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English

U8668-D Features

CPU

- Provides Socket-478.
- Support the Intel® Pentium® 4 Northwood CPU up to 3.06GHz.
- Supports the Intel® Pentium® 4 478 Prescott CPU (for version 5.A/5.B and version 7.5 & above).
  - 533FSB with 1024KB L2 Cache
  - Celeron D (533 FSB with 256KB L2 Cache)
- Running at 400/533MHz Front Side Bus.
- Supports Hyper-Threading Technology.
- Version 7.8 and above do not support Willamette CPU.
- Standard Intel CPU fan is suggested.

Chipset

- North Bridge: P4M266A
- South Bridge: VT8235

Main Memory

- Supports up to 2 DDR devices.
- Supports 200/266MHz DDR devices.
- The largest memory capacity is 2GB.

Super I/O

- Chipset: ITE IT8705.

Slots

- Three 32-bit PCI bus master slots (for version 3.x, 4.x, 5.x, 5.A, 5.B and 7.x).
- Two 32-bit PCI bus master slots (only for version 1.x and 6.x).
- One CNR slot (for version 3.x, 4.x, 5.x, 5.A, 5.B and 7.x only).
- One AMR slot (for version 1.x and 6.x).
- One AGP slot.

On Board IDE

- Supports four IDE disk drives.
- Supports PIO Mode 4, Master Mode and Ultra DMA 33/66/100/133 Bus Master Mode.

LAN (only support for version 3.3)

- Chip: RTL8201BL.
- 10/ 100Mbps.
- Half/Full duplex operation.

LAN

- VIA VT6103/6103L (Only Version 7.8 and above support VIA VT6103L chipset.)
- Dual Speed: 10/100Mbps, Full/Half Duplex.
- Auto Negotiation: 10/100 Mbps, Full/Half Duplex.

On Board AC'97 Sound Codec
- Chip: VIA1612A (for version 3.x, 6.x, and 7.0-7.6)
- Compliant with AC'97 specification.
- Supports 2 channel speakers.

On Board AC'97 Sound Codec (optional)
- Chip: CMI9739A (for version 1.x, 4.x, 5.x, 5.A, 5.B, 7.7, 7.8 & above)
- Compliant with AC'97 specification.
- Supports 6 channel speakers.

On Board Peripherals
- Supports 360K, 720K, 1.2MB, 1.44MB and 2.88MB floppy disk drivers.
- Supports 1 serial port.
- Supports 1 VGA port.
- Supports 1 multi-mode parallel port. (SPP/EPP/ECP mode)
- Supports PS/2 mouse and PS/2 keyboard.
- Supports 6 USB2.0 ports. (Either rear x 4 + front x 2 or rear x 2 + front x 4)

BIOS
- AWARD legal Bios.
- Supports APM1.2.
- Supports ACPI.
- Supports USB Function.

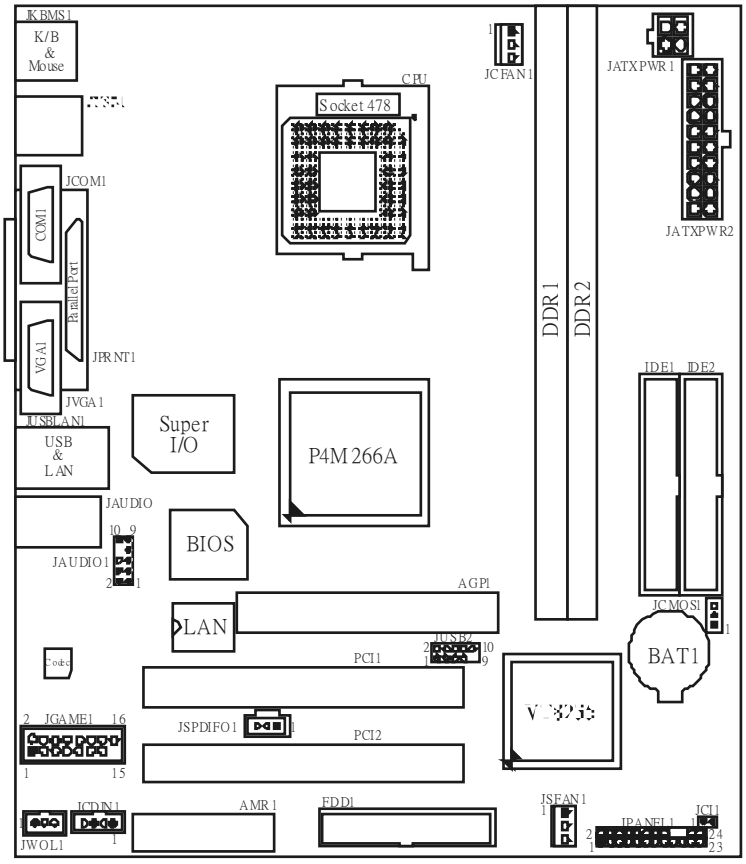
Operating System
- Offers the highest performance for MS-DOS, Windows 2000, Windows Me, Windows XP, SCO UNIX etc.

Dimensions
- Micro ATX Form Factor: 19.5cm X 22.8cm (W X L) (only for version 1.x and 6.x)
- Micro ATX Form Factor: 19.5cm x 24.4cm (W x L) (only for version 3.x, 4.x, 5.x, 5.A, 5.B and 7.x)

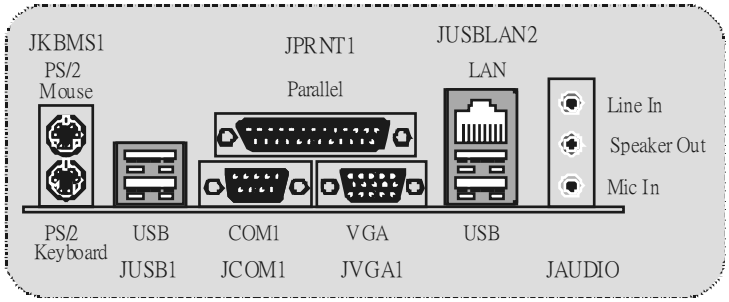
Package contents

- FDD Cable
- HDD Cable
- User's Manual
- Fully Setup Driver CD
- USB Cable (optional)
- Rear I/O Panel (optional)

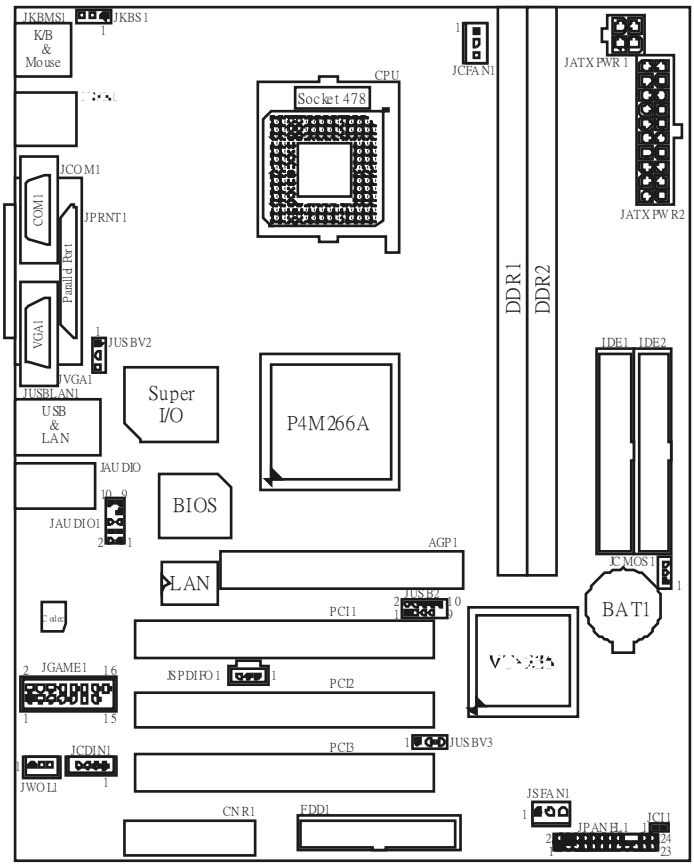
Layout of U8668-D (only for version 1.x and 6.x)



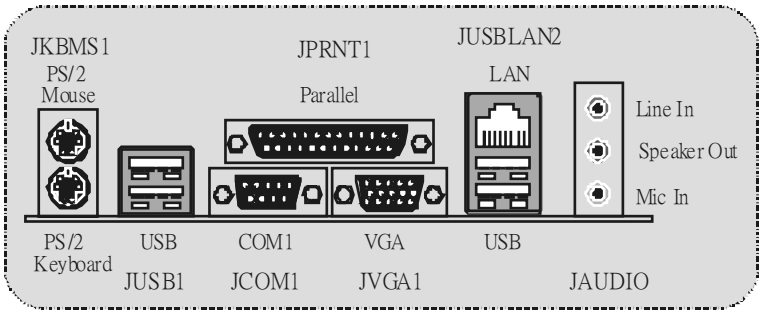
Back Panel Connector



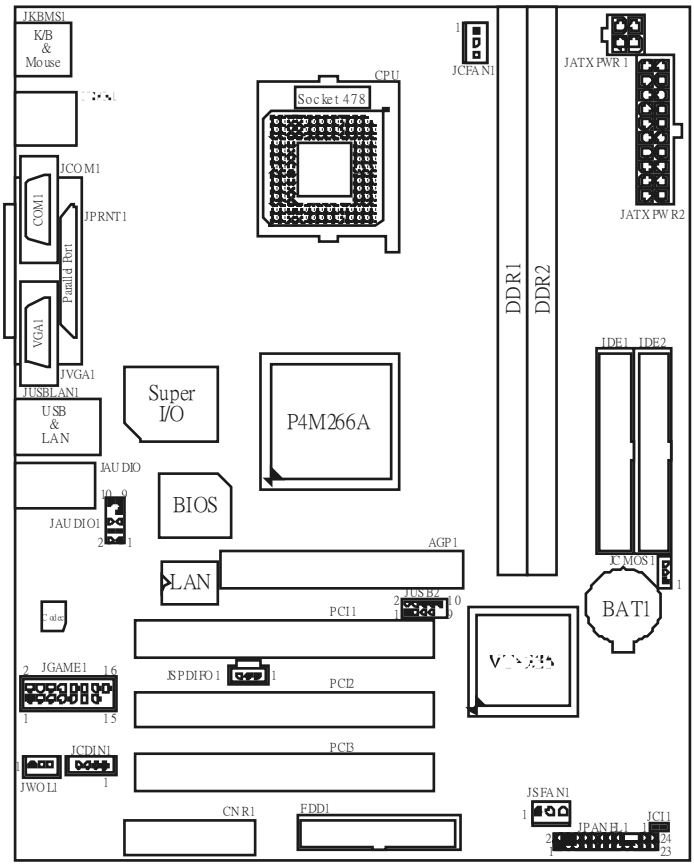
Layout of U8668-D (only for version 3.3)



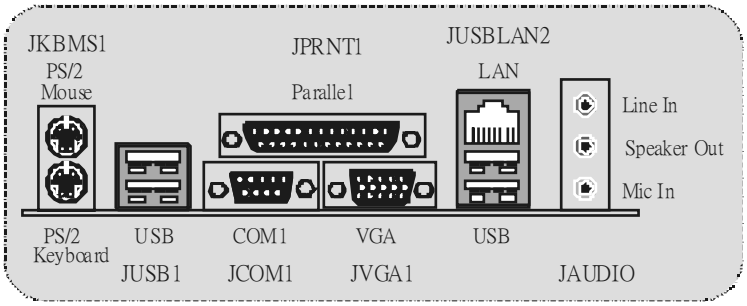
Back Panel Connector



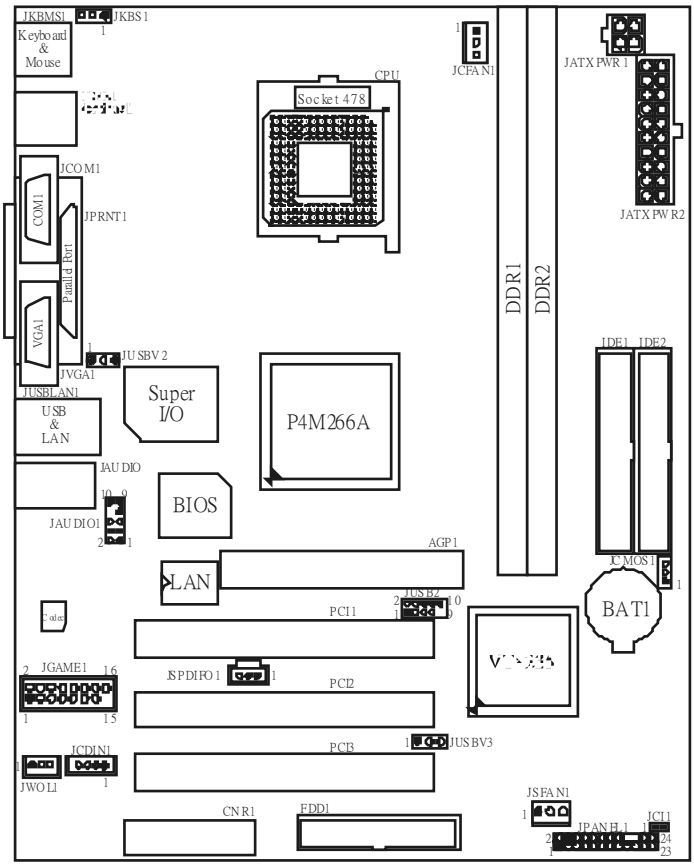
Layout of U8668-D (only for version 4.0)



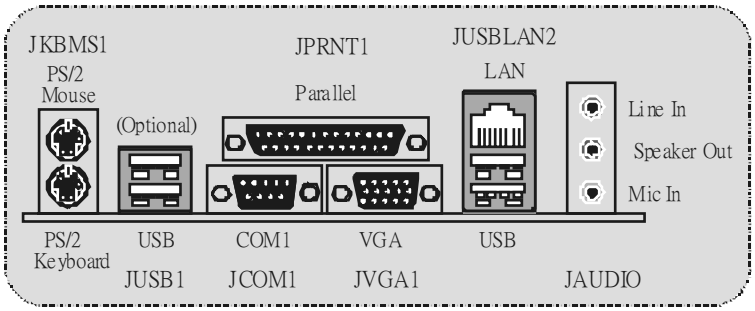
Back Panel Connector



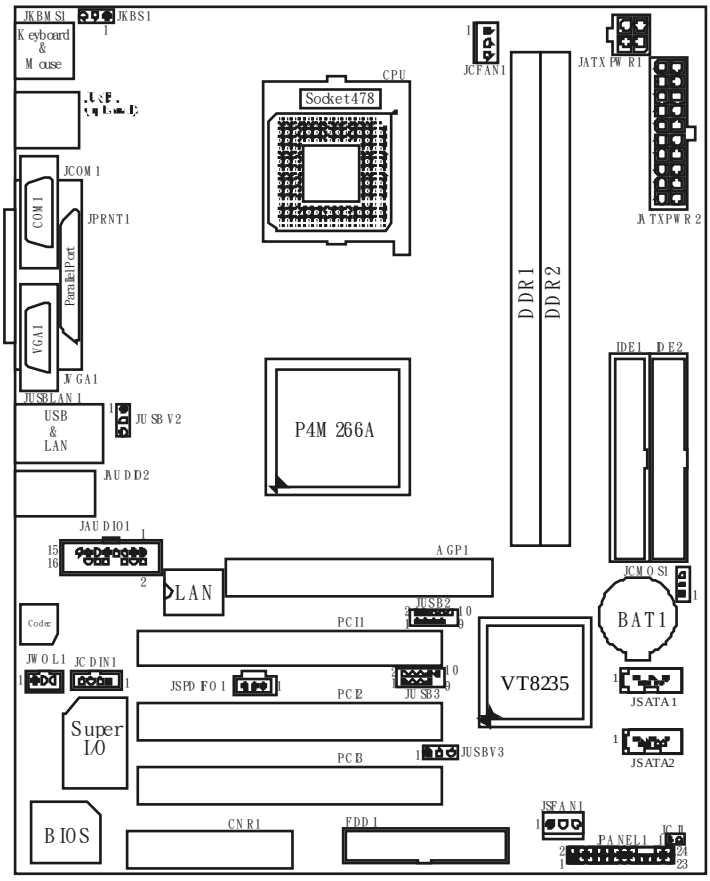
Layout of U8668-D (only for version 5.x)



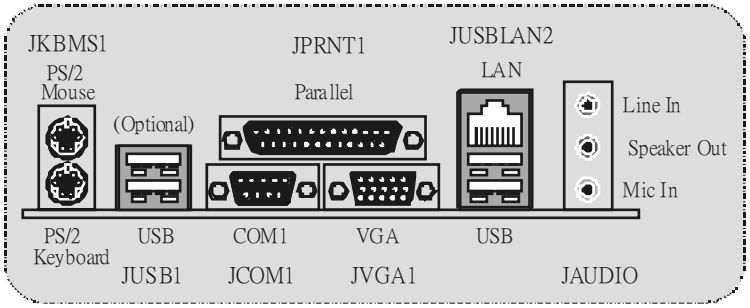
Back Panel Connector



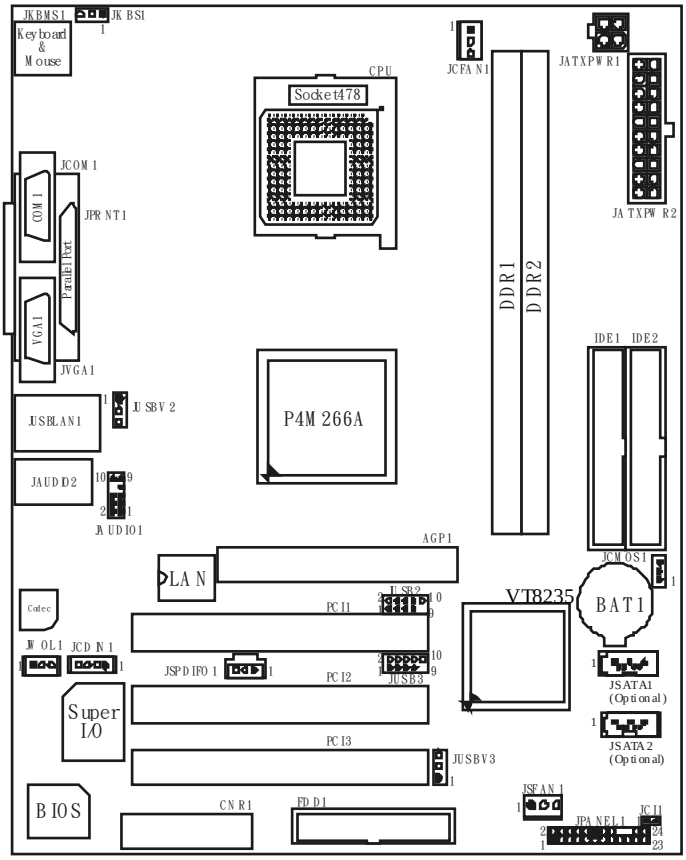
Layout of U8668-D (only for version 5.A)



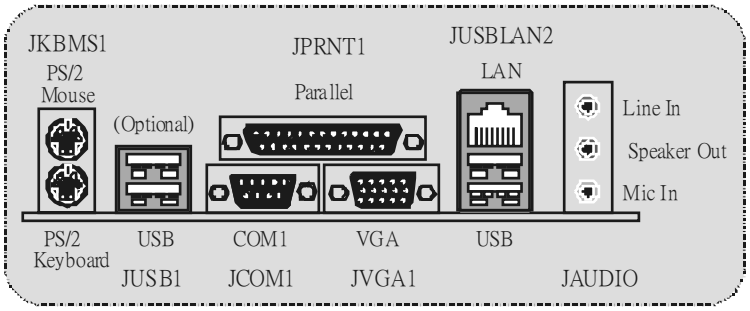
Back Panel Connector



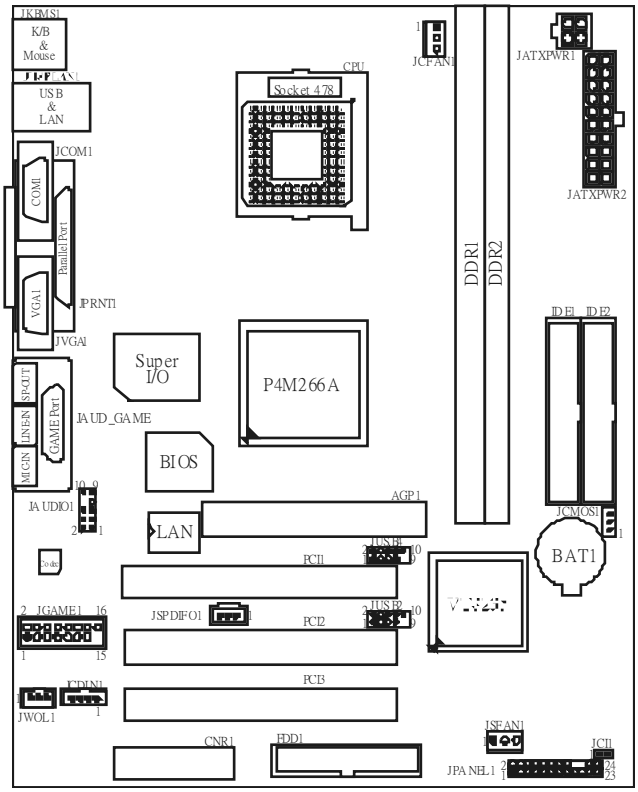
Layout of U8668-D (only for version 5.B & above)



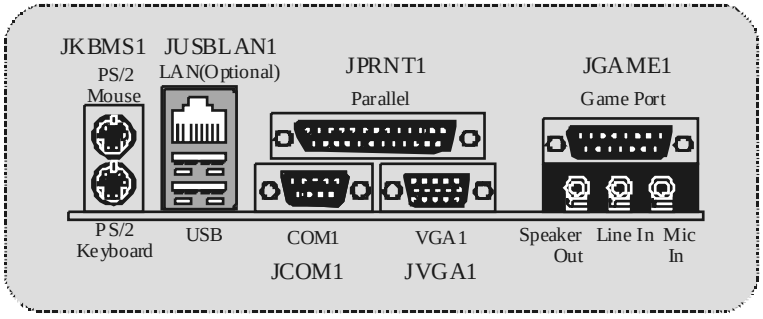
Back Panel Connector



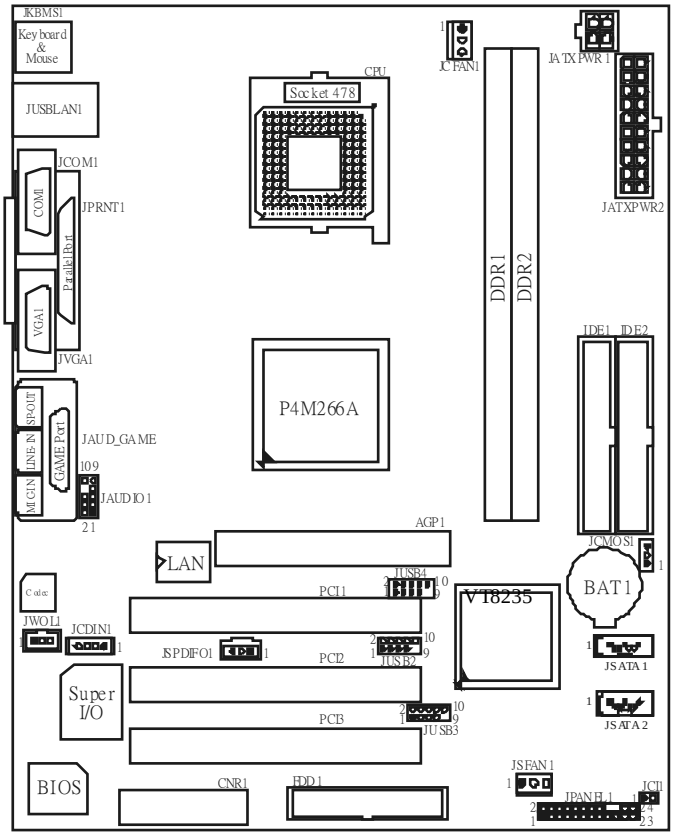
Layout of U8668-D (only for version 7.0~7.3)



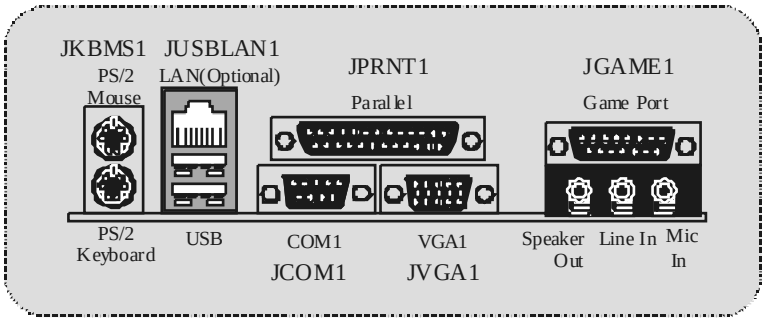
Back Panel Connector



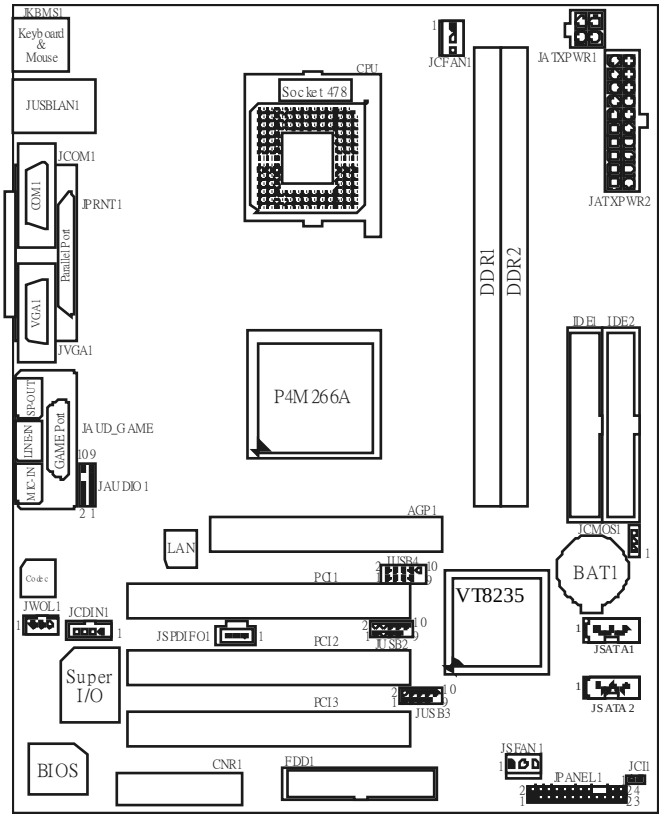
Layout of U8668-D (only for version 7.5~7.7)



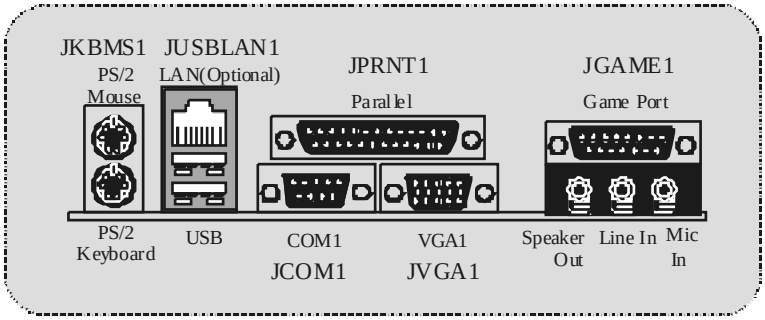
Back Panel Connector



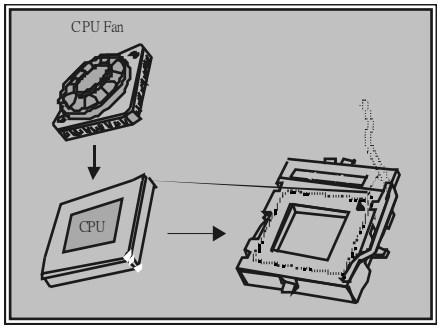
Layout of U8668-D (only for version 7.8 & above)



Back Panel Connector



CPU Installation

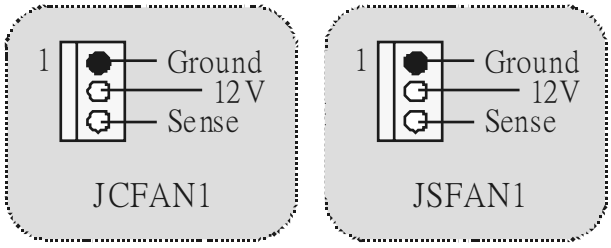


1. Pull the lever sideways away from the socket then raise the lever up to a 90-degree angle.

2. Locate Pin A in the socket and look 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 => optional)



DDR DIMM Modules: DDR1-2

DRAM Access Time: 2.5V Unbuffered/ Registered DDR 200 MHz (PC1600)/ DDR 266 MHz (PC2100) Type required.

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
DDR 2	64MB/128MB/256MB/512MB/1GB *1	2GB

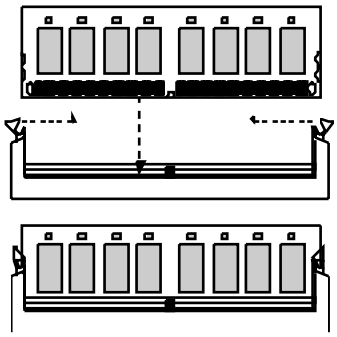
- The list shown above for DRAM configuration is only for reference.

How to install DDR DIMM Module

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

2. Push the tabs out. Insert the DDR DIMM memory modules into the socket at a 90-degree angle, and 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 DDR 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/ 133 functionality. It has two HDD connectors IDE1 (primary) and IDE2 (secondary).
The IDE connectors can connect a master and a slave drive, so you can connect up to four hard disk drives. The first hard drive should always be connected to IDE1.

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.

Audio Modem Riser Slot: AMR1 (only for version 1.x and 6.x)

(Only support slave card)

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

Peripheral Component Interconnect Slots: PCI1-3 (only for version 3.x, 4.x, 5x, 5.A, 5.B, 7.x)

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

Peripheral Component Interconnect Slots: PCI1-2 (only for version 1.x and 6.x)

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.

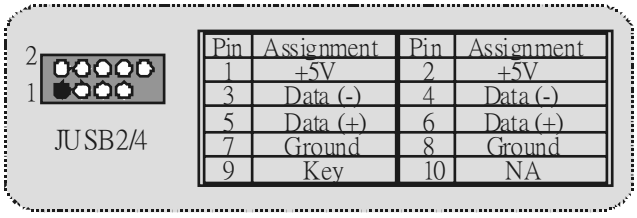
Accelerated Graphics Port Slot: AGP1

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). An AGP card will take advantage of AGP technology for improved video efficiency and performance, especially with 3D graphics.

Communication Network Riser Slot: CNR1 (optional)

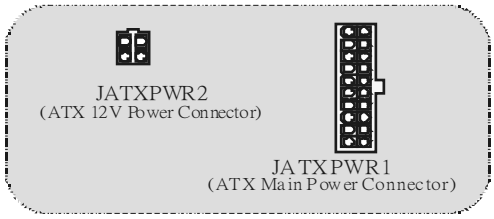
The CNR specification is an open Industry Standard Architecture, and it defines a hardware scalable riser card interface, which supports audio and modem only.

Front USB Header: JUSB2/ (JUSB3=>only for version 5.A & 5.B, 7.2; JUSB4=>only for version 7.x)



Pin	Assignment	Pin	Assignment
1	+5V	2	+5V
3	Data (-)	4	Data (-)
5	Data (+)	6	Data (+)
7	Ground	8	Ground
9	Key	10	NA

Power Connectors: JATXPWR1/ JATXPWR2



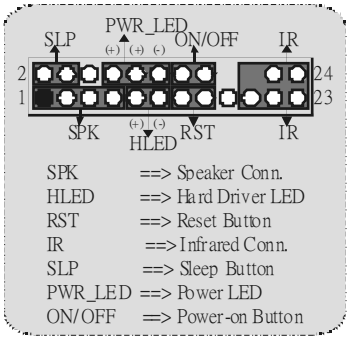
JATXPWR1

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

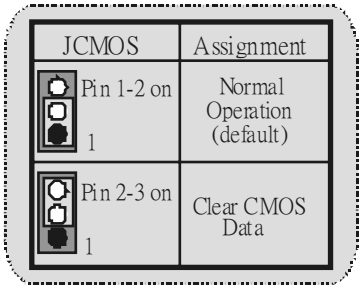
JATXPWR2

PIN	Assignment	PIN	Assignment
1	12V	3	Ground
2	12V	4	Ground

Front Panel Connector: JPANEL1



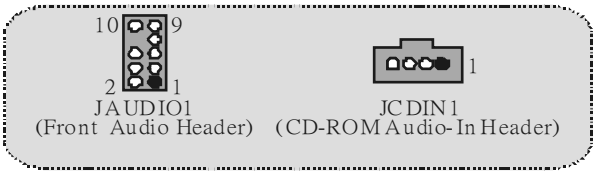
Clear CMOS Jumper: JCMOS

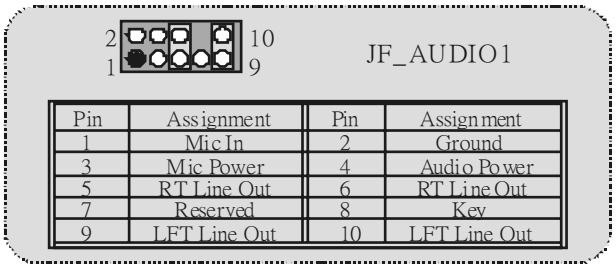


※ **Clear CMOS Procedures:**

1. Remove AC power line.
2. Set JCMOS1 (2-3) closed.
3. Wait for five seconds.
4. Set JCMOS1 (1-2) closed.
5. Power on AC.
6. Reset your desired password or clear the CMOS data.

Audio Subsystem: JAUDIO1/ JCDIN1



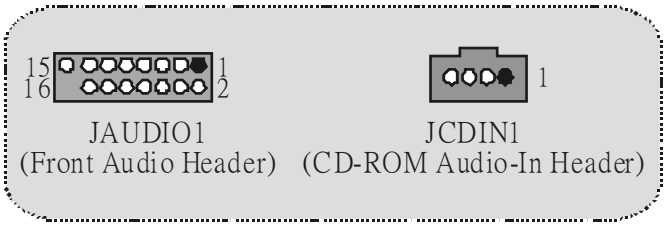


Pin	Assignment	Pin	Assignment
1	Mic In	2	Ground
3	Mic Power	4	Audio Power
5	RT Line Out	6	RT Line Out
7	Reserved	8	Key
9	LFT Line Out	10	LFT Line Out

Front Panel Audio Connector/ Jumper Block

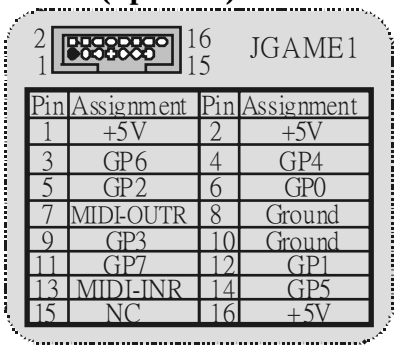
Jumper Setting	Configuration
Pin 5 and 6 Pin 9 and 10	Audio line out signals are routed to the back panel audio line out connector.
No jumpers installed	Audio line out and mic in signals are available for front panel audio connectors.

Audio Subsystem: JCDIN1/ JAUDIO1 (only support for version 5.1 & 5.A)



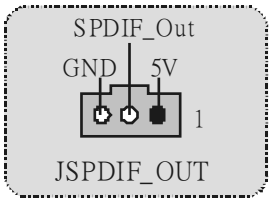
Pin	Assignment	Pin	Assignment
1	Mic In	2	Ground
3	Mic Power	4	Audio Power
5	Right Line Out	6	Right Line Out
7	Reserved	8	NC
9	Left Line Out	10	Left Line Out
11	Surrender Right	12	Surrender Left
13	Center	14	Subwoof
15	Ground	16	KEY

Game Header: JGAME1 (optional)

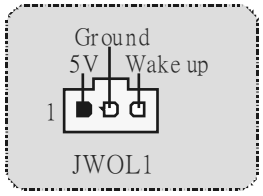


Pin	Assignment	Pin	Assignment
1	+5V	2	+5V
3	GP6	4	GP4
5	GP2	6	GP0
7	MIDI-OUTR	8	Ground
9	GP3	10	Ground
11	GP7	12	GP1
13	MIDI-INR	14	GP5
15	NC	16	+5V

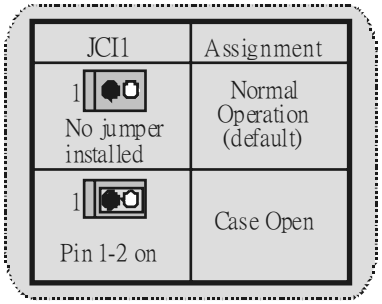
Digital Audio Connector: JSPDIF_OUT1 (optional)



Wake On LAN Header: JWOL1 (optional)

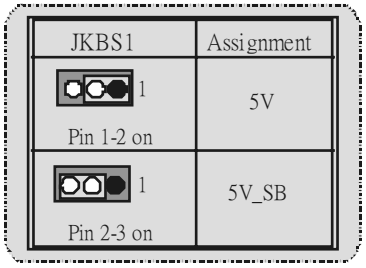


Case Open Connector: JCI1 (optional)

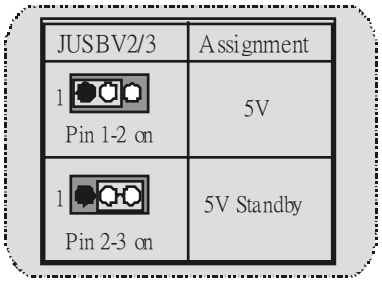


JCI1	Assignment
1 No jumper installed	Normal Operation (default)
1 Pin 1-2 on	Case Open

Power Source Selection for KB/MS and USB0/1: JKBS1 (only for version 3.3 and 5.x, 5.A, 5.B)



Power Source Selection for USB: JUSBV2/ JUSBV3 (only for version 3.3 and 5.x, 5.A, 5.B)



Trouble Shooting

PROBABLE	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
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.
System does not boot from hard disk drive, can be booted from optical 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.
System only boots from optical drive. 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.
Screen message says "Invalid Configuration" or "CMOS Failure"	* Review system's equipment . Make sure correct information is in setup.
Cannot boot system after installing second hard drive.	* Set master/slave jumpers correctly. * Run SETUP program and select correct drive types. Call drive manufacturers for compatibility with other drives.

Español

Características del U8668-D

CPU

- Proporciona Socket-478.
- Soporta procesador Intel Pentium 4 de hasta 3.06GHz.
- Soporta Intel Pentium 4 478 Prescott CPU. (solamente para versión 5.A/5.B en adelante; 7.5 en adelante)
- Corre a 400/ 533MHz Front Side Bus.
- Soporta Tecnología Hyper-Threading.
- La versión 7.8 no admite el procesador Willamette.
- Se recomienda el ventilador de procesador Intel estándar.

Chipset

- North Bridge: P4M266A
- South Bridge: VT8235

Memoria Principal

- Soporta hasta 2 dispositivos DDR.
- Soporta dispositivos DDR de 200/ 266MHz.
- Capacidad máxima de memoria 2GB.

Super I/O

- Chipset: ITE IT8705.

Ranuras

- Dos ranuras de 32-bit PCI bus master. (solamente para versión 1.x y 6.x)
- Tres ranuras de 32-bit PCI bus master. (solamente para versión 3.x, 4.x, 5.x, 5.A, 5.B y 7.x)
- Una ranura CNR. (solamente para versión 3.x, 4.x, 5.x, 5.A, 5.B y 7.x)
- Una ranura AMR. (solamente para versión 1.x y 6.x)
- Una ranura AGP.

IDE Onboard

- Soporta cuarto discos IDE.
- Soporta Modos PIO 4, Modo Master y Modo Ultra DMA 33/66/100/133 Bus Master.

LAN (solamente soporta para versión de placa madre 3.3)

- RealTek RTL8201BL.
- 10/100Mbps.
- Full/Half Duplex.

LAN

- VIA VT6103/6103L (Sólo la versión 7.8 y posteriores admiten el conjunto de chips VT6103L).
- Dual Speed: 10/100Mbps.

- Full/Half Duplex.
- Auto Negociación: 10/100 Mbps, Full/Half Duplex.

AC'97 Sound Codec Onboard
- Chipset: VIA1612A (solamente para versión 3.x, 6.x, y 7.0-7.6)
- Constituye con la especificación del AC'97.
- Soporta 2 canales.

AC'97 Sound Codec Onboard (opcional)
- Chipset: CMI9739A (solamente para versión 1.x, 4.x, 5.x, 5.A , 5.B, 7.7, 7.8 y posteriores)
- Constituye con la especificación del AC'97.
- Soporta 6 canales.

Periféricos Onboard
- Soporta disquette de 360K, 720K, 1.2MB, 1.44MB y 2.88MB.
- Soporta 1 puerto serie.
- Soporta 1 puerto VGA
- Soporta 1 puerto paralelo multi-mode. (modo SPP/EPP/ECP)
- Soporta ratón PS/2 y teclado PS/2.
- Soporta 6 puertos USB2.0 (2 x traseros + 4 x frontales/ 4 x traseros + 2 x frontales.

BIOS
- AWARD legal Bios.
- Soporta APM1.2.
- Soporta ACPI.
- Soporta función USB.

Sistemas Operativos
- Ofrece el más alto funcionamiento para MS-DOS, Windows 2000, Windows Me, Windows XP, SCO UNIX etc.

Dimensiones
- Factor de Forma Micro ATX: 19.5cm X 22.8cm (W X L) (solamente para versión 1.x y 6.x)
- Factor de Forma Micro ATX: 19.5cm x 24.4cm (W X L) (solamente para versión 3.x, 4.x, 5.x, 5.A, 5.B y 7.x)

Contenido del Paquete

- Cable HDD
- Cable FDD
- Manual del Usuario
- Cable USB (Opcional)
- Panel Trasero I/O (Opcional)
- Configuración completa del Driver CD

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.
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.
Sistema no arranca desde el disco rígido, puede ser arrancado desde el unidad óptica.	* 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.
Sistema solamente arranca desde el unidad óptica. 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.
Mensaje de pantalla "Invalid Configuration" o "CMOS Failure."	* Revise el equipo del sistema. Asegúrese de que la información configurada sea correcta.
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.

Français

Caractéristiques de U8668-D

CPU

- Offre les Socket-478.
- Supporte le processeur Intel Pentium 4 jusqu'à 3.06GHz.
- Supporte Intel Pentium 4 478 Prescott CPU. (pour version 5.A/5B, et 7.5)
- Fonctionnant en Bus Frontal de 400/ 533MHz.
- Supporte Hyper-Threading.
- Les versions 7.8 et plus ne sont pas compatibles avec les processeurs Willamette.
- Les ventilateurs pour CPU Intel standard sont recommandés.

Chipset

- North Bridge: P4M266A
- South Bridge: VT8235

Mémoire Principale

- Supporte jusqu'à 2 matériels DDR.
- Supporte des matériels DDR en 200/266MHz.
- La plus grande capacité mémoire est 2Go.

Super E/S

- Chipset: ITE IT8705.

Slots

- Deux slots de maîtrise de bus PCI 32 bits. (seulment pour version 1.x et 6.x)
- Trois slots de maîtrise de bus PCI 32 bits. (seulment pour version 3.x, 4.x, 5.x, 5.A, 5.B, et 7.x)
- Un slot CNR. (seulment pour version 3.x, 4.x, 5.x, 5.A, 5.B et 7.x)
- Un slot AMR. (seulment pour version 1.x et 6.x)
- Un slot AGP

IDE Interne

- Supporte quatre disques durs IDE.
- Supporte PIO Mode 4, le Mode Maître et le Mode de Maîtrise de Bus Ultra DMA 33/66/100/133.

LAN (seulment pour version 3.3)

- RealTek RTL8201BL.
- 10/100Mbps.
- Full/Half Duplex.

LAN

- VT6103/6103L (Seules les versions 7.8 et plus sont compatibles avec le chipset VT6103L).
- Double Vitesse: 10/100Mbps.

- Full/Half Duplex.
- Négociation automatique : 10/100 Mbps, Full/Half Duplex.

Codec Son AC'97 Interne
- Chipset: VIA1612A (seulment pour version 3.x, 6.x et 7.0-7.6)
- Conforme aux spécifications du codec AC'97.
- Supporte 2 canaux.

Codec Son AC'97 Interne (optionnel)
- Chipset: CMI9739A (seulment pour version 1.x, 4.x, 5.x, 5.A, 5.B ,7.7, 7.8 et plus)
- Conforme aux spécifications du codec AC'97.
- Supporte 6 canaux.

Périphériques Internes
- Supporte les lecteurs de disquettes 360K, 720K, 1.2Mo, 1.44Mo et 2.88Mo.
- Supporte 1 port série.
- Supporte 1 port VGA.
- Supporte 1 port parallèle multi-mode. (mode SPP/EPP/ECP)
- Supporte souris PS/2 et clavier PS/2.
- Supporte 6 ports USB2.0 (2 x arrières +4 x avants/4 x arrières + 2 x avants)

BIOS
- AWARD legal Bios.
- Supporte APM1.2.
- Supporte ACPI
- Supporte la Fonction USB.

Système d'Exploitation
- Offre les meilleures performances pour MS-DOS, Windows 2000, Windows Me, Windows XP, SCO UNIX etc.

Dimensions
- Facteur de Forme Micro ATX: 19.5cm X 22.8cm (l X L) (seulment pour version 1.x et 6.x)
- Facteur de Forme Micro ATX: 19.5cm X 24.4cm (l X L) (seulment pour version 3.x, 4x, 5.x, 5.A, 5.B et 7.x)

Contenu de l'Emballage

- Câble de Disque Dur
- Câble de Lecteur de Disquette
- Manuel d'utilisation
- Câble USB (Optionnel)
- Panneau d'E/S Arrière (Optionnel)
- CD de Pilote Complet

Dépannage

PROBLÈME	SOLUTION
Pas d'alimentation au système. Les voyants lumineux ne s'allument pas, le ventilateur à l'intérieur du bloc d'alimentation ne se met pas en marche. Le voyant du clavier ne s'allume pas	* Assurez-vous que le câble d'alimentation est bien branché * Remplacez le câble * Contactez le service d'assistance technique.
Le système ne fonctionne pas. Les voyants du clavier sont allumés, les voyants de l'alimentation aussi, le disque dur tourne.	* En exerçant une pression uniforme sur les deux extrémités du DIMM, poussez le module vers le bas jusqu'à ce qu'il s'enclenche.
Le système ne se réinitialise pas du disque dur, réinitialisation possible depuis le lecteur lecteur optique.	* Vérifiez le câble du disque à la carte du contrôleur de disque. Assurez-vous que les deux extrémités sont bien branchées ; vérifiez le type de lecteur dans la configuration standard de CMOS. * Il est très important d'effectuer des sauvegardes du disque dur. Les disques durs peuvent tomber en panne à n'importe quel moment.
Le système ne se réinitialise que depuis le lecteur optique. Le disque dur peut être lu et les applications sont utilisables mais il est impossible d'effectuer de réinitialisation depuis le disque dur.	* Effectuez une sauvegarde des fichiers des données et d'application. Reformatez le disque dur. Ré-installez les applications et les données sauvegardées sur les disques de secours.
Un message s'affiche indiquant que la configuration n'est pas valide ou qu'il y a une panne du CMOS.	* Vérifiez l'équipement du système. Assurez-vous que les informations de la configuration sont correctes.
Impossible de réinitialiser le système après l'installation d'un deuxième disque dur.	* Réglez les cavaliers maître/esclave correctement. * Exécutez le programme SETUP et sélectionnez les types de lecteur. Contactez les fabricants pour toute question de compatibilité avec les autres disques.

Chapter 3: WarpSpeeder™

3.1 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.

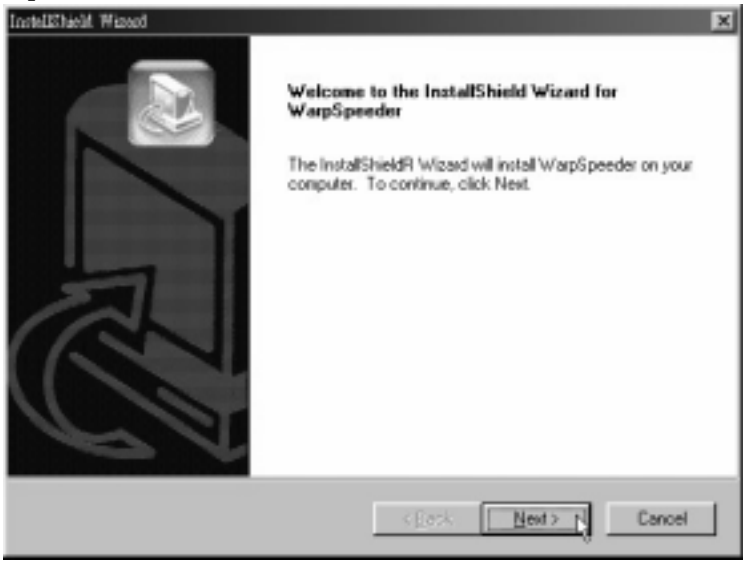
3.2 System Requirement

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

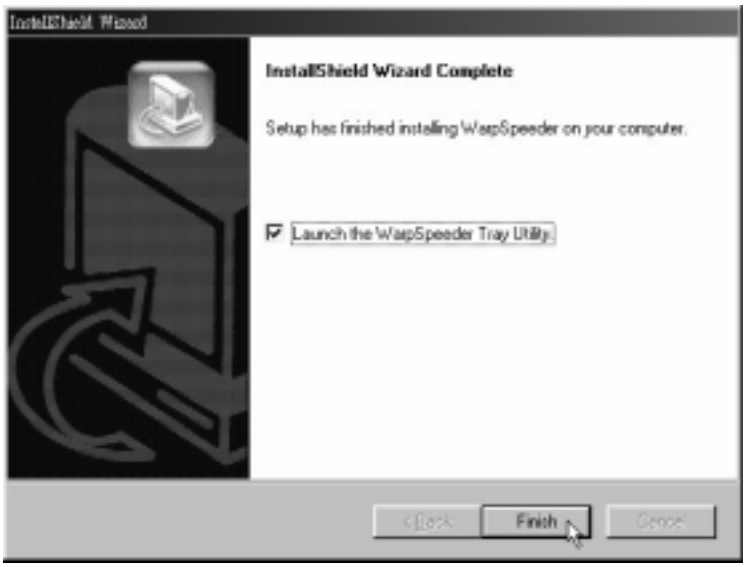
install DirectX 8.1.)

3.3 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.



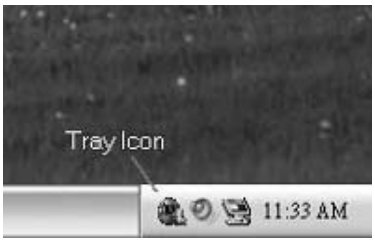
Usage:

The following figures are just only for reference, the screen printed in this user 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 to 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.

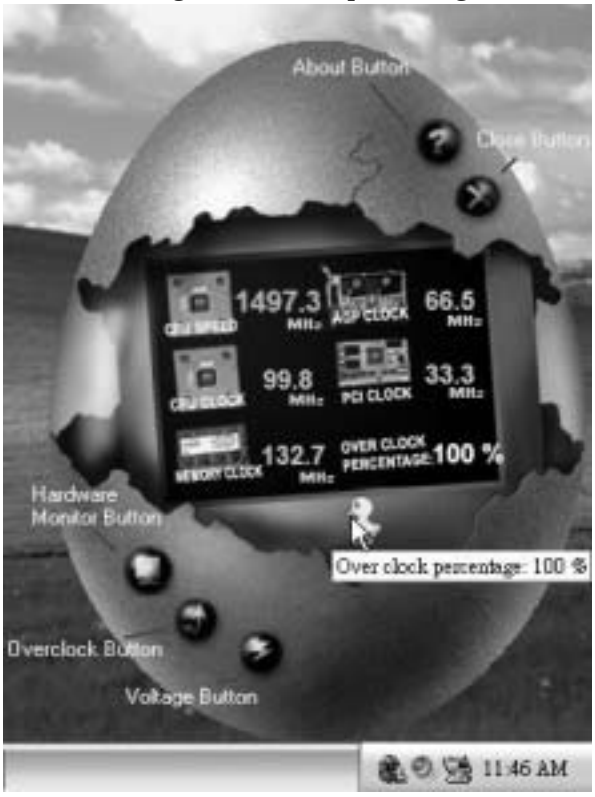
c. With a user-friendly Status Animation, it can represent 3

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

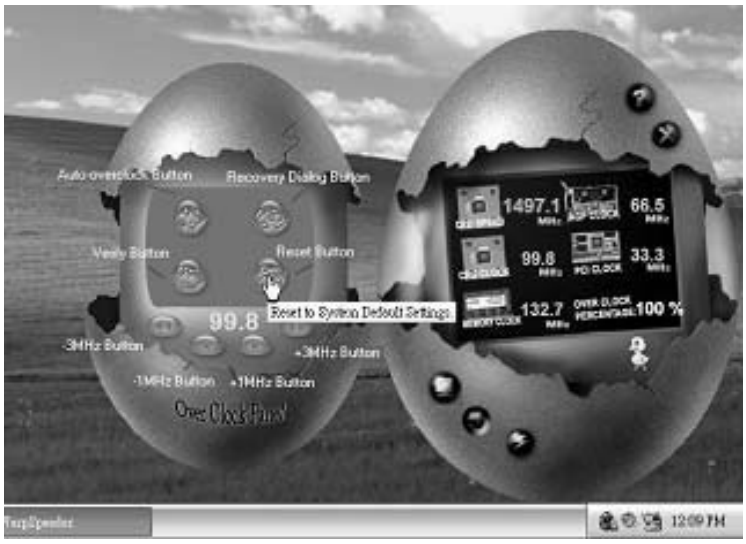
Click the Voltage button in Main Panel, the button will be highlighted and the Voltage Panel will slide out to up as the following figure.

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.



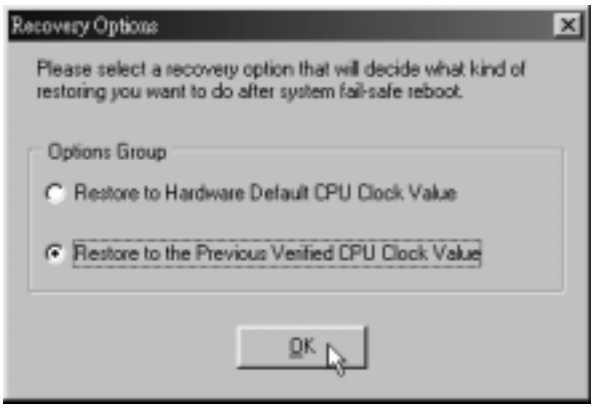
Overdock Panel contains the these features:

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 dick 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.



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

e. "Verify button": User can click this button and [Warp Speeder™] 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 [Warp Speeder™] 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(24/32bit) 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 [Warp Speeder™] utility.

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.

06/29/2004