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Contents

ENGLISH..... 1
- P4TGT Features 1
- Package contents 2
- Layout of P4TGT 3
- CPU Installation 4
- DDR DIMM Modules: DDR1-2 5
- Jumpers, Headers, Connectors & Slots 6

ESPAÑOL 12
- Características del P4TGT 12
- Contenido del Paquete 13
- Disposición del P4TGT 14
- Instalación de la CPU 15
- Módulos DDR DIMM: DDR1-2 16
- Puentes, Cabezales, Conectores y Ranuras 17

WARPSPEEDER 23
- Introduction 23
- System Requirement 24
- Installation 24
- Usage 26

TROUBLE SHOOTING 34
SOLUCIÓN DE PROBLEMAS 35

English

P4TGT Features

- Use Intel 845GE/ ICH4 Chipset, ITE IT8712.
- Contains on board I/O facilities, which include one serial port, one VGA port, a parallel port, a PS/2 mouse port, a PS/2 keyboard port, audio ports, USB ports and a game port.
- Supports the Intel Pentium 4® (Socket 478) processor up to 2.8GHz.
- Supports Intel Pentium 4 processor with Hyper-Threading.
- Supports Ultra 100/66/33, DMA and PIO modes.
- Supports up to 2 DDR266/333 MHz devices, running at 400/533 MHz Front Side Bus frequency.
- Supports a maximun memory size up to 2GB.
- Supports five 32-bit PCI Bus slots, one AGP Slot, and one CNR Slot (Type A only) .

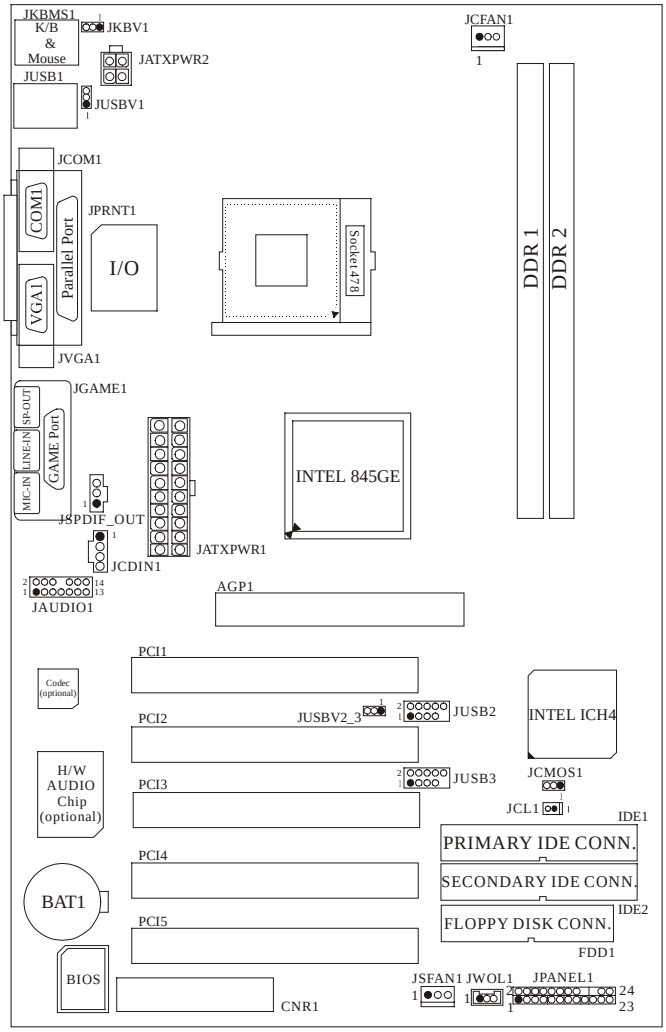
  (If the function CODEC is onboard, then the CNR slot only support slave card. But if the H/W Audio is onboard, then the CNR slot support only primary card .)
- Supports USB1.1 and USB2.0.
- Complies with PC ATX form factor specifications.
- Supports popular operating systems such as Windows 98, Windows NT, Windows 2000, Windows ME, Windows XP, LINUX and SCO UNIX.
- DIMM Power Selection by BIOS setup to adjust DDR DIMM voltage. (If you meet the DDR DIMM compatible program, try to adjust the DDR Voltage to fix the compatible program.)
- Intel® AC'97 2.2 compatible.
- High S/N ratio meets PC 99 requirements.
- 6CH Audio Out, applicable for leading motherboard chipsets.

- Support SPDIF-Out.
- Supports Hardware Audio 6CH Audio (Optional).
- Line-in phone-jack share with rear out .
- Mic-in phone-jack share with Bass and Center.

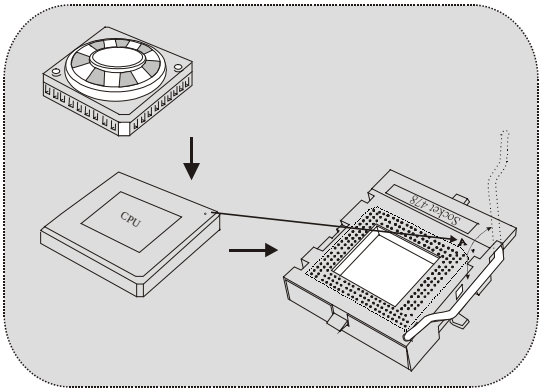
Package contents

- HDD Cable X 1
- FDD Cable X 1
- Fully Setup Driver CD X 1
- USB Cable X 2 (Optional)

Layout of P4TGT



CPU Installation

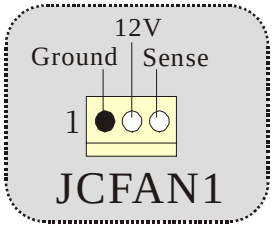


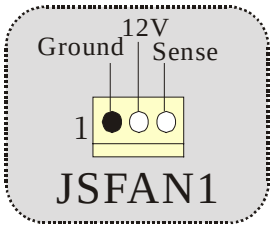
1. Pull the lever sideways away from the socket then raise the lever up to 90-degree angle.

2. Locate Pin A in the socket and lock for the white dot or cut edge in the CPU. Match Pin A with the white dot/cut edge then insert the CPU.

3. Press the lever down. Then Put the fan on the CPU and buckle it and put the fan's power port into the JCFAN1, then to complete the installation.

CPU/ System Fan Headers: JCFAN1/ JSFAN1





DDR DIMM Modules: DDR1-2

Supports DDR200/266/333 unregistered 184-pin non-ECC DDR SDRAM DIMMs. Does not support double-size x16 DDR DIMMs.
DRAM Type: 64MB/ 128MB/ 256MB/ 512MB/ 1GB DIMM Module (184 pin)

DIMM Socket Location	DDR Module	Total Memory Size (MB)
DDR 1	64MB/128MB/256MB/512MB/1GB *1	Max is 2GB
DDR 2	64MB/128MB/256MB/512MB/1GB *1	

* The list shown above for DRAM configuration is only for reference.

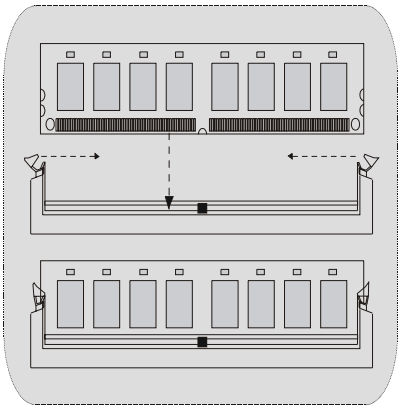
- ***If use FSB 400MHz CPU, the memory run only at DDR200/266.***
- ***If use FSB 533MHz CPU, the memory run only at DDR266/333.***

How to install a DIMM Module

1. The DIMM socket has a " Plastic Safety Tab", and the DIMM memory module has an "Asymmetrical notch", so the DIMM memory module can only fit into the slot in one direction.

2. Push the tabs out. Insert the DIMM memory modules into the socket at a 90-degree angle, then push down vertically so that it will fit into the place.

3. The Mounting Holes and plastic tabs should fit over the edge and hold the DIMM memory modules in place.



Jumpers, Headers, Connectors & Slots

Hard Disk Connectors: IDE1/ IDE2

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

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

Floppy Disk Connector: FDD1

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.

Communication Network Riser Slot: CNR1

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

(If the function CODEC is onboard, then the CNR slot only support slave card. But if the H/W Audio is onboard, then the CNR slot support only primary card .)

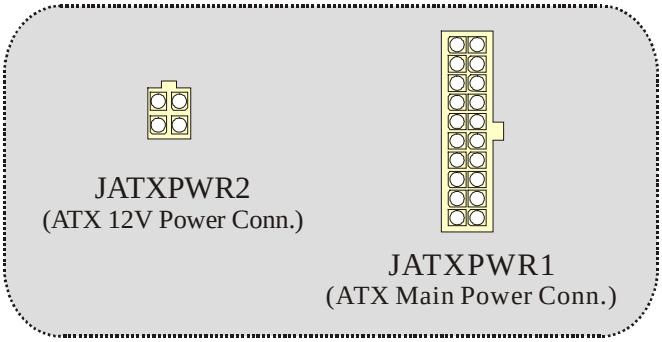
Accelerated Graphics Port Slot: AGP1

Your monitor will attach directly to that video card. This motherboard supports video cards for PCI slots, but it is also equipped with an Accelerated Graphics Port (AGP/ only 1.5V and 4X AGP card can be supported). An AGP card will take advantage of AGP technology for improved video efficiency and performance, especially with 3D graphics.

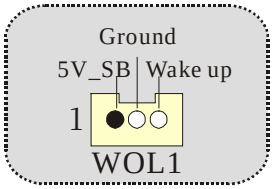
Peripheral Component Interconnect Slots: PCI1-5

This motherboard is equipped with 5 standard PCI slots. PCI stands for Peripheral Component Interconnect, and it is a bus standard for expansion cards, which has, supplanted the older ISA bus standard in most ports. This PCI slot is designated as 32 bits.

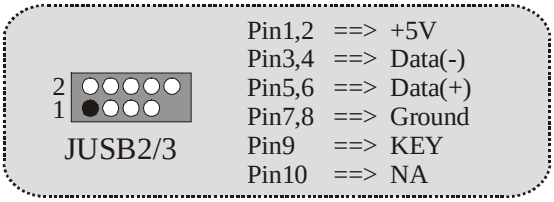
Power Connectors: JATXPWR1/ JATXPWR2



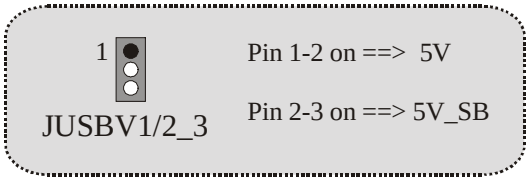
Wake On LAN Header: JWOL1



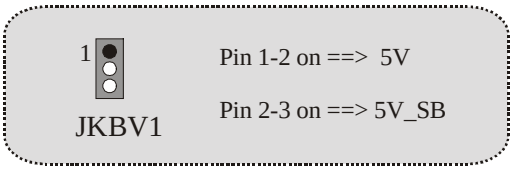
Front USB Header: JUSB2/ JUSB3



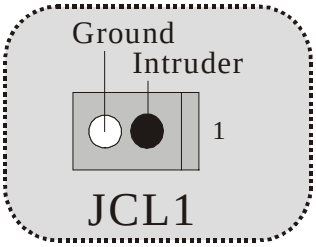
5V/ 5VSB Selection for USB: JUSBV1/2_3



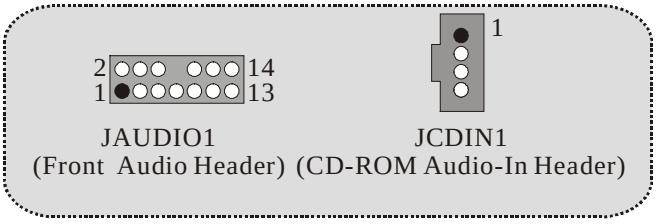
5V/ 5VSB Selection for KB: JKBV1

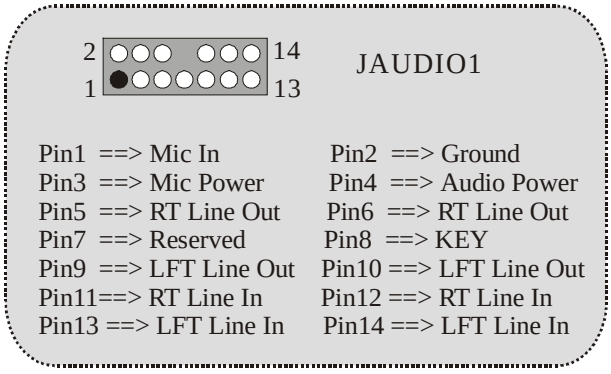


Chassis Open Detection input: JCL1

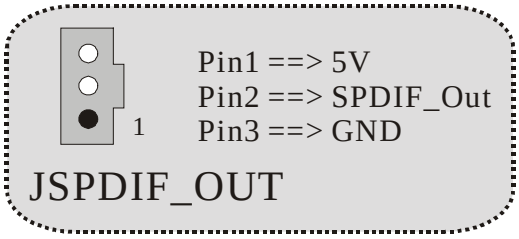


Audio Subsystem: JAUDIO1/ JCDIN1

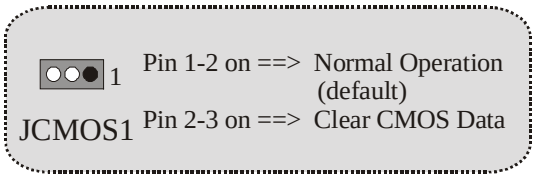




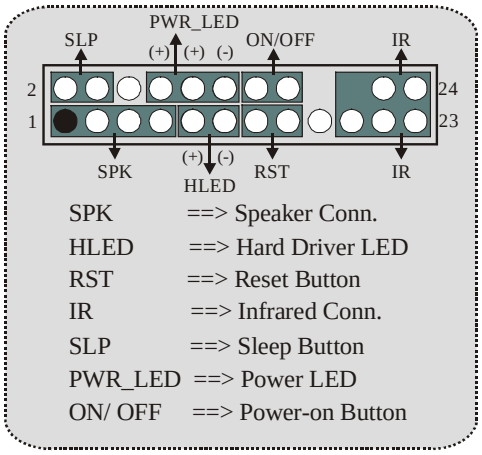
Digital Audio Connector: JSPDIF_OUT



Clear CMOS Jumper: JCMOS1

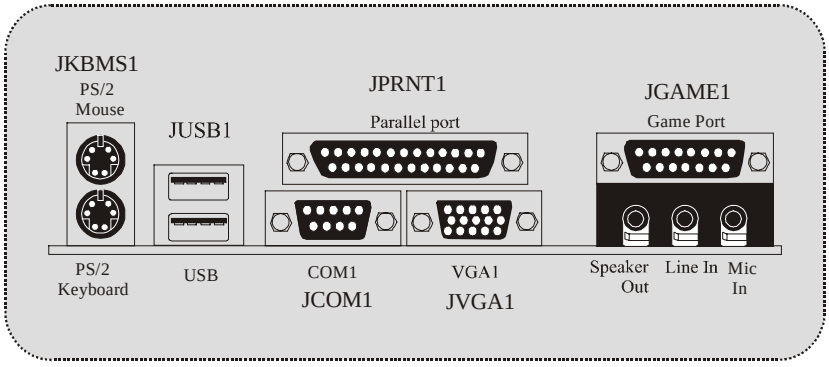


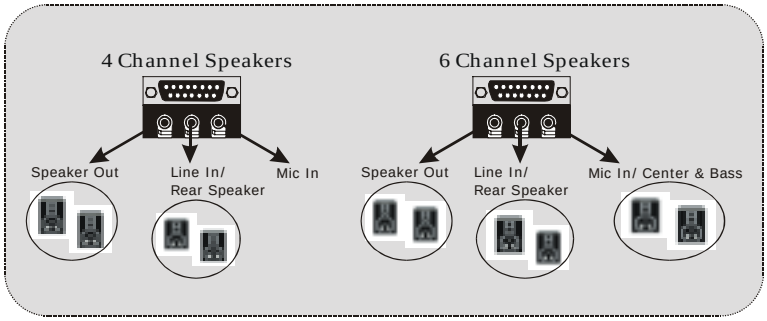
Front Panel Connector: JPANEL1



SPK ==> Speaker Conn.
HLED ==> Hard Driver LED
RST ==> Reset Button
IR ==> Infrared Conn.
SLP ==> Sleep Button
PWR_LED ==> Power LED
ON/ OFF ==> Power-on Button

Back Panel Connectors




4 Channel Speakers
Speaker Out
Line In/
Rear Speaker
Mic In
6 Channel Speakers
Speaker Out
Line In/
Rear Speaker
Mic In/ Center & Bass

Español

Características del P4TGT

- Usa Chipset Intel 845GE/ ICH4, ITE IT8712.
- Contiene facilidades I/O integrados en la placa madre en el que incluye un puerto en serie, un puerto VGA, un puerto paralelo, un puerto para ratón PS/2, un puerto para teclado PS/2, puertos de audio, puertos USB y un puerto de juego .
- Soporta procesadores Intel Pentium 4® (Socket 478) de hasta 2.8GHz.
- Soporta procesador Intel Pentium 4 con Hyper-Threading.
- Soporta Ultra 100/66/33, DMA y modos PIO.
- Soporta hasta 2 dispositivos DDR 266/ 333 MHz, corriendo a 400/ 500 MHz frecuencia Front Side Bus.
- Soporta una memoria máxima de hasta 2GB.
- Soporta cinco ranuras PCI 32-bit, una ranura AGP, y una ranura CNR (solamente de Tipo A) .

  (Si la función CODEC está integrado en la placa madre, entonces la ranura CNR solamente puede soportar tarjeta esclava. Pero si el Audio H/W está integrado en la placa madre, entonces la ranura CNR solamente puede soportar tarjeta primaria.)

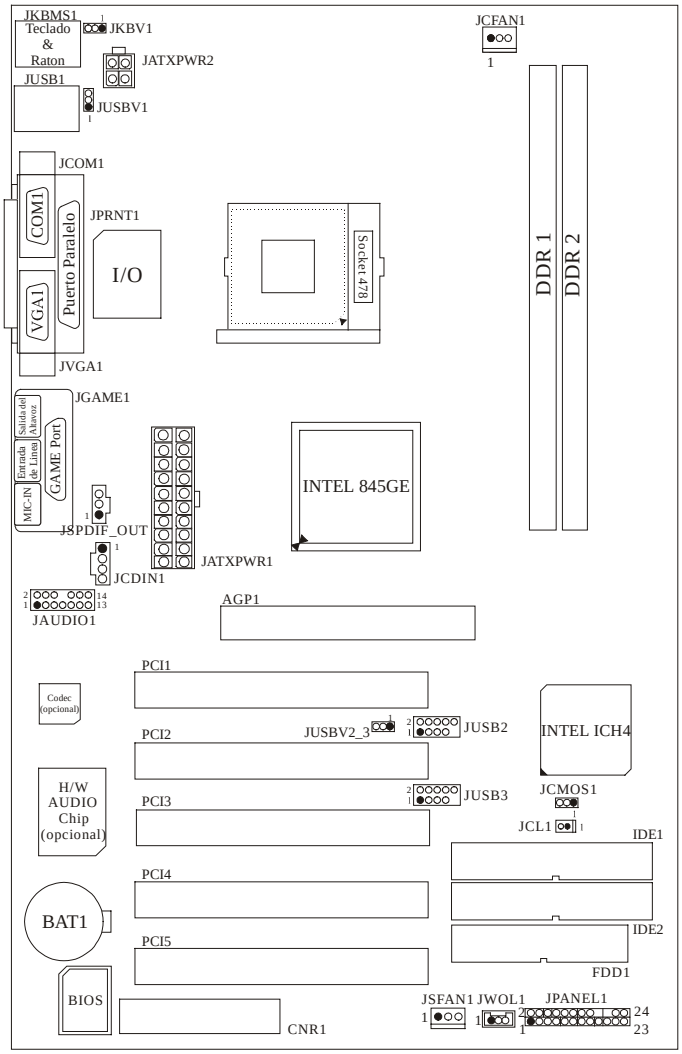
- Soporta USB1.1 y USB2.0.
- Compatible con las especificaciones del factor de forma de tamaño de PC ATX.
- Soporta sistemas operativos populares tales como Windows 98, Windows NT, Windows 2000, Windows ME, Windows XP, LINUX y SCO UNIX.
- Corriente de Selección DIMM para configuración BIOS utilizado para ajustar voltaje DDR DIMM. (Si se encuentra con un programa compatible al DDR DIMM, trate de ajustar el voltaje DDR para fijar con el programa compatible.)
- Compatible con Intel® AC'97 2.2.

- Alto S/N ratio para requerimientos PC 99.
- 6CH de Salida de Audio, aplicable para chipsets de principales placas madres.
- Soporta SPDIF_Out.
- Soporta 6CH de harware audio (opcional).
- Entrada de Línea phone-jack compartido con el rear out. Micrófono phone-jack compartido con Bass y Center.

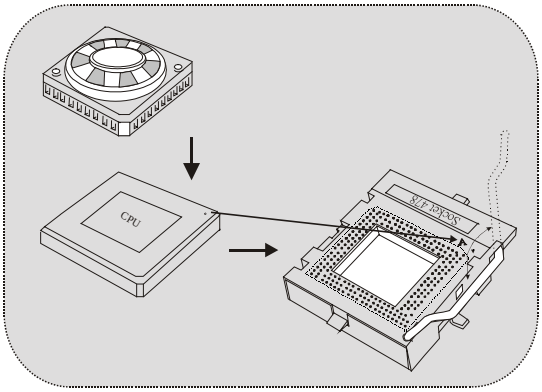
Contenido del Paquete

- Cable HDD X 1
- Cable FDD X 1
- Configuración Completa del Driver CD X 1
- Cable USB X 2 (Opcional)

Disposición del P4TGT



Instalación de la CPU

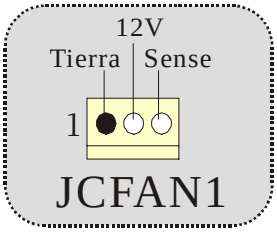


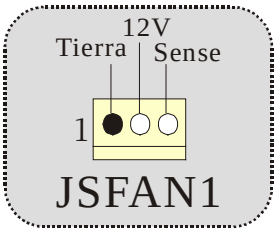
1. Tire de la palanca del lado del zócalo, luego levante la palanca hasta un ángulo de 90 grados.

2. Sitúe el contacto A del zócalo y busque el punto blanco o corte el borde en la CPU. Empareje el contacto A con el punto blanco/ corte del borde, luego inserte la CPU.

3. Presione la palanca para abajo. Ponga el ventilador en la CPU y abróchelo. Luego ponga el puerto de corriente del ventilador en el JCFAN1. Y ya habrá completado su instalación.

CPU/ Cabezales del Sistema de Ventilación: JCFAN1/ JSFAN1





Módulos DDR DIMM: DDR1-2

Soporta DDR200/266/333 unregistered 184-contactos sin ECC DDR SDRAM DIMMs. No soporta DDR DIMMs x16 de doble cara.
DRAM Tipo: 64MB/ 128MB/ 256MB/ 512MB/ 1GB Módulos DIMM (184 contactos)

Localización del Zócalo DIMM	Módulo DDR	Total del Tamaño de Memoria (MB)
DDR 1	64MB/128MB/256MB/512MB/1GB *1	Máximo de 2GB
DDR 2	64MB/128MB/256MB/512MB/1GB *1	

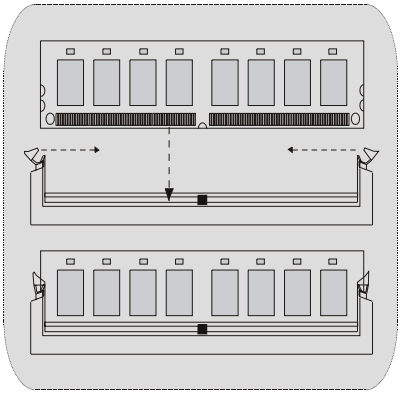
* La lista de arriba para la configuración DRAM es solamente para uso de referencia.

- ***Si usa FSB 400MHz CPU, la memoria solamente corre a DDR200/266.***
- ***Si usa FSB 533MHz CPU, la memoria solamente corre a DDR266/333.***

Cómo instalar un Módulo DIMM

1. El zócalo DIMM tiene una lengüeta plástica de seguridad y el módulo de memoria DIMM tiene una muesca asimétrica, así el módulo de memoria DIMM puede caber solamente en la ranura de una sóla dirección.

2. Tire la lengüeta hacia afuera. Inserte los módulos de memoria DIMM en el zócalo a los 90 grados, luego empuje hacia abajo verticalmente de modo que encaje en el lugar.



3. Los agujeros de montaje y las lengüetas plásticas deben caber por sobre el borde y sostenga los módulos de memoria DIMM en el lugar.

Puentes, Cabezales, Conectores y Ranuras

Conectores del Disco Duro: IDE1/ IDE2

La placa madre tiene un controlador de 32-bit PCI IDE que proporciona Modo PIO 0~4, Bus Master, y funcionalidad Ultra DMA / 33/ 66/ 100. Tiene dos conectores HDD IDE1 (primario) y IDE2 (secundario).

El conector IDE puede conectar a un master y un drive esclavo, así puede conectar hasta cuatro discos rígidos. El primer disco duro debe estar siempre conectado al IDE1.

Conectores para el Disquete: FDD1

La placa madre proporciona un conector estándar del disquete (FDC) que soporta 360K, 720K, 1.2M, 1.44M y 2.88M tipos de disquete. Éste conector utiliza los cables de cinta proporcionados por el disquete.

Ranura de la Banda de Suspensión de Comunicación y Red: CNR1

La especificación CNR es una abierta Industria de Arquitectura Estándar, que define una tarjeta de interface escalable del hardware en el que soporta solamente audio, network y modem (solamente tarjeta esclava).

(Cuando la función CODEC está integrado en la placa madre, la ranura CNR solamente soporta a la tarjeta esclava. Pero cuando el H/W Audio está integrado en la placa madre, la ranura CNR solamente soporta tarjeta primaria.)

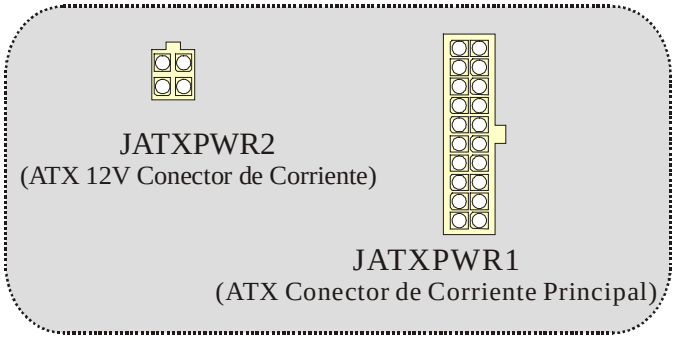
Accelerated Graphics Port Slot: AGP1

Su monitor se fijará directamente a la tarjeta de video. Ésta placa madre soporta tarjetas de video para ranuras PCI, y también está equipado con un Puerto Acelerado para Gráficos. Ésta tarjeta AGP tomará ventaja de la tecnología del AGP para el mejoramiento de la eficiencia y funcionamiento del video, especialmente con gráficos 3D.

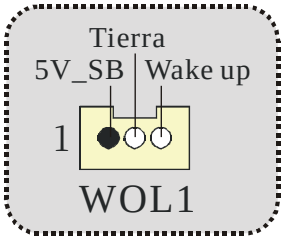
Ranura de Interconexión del Componente Periférico: PCI1-5

Ésta placa madre está equipada con 5 ranuras estándar PCI. PCI es la sigla para Interconexión del Componente Periférico, y es un bus estándar para tarjetas de expansión en el que suplanta a la antigua bus estándar ISA, en su mayoría de las partes. Ésta ranura PCI está diseñado con 32 bits

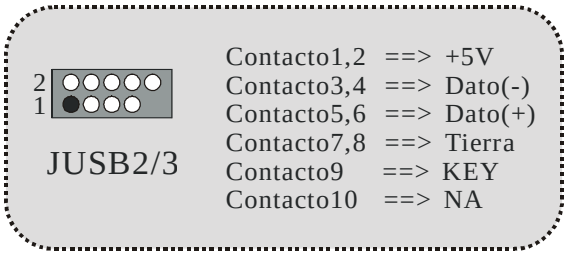
Conectores de Corriente: JATXPWR1/ JATXPWR2



Cabezal Wake On LAN: JWOL1



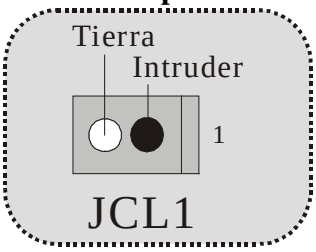
Cabezal Frontal USB: JUSB2/ JUSB3



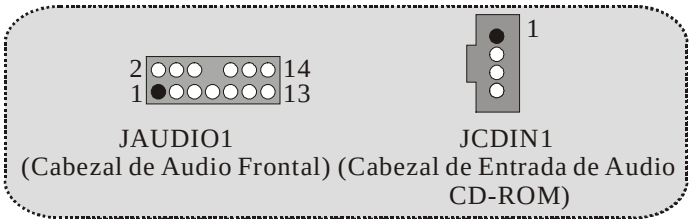
5V/ 5VSB Selección para USB: JUSBV1/2_3

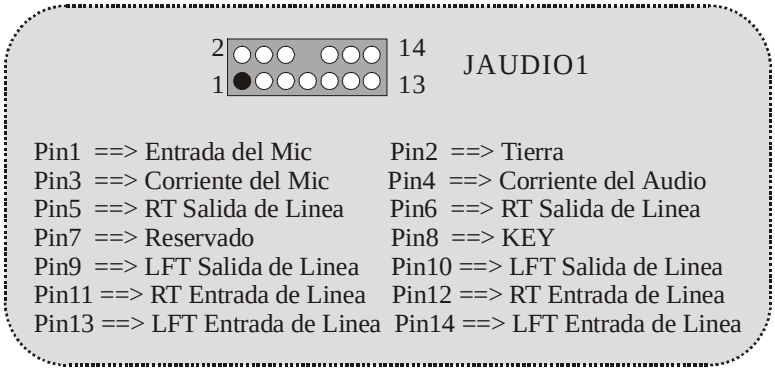
5V/ 5VSB Selección para KB: JKBV1

Chassis Open Detection Input: JCL1

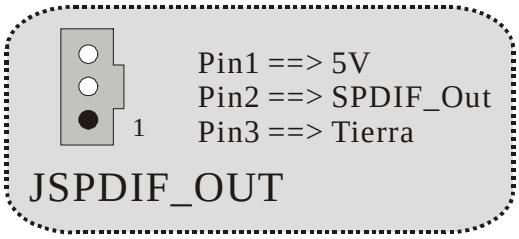


Subsistema de Audio: JAUDIO1/ JCDIN1

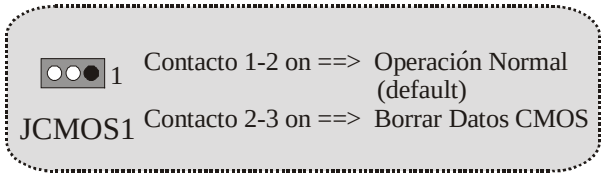




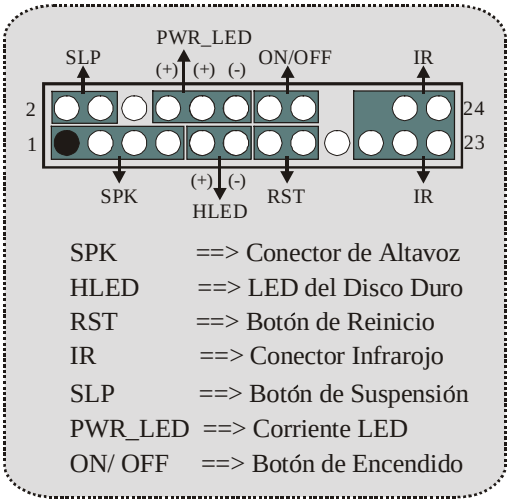
Conector de Audio Digital: JSPDIF_OUT



Puente de Borrar CMOS: JCMOS1

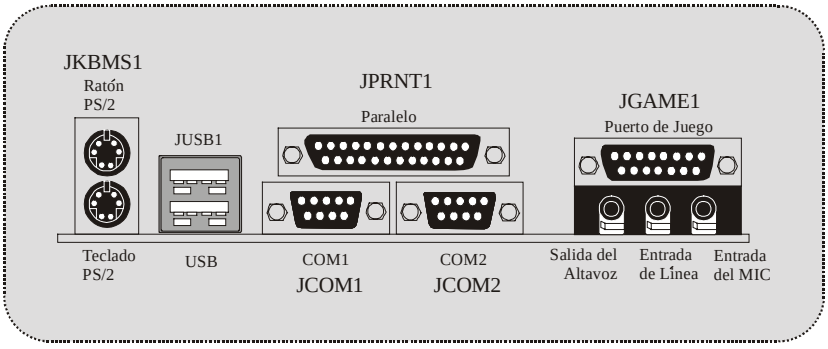


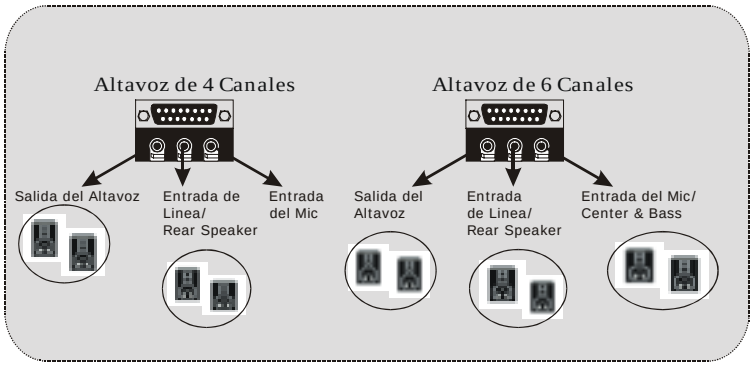
Conector del Panel Frontal: JPANEL1



SPK ==> Conector de Altavoz
HLED ==> LED del Disco Duro
RST ==> Botón de Reinicio
IR ==> Conector Infrarojo
SLP ==> Botón de Suspensión
PWR_LED ==> Corriente LED
ON/ OFF ==> Botón de Encendido

Conectores del Panel Trasero




Altavoz de 4 Canales
Salida del Altavoz
Entrada de Linea/ Rear Speaker
Entrada del Mic
Altavoz de 6 Canales
Salida del Altavoz
Entrada de Linea/ Rear Speaker
Entrada del Mic/ Center & Bass

WarpSpeeder

Introduction

[WarpSpeeder™], a new powerful control utility, features three user-friendly functions including Overclock Manager, Overvoltage Manager, and Hardware Monitor.

With the Overclock Manager, users can easily adjust the frequency they prefer or they can get the best CPU performance with just one click. The Overvoltage Manager, on the other hand, helps to power up CPU core voltage and Memory voltage. The cool Hardware Monitor smartly indicates the temperatures, voltage and CPU fan speed as well as the chipset information. Also, in the About panel, you can get detail descriptions about BIOS model and chipsets. In addition, the frequency status of CPU, memory, AGP and PCI along with the CPU speed are synchronically shown on our main panel.

Moreover, to protect users' computer systems if the setting is not appropriate when testing and results in system fail or hang, [WarpSpeeder™] technology assures the system stability by automatically rebooting the computer and then restart to a speed that is either the original system speed or a suitable one.

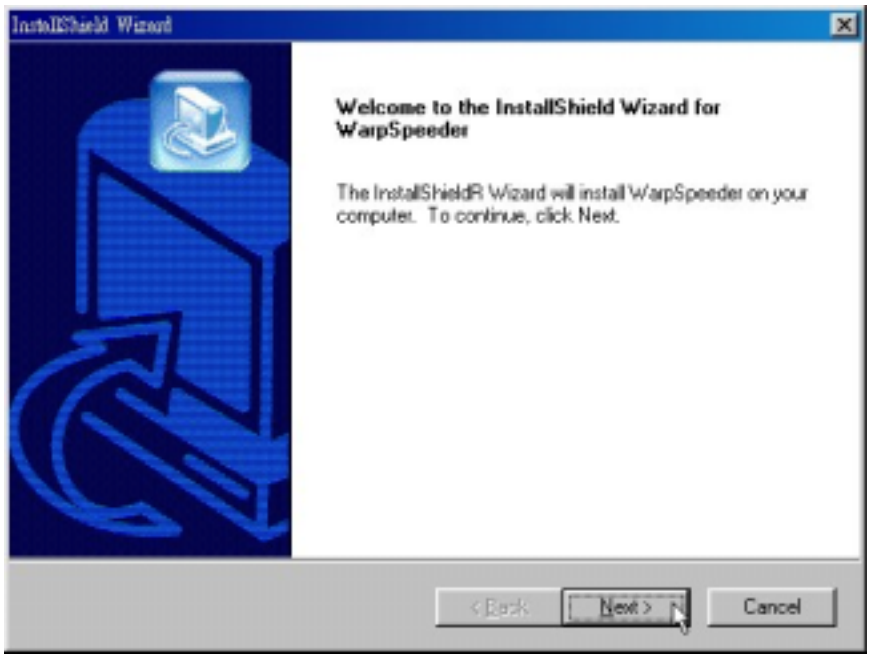
System Requirement

OS Support: Windows 98 SE, Windows Me, Windows 2000, Windows XP

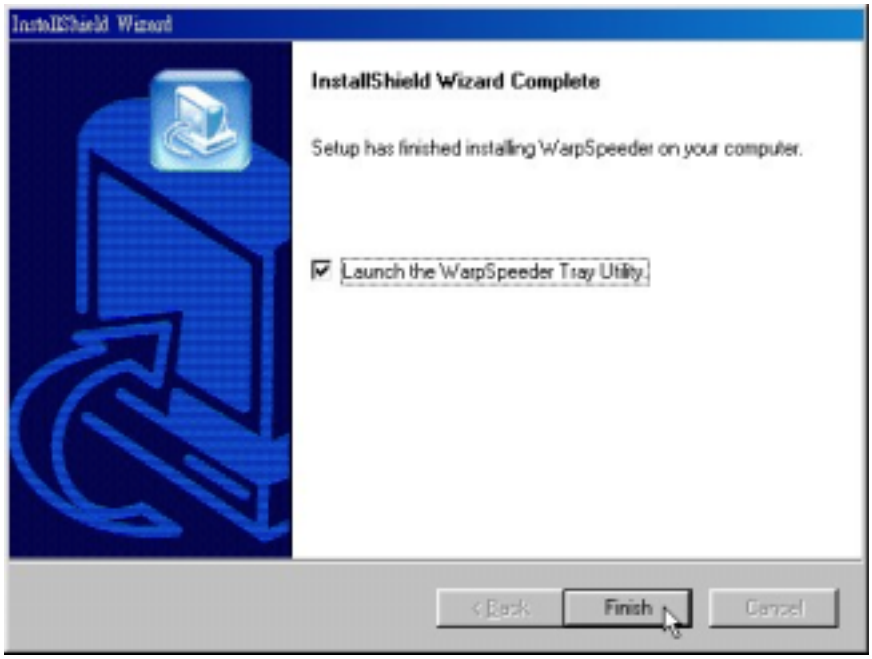
DirectX: DirectX 8.1 or above. (The Windows XP operating system includes DirectX 8.1. If you use Windows XP, you do not need to install DirectX 8.1.)

Installation

1. Execute the setup execution file, and then the following dialog will pop up. Please click “Next” button and follow the default procedure to install.



2. When you see the following dialog in setup procedure, it means setup is completed. If the “Launch the WarpSpeeder Tray Utility” checkbox is checked, the Tray Icon utility and [WarpSpeeder™] utility will be automatically and immediately launched after you click “Finish” button.



Usage

The following figures are just only for reference, the screen printed in this usr manual will change according to your motherboard on hand.

[WarpSpeeder™] includes 1 tray icon and 5 panels:

1. Tray Icon:

Whenever the Tray Icon utility is launched, it will display a little tray icon on the right side of Windows Taskbar.

This utility is responsible for conveniently invoking [WarpSpeeder™] Utility. You can use the mouse by clicking the left button in order to invoke [WarpSpeeder™] directly from the little tray icon or you can right-click the little tray icon to pop up a popup menu as following figure. The “Launch Utility” item in the popup menu has the same function as mouse left-click on tray icon and “Exit” item will close Tray Icon utility if selected.

2. Main Panel

If you click the tray icon, [WarpSpeeder™] utility will be invoked. Please refer do the following figure; the utility's first window you will see is Main Panel.

Main Panel contains features as follows:

a. Display the CPU Speed, CPU external clock, Memory clock, AGP clock, and PCI clock information.

b. Contains About, Voltage, Overclock, and Hardware Monitor Buttons for invoking respective panels.

c. With a user-friendly Status Animation, it can represent 3 overclock percentage stages:

Man walking => overclock percentage from 100% ~ 110 %

Panther running => overclock percentage from 110% ~ 120%

Car racing => overclock percentage from 120% ~ above

3. Voltage Panel

Click the Voltage button in Main Panel, the button will be highlighted and the Voltage Panel will slide out to up as the following figure.

In this panel, you can decide to increase CPU core voltage and Memory voltage or not. The default setting is “No”. If you want to get the best performance of overclocking, we recommend you click the option “Yes”.

4. Overclock Panel

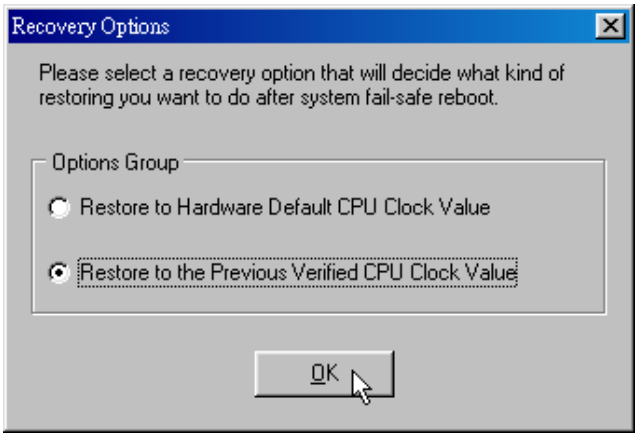
Click the Overclock button in Main Panel, the button will be highlighted and the Overclock Panel will slide out to left as the following figure.

Overclock Panel contains the these features:

a. "–3MHz button", "-1MHz button", "+1MHz button", and "+3MHz button": provide user the ability to do real-time overclock adjustment.

Warning: Manually overclock is potentially dangerous, especially when the overclocking percentage is over 110 %. We strongly recommend you verify every speed you overclock by click the Verify button. Or, you can just click Auto overclock button and let [WarpSpeeder™] automatically gets the best result for you.

b. "Recovery Dialog button": Pop up the following dialog. Let user select a restoring way if system need to do a fail-safe reboot.



c. "Auto-overclock button": User can click this button and [WarpSpeeder™] will set the best and stable performance and frequency automatically. [WarpSpeeder™] utility will execute a series of testing until system fail. Then system will do fail-safe reboot by using Watchdog function. After reboot, the [WarpSpeeder™] utility will restore to the hardware default setting or load the verified best and stable frequency according to the Recovery Dialog's setting.

d. "Verify button": User can click this button and [WarpSpeeder™] 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 fail, system will do a fail-safe rebooting. After reboot, the [WarpSpeeder™] utility will restore to the hardware default setting or load the verified best and stable frequency according to the Recovery Dialog's setting.

Note: Because the testing programs, invoked in Auto-overclock and Verify, include DirectDraw, Direct3D and DirectShow tests, the DirectX 8.1 or newer runtime library is required. And please make sure your display card's color depth is High color (16 bit) or True color(24/32 bit) that is required for Direct3D rendering.

5. Hardware Monitor Panel

Click the Hardware Monitor button in Main Panel, the button will be highlighted and the Hardware Monitor panel will slide out to left as the following figure.

In this panel, you can get the real-time status information of your system. The information will be refreshed every 1 second.

6. About Panel

Click the About button in Main Panel, the button will be highlighted and the About Panel will slide out to up as the following figure.

In this panel, you can get model name and detail information in hints of all the chipset that are related to overclocking. You can also get the mainboard's BIOS model and the Version number of [WarpSpeeder™] utility.

WarpSpeeder
Version : 0.4.0.1
Copyright (c) 2002 BIOSTAR
MICROTECH INT'L CORP.
BIOS Model : Emulate
Memory Controller Hub : Intel 845E MCH
Clock Generator : ICS950218
Over Clocker : ATXP3 Vr-2.0
Hardware Monitor : W83627HF
About
CPU SPEED: 1497 MHz
CPU Clock: 99.8 MHz
Memory Clock: 99.8 MHz
AGP Clock: 66.5 MHz
PCI Clock: 33.3 MHz
Over Clock Percentage :
100 %
6:39 AM

Note: Because the overclock, overvoltage, and hardware monitor features are controlled by several separate chipset, [WarpSpeeder™] divide these features to separate panels. If one chipset is not on board, the correlative button in Main panel will be disabled, but will not interfere other panels' functions. This property can make [WarpSpeeder™] utility more robust.

Trouble Shooting

PROBABLE CAUSE	SOLUTION
No power to the system at all Power light don't illuminate, fan inside power supply does not turn on. Indicator light on keyboard does not turn on	* Make sure power cable is securely plugged in * Replace cable * Contact technical support

PROBABLE CAUSE	SOLUTION
System inoperative. Keyboard lights are on, power indicator lights are lit, hard drive is spinning.	* Using even pressure on both ends of the DIMM, press down firmly until the module snaps into place.

PROBABLE CAUSE	SOLUTION
System does not boot from hard disk drive, can be booted from CD-ROM drive.	* 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. * Backing up the hard drive is extremely important. All hard disks are capable of breaking down at any time.

PROBABLE CAUSE	SOLUTION
System only boots from CD-ROM. Hard disk can be read and applications can be used but booting from hard disk is impossible.	* Back up data and applications files. Reformat the hard drive. Re-install applications and data using backup disks.

PROBABLE CAUSE	SOLUTION
Screen message says "Invalid Configuration" or "CMOS Failure."	* Review system's equipment . Make sure correct information is in setup.

PROBABLE CAUSE	SOLUTION
Cannot boot system after installing second hard drive.	* Set master/slave jumpers correctly. * Run SETUP program and select correct drive types. Call drive manufacturers for compatibility with other drives.

Solución de Problemas

CAUSA PROBABLE	SOLUCIÓN
No hay corriente en el sistema. La luz de corriente no ilumina, ventilador dentro de la fuente de alimentación apagada. Indicador de luz del teclado apagado.	* Asegúrese que el cable de transmisión esté seguramente enchufado. * Reemplace el cable. * Contacte ayuda técnica.

CAUSA PROBABLE	SOLUCIÓN
Sistema inoperativo. Luz del teclado encendido, luz de indicador de corriente iluminado, disco rígido está girando.	* Presione los dos extremos del DIMM, presione para abajo firmemente hasta que el módulo encaje en el lugar.

CAUSA PROBABLE	SOLUCIÓN
Sistema no arranca desde el disco rígido, puede ser arrancado desde el CD-ROM drive.	* Controle el cable de ejecución desde el disco hasta el disco del controlador. Asegúrese de que ambos lados estén enchufados con seguridad; controle el tipo de disco en la configuración estándar CMOS. * Copiando el disco rígido es extremadamente importante. Todos los discos rígidos son capaces de dañarse en cualquier momento.

CAUSA PROBABLE	SOLUCIÓN
Sistema solamente arranca desde el CD-ROM. Disco rígido puede leer y aplicaciones pueden ser usados pero el arranque desde el disco rígido es imposible.	* Copie datos y documentos de aplicación. Vuelva a formatear el disco rígido. Vuelva a instalar las aplicaciones y datos usando el disco de copiado.

CAUSA PROBABLE	SOLUCIÓN
Mensaje de pantalla ”Invalid Configuration” o “CMOS Failure.”	* Revise el equipo del sistema. Asegúrese de que la información configurada sea correcta.

CAUSA PROBABLE	SOLUCIÓN
No puede arrancar después de instalar el segundo disco rígido.	* Fije correctamente el puente master/esclavo. * Ejecute el programa SETUP y seleccione el tipo de disco correcto. Llame a una manufacturación del disco para compatibilidad con otros discos.

10/16/2002