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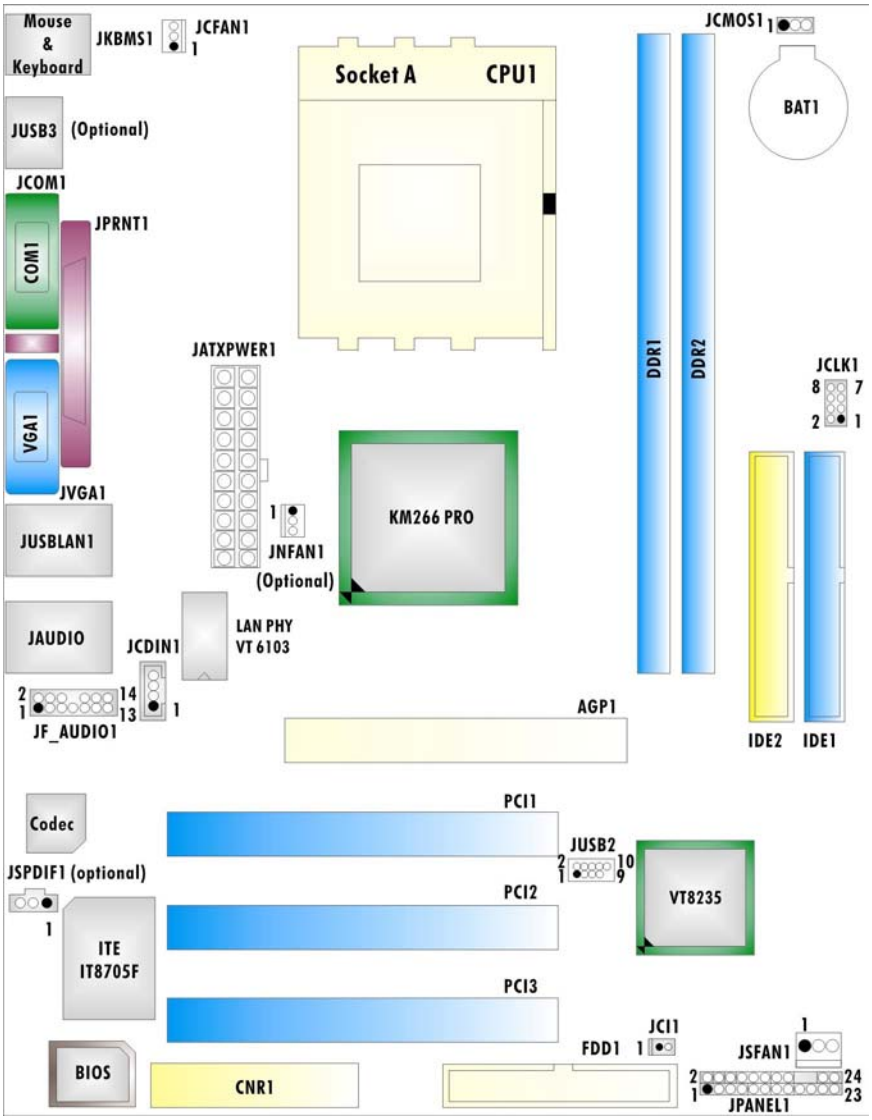
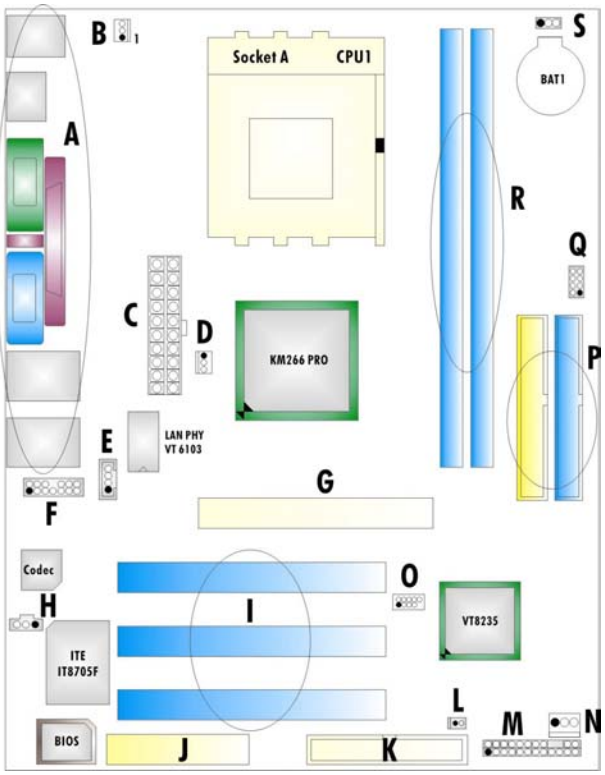
Contents

Layout of M7VIG 400



NOTE: ●represents the first pin.

Components Index



A. Back Panel Connectors
B. CPU Fan Connector (JCFAN1)
C. ATX Power Connector (JATXPWER1)
D. North Bridge Fan Connector (JNFAN1)*
E. CD-ROM Audio-In Header (JCDIN1)
F. Front Audio Header (JF_AUDIO1)
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H. Digital Audio Connector (JSPDIF1)*
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J. Communication Network Riser Slot (CNR1)*
K. Floppy Disk Connector (FDD1)
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M. Front Panel Connector (JPANEL1)
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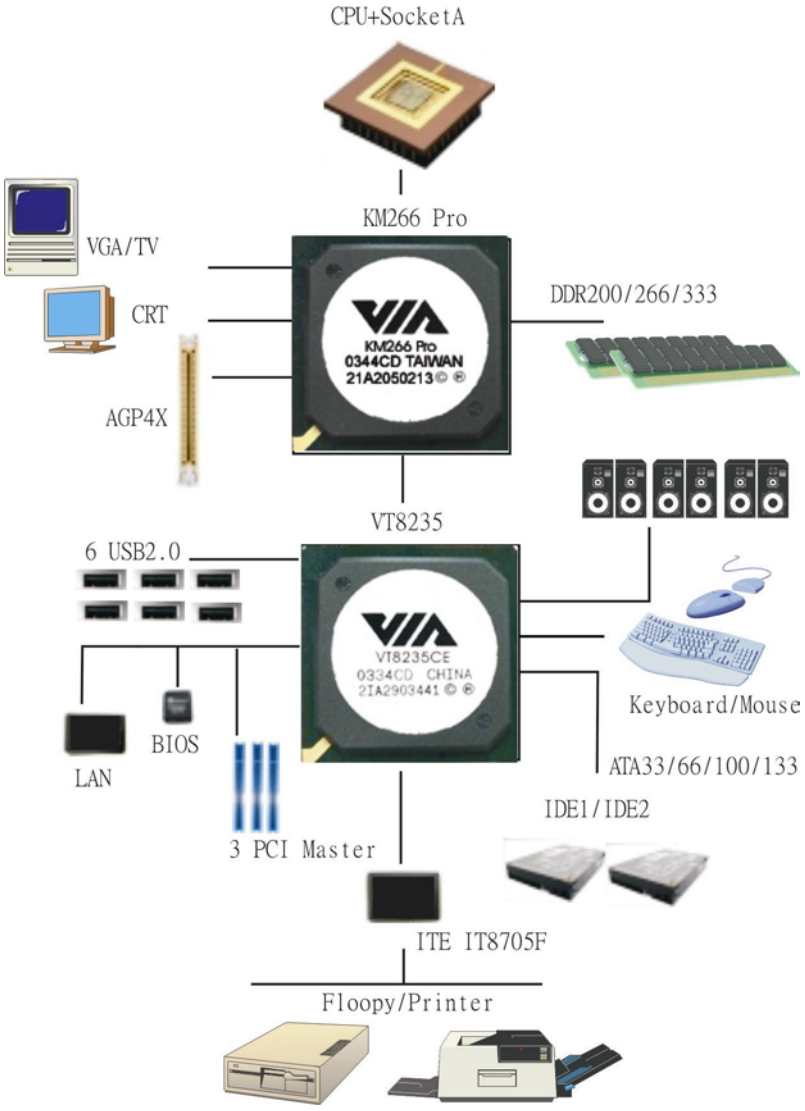
Q. Frequency Selection (JCLK1)
R. DDR Modules (DDR1-2)
S. Clear CMOS Function (JCMOS1)

* stands for “optional”.

M7VIG 400 System Structure



English

M7VIG 400 Features

A. Hardware

CPU

- Provides Socket A.
- Supports single AMD® Athlon XP/ Duron Family processor.
- Front Side Bus at 200/266/333 MHz.

Chipset

- North Bridge: VIA KM266 Pro.
- South Bridge: VIA VT8235.

Main Memory

- Supports up to 2 DDR devices.
- Supports 200/266/333 MHz (without ECC) DDR devices.
- Maximum memory size is 2GB.

Super I/O

- Chip: ITE8705F.
- Provides the most commonly used legacy Super I/O functionality.
- Environment Control initiatives,
  - H/W Monitor
  - ITE's “Smart Guardian” function

Slots

- Three 32-bit PCI bus master slots.
- One CNR slot. (Optional)
- One AGP 4X 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

- PHY: VIA VT6103.
- Supports 10 Mb/s and 100Mb/s auto-negotiation.
- Half-Full duplex capability.

On Board AC’97 Sound Codec

- Chip: CMI9761A.
- Compliant with AC’97 specification.
- Supports 6 channels.
- Supports stereo microphone.

On Board Peripherals

a. Rear side

- 1 serial port.
- 1 VGA port.
- 1 parallel port. (SPP/EPP/ECP mode)
- Audio ports in vertical position.
- 1 RJ-45 LAN jack.
- PS/2 mouse and PS/2 keyboard.
- 4 USB2.0 ports.

b. Front Side

- 1 floppy port supports 2 FDDs with 360K, 720K, 1.2M, 1.44M and 2.88Mbytes.
- 2 USB2.0 ports.
- 1 front audio header.
- 1 S/PDIF Out header. (optional)

Dimensions

- Micro ATX Form Factor: 19.4 cm X 24.4 cm (W X L)

B. BIOS & Software

BIOS

- Award legal BIOS.
- Supports APM1.2.
- Supports ACPI.
- Supports USB Function.

Software

- Supports Warpspeeder™, 9th Touch™, FLASHER™
- Offers the highest performance for Windows 98 SE, Windows 2000, Windows Me, Windows XP, UNIX Series etc.

Package contents

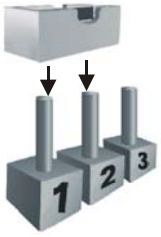
- HDD Cable X 1
- FDD Cable X 1
- User's Manual X 1
- Fully Setup Driver CD X 1
- StudioFun! Application CD X 1 (optional)
- USB 2.0 Cable X 1 (optional)
- S/PDIF Cable X 1 (optional)
- Rear I/O Panel for Micro ATX Case X 1 (optional)

How to set up Jumper

The illustration shows how to set up a jumper. When the Jumper cap is placed on pins, the jumper is “close”. If no jumper cap is placed on the pins, the jumper is ”open”. The illustration shows a 3-pin jumper whose pin 1 and 2 are “close” when jumper cap is placed on these 2 pins.

Jumper open

Jumper close



Pin1-2 close

CPU Installation

Step1: Pull the lever sideways away from the socket and then raise the lever up to a 90-degree angle.

Step2: Look for the white dot/cut edge. The white dot/cut edge should point towards the lever pivot. The CPU will fit only in the correct orientation.

Step3: Hold the CPU down firmly, and then close the lever to complete the installation.

Step4: Put the CPU Fan on the CPU and buckle it. Connect the CPU fan power cable to the JCFAN1. Then the installation is completed.

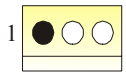
Step1

Step2

Step3

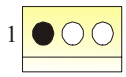
Step4

CPU Fan Header: JCFAN1



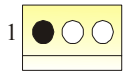
Pin	Assignment
1	Ground
2	+12V
3	FAN RPM rate Sense

System Fan Header: JSFAN1



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

North Bridge Fan Header: JNFAN1 (optional)



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

DDR DIMM Modules: DDR1, DDR2

DRAM Access Time: 2.5V Unbuffered/ DDR 200 MHz (PC1600)/DDR 266 MHz (PC2100)/ DDR 333 MHz (PC2700) 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 2GB
DDR 2	64MB/128MB/256MB/512MB/1GB *1	

Only for reference

Installing DDR Module

1. Unlock a DIMM slot by pressing the retaining clips outward. Align a DIMM to the slot in the way that the notch of the DIMM matches the break of 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.

Jumpers, Headers, Connectors & Slots

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.

Hard Disk Connectors: IDE1/ IDE2

The motherboard has a 32-bit Enhanced PCI IDE Controller that provides PIO Mode 0~5, 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.

Peripheral Component Interconnect Slots: PCI 1-3

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.

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 modem only.

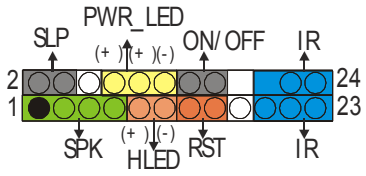
Case Open Connector: JCI1

Pin	Assignment
1	Case Open Signal

JCI1	2	Ground

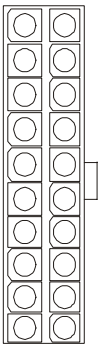
Front Panel Connector: JPANEL1

JPANEL1



Pin	Assignment	Function	Pin	Assignment	Function
1	+5V	Speaker Connector	2	Sleep Control	Sleep Button
3	NA		4	Ground	
5	NA		6	NA	NA
7	Speaker		8	Power LED (+)	POWER LED
9	HDD LED (+)	Hard Drive LED	10	Power LED (+)	
11	HDD LED (-)		12	Power LED (-)	
13	Ground	Reset Button	14	Power Button	Power-on Button
15	Reset Control		16	Ground	
17	NA		18	KEY	
19	NA	IrDA Connector	20	KEY	IrDA Connector
21	+5V		22	Ground	
23	IRTX		24	IRRX	

Power Connectors: JATXPWER1



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	Standby Voltage +5V	19	+5V

JATXPWER1	10	+12V	20	+5V

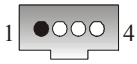
Clear CMOS Jumper: JCMOS1

JCMOS1	Assignment
 Pin 1-2 Close	Normal Operation (default)
 Pin 2-3 Close	Clear CMOS Data

※ Clear CMOS Procedures:

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

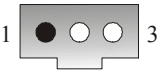
CD-ROM Audio-In Header: JCDIN1



JCDIN1

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

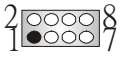
Digital Audio Connector: JSPDIF1 (optional)



JSPDIF1

Pin	Assignment
1	+5V
2	SPDIF_OUT
3	Ground

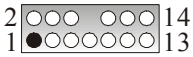
Frequency Selection: JCLK1



Pin	100 MHz	133 MHz	166 MHz
1-2	Close	Open	Open
3-4	Close	Close	Open
5-6	Open	Open	Open

	7-8	Open	Open	Open

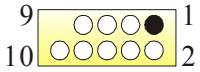
Front Panel Audio Header: JF_AUDIO1



JF_AUDIO1

Pin	Assignment	Pin	Assignment
1	Mic In/ Center	2	Ground
3	Mic Power/ Bass	4	Audio Power
5	Right Line Out/ Speaker Out Right	6	Right Line Out/ Speaker Out Right
7	Reserved	8	Key
9	Left Line Out/ Speaker Out Left	10	Left Line Out/ Speaker Out Left
11	Right Line In/ Rear Speaker Right	12	Right Line In/ Rear Speaker Right
13	Left Line In/ Rear Speaker Left	14	Left Line In/ Rear Speaker Left

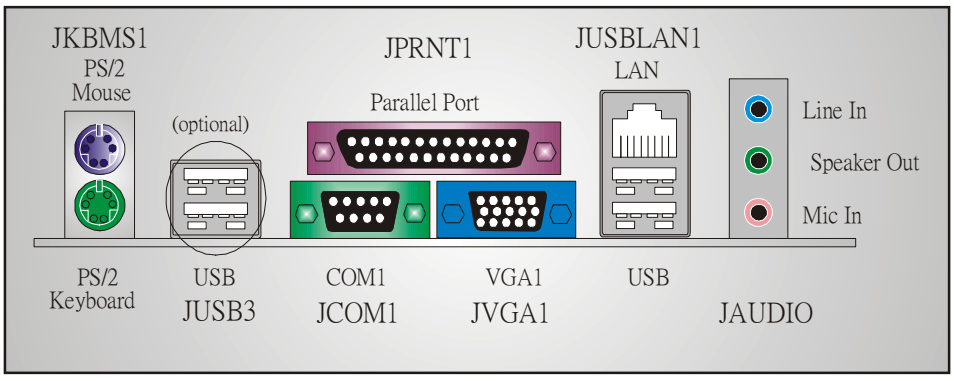
Front USB Header: JUSB2

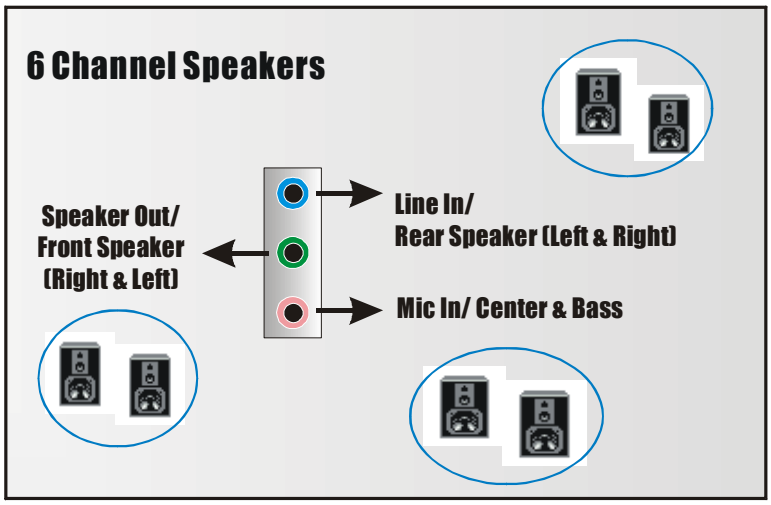


JUSB1/ JUSB2

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

Back Panel Connectors




6 Channel Speakers
Speaker Out/
Front Speaker
(Right & Left)
Line In/
Rear Speaker (Left & Right)
Mic In/ Center & Bass

Français

Caractéristiques de M7VIG 400

A. Matériel

Processeur
- Avec socket A.
- Prise en charge du processeur AMD® Athlon XP/Duron Family.
- Bus frontal à 200/266/333 MHz.

Jeu de puces
- North Bridge : VIA KM266 Pro.
- South Bridge : VIA VT8235.

Mémoire principale
- Prise en charge de deux périphériques 2 DDR.
- Prise en charge des périphériques DDR 200/266/333 MHz (sans ECC).
- Taille maximale de la mémoire :2Go.

Super E/S
- Puce : ITE8705F.
- Interface de Comptage de Broche Faible.
- Offre la fonctionnalité Super E/S héritée la plus couramment utilisée.
- Initiatives de Controle d'Environnement.
  - Moniteur H/W
  - Fonction "Smart Guardian" de ITE

Fentes
- 3 fentes Bus Master PCI à 32 bits.
- Une fente AGP 4X.
- Une fente CNR. (optionnel)

IDE intégré
- Prise en charge de quatre lecteurs de disque IDE.
- Prise en charge de PIO Mode 4 et Ultra DMA 33/66/100/133 Bus Master Mode.

LAN
- PHY : VIA VT6103
- Double Vitesse: 10/100Mbps.
- Full/Half Duplex.
- Négociation automatique : 10/100 Mbps, Full/Half Duplex.

AC'97 Sound Codec intégré

- Puce: CMI 9761A
- Conforme aux spécifications AC'97.
- Interface AC'97 2.3.
- Prise en charge de 6 canaux.
- Prise en charge de la microphone stereo.

Périphériques intégrés

a. Côté arrière

- 1 port série.
- 1 port VGA.
- 1 port parallèle (mode SPP/EPP/ECP)
- 1 port audio en position verticale.
- 1 RJ-45 LAN Jack.
- Souris PS/2 et clavier PS/2.
- 4 ports USB2.0.

b. Côté frontal

- 1 port disquette prenant en charge 2 FDD avec 360K, 720K, 1.2M, 1.44M et 2,88Mo.
- 2 ports USB2.0, 1 Embase Audio, 1 Embase de Sortie S/PDIF (optionnel).

Dimensions

- Facteur de forme ATX : 19.4 cm x 24.4 cm. (Larg x L)

B. BIOS et logiciel

BIOS

- Award legal Bios.
- APM1.2.
- ACPI.
- Fonction USB.

Logiciel

- Prise en charge de Warpspeeder™, 9th Touch™, FLASHER™.
- Offrant la meilleure performance pour Windows 98 SE, Windows 2000, Windows Me, Windows XP, UNIX series etc.

Contenu de l'Emballage

- Câble de Disque Dur X1
- Câble de Lecteur de Disquette X1
- Manuel d'utilisation X1
- CD de Sollicitation StudioFun! X 1 (Optionnel)
- Câble USB 2.0 X1 (Optionnel)
- Panneau d'E/S Arrière pour Boîtier Flex X 1 (Optionnel)
- CD de Pilote Complet X 1
- Câble S/PDIF X 1 (optionnel),

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.

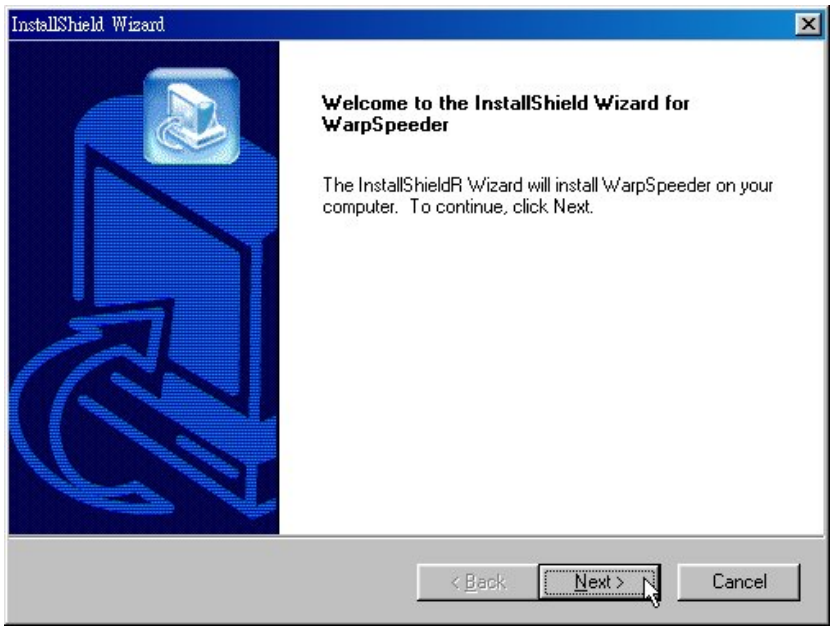
System Requirement

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

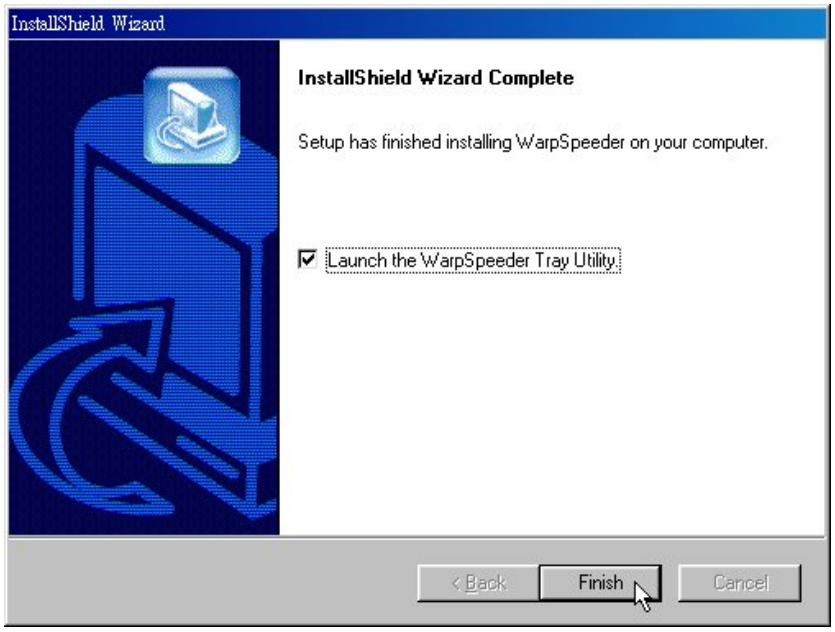
DirectX: DirectX 8.1 or above. (The Windows XP operating system includes DirectX 8.1. If you use Windows XP, you do not need to install DirectX 8.1.)

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.



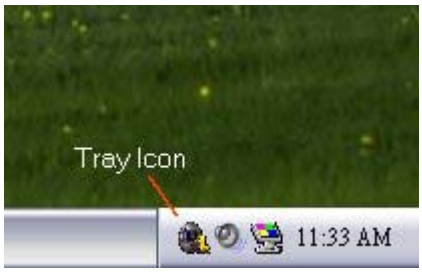
Usage

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

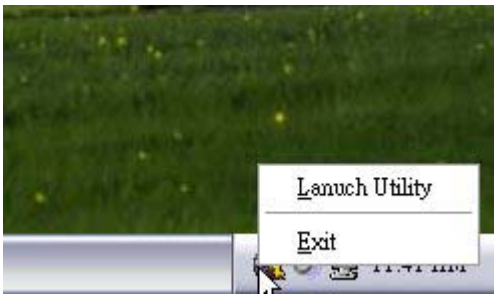
[WarpSpeeder™] includes 1 tray icon and 5 panels:

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

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.

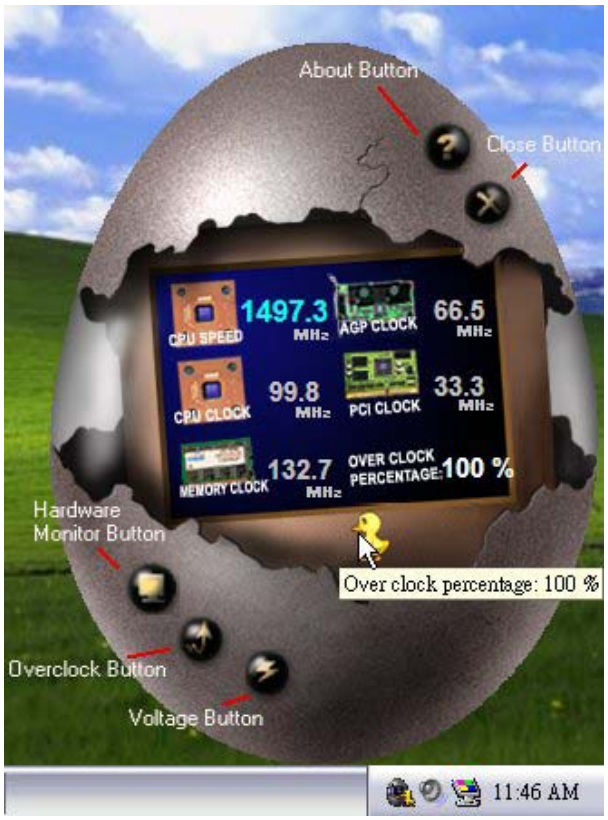
b. Contains About, Voltage, Overclock, and Hardware Monitor Buttons for invoking respective panels.

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

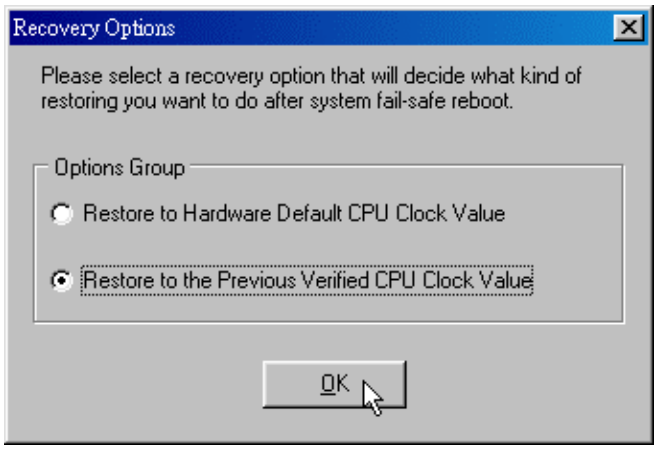
Click the Overclock button in Main Panel, the button will be highlighted and the Overclock Panel will slide out to left as the following figure.

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.



d. "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.

e. "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

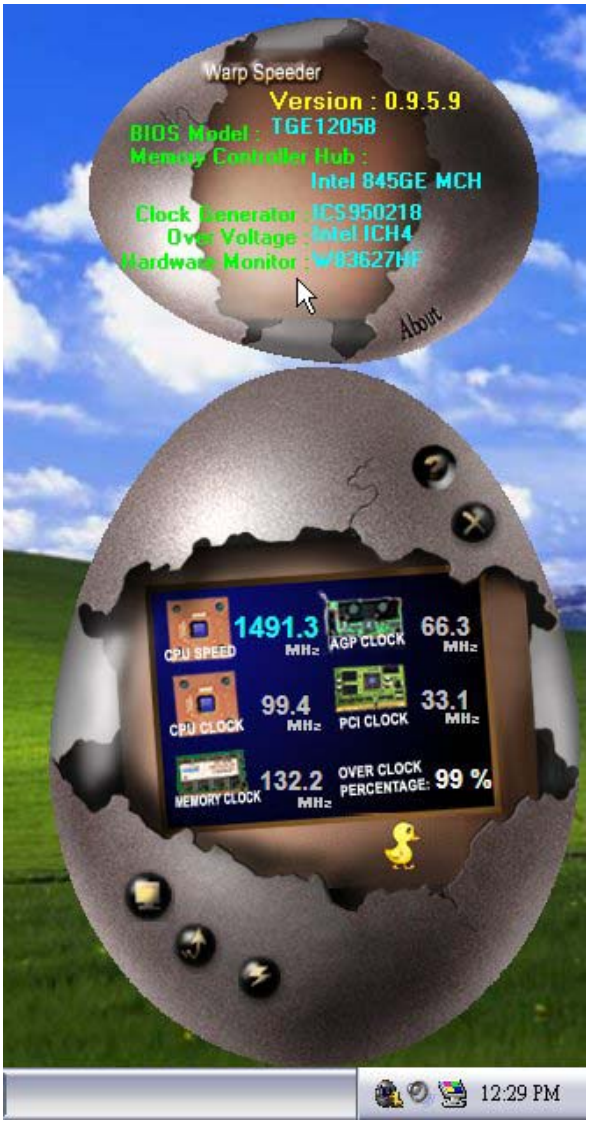
Click the Hardware Monitor button in Main Panel, the button will be highlighted and the Hardware Monitor panel will slide out to left as the following figure.

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.



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

PROBABLE	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.

3/26/2004