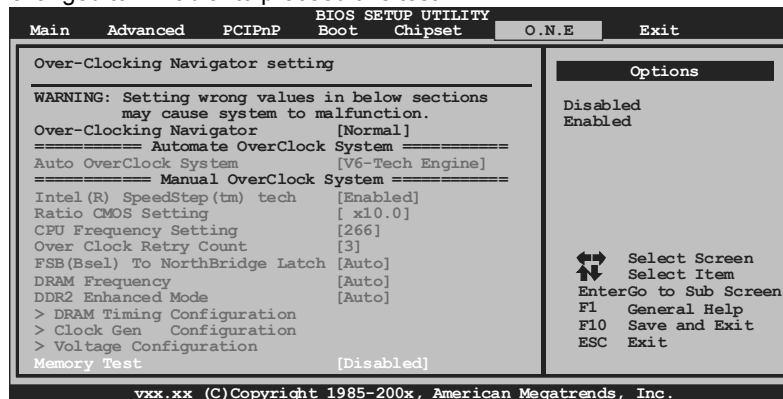
B. Memory Integration Test (M.I.T.)

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.

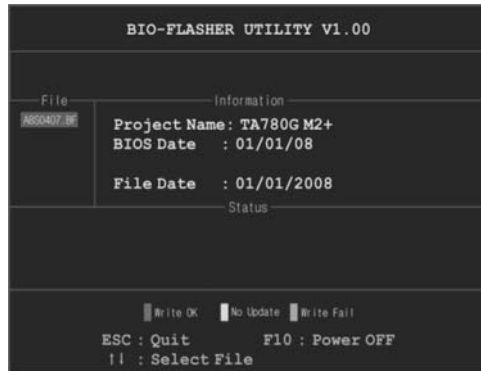
C. BIO-Flasher

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.

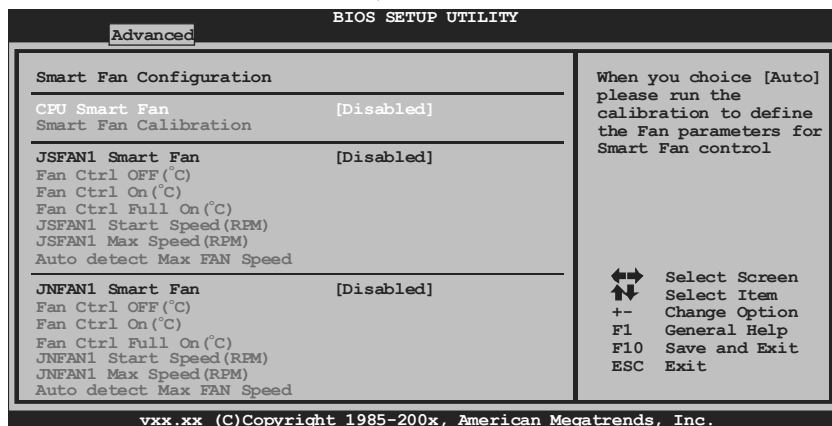
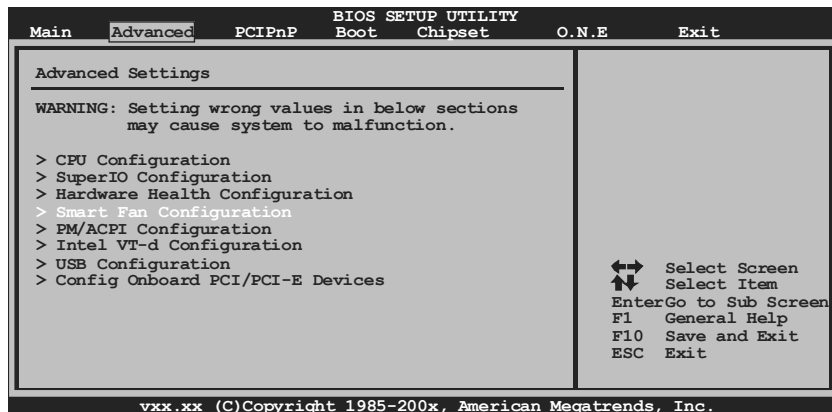
E. Smart Fan Function

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.

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 Full On(°C)

If the System Temperature reaches the set value, FAN will run in full speed. The range is from 0~127, with an interval of 1.

FAN Start/Max Speed (RPM)

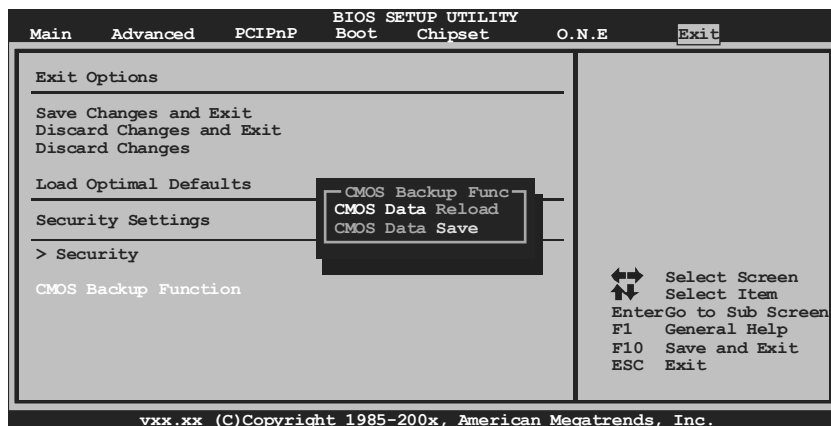
This item allows you to set the start/max speed of the FAN.

Auto Detect Max FAN Speed

Choose this item and then the BIOS will automatically test the Fan to find out the Fan's workable max speed.

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.



5.2 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.

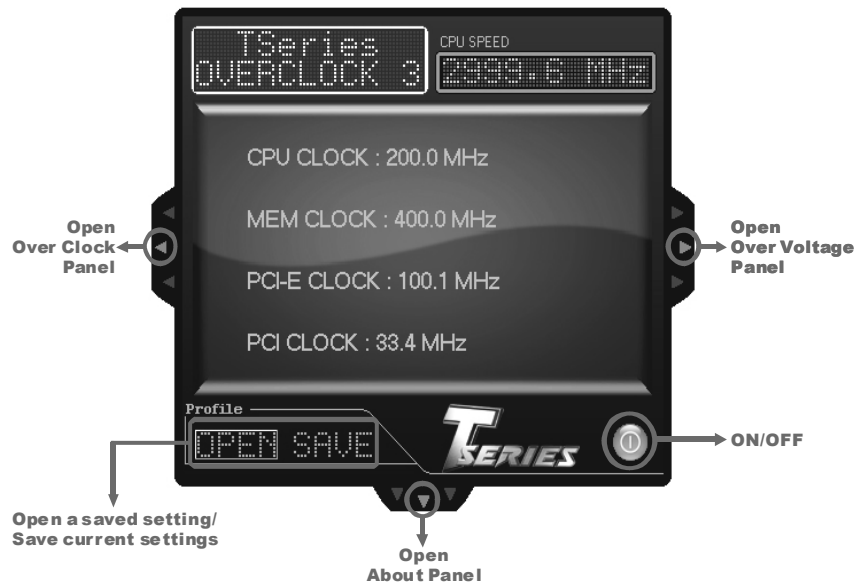
Launching T-Series Software

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.

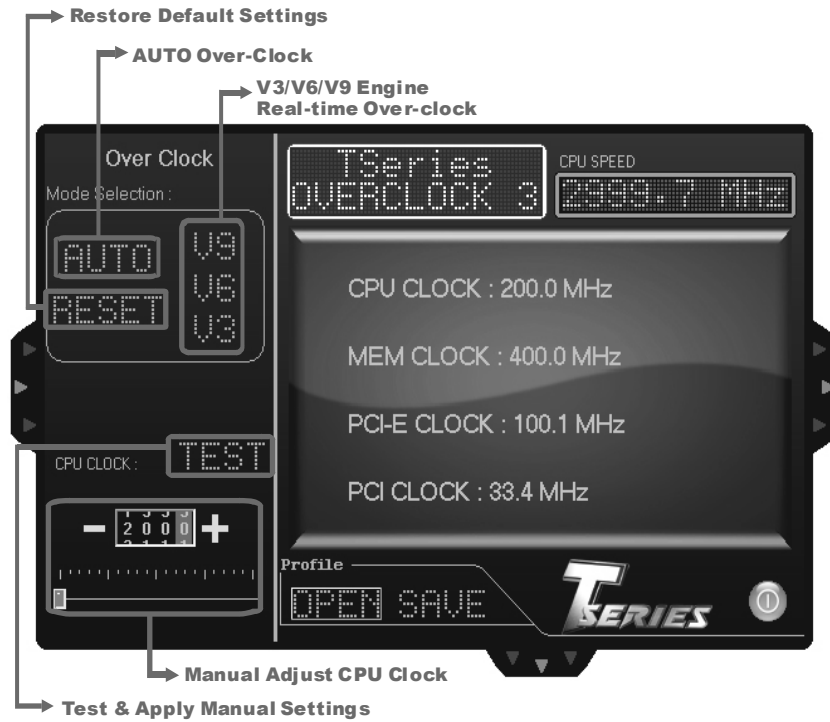
OverClock 3

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.

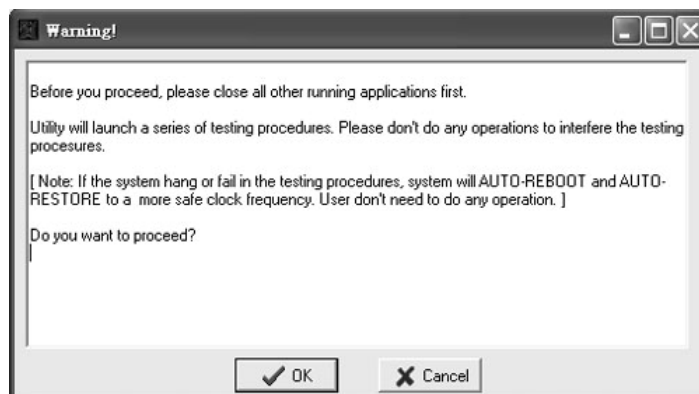


Over Clock Panel



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.

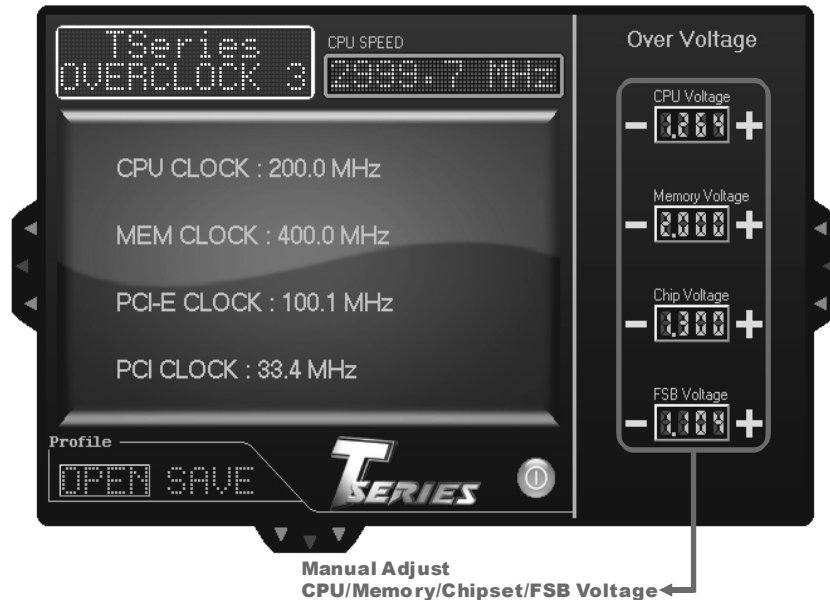
Warning

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

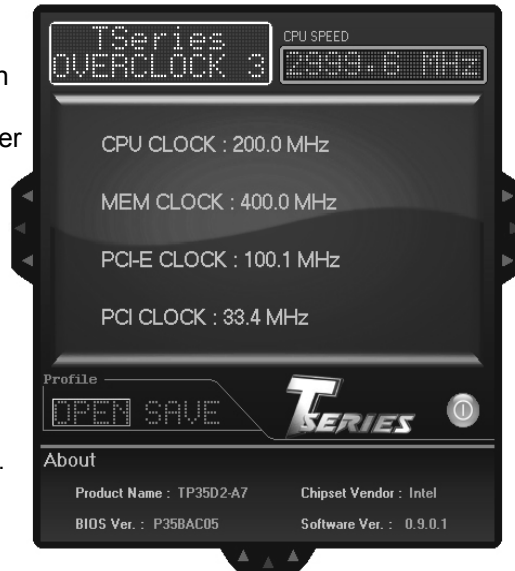
This function allows user to adjust FSB voltage. Click on “+” to increase or “-” to decrease the FSB voltage.

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.

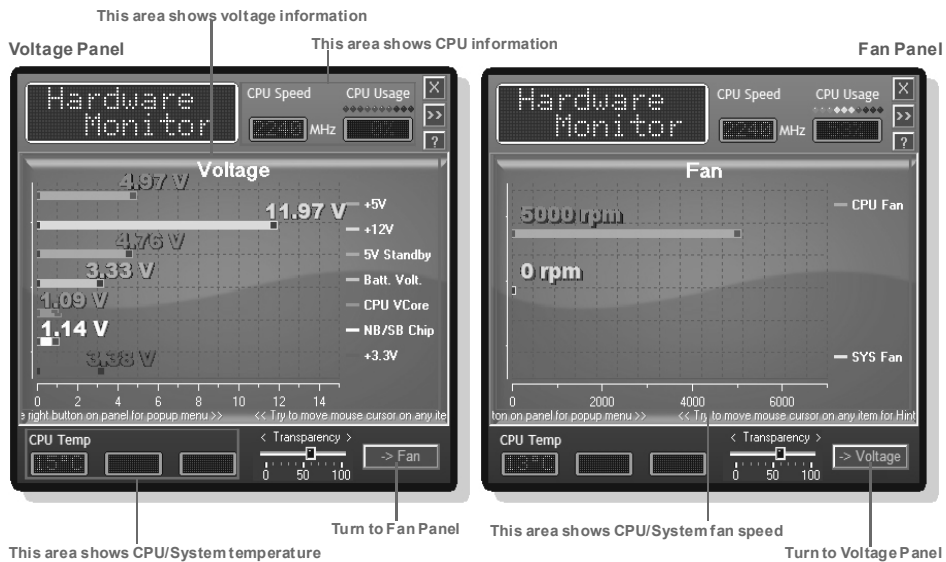
Note

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.



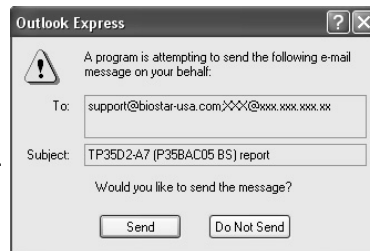
eHot-Line (Optional)

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.

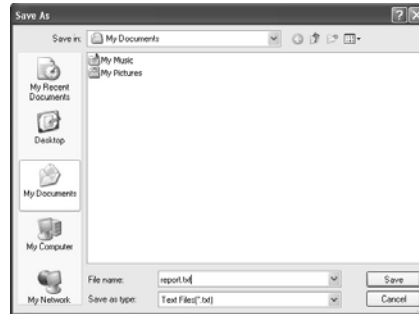
* represents important information that you must provide. Without this information, you may not be able to send out the mail.

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 included in the sent mail.



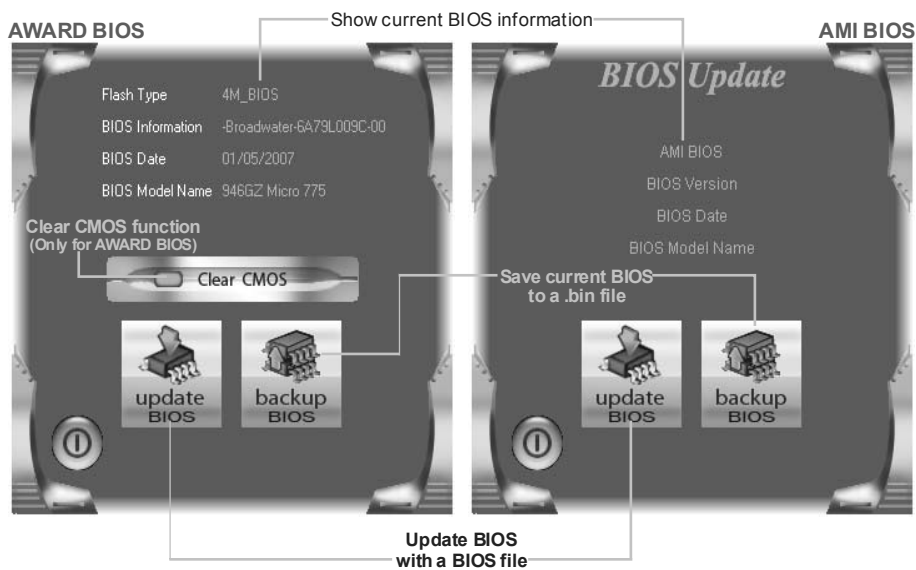
We will not share customer’s data with any other third parties, so please feel free to provide your system information while using eHot-Line service.



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.

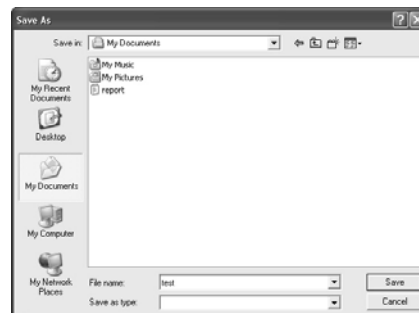
BIOS Update

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**.

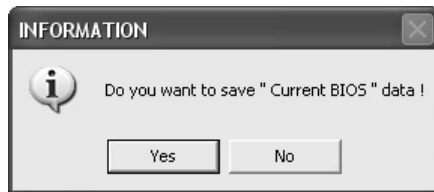
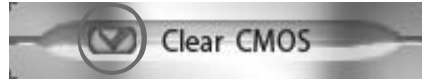


After the saving process, finish dialog will show. Click on **OK** to complete the BIOS Backup procedure.

<Update BIOS>

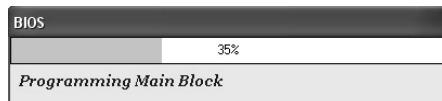
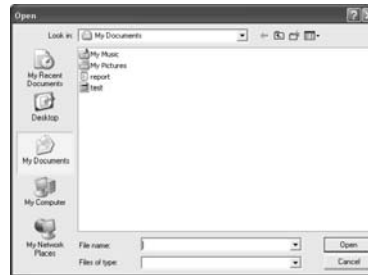
Before doing this, please download the proper BIOS file from the website.

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



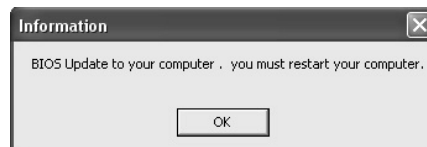
Then click Update BIOS button, a dialog will show for asking you backup current BIOS. Click **Yes** for BIOS backup and refer to the Backup BIOS procedure; or click **No** to skip this procedure.


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.



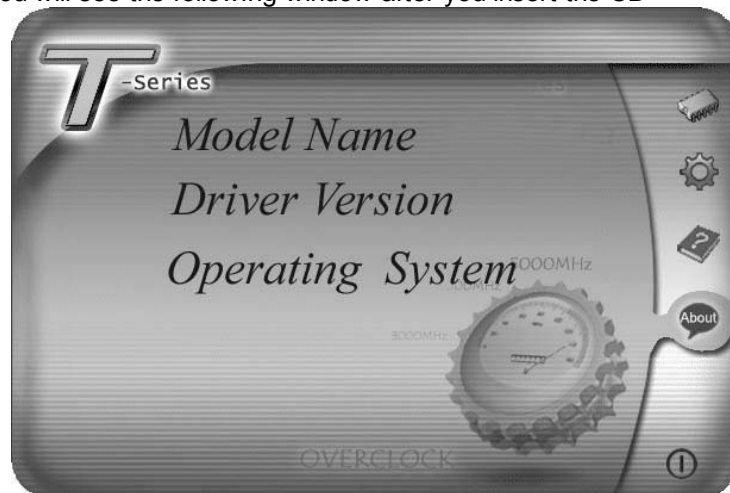
All the information and content above about the T-Series software are subject to be changed without notice. For better performance, the software is being continuously updated. The information and pictures described above are for your reference only. The actual information and settings on board may be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

CHAPTER 6: USEFUL HELP

6.1 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>

6.2 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.

6.3 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. |

6.4 TROUBLESHOOTING

| Probable | Solution |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> 1. Make sure power cable is securely plugged in. 2. Replace cable. 3. Contact technical support. |
| <p>System inoperative. Keyboard lights are on, power indicator lights are lit, and hard drive is spinning.</p> | <p>Using even pressure on both ends of the DIMM, press down firmly until the module snaps into place.</p> |
| <p>System does not boot from hard disk drive, can be booted from optical drive.</p> | <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. |
| <p>System only boots from optical drive. Hard disk can be read and applications can be used but booting from hard disk is impossible.</p> | <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. |
| <p>Screen message says "Invalid Configuration" or "CMOS Failure."</p> | <p>Review system's equipment. Make sure correct information is in setup.</p> |
| <p>Cannot boot system after installing second hard drive.</p> | <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. |

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APPENDENCIES: SPEC IN OTHER LANGUAGE

GERMAN

| | <i>TP45 HP</i> | <i>TP43 HP</i> |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CPU | LGA 775 Intel Core2Duo / Core2Quad / 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 Core2Duo / Core2Quad / 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 | Fintek F71887F Bietet die häufig verwendeten alten Super E/A-Funktionen. Low Pin Count-Schnittstelle Umgebungskontrolle, Hardware-Überwachung Lüfterdrehzahl-Controller/-Überwachung "Smart Guardian"-Funktion von ITE | Fintek F71887F 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 | DDR2 DIMM-Steckplätze x 4 Jeder DIMM unterstützt 256MB / 512MB / 1GB / 2GB DDR2. Max. 8GB Arbeitsspeicher Dual-Kanal DDR2 Speichermodul Unterstützt DDR2 1066 / 800 / 667 registrierte DIMMs. ECC DIMMs werden nicht unterstützt. | DDR2 DIMM-Steckplätze x 4 Jeder DIMM unterstützt 256MB / 512MB / 1GB / 2GB DDR2. Max. 8GB Arbeitsspeicher Dual-Kanal DDR2 Speichermodul Unterstützt DDR2 1066 / 800 / 667 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 Datentransfertrate bis zu 3.0Gb/s Konform mit der SATA-Spezifikation Version 2.0. | Integrierter Serial ATA-Controller Datentransfertrate bis zu 3.0Gb/s Konform mit der SATA-Spezifikation Version 2.0. |
| LAN | Realtek RTL 8111C 10 / 100 / 1000 Mb/s Auto-Negotiation Halb-/ Voll duplex-Funktion | Realtek RTL 8111C 10 / 100 / 1000 Mb/s Auto-Negotiation Halb-/ Voll duplex-Funktion |

TP45 HP/TP43 HP

| | TP45 HP | TP43 HP |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| HD | ALC888 | ALC888 |
| Audio-Unterstützung | Unterstützt High-Definition Audio 7.1-Kanal-Audioausgabe | Unterstützt High-Definition Audio 7.1-Kanal-Audioausgabe |
| Steckplätze | PCI-Steckplatz x2 | PCI-Steckplatz x2 |
| | PCI Express Gen2 x16 Steckplatz(x16/x8)x1 | PCI Express Gen2 x16 Steckplatz x1 |
| | PCI Express Gen2 x16 Steckplatz(x8) x1 | PCI Express x16 Steckplatz(x4) x1 |
| | PCI Express x 1-Steckplatz x2 | PCI Express x 1-Steckplatz x1 |
| Onboard-Anschluss | Diskettenlaufwerkanschluss x1 | Diskettenlaufwerkanschluss x1 |
| | Druckeranschluss Anschluss x1 | Druckeranschluss Anschluss x1 |
| | Serieller Anschluss x1 | Serieller Anschluss x1 |
| | IDE-Anschluss x1 | IDE-Anschluss x1 |
| | SATA-Anschluss x6 | SATA-Anschluss x6 |
| | Fronttafelanschluss x1 | Fronttafelanschluss x1 |
| | Front-Audioanschluss x1 | Front-Audioanschluss x1 |
| | S/PDIF Ausgangsanschluss x1 | S/PDIF Ausgangsanschluss x1 |
| | CD-IN-Anschluss x1 | CD-IN-Anschluss x1 |
| | CPU-Lüfter-Sockel x1 | CPU-Lüfter-Sockel x1 |
| | System-Lüfter-Sockel x2 | System-Lüfter-Sockel x2 |
| | "CMOS löschen"-Sockel x1 | "CMOS löschen"-Sockel x1 |
| | USB-Anschluss x3 | USB-Anschluss x3 |
| | Stromanschluss (24-polig) x1 | Stromanschluss (24-polig) x1 |
| Stromanschluss (8-polig) x1 | Stromanschluss (8-polig) x1 | |
| Stromanschluss (4-polig) x1 | Stromanschluss (4-polig) x1 | |
| Rückseiten-E/A | PS/2-Tastatur x1 | PS/2-Tastatur x1 |
| | PS/2-Maus x1 | PS/2-Maus x1 |
| | LAN-Anschluss x1 | LAN-Anschluss x1 |
| | USB-Anschluss x6 | USB-Anschluss x6 |
| | Audioanschluss x6 | Audioanschluss x6 |
| Platinengröße | 244 mm (B) X 305 mm (L) | 244 mm (B) X 305 mm (L) |
| OS-Unterstützung | Windows 2000 / XP / VISTA Biostar behält sich das Recht vor, ohne Ankündigung die Unterstützung für ein Betriebssystem hinzuzufügen oder zu entfernen. | Windows 2000 / XP / VISTA Biostar behält sich das Recht vor, ohne Ankündigung die Unterstützung für ein Betriebssystem hinzuzufügen oder zu entfernen. |

FRANCE

| | <i>TP45 HP</i> | <i>TP43 HP</i> |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UC | LGA 775 Processeurs Intel Core2Duo / Core2Quad / 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 Core2Duo / Core2Quad / 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 | Fintek F71887F 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 | Fintek F71887F 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 DDR2 DIMM x 4 Chaque DIMM prend en charge des DDR2 de 256Mo / 512Mo / 1Go / 2Go Capacité mémoire maximale de 8Go Module de mémoire DDR2 à mode à double voie Prend en charge la DDR2 1066 / 800 / 667 Les DIMM à registres et DIMM avec code correcteurs d'erreurs ne sont pas prises en charge | Fentes DDR2 DIMM x 4 Chaque DIMM prend en charge des DDR2 de 256Mo / 512Mo / 1Go / 2Go Capacité mémoire maximale de 8Go Module de mémoire DDR2 à mode à double voie Prend en charge la DDR2 1066 / 800 / 667 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 |
| LAN | Realtek RTL 8111C 10 / 100 / 1000 Mb/s négociation automatique Half / Full duplex capability | Realtek RTL 8111C 10 / 100 / 1000 Mb/s négociation automatique Half / Full duplex capability |

TP45 HP/TP43 HP

| | | TP45 HP | TP43 HP |
|---------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------|----------------------------------------------------------------------------------------------|
| Prise en charge audio HD | ALC888 | | ALC888 |
| | Prise en charge de l'audio haute définition | | Prise en charge de l'audio haute définition |
| | Sortie audio à 7.1 voies | | Sortie audio à 7.1 voies |
| Fentes | Fente PCI | x2 | Fente PCI |
| | Fente PCI Express Gen2 x16(x16/x8) | x1 | Fente PCI Express Gen2 x16 |
| | Fente PCI Express Gen2 x16(x8) | x1 | Fente PCI Express x16(x4) |
| | Fente PCI Express x1 | x2 | Fente PCI Express x1 |
| Connecteur embarqué | Connecteur de disquette | x1 | Connecteur de disquette |
| | Connecteur de Port d'imprimante | x1 | Connecteur de Port d'imprimante |
| | Port série | x1 | Port série |
| | Connecteur IDE | x1 | Connecteur IDE |
| | Connecteur SATA | x6 | Connecteur SATA |
| | Connecteur du panneau avant | x1 | Connecteur du panneau avant |
| | Connecteur Audio du panneau avant | x1 | Connecteur Audio du panneau avant |
| | Connecteur de sortie S/PDIF | x1 | Connecteur de sortie S/PDIF |
| | Connecteur d'entrée CD | x1 | Connecteur d'entrée CD |
| | Embase de ventilateur UC | x1 | Embase de ventilateur UC |
| | Embase de ventilateur système | x2 | Embase de ventilateur système |
| | Embase d'effacement CMOS | x1 | Embase d'effacement CMOS |
| | Connecteur USB | x3 | Connecteur USB |
| | Connecteur d'alimentation (24 broches) | | Connecteur d'alimentation (24 broches) |
| Connecteur d'alimentation (8 broches) | x1 | Connecteur d'alimentation (8 broches) | |
| Connecteur d'alimentation (4 broches) | x1 | Connecteur d'alimentation (4 broches) | |
| E/S du panneau arrière | Clavier PS/2 | x1 | Clavier PS/2 |
| | Souris PS/2 | x1 | Souris PS/2 |
| | Port LAN | x1 | Port LAN |
| | Port USB | x6 | Port USB |
| | Fiche audio | x6 | Fiche audio |
| Dimensions de la carte | 244 mm (l) X 305 mm (H) | | 244 mm (l) X 305 mm (H) |
| Support SE | Windows 2000 / XP / VISTA | | Windows 2000 / XP / VISTA |
| | Biostar se réserve le droit d'ajouter ou de supprimer le support de SE avec ou sans préavis. | | Biostar se réserve le droit d'ajouter ou de supprimer le support de SE avec ou sans préavis. |

ITALIAN

| | <i>TP45 HP</i> | <i>TP43 HP</i> |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CPU | LGA 775 Processore Intel Core2Duo / Core2Quad / 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 Core2Duo / Core2Quad / 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 | Fintek F71887F 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 | Fintek F71887F 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 DDR2 x 4 Ciascun DIMM supporta DDR2 256MB / 512MB / 1GB / 2GB Capacità massima della memoria 8GB Modulo di memoria DDR2 a canale doppio Supporto di DDR2 1066 / 800 / 667 DIMM registrati e DIMM ECC non sono supportati | Alloggi DIMM DDR2 x 4 Ciascun DIMM supporta DDR2 256MB / 512MB / 1GB / 2GB Capacità massima della memoria 8GB Modulo di memoria DDR2 a canale doppio Supporto di DDR2 1066 / 800 / 667 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. |
| LAN | Realtek RTL 8111C Negoziazione automatica 10 / 100 / 1000 Mb/s Capacità Half / Full Duplex | Realtek RTL 8111C Negoziazione automatica 10 / 100 / 1000 Mb/s Capacità Half / Full Duplex |

TP45 HP/TP43 HP

| | TP45 HP | TP43 HP |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Supporto audio HD | ALC888 Supporto audio High-Definition (HD) Uscita audio 7.1 canali | ALC888 Supporto audio High-Definition (HD) Uscita audio 7.1 canali |
| Alloggi | Alloggio PCI x2 Alloggio PCI Express Gen2 x16(x16/x8)x1 Alloggio PCI Express Gen2 x16(x8)x1 Alloggio PCI Express x1 x2 | Alloggio PCI x2 Alloggio PCI Express Gen2 x16 x1 Alloggio PCI Express x16(x4) x1 Alloggio PCI Express x1 x1 |
| Connettori su scheda | Connettore floppy x1 Connettore Porta stampante x1 Porta seriale x1 Connettore IDE x1 Connettore SATA x6 Connettore pannello frontale x1 Connettore audio frontale x1 Connettore output SPDIF x1 Connettore CD-in x1 Collettore ventolina CPU x1 Collettore ventolina sistema x2 Collettore cancellazione CMOS x1 Connettore USB x3 Connettore alimentazione (24 pin) x1 Connettore alimentazione (8 pin) x1 Connettore alimentazione (4 pin) x1 | Connettore floppy x1 Connettore Porta stampante x1 Porta seriale x1 Connettore IDE x1 Connettore SATA x6 Connettore pannello frontale x1 Connettore audio frontale x1 Connettore output SPDIF x1 Connettore CD-in x1 Collettore ventolina CPU x1 Collettore ventolina sistema x2 Collettore cancellazione CMOS x1 Connettore USB x3 Connettore alimentazione (24 pin) x1 Connettore alimentazione (8 pin) x1 Connettore alimentazione (4 pin) x1 |
| I/O pannello posteriore | Tastiera PS/2 x1 Mouse PS/2 x1 Porta LAN x1 Porta USB x6 Connettore audio x6 | Tastiera PS/2 x1 Mouse PS/2 x1 Porta LAN x1 Porta USB x6 Connettore audio x6 |
| Dimensioni scheda | 244 mm (larghezza) x 305 mm (altezza) | 244 mm (larghezza) x 305 mm (altezza) |
| Sistemi operativi supportati | Windows 2000 / XP / VISTA Biostar si riserva il diritto di aggiungere o rimuovere il supporto di qualsiasi sistema operativo senza preavviso. | Windows 2000 / XP / VISTA Biostar si riserva il diritto di aggiungere o rimuovere il supporto di qualsiasi sistema operativo senza preavviso. |

SPANISH

| | TP45 HP | TP43 HP |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CPU | LGA 775 Procesador Intel Core2Duo / Core2Quad / 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 Core2Duo / Core2Quad / 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 | Fintek F71887F 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 | Fintek F71887F 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 DDR2 x 4 Cada DIMM admite DDR de 256MB / 512MB / 1GB / 2GB Capacidad máxima de memoria de 8GB Módulo de memoria DDR2 de canal Doble Admite DDR2 de 1066 / 800 / 667 No admite DIMM registrados o DIMM compatibles con ECC | Ranuras DIMM DDR2 x 4 Cada DIMM admite DDR de 256MB / 512MB / 1GB / 2GB Capacidad máxima de memoria de 8GB Módulo de memoria DDR2 de canal Doble Admite DDR2 de 1066 / 800 / 667 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. |
| Red Local | Realtek RTL 8111C Negociación de 10 / 100 / 1000 Mb/s Funciones Half / Full dúplex | Realtek RTL 8111C Negociación de 10 / 100 / 1000 Mb/s Funciones Half / Full dúplex |

TP45 HP/TP43 HP

| | TP45 HP | TP43 HP |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SopORTE de sonido HD | ALC888 SopORTE de sonido de Alta Definición Salida de sonido de 7.1 canales | ALC888 SopORTE de sonido de Alta Definición Salida de sonido de 7.1 canales |
| Ranuras | Ranura PCI X2 Ranura PCI Express Gen2 x16(x16/x8) X1 Ranura PCI Express Gen2 x16(x8) X1 Ranura PCI express x 1 X2 | Ranura PCI X2 Ranura PCI Express Gen2 x16 X1 Ranura PCI Express x16(x4) X1 Ranura PCI express x 1 X1 |
| Conectores en placa | Conector disco flexible X1 Conector Puerto de impresora X1 Puerto serie X1 Conector IDE X1 Conector SATA X6 Conector de panel frontal X1 Conector de sonido frontal X1 Conector de salida S/PDIF X1 Conector de entrada de CD X1 Cabecera de ventilador de CPU X1 Cabecera de ventilador de sistema X2 Cabecera de borrado de CMOS X1 Conector USB X3 Conector de alimentación X1 (24 patillas) Conector de alimentación X1 (8 patillas) Conector de alimentación X1 (4 patillas) | Conector disco flexible X1 Conector Puerto de impresora X1 Puerto serie X1 Conector IDE X1 Conector SATA X6 Conector de panel frontal X1 Conector de sonido frontal X1 Conector de salida S/PDIF X1 Conector de entrada de CD X1 Cabecera de ventilador de CPU X1 Cabecera de ventilador de sistema X2 Cabecera de borrado de CMOS X1 Conector USB X3 Conector de alimentación X1 (24 patillas) Conector de alimentación X1 (8 patillas) Conector de alimentación X1 (4 patillas) |
| 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 | Teclado PS/2 X1 Ratón PS/2 X1 Puerto de red local X1 Puerto USB X6 Conector de sonido X6 |
| Tamaño de la placa | 244 mm. (A) X 305 Mm. (H) | 244 mm. (A) X 305 Mm. (H) |
| SopORTE de sistema operativo | Windows 2000 / XP / VISTA Biostar se reserva el derecho de añadir o retirar el soporte de cualquier SO con o sin aviso previo. | Windows 2000 / XP / VISTA Biostar se reserva el derecho de añadir o retirar el soporte de cualquier SO con o sin aviso previo. |

PORTUGUESE

| | TP45 HP | TP43 HP |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CPU | LGA 775 Processador Intel Core2Duo / Core2Quad / 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 Core2Duo / Core2Quad / 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 do Super I/O | Fintek F71887F 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 | Fintek F71887F 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 | Ranuras DIMM DDR2 x 4 Cada módulo DIMM suporta uma memória DDR2 de 256 MB / 512 MB / 1GB / 2GB Capacidade máxima de memória:8 GB Módulo de memória DDR2 de canal duplo Suporta módulos DDR2 1066 / 800 / 667 Os módulos DIMM registados e os DIMM ECC não são suportados | Ranuras DIMM DDR2 x 4 Cada módulo DIMM suporta uma memória DDR2 de 256 MB / 512 MB / 1GB / 2GB Capacidade máxima de memória:8 GB Módulo de memória DDR2 de canal duplo Suporta módulos DDR2 1066 / 800 / 667 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 Auto negociação de 10 / 100 / 1000 Mb/s Capacidade semi/full-duplex | Realtek RTL 8111C Auto negociação de 10 / 100 / 1000 Mb/s Capacidade semi/full-duplex |

TP45 HP/TP43 HP

| | TP45 HP | TP43 HP |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Suporte para áudio de alta definição | ALC888 Suporta a especificação High-Definition Audio Saída de áudio de 7.1 canais | ALC888 Suporta a especificação High-Definition Audio Saída de áudio de 7.1 canais |
| Ranhuradas | Ranhura PCI x2 Ranhura PCI Express Gen2 x16(x16/x8)x1 Ranhura PCI Express Gen2 x16(x8) x1 Ranhura PCI Express x 1 x2 | Ranhura PCI x2 Ranhura PCI Express Gen2 x16 x1 Ranhura PCI Express x16(x4) x1 Ranhura PCI Express x 1 x1 |
| Conectores na placa | Conector da unidade de disquetes x1 Conector da para impressora x1 Porta série x1 Conector IDE x1 Conector SATA x6 Conector do painel frontal x1 Conector de áudio frontal x1 Conector de saída S/PDIF x1 Conector para entrada de CDs x1 Conector da ventoinha da CPU x1 Conector da ventoinha do sistema x2 Conector para limpeza do CMOS x1 Conector USB x3 Conector de alimentação (24 pinos) x1 Conector de alimentação (8 pinos) x1 Conector de alimentação (4 pinos) x1 | Conector da unidade de disquetes x1 Conector da para impressora x1 Porta série x1 Conector IDE x1 Conector SATA x6 Conector do painel frontal x1 Conector de áudio frontal x1 Conector de saída S/PDIF x1 Conector para entrada de CDs x1 Conector da ventoinha da CPU x1 Conector da ventoinha do sistema x2 Conector para limpeza do CMOS x1 Conector USB x3 Conector de alimentação (24 pinos) x1 Conector de alimentação (8 pinos) x1 Conector de alimentação (4 pinos) x1 |
| Entradas/Saídas no painel traseiro | Teclado PS/2 x1 Rato PS/2 x1 Porta LAN x1 Porta USB x6 Tomada de áudio x6 | Teclado PS/2 x1 Rato PS/2 x1 Porta LAN x1 Porta USB x6 Tomada de áudio x6 |
| Tamanho da placa | 244 mm (L) X 305 mm (A) | 244 mm (L) X 305 mm (A) |
| Sistemas operativos suportados | Windows 2000 / XP / VISTA A Biostar reserva-se o direito de adicionar ou remover suporte para qualquer sistema operativo com ou sem aviso prévio. | Windows 2000 / XP / VISTA A Biostar reserva-se o direito de adicionar ou remover suporte para qualquer sistema operativo com ou sem aviso prévio. |

POLISH

| | <i>TP45 HP</i> | <i>TP43 HP</i> |
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| Procesor | LGA 775 Procesor Intel Core2Duo / Core2Quad / 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 Core2Duo / Core2Quad / 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 | Gniazda DDR2 DIMM x 4 Każde gniazdo DIMM obsługuje moduły 256MB / 512MB / 1GB / 2GB Maks. wielkość pamięci 8GB Moduł pamięci DDR2 z trybem podwójnego kanału Obsługa DDR2 1066 / 800 / 667 Brak obsługi Registered DIMM oraz ECC DIMM | Gniazda DDR2 DIMM x 4 Każde gniazdo DIMM obsługuje moduły 256MB / 512MB / 1GB / 2GB Maks. wielkość pamięci 8GB Moduł pamięci DDR2 z trybem podwójnego kanału Obsługa DDR2 1066 / 800 / 667 Brak obsługi Registered DIMM oraz ECC DIMM |
| Super I/O | Fintek F71887F 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" | Fintek F71887F 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 10 / 100 / 1000 Mb/s z automatyczną negocjacją szybkości Działanie w trybie półwicznego / pełnego dupleksu | Realtek RTL 8111C 10 / 100 / 1000 Mb/s z automatyczną negocjacją szybkości Działanie w trybie półwicznego / pełnego dupleksu |

TP45 HP/TP43 HP

| | TP45 HP | TP43 HP |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Obsługa audio HD | ALC888 Obsługa High-Definition Audio 7.1 kanałowe wyjście audio | ALC888 Obsługa High-Definition Audio 7.1 kanałowe wyjście audio |
| Gniazda | Gniazdo PCI x2 Gniazdo PCI Express Gen2 x16(x16/x8)x1 Gniazdo PCI Express Gen2 x16(x8) x1 Gniazdo PCI Express x 1 x2 | Gniazdo PCI x2 Gniazdo PCI Express Gen2 x16 x1 Gniazdo PCI Express x16(x4) x1 Gniazdo PCI Express x 1 x1 |
| Złącza wbudowane | Złącze napędu dyskietek x1 Złącze Port drukarki x1 Port szeregowy x1 Złącze IDE x1 Złącze SATA x6 Złącze panela przedniego x1 Przednie złącze audio x1 Złącze wyjścia S/PDIF x1 Złącze wejścia CD x1 Złącze główkowe wentylatora procesora x1 Złącze główkowe wentylatora systemowego x2 Złącze główkowe kasowania CMOS x1 Złącze USB x3 Złącze zasilania (24 pinowe) x1 Złącze zasilania (8 pinowe) x1 Złącze zasilania (4 pinowe) x1 | Złącze napędu dyskietek x1 Złącze Port drukarki x1 Port szeregowy x1 Złącze IDE x1 Złącze SATA x6 Złącze panela przedniego x1 Przednie złącze audio x1 Złącze wyjścia S/PDIF x1 Złącze wejścia CD x1 Złącze główkowe wentylatora procesora x1 Złącze główkowe wentylatora systemowego x2 Złącze główkowe kasowania CMOS x1 Złącze USB x3 Złącze zasilania (24 pinowe) x1 Złącze zasilania (8 pinowe) x1 Złącze zasilania (4 pinowe) x1 |
| Back Panel I/O | Klawiatura PS/2 x1 Mysz PS/2 x1 Port LAN x1 Port USB x6 Gniazdo audio x6 | Klawiatura PS/2 x1 Mysz PS/2 x1 Port LAN x1 Port USB x6 Gniazdo audio x6 |
| Wymiary płyty | 244 mm (S) X 305 mm (W) | 244 mm (S) X 305 mm (W) |
| Obsługa systemu operacyjnego | Windows 2000 / XP / VISTA Biostar zastrzega sobie prawo dodawania lub odwoływania obsługi dowolnego systemu operacyjnego bez powiadomienia. | Windows 2000 / XP / VISTA Biostar zastrzega sobie prawo dodawania lub odwoływania obsługi dowolnego systemu operacyjnego bez powiadomienia. |

RUSSIAN

| | TP45 HP | TP43 HP |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CPU (центральный процессор) | LGA 775 Процессор Intel Core2Duo / Core2Quad / 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 Core2Duo / Core2Quad / 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 | Слоты DDR2 DIMM x 4 Каждый модуль DIMM поддерживает 256 МБ / 512МБ / 1ГБ / 2ГБ DDR2 Максимальная ёмкость памяти 8ГБ Модуль памяти с двухканальным режимом DDR2 Поддержка DDR2 1066 / 800 / 667 Не поддерживает зарегистрированные модули DIMM and ECC DIMM | Слоты DDR2 DIMM x 4 Каждый модуль DIMM поддерживает 256 МБ / 512МБ / 1ГБ / 2ГБ DDR2 Максимальная ёмкость памяти 8ГБ Модуль памяти с двухканальным режимом DDR2 Поддержка DDR2 1066 / 800 / 667 Не поддерживает зарегистрированные модули DIMM and ECC DIMM |
| Super I/O | Fintek F71887F 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) | Fintek F71887F 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. |
| Локальная сеть | Realtek RTL 8111C Автоматическое согласование 10 / 100 / 1000 Мб/с Частичная / полная дуплексная способность | Realtek RTL 8111C Автоматическое согласование 10 / 100 / 1000 Мб/с Частичная / полная дуплексная способность |

TP45 HP/TP43 HP

| | TP45 HP | TP43 HP |
|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Звуковая поддержка жесткого диска | ALC888 Звуковая поддержка High-Definition 7.1канальный звуковой выход | ALC888 Звуковая поддержка High-Definition 7.1канальный звуковой выход |
| Слоты | Слот PCI x2 Слот PCI Express Gen2 x16(x16/x8) x1 Слот PCI Express Gen2 x16(x8) x1 Слот PCI Express x 1 x2 | Слот PCI x2 Слот PCI Express Gen2 x16 x1 Слот PCI Express x16(x4) x1 Слот PCI Express x 1 x1 |
| Встроенный разъём | Разъём НГМД x1 Разъём Порт подключения принтера x1 Последовательный порт x1 Разъём IDE x1 Разъём SATA x6 Разъём на лицевой панели x1 Входной звуковой разъём x1 Разъём вывода для S/PDIF x1 Разъём ввода для CD x1 Контактирующее приспособление вентилятора центрального процессора x1 Контактирующее приспособление вентилятора системы x2 Открытое контактирующее приспособление CMOS x1 USB-разъём x3 Разъём питания (24 вывод) x1 Разъём питания (8 вывод) x1 Разъём питания (4 вывод) x1 | Разъём НГМД x1 Разъём Порт подключения принтера x1 Последовательный порт x1 Разъём IDE x1 Разъём SATA x6 Разъём на лицевой панели x1 Входной звуковой разъём x1 Разъём вывода для S/PDIF x1 Разъём ввода для CD x1 Контактирующее приспособление вентилятора центрального процессора x1 Контактирующее приспособление вентилятора системы x2 Открытое контактирующее приспособление CMOS x1 USB-разъём x3 Разъём питания (24 вывод) x1 Разъём питания (8 вывод) x1 Разъём питания (4 вывод) x1 |
| Задняя панель средств ввода-вывода | Клавиатура PS/2 x1 Мышь PS/2 x1 Порт LAN x1 USB-порт x6 Гнездо для подключения наушников x6 | Клавиатура PS/2 x1 Мышь PS/2 x1 Порт LAN x1 USB-порт x6 Гнездо для подключения наушников x6 |
| Размер панели | 244 мм (Ш) X 305 мм (В) | 244 мм (Ш) X 305 мм (В) |
| Поддержка OS | Windows 2000 / XP / VISTA Biostar сохраняет за собой право добавлять или удалять средства обеспечения для OS с или без предварительного уведомления. | Windows 2000 / XP / VISTA Biostar сохраняет за собой право добавлять или удалять средства обеспечения для OS с или без предварительного уведомления. |

ARABIC

| TP43 HP | TP45 HP | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| LGA 775 Intel Core2Duo / Core2Quad / Pentium Dual-Core / Celeron Dual-Core / Celeron 4xx يتردد يصل إلى Execute Disable Bit / Enhanced Intel SpeedStep® / Intel Architecture-64 / Extended Memory 64 Technology / Virtualization Technology | LGA 775 Intel Core2Duo / Core2Quad / Pentium Dual-Core / Celeron Dual-Core / Celeron 4xx يتردد يصل إلى Execute Disable Bit / Enhanced Intel SpeedStep® / Intel Architecture-64 / Extended Memory 64 Technology / Virtualization Technology | وحدة المعالجة المركزية |
| ميجا هرتز 800 / 1066 / 1333 / 1600 تردد | ميجا هرتز 800 / 1066 / 1333 / 1600 تردد | النقل الأممي الجانبي |
| Intel P43 Intel ICH10 | Intel P45 Intel ICH10 | مجموعة الشرائح |
| عدد4 قناة DDR2 DIMM ميجا 256/512 سعة DDR2 تدعم ذاكرة من نوع DIMM كل قناة بليت 2 و بليت و 1 جيجا بليت سعة ذاكرة قصوى 8 جيجا بليت مزودة لقناة DDR2 وحدة ذاكرة سعت 1066 / 800 / 667 ميجا بليت DDR2 تدعم الذاكرة من نوع ECC وتلك التي لا تتوافق مع DIMM لا تدعم رقائق الذاكرة | عدد4 قناة DDR2 DIMM ميجا 256/512 سعة DDR2 تدعم ذاكرة من نوع DIMM كل قناة بليت 2 و بليت و 1 جيجا بليت سعة ذاكرة قصوى 8 جيجا بليت مزودة لقناة DDR2 وحدة ذاكرة سعت 1066 / 800 / 667 ميجا بليت DDR2 تدعم الذاكرة من نوع ECC وتلك التي لا تتوافق مع DIMM لا تدعم رقائق الذاكرة | الذاكرة الرئيسية |
| Fintek F71887F الأكثر استخداماً. Super I/O يوفر وظيفة Low Pin Count Interface تدعم تقنية وسائل التحكم في البيئة: مراقب لمعرفة حالة الأجهزة مراقب في سرعة المروحة ITE من "Smart Guardian" ووظيفة | Fintek F71887F الأكثر استخداماً. Super I/O يوفر وظيفة Low Pin Count Interface تدعم تقنية وسائل التحكم في البيئة: مراقب لمعرفة حالة الأجهزة مراقب في سرعة المروحة ITE من "Smart Guardian" ووظيفة | Super I/O |
| JMicro JMB368 متحكم IDE وضع رئيسي Ultra DMA 33 / 66 / 100 / 133 نقل بتقنية PIO Mode 0 ~4 دعم وضع | JMicro JMB368 متحكم IDE وضع رئيسي Ultra DMA 33 / 66 / 100 / 133 نقل بتقنية PIO Mode 0 ~4 دعم وضع | منفذ IDE |
| متكامل Serial ATA متحكم جيجابت/ثانية 3.0 نقل البيانات بسرعة تصل إلى 2.0 الإصدار SATA مطابقة لمواصفات | متكامل Serial ATA متحكم جيجابت/ثانية 3.0 نقل البيانات بسرعة تصل إلى 2.0 الإصدار SATA مطابقة لمواصفات | SATA |
| Realtek RTL 8111C تفاوض تلقائي 100/10 ميجا بليت / ثانية و 1 جيجا بليت/ثانية إمكانية النقل المزوج الكامل/النصفي | Realtek RTL 8111C تفاوض تلقائي 100/10 ميجا بليت / ثانية و 1 جيجا بليت/ثانية إمكانية النقل المزوج الكامل/النصفي | شبكة داخلية |

TP45 HP/TP43 HP

| TP43 HP | | TP45 HP | | | |
|------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|---------------------------|--------------------------------|
| | ALC888 Intel تدعم تقنية الصوت عالي التعريف من 7.1 قنوات لخرج الصوت | | ALC888 تدعم تقنية الصوت عالي التعريف من 7.1 قنوات لخرج الصوت | دعم الصوت عالي التعريف | |
| عدد 2 | قناة PCI | عدد 2 | قناة PCI | التحات | |
| عدد 1 | قناة PCI Express Gen2 x16 | عدد 1 | قناة PCI Express Gen2 x16 (x8/x16) | | |
| عدد 1 | قناة PCI Express x16 (x4) | عدد 1 | قناة PCI Express Gen2 x16 (x8) | | |
| عدد 1 | قناة PCI Express x1 | عدد 2 | قناة PCI Express x1 | | |
| عدد 1 | منفذ محرك أقراص مرنة | عدد 1 | منفذ محرك أقراص مرنة | المنفذ على سطح اللوحة | |
| عدد 1 | منفذ طباعة | عدد 1 | منفذ طباعة | | |
| عدد 1 | منفذ تسلسلي | عدد 1 | منفذ تسلسلي | | |
| عدد 1 | منفذ IDE | عدد 1 | منفذ IDE | | |
| عدد 6 | منفذ SATA | عدد 6 | منفذ SATA | | |
| عدد 1 | منفذ اللوحة الأممية | عدد 1 | منفذ اللوحة الأممية | | |
| عدد 1 | منفذ الصوت الأممي | عدد 1 | منفذ الصوت الأممي | | |
| عدد 1 | منفذ خرج S/PDIF | عدد 1 | منفذ خرج S/PDIF | | |
| عدد 1 | منفذ CD-IN | عدد 1 | منفذ CD-IN | | |
| عدد 1 | وصلة مروحة وحدة المعالجة المركزية | عدد 1 | وصلة مروحة وحدة المعالجة المركزية | | |
| عدد 2 | وصلة مروحة النظام | عدد 2 | وصلة مروحة النظام | | |
| عدد 1 | وصلة مسح CMOS | عدد 1 | وصلة مسح CMOS | | |
| عدد 3 | منفذ USB | عدد 3 | منفذ USB | | |
| عدد 1 | منفذ توصيل الطاقة (24بيوس) | عدد 1 | منفذ توصيل الطاقة (24بيوس) | | |
| عدد 1 | منفذ توصيل الطاقة (8بيوس) | عدد 1 | منفذ توصيل الطاقة (8بيوس) | | |
| عدد 1 | منفذ توصيل الطاقة (4دبلبيس) | عدد 1 | منفذ توصيل الطاقة (4دبلبيس) | | |
| عدد 1 | لوحة مفاتيح PS/2 | عدد 1 | لوحة مفاتيح PS/2 | | منفذ دخل/خرج اللوحة الخلفية |
| عدد 1 | ملوس PS/2 | عدد 1 | ملوس PS/2 | | |
| عدد 1 | منفذ شبكة اتصال محلية | عدد 1 | منفذ شبكة اتصال محلية | | |
| عدد 6 | منافذ USB | عدد 6 | منافذ USB | | |
| عدد 6 | مقيس صوت | عدد 6 | مقيس صوت | | |
| 244 مم (عرض) X 305 مم (ارتفاع) | | 244 مم (عرض) X 305 مم (ارتفاع) | | حجم اللوحة | |
| Windows 2000 / XP / VISTA يحفظ Biostar بحفظها في إضافة أو إزالة الدعم لأي نظام تشغيل بإخطار أو بدون إخطار. | | Windows 2000 / XP / VISTA يحفظ Biostar بحفظها في إضافة أو إزالة الدعم لأي نظام تشغيل بإخطار أو بدون إخطار. | | دعم أنظمة التشغيل | |

JAPANESE

| | TP45 HP | TP43 HP |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CPU | LGA 775 Intel Core2Duo / Core2Quad / 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 Core2Duo / Core2Quad / 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 | DDR2 DIMMスロット x 4 各DIMMは 256MB / 512MB / 1GB / 2GB DDR2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DDR2 メモリモジュール DDR2 1066 / 800 / 667をサポート 登録済みDIMMとECC DIMMはサポートされません | DDR2 DIMMスロット x 4 各DIMMは 256MB / 512MB / 1GB / 2GB DDR2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DDR2 メモリモジュール DDR2 1066 / 800 / 667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 | Fintek F71887F 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 | Fintek F71887F 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、 |
| 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 10 / 100 / 1000 Mb/秒のオートネゴシエーション 半/全二重機能 | Realtek RTL 8111C 10 / 100 / 1000 Mb/秒のオートネゴシエーション 半/全二重機能 |

TP45 HP/TP43 HP

| | TP45 HP | TP43 HP |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 | 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 x2 PCI Express Gen2 x16スロット(x16/x8) x1 PCI Express Gen2 x16スロット (x8) x1 PCI Express x 1スロット x2 | PCIスロット x2 PCI Express Gen2 x16スロット x1 PCI Express x16スロット(x4) x1 PCI Express x 1スロット x1 |
| オンボードコネクタ | フロッピーコネクタ x1 プリンタポートコネクタ x1 シリアルポート 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 S/PDIFアウトコネクタ x1 CDインコネクタ 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 x3 電源コネクタ(24ピン) x1 電源コネクタ(8ピン) x1 電源コネクタ(4ピン) x1 | フロッピーコネクタ x1 プリンタポートコネクタ x1 シリアルポート 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 S/PDIFアウトコネクタ x1 CDインコネクタ 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 x3 電源コネクタ(24ピン) x1 電源コネクタ(8ピン) x1 電源コネクタ(4ピン) x1 |
| 背面パネル I/O | PS/2キーボード x1 PS/2マウス x1 LANポート x1 USBポート x6 オーディオジャック x6 | 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 |
| ボードサイズ | 244 mm (幅) X 305 mm (高さ) | 244 mm (幅) X 305 mm (高さ) |
| OSサポート | Windows 2000 / XP / VISTA Biostarは事前のサポートなしにOSサポートを追加または削除する権利を留保します。 | Windows 2000 / XP / VISTA Biostarは事前のサポートなしにOSサポートを追加または削除する権利を留保します。 |

2008/05/07