



Chapter 1

Introduction

Overview

The WinneX 3E greenmainboard utilizes the Intel first generation integrated graphics chipset — Intel®810E Chipset, providing a fully compatible, high performance and cost-effective PC/microATX platform. The new integrated technologies, together with the software configurable AC'97 audio and modem system give customers an advanced, multimedia solution at an extremely low price. It provides 66/100/133MHz system bus support for all Intel Pentium®III, Pentium®II, and Celeron™ Slot1 processors. SDRAMs are supported up to 512MB. It also provides advanced features such as Wake-on-LAN, Wake-on-Modem and Keyboard Password Power-on functions. Suspend to RAM, the optimal implementation of the Advanced Configuration and Power Interface (ACPI) specification, makes the PC's power consumption drop to the lowest possible level and enable quick wakeup. ManageEasy, our system management application is also supplied to enable remote monitoring and configuration of the system.

Flexibility in Designing Cost-effective System

The Intel®810E Chipset is a high-integration chipset which consists of a Graphics and Memory Controller HubE (GMCH) Host Bridge and an I/O Controller Hub (ICH) Bridge. The Intel®810E Chipset System provides added flexibility in designing cost-effective solutions.

Intel®810E: GMCH (Intel®82810E) + ICH (Intel®82801AA)

Added features:

- Includes 4MB, 32-bit 100/133MHz SDRAM Display Cache.
- Supports Ultra ATA/66.

Key Features

Form factor

- MicroATX form factor of 244mm x 195mm.

Microprocessor

- Supports Intel® Pentium®III Processors at 533/600/667/733MHz and future processors with 133MHz bus speed.
- Supports Intel® Pentium®III Processors at 450/500/550/600/700MHz and future processors with 100MHz bus speed.
- Supports Intel® Pentium®II Processors at 300/350/400/450MHz and future processors with 100MHz bus speed.
- Supports Intel® Pentium®II Processors at 233/266/300/333MHz and future processors with 66MHz bus speed.





- Supports Intel® Celeron™ Slot1 Processors at 266/300/333/366/400/433/466/500MHz and future processors with 66MHz bus speed.
- Supports 66/100/133MHz host bus speed.
- The CPU core voltage adjustable from 1.3V to 3.5V automatically through onboard switching voltage regulator with VID(Voltage ID).
- Provides onboard 1.5V, 1.8V, 2.5V and 3.3V standby regulator.

System memory

- Provides two 168 pin 3.3V unbuffered DIMM sockets.
- Supports 64-bit wide DIMM modules with 100MHz SDRAM devices.
- Supports 8MB to 256MB SDRAM using 16Mb/64Mb technology.
- Supports 512MB SDRAM using 128Mb technology.
- Supports suspend to RAM.

Onboard IDE

- Supports two PCI PIO and Bus Master IDE ports.
- Two fast IDE interfaces supporting four IDE devices including IDE hard disks and CD-ROM drives.
- Supports up to PIO Mode 4 timing.
- Supports "Ultra ATA/33" Synchronous DMA modes, transferring data up to 33MB/s.
- Supports "Ultra ATA/66" Synchronous DMA modes, transferring data up to 66MB/s.
- Integrated 16x32bit buffer for IDE PCI Burst Transfers.

Onboard I/O

- Winbond W83627HF LPC I/O chip.
- One floppy port supporting up to two 3.5" or 5.25" floppy drives with 360K/720K/1.2M/1.44M/2.88M format.
- Two high speed 16550 compatible UART (COM1/COM2/COM3/COM4 selective) with 16-byte send/receive FIFOs.
- USB host interface supporting 2 USB ports.
- One joystick port.
- Provides onboard MIDI/Joystick Connector.
- Infrared interface.
- All I/O ports can be enabled/disabled in the BIOS setup.

Onchip AGP

- Integrated 2D/3D Graphics Controller.
- Integrated H/W Motion Compensation Engine.
- Provides 4MB SDRAM Display Cache.

Onboard Sound

- Intel AC' 97 2.1 Specification Compliant.
- 18bit stereo codec.





- Multiple stereo input mixer.
- Mono and stereo volume control.
- Provides onboard Line-in Jack, Microphone-in Jack, Speaker-out Jack.

Advanced features

- PCI 2.2 Specification Compliant.
- Provides Trend ChipAwayVirus® On Guard.
- Supports Windows 95/98 software power-down.
- Supports Wake-on-LAN and Wake-on-Modem.
- Supports Keyboard Password Power-on function.
- Onboard I/O Winbond 83627HF supports system monitoring (monitors CPU and system temperatures, system voltages, chassis intrusion and fan speed).
- Supports management applications such as LDCM (LANDesk® Client Manager) or QDI's ManageEasy. (manufacturing option)
- Provides onboard 3.3V regulator to support ATX power supply without 3.3V output.
- System status resumes after AC power failure.
- Supports QDI's innovations such as SpeedEasy, RecoveryEasy etc.
- Protects the system BIOS from being attacked by severe virus such as CIH.
- Supports Suspend to RAM.

BIOS

- Licensed advanced AWARD BIOS, supports flash ROM with 4Mb memory size, plug and play ready.
- Supports IDE CD-ROM or SCSI boot up.

Green function

- Supports ACPI (Advanced Configuration and Power Interface) and ODPM (OS Directed Power Management).
- Supports four ACPI power states: Full-on, Stop Grant, Suspend to RAM, and soft-off.

Expansion slots

- 3 PCI slots.
- 1 AMR.





Introduction to New Features

FWH(Firm ware Hub) Protection

The BIOS of the mainboard is inside the FWH. Some severe viruses such as CIH virus are so dangerous that it may overwrite the BIOS of the mainboard. If the BIOS has been damaged, the system will be unable to boot. We provide the following solution which protects the system BIOS from being attacked by such viruses.

Here are two choices which implements this function.

1. Set the jumper (JAV) as closed, the BIOS can not be overwritten.
2. Set the jumper (JAV) as open, meanwhile set "Flash Write Protect" as Enabled in AWARD BIOS CMOS Setup. In this way, the BIOS can not be overwritten, but the DMI information can be updated.

Refer to page **16** for detailed information on jumper setting, and page **26** for related BIOS setting.

Suspend to RAM

Suspend to RAM is a cost-effective, optimal implementation of the Advanced Configuration and Power Interface (ACPI) 1.0 specification, which makes a PC's power consumption drop to the lowest possible level and enables quick wakeup. When the system is in Suspend-to-RAM status, the system context is maintained in system memory, the system consumes only a small fraction of the power used for full operation. Instead of shutting down the system to save power when not in use and then having to reboot later, Suspend-to-RAM solution enables the system to quickly wake up, restoring all applications and features, enabling operation in a few seconds.

To implement this function, the following requirements are essential:

1. Power supply requirements: The current of 5VSB line of the power supply should be more than 0.75A.
2. The BIOS option "ACPI function" should be enabled, and "ACPI Suspend Type" should be set as S3 in AWARD BIOS CMOS setup. Refer to page **28** for detailed information.





3. An ACPI-enabled operating system such as Windows 98 is needed.
Navigate to the CD-ROM drive from the MS-DOS Command Prompt and enter the following from the Win98 directory on the CD:

D:\SETUP /P J

(This manual assumes that your CD-ROM device driver letter is D:)

Windows 98 will be installed with ACPI enabled.

4. Three ways to enter Suspend-to-RAM status under ACPI-enabled Windows 98:
 - Click Start -> Shut down -> Standby to enable the system to enter Suspend-to-RAM status.
 - Click Start -> Setup -> Control Panel -> Power Management -> Advanced and choose Standby item, the system will enter Suspend-to-RAM status when you press power button.
 - From Power Management Properties in Control Panel, set the latency time in System Standby, the system will enter Suspend-to-RAM status when time out.

The same ways used to power up the system can be used to wake up the system from Suspend-to-RAM status. For example, pushing the power button, through the Wake-on-LAN, Wake-on-Modem function or RTC Alarm. If the keyboard password power-on function is enabled, the keyboard password should be used to wake up the system instead of pushing the power button.

Ultra ATA/66

According to the previous ATA/IDE hard drive data transfer protocol, the signaling way to send data was in synchronous strobe mode by using the rising edge of the strobe signal. The Ultra ATA/33 protocol doubles the burst transfer rate from 16.6MB/s to 33.3MB/s, by using both the rising and falling edges of the strobe signal, this time Ultra ATA/66 doubles the Ultra ATA burst transfer rate once again (from 33.3MB/s to 66.6MB/s) by reducing setup times and increasing the strobe rate. The faster strobe rate increases EMI, which cannot be eliminated by the standard 40-pin cable used by ATA and Ultra ATA. To eliminate this increase in EMI, a new 40-pin, 80-conductor cable is needed. This cable adds 40 additional ground lines between each of the original 40 ground and signal lines. The additional 40 lines help shield the signal from EMI, reduce crosstalk and improve signal integrity.





Ultra ATA/33 introduced CRC (Cyclical Redundancy Check), a new feature of IDE that provides data integrity and reliability. Ultra ATA/66 uses the same process. The CRC value is calculated by both the host and the hard drive. After the host-request data is sent, the host sends its CRC to the hard drive, and the hard drive compares it to its own CRC value. If the hard drive reports errors to the host, then the host retries the command containing the CRC error.

Ultra ATA/66 technology increases both performance and data integrity. However there are basically five requirements for your system to run in Ultra ATA/66 mode:

1. The system board must have a special Ultra ATA/66 detect circuit, such as WinneX 3E mainboard.
2. The system BIOS must also support Ultra ATA/66.
3. The operating system must be capable of DMA transfers. Win95 (OSR2) and Win98 are capable.
4. An Ultra ATA/66 capable, 40-pin, 80-conductor cable is required.
5. Ultra ATA/66 compatible IDE device such as a hard drive or CD-ROM drive.





Chapter 2

Installation Instructions

This section covers External Connectors and Jumper Settings. Refer to the mainboard layout chart for locations of all jumpers, external connectors, slots and I/O ports. Furthermore, this section lists all necessary connector pin assignments for your reference. The particular state of the jumpers, connectors and ports are illustrated in the following figures. Before setting the jumpers or inserting these connectors, please pay attention to the directions.

Be sure to unplug the AC power supply before adding or removing expansion cards or other system peripherals, otherwise your mainboard and expansion cards might be seriously damaged.

External Connectors

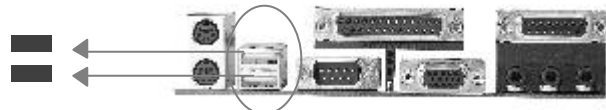
PS/2 Keyboard Connector, PS/2 Mouse Connector

PS/2 keyboard connector is for the usage of PS/2 keyboard. If using a standard AT size keyboard, an adapter should be used to fit this connector. PS/2 mouse connector is for the usage of PS/2 mouse.



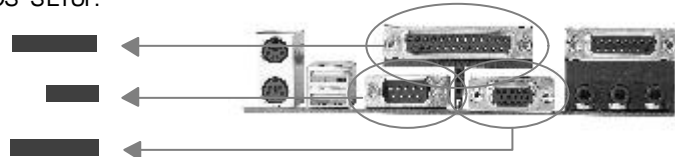
USB1, USB2

Two USB ports are available for connecting USB devices.



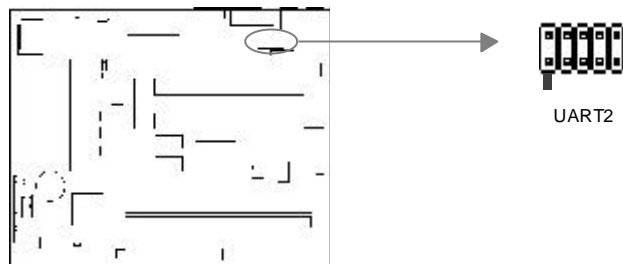
Parallel Port Connector, Monitor Output Connector and Serial Port Connector (Printer, VGA Monitor, UART1, UART2)

The parallel port connector can be connected to a parallel device such as a printer, while the serial port connector can be connected to a serial port device such as a serial port mouse. The monitor output connector is for output to a VGA-compatible device. You can enable/disable them and choose the IRQ or I/O address in "Integrated Peripherals" from AWARD BIOS SETUP.





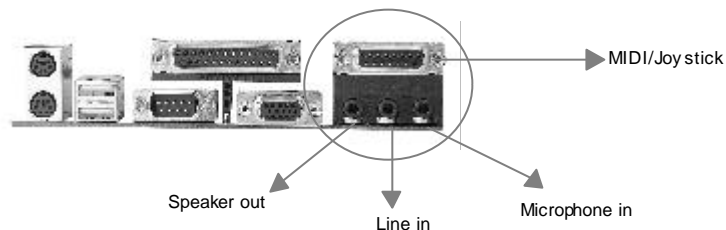
The serial port UART2 is not available on the back panel. Therefore, we provide a 9-pin ribbon cable with bracket for UART2 port. (manufacturing option)



Line-in Jack, Microphone-in Jack, Speaker-out Jack and MIDI/Joystick Connector

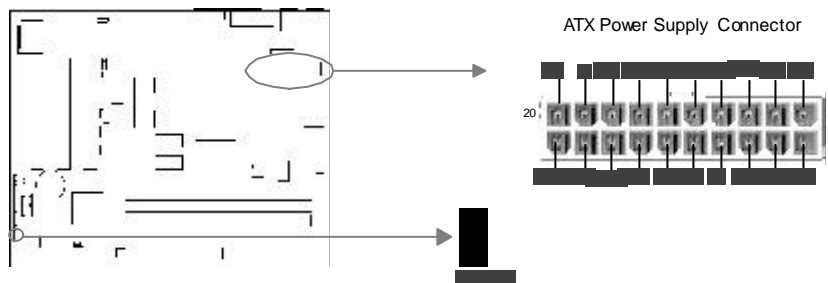
The Line-in jack can be connected to devices such as a cassette or minidisc player for playback or recording. The Microphone-in jack can be connected to a microphone for voice input. The Speaker-out jack allows you to connect speakers or headphones for audio output from the internal amplifier.

The MIDI/Joystick connector allows you to connect a game joystick or a MIDI device.



ATX Power Supply Connector & Power Switch (POWER)

Be sure to connect the power supply plug to this connector in its proper orientation. The power switch (POWER) should be connected to a momentary switch. When powering up your system, first turn on the mechanical switch of the power supply (if one is provided), then push once the power switch. When powering off the system, you needn't turn off the mechanical switch, just ***Push once*** the power switch.



**Note:**

If you change “Soft-off by PWR-BTTN” from default “Instant-off” to “Delay 4 Secs” in the “POWER MANAGEMENT SET UP” section of the BIOS, the power switch should be pressed for more than 4 seconds before the system powers down.

Hard Disk LED Connector (HDLED)

The connector connects to the case's IDE indicator LED indicating the activity status of IDE hard disk. The connector has an orientation. If one way doesn't work, try the other way.

Reset Switch (RESET)

The connector connects to the case's reset switch. Press the switch once, the system resets.

Speaker Connector (SPEAKER)

The connector can be connected to the speaker on the case.

Power LED Connector (PWR_LED)

The power LED has two status. When the system is in power-off status, the LED is off. When the system is powered up, the LED is on. The connector has an orientation.

Key-Lock Connector (KEY_L)

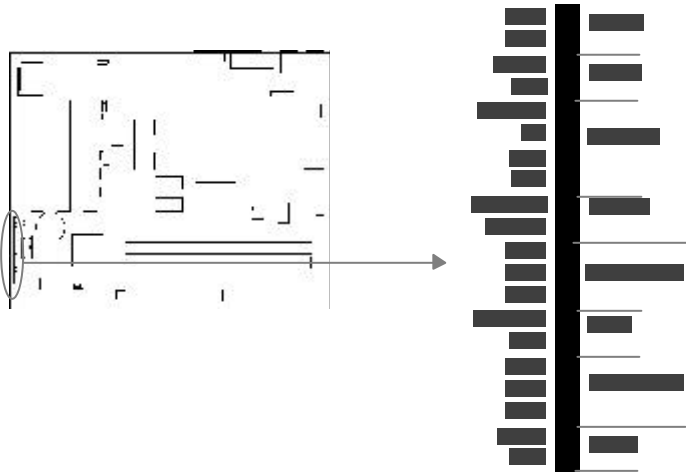
The connector can be connected to the keyboard lock switch on the case for locking the keyboard.

ACPI LED Connector (GREEN_LED)

The ACPI LED has four status. When the system is in power-off status, the LED is off. When first time plug in the 220V power supply, the LED is dimmish. When the system is powered up, the LED is on. When the system enters suspend mode(including Suspend to RAM status), the LED will flash. The connector has an orientation.

Hardware Green Connector (SLEEP)

Push once the switch connected to this header, the system enters suspend mode.





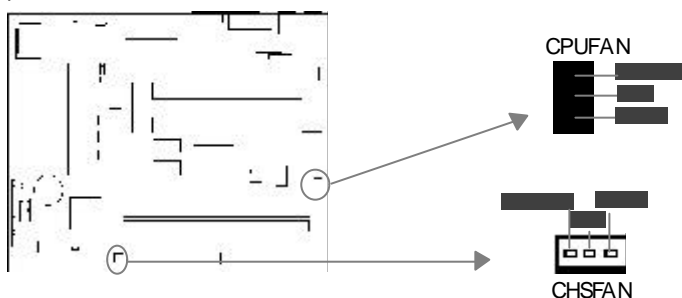
Infrared Header (IrDA)

This connector supports wireless transmitting and receiving. When using this function, configure the settings for IR Address, IR Mode and IR IRQ from the “INTEGRATED PERIPHERALS” section of the BIOS.



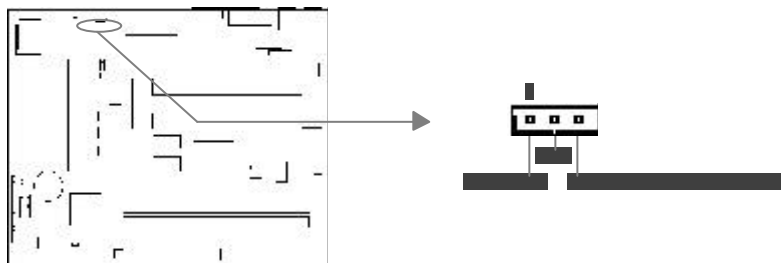
Fan Connector (CPUFAN, CHSFAN)

The fan speed of these two fans can be detected and viewed in “PC Health” section of the BIOS. These two fans will be automatically turned off after the system enters suspend mode.



Wake-Up On LAN (WOL)

Through the Wake-Up On LAN function, a wake event occurring from the network can wake up the system. If this function is to be used, please be sure an ATX 2.01 power supply of which 5VSB line is capable of delivering 720mA, and a LAN adapter which supports this function is used. Then connect this header to the relevant connector on the LAN adapter, set “Wake-Up by LAN/Ring” as Enabled in the “POWER MANAGEMENT SETUP” section of the BIOS. Save & exit, then boot the operating system once to make sure this function takes effect.





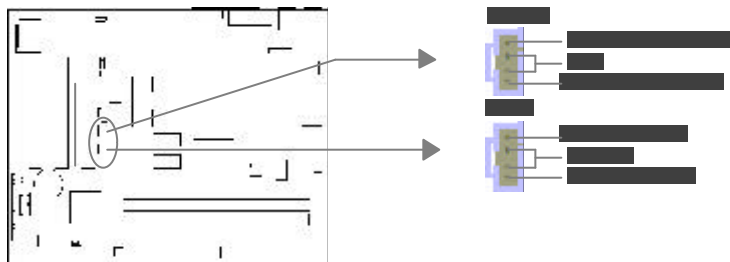
Wake-Up On Internal Modem (WOM)

Through the Wake-Up On Internal Modem function, the system which is in the power-off status can be powered on by a ring signal received from the internal modem. If this function is to be used, be sure an internal modem card which supports this function is used. Then connect this header to the relevant connector on the modem card, set "Wake-Up by LAN/Ring" to Enabled in the "POWER MANAGEMENT SETUP" section of the BIOS. Save & exit, then boot the operating system once to make sure this function takes effect.



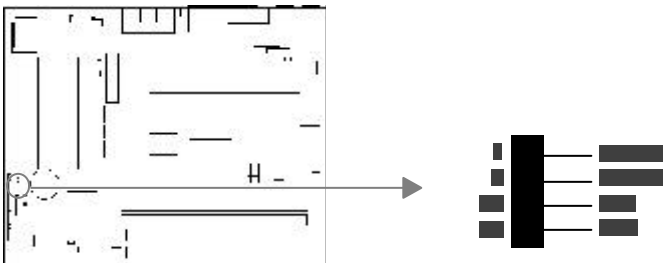
Audio Connector (CDLIN, MODEM)

CDLIN is a Sony standard CD audio connector, it can be connected to a CD-ROM drive through a CD audio cable. The MODEM connector allows the onboard audio to interface with a voice modem card with a similar connector. It also allows the sharing of mono_in (such as a phone) and mono_out (such as a speaker) between the onboard audio and the voice modem card.



4 pin SMBus Connector(SMBUS)

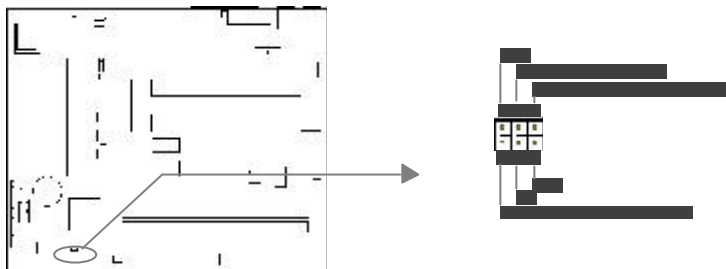
This connector allows you to connect SMBus devices. SMBus devices communicate by means of the SMBus with an SMBus host and/or other SMBus devices. The SMBus or System Management Bus is a specific implementation of an I²C bus, which is a multi-master bus, that is, multiple chips can be connected to the same bus and each one can act as a master by initiating data transfer.





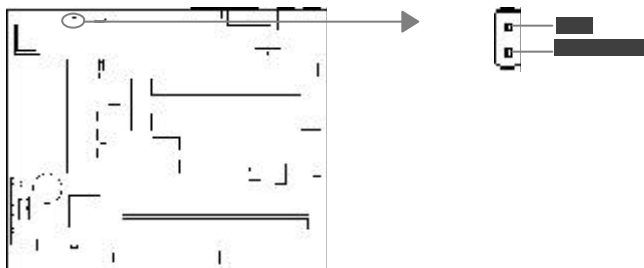
Sound Connector (PC-PCI)

This connector provides a bridge between the mainboard and PCI sound card to deliver sound compatibility under DOS real-mode environment.



Chassis Security Switch (CHSSEC)

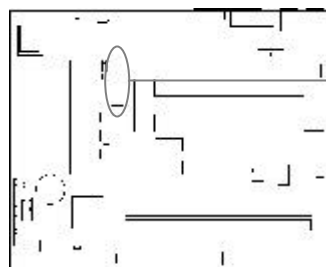
The connector connects to the chassis security switch on the case. The system can detect the chassis intrusion through the status of this connector. If the connector has been closed once, the system will record the status and indicate the chassis has been opened. You can receive this information from QDI ManageEasy software.



Audio/Modem Riser Interface Connector (AMR)

The AMR Interface Connector is the interface between the mainboard and the Audio/Modem Riser card. The connector provides all necessary signals which supports several different configurations of audio and modem in the system, such as audio and modem on the Riser, audio on the mainboard and modem on the Riser, or no audio with modem on the Riser. WinneX 3E mainboard provides you with audio onboard solution, onboard audio can be enabled/disabled. Either AMR (Audio/Modem Riser) card or MR (Modem Riser) card can be used on this system. If you choose to use the audio on AMR card, the onboard audio can be set as disabled. This software configurable AC' 97 audio and modem sub-system gives customers an advanced, multimedia solution at an extremely low price.





AMR Interface Connector

Expansion Slots & I/O Ports Description

Slot / Port	Description
PCI 1	First PCI slot
PCI 2	Second PCI slot
PCI3	Third PCI slot
IDE 1	Primary IDE port
IDE 2	Secondary IDE port
AMR	AMR slot
FLOPPY	Floppy Drive Port

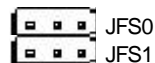
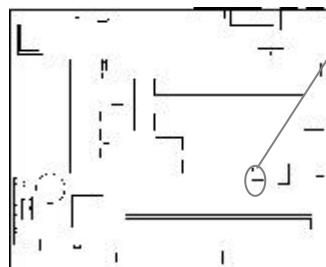
Jumper Settings

Jumpers are located on the mainboard, they represent, clear CMOS jumper JCC, enable keyboard password power-on function jumper JKB, and enable/disable onboard audio jumper JSD etc. Pin 1 for all jumpers are located on the side with a thick white line (Pin1→), referring to the mainboard's silkscreen. Jumpers with three pins will be shown as to represent pin1 & pin2 connected and to represent pin2 & pin3 connected. For default jumper settings, please refer to the following table:

JFS0	1-2 (Auto)	JKB	1-2 (Enable KB Power-on)
JFS1	1-2 (Auto)	JUSB	1-2 (Enable USB Wake-Up)
JCC	2-3 (Normal Status)	JSB	Closed (Connect PCI 3.3Vsb)
JSD	2-3 (Enable Audio)	JAV	Open (Enable Flash BIOS)

Overclocking Jumper Setting (JFS0, JFS1)

Jumpers labeled JFS0 and JFS1 are located on the mainboard providing users with CPU overclocking feature. The host bus speed can be set as 66/100/133MHz or AUTO select. Refer to the chart below for the location of these jumpers, and the table for information on how to set them.



CPU FSB	66MHz	100MHz	133MHz	AUTO
JFS0	2-3	OPEN	OPEN	1-2
JFS1	2-3	2-3	OPEN	1-2

'1-2' represents pin1 & pin2 closed.

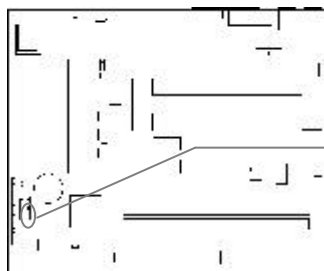
'2-3' represents pin2 & pin3 closed.



If CPU FSB is set as default setting Auto, the system detects the CPU front side bus automatically. If CPU FSB is set as 100MHz, the system will run at 100MHz even if a processor with 66MHz or 133MHz FSB is installed. Setting up to 133MHz using processors with 100MHz bus speed is also supported. However, whether or not the system can be overclocked depends on your processor's capability. Whether the processor is bus ratio locked or unlocked should also be taken into account. For bus ratio unlocked processor, this overclocking feature can be implemented by setting CPU FSB as 100/133MHz, meanwhile adjusting the bus ratio(multiplier) lower in "CPU SpeedEasy Setup" in AWARD BIOS CMOS Setup. We do not guarantee the overclocking system to be stable.

Clear CMOS (JCC)

If you want to clear CMOS, unplug the AC power supply first, close JCC (pin1 & pin2) once, set JCC back to the normal status with pin2 & pin3 connected, then power on the system.



Normal status:



JCC

Clear CMOS:

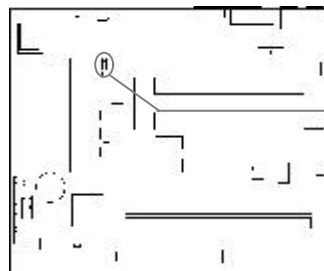


JCC

(Unplug the AC power supply)

Enable/Disable On-board Audio CODEC (JSD)

If you want to use the on-board audio CODEC, set JSD with pin2 & pin3 closed (default). Otherwise, set JSD with pin1 & pin2 closed for disabling this function.



Enable on-board audio:



JSD

Disable on-board audio:

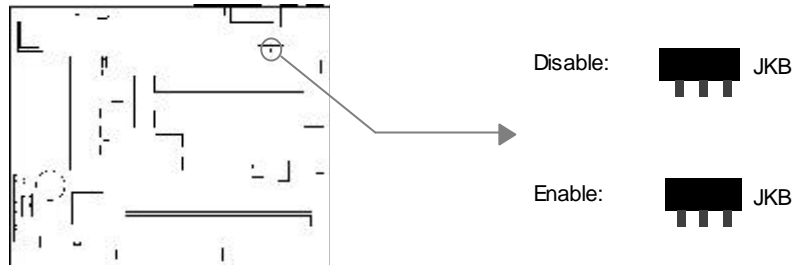


JSD

Enable Keyboard Password Power-on Function (JKB)

The mainboard provides the advanced keyboard password power-on function. Before using this function, set JKB with pin1 & pin2 closed. Otherwise, set JKB with pin2 & pin3 closed for disabling.





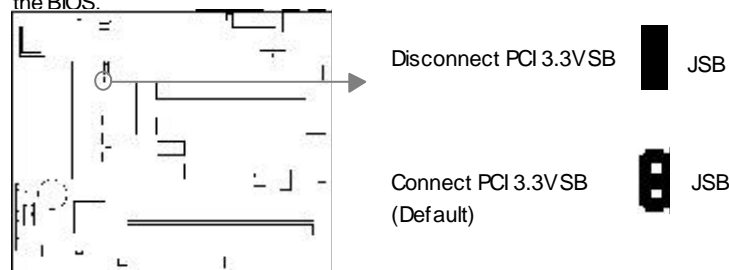
Furthermore in order to implement this function, set “POWER ON Function” to Password and enter the keyboard power-on password in the “INTEGRATED PERIPHERALS” section of the BIOS. Save and exit, then power off your system. In this case, the power button’s power-on function has been disabled.

Note:

1. If using this function, 5VSB line of the power supply should be capable of delivering enough current (eg. 200mA) for all the devices connected to the keyboard port, if not, you will be unable to power up the system using the keyboard.
2. If you set JKB with pin2 & pin3 closed, set “POWER ON Function” to **BUTTON ONLY**, don’t set it to Password, or you’ll be unable to power up your system by the keyboard or the power button.
3. If you encounter the above problems, clear CMOS and set the jumper and BIOS option again.

PCI 3.3VSB Voltage Jumper (JSB)

Setting JSB open can disconnect the 3.3VSB voltage to PCI slots. This can prevent the motherboard from being damaged if you add or remove expansion cards without unplugging the AC power supply. However, if you want to use the PCI 2.2 specification compliant expansion cards to wake up the system, for example, a network card which supports wake-up on LAN function but without the WOL header, or if you want to use an AMR card, set JSB as closed, meanwhile set “Wake-Up by PCI card” as enabled in “Power Management Setup” section of the BIOS.

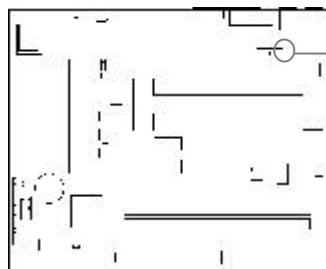


Note: If AMR card is used, this jumper must be set as default setting closed.



Enable USB Device Wake-up Function (JUSB)

The mainboard provides the advanced USB device wake-up function. The system can be waken up from its power saving including ACPI S3 by activating USB device. Before using this function, set JUSB with pin1 & pin2 closed. Otherwise, set JUSB with pin2 & pin3 closed for disabling.

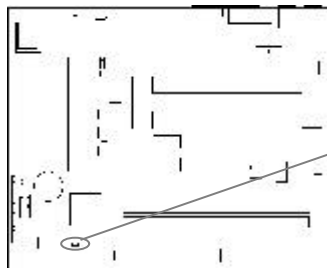



Disable:  JUSB

Enable:  JUSB

FWH Protection Jumper (JAV)

The BIOS of the mainboard is inside the FWH. If the jumper JAV is set as closed, you will be unable to flash the BIOS to the mainboard. However in this status, the system BIOS is protected from being attacked by serious virus such as CIH virus.



Flash Write Disabled  JAV

Flash Write Enabled  JAV

Setting the jumper JAV as open (default), meanwhile disabling the "Flash Write Protect" item in AWARD BIOS CMOS Setup, allows you to flash the BIOS to the flash ROM in FWH.

The DMI (Desktop Management Interface) system information such as the CPU type/speed, memory size, and expansion cards will be detected by the onboard BIOS and stored in the flash ROM in FWH. Whenever the system hardware configuration is changed, DMI information will be updated automatically. However, setting jumper JAV as closed makes flashing BIOS and updating DMI information impossible.

Refer to page 4 for the two choices to implement FWH Protection function.





Installation of All Drivers

A QDIMainboard Utility CD-ROM is supplied with each mainboard. All drivers can be installed from this CD-ROM. Before installing all the drivers, check the system requirements such as the enough system memory (at least 32MB for Windows 95/98 system or 64MB for Windows 2000 system) and enough disk space. Windows 95 or Windows 98 must be fully installed and running on the system. All running applications should be closed before installing these drivers.

1. Install INF File for Intel® 810E Chipset

The INF Files for Intel® Chipset 810E contains Windows device installation (*.INF) files that outline to the operating system how the chipset components shall be configured for the proper functionality. Under Windows 95/98, run \ChipDrv\Intel\Whitney\inf\Setup.exe for installation. Please refer to README.TXT in the directory \ChipDrv\Intel\Whitney\inf\ for more information.

2. Install INF Utility Files for Intel® 810E Chipset

Under Windows 95/98, run \ChipDrv\Intel\Whitney\inf utility\Setup.exe for installation. Please refer to README.TXT in the directory \ChipDrv\Intel\Whitney\inf utility\ for more information.

3. Install VGA Drivers

Under Windows 95/98 English version, run \ChipDrv\Intel\Whitney\Display\win9x\Graphics\Setup.exe for installation.

Under Windows 95/98 Chinese version, the VGA driver should be installed manually from the **Display Properties** Window. Locate the directory to \ChipDrv\Intel\Whitney\Display\win9x\Graphics\Win9x when prompted.

Please refer to README.TXT in the directory \ChipDrv\Intel\Whitney\Display\win9x for more information.

Under Windows NT 4.0, run \ChipDrv\Intel\Whitney\Display\NT40\Graphics\Setup.exe for installation.

Please refer to README.TXT in the directory \ChipDrv\Intel\Whitney\Display\NT40\ for more information.

Under Win2000, the VGA driver should be installed manually. For installation guide, refer to README.TXT in the directory \ChipDrv\Intel\Whitney\Display\win2k.

4. Install Sound Drivers

Under Windows 95, run \DevDrv\Codec\ad1881\95\driver\Setup.exe for installation.

For WaveSynth MIDI function under Windows 95, ich.inf contained in the directory \DevDrv\Codec\ad1881\95\95synth should be installed. (Point to the file ich.inf --- Right click the mouse --- select install).

Under Windows 98, run \DevDrv\Codec\ad1881\98\Setup.exe for installation.

Under Windows NT 4.0, run \DevDrv\Codec\ad1881\nt40\driver\Setup.exe for installation.

Regarding the WaveSynth MIDI function under Windows NT 4.0, please refer to README.TXT in the directory \DevDrv\Codec\ad1881\nt40\MIDI.



PC-cillin 98

New viruses are appearing frequently; the chance of your PC being infected increases; antivirus softwares are becoming a must. PC-cillin 98 offers you full-time active virus protection as well as manual scans, plus virus clean capability. Keeping up to date on the latest threats and updating significant files are crucial in keeping antivirus software effective. PC-cillin 98 provides Free Virus Pattern File Updates from the Trend Micro Website:

<http://www.trend.com/download/pattern.htm> or

<http://www.antivirus.com/download/pattern.htm>.

Installation of PC-cillin 98

For Windows 95/98 English version, run Setup.exe for installation from the utility CD directory \Pccillin\Win9x.

For Windows 95/98 Chinese version, run Setup.exe for installation from the utility CD directory \Pccillin\PWin9x.

For Windows NT 4.0, run Setup.exe for installation from the utility CD directory \Pccillin\WinNT4.0.

S/N is PNEF-9991-6558-5857-5535.

QDI ManageEasy

It is well known that guaranteeing the computer's security and reliability is essential. Especially today, effectively managing and monitoring the computer's hardware is even more important; because processing and exchanging critical data through computer and network are happening everyday. Moving with the computer's development, the system of the computer will become more and more complex; at the same time, the control of computer's hardware will be strengthened. Today, it is possible to monitor and manage your complex hardware from Windows 9X and Windows NT. QDI ManageEasy is a system tool, like a bridge between the complex hardware and OS, used to access hardware status and to execute some control functions. It supports stronger functions for Windows 9X and Windows NT. These functions enable you to view more than one hundred of the basic information about your computer and monitor some key reference data about computer health in real time. QDI ManageEasy also helps you to use remote access and control computers in your local area network. With QDI ManageEasy, you can improve your management level.

Installation of QDI ManageEasy V2.0

Run Setup.exe from the utility CD directory \QME2 to install the QDI ManageEasy V2.0. The QDI ManageEasy Setup Wizard will guide you through the installation process.

For detailed information on how to use QDI ManageEasy V2.0, please refer to the QDI ManageEasy V2.0 online help.

Additional Information

When you change a new CPU, whose bus ratio has not been locked, and is lower than that of the previous one, be sure to clear CMOS once before boot up, otherwise the previous CPU's higher bus ratio saved in CMOS will still take effect, and the new CPU may not work at that high speed.





Chapter 3

BIOS Description

Utility Support:

AWDFLASH.EXE

This is a flash memory write/read utility used for the purpose of upgrading your BIOS when necessary. Before doing so, please note:

- **We strongly recommend you only upgrade BIOS when encounter problems.**
- **Before upgrading your BIOS, review the description below to avoid making mistakes, destroying the BIOS and resulting in a non-working system.**

When you encounter problems, for example, you find your system does not support the latest CPU released after our current mainboard, you may therefore upgrade the BIOS, please don't forget to set JAV as open (please refer to page 16) and disable the "Flash Write Protect" item in AWARD BIOS CMOS Setup first (please refer to page 26).

Follow the steps exactly for a successful upgrade.

1. Create a bootable system floppy diskette by typing Format A:/s from the DOS prompt under DOS6.xx or Windows 9x environment.
2. Copy AWDFLASH.EXE (version>7.07) from the directory \Utility located on QDI Mainboard Utility CD onto your new bootable diskette.
3. Download the updated BIOS file from the Website (<http://www.qdigrp.com>). Please be sure to download the suitable BIOS file for your mainboard.
4. Uncompress the file download, copy the BIOS file (xx.bin) onto the bootable diskette, and note the checksum of this BIOS which is located in readme file.
5. Reboot the system from the bootable diskette created.
6. Then run the AWDFLASH utility at the A:\ prompt as shown below:
A:\AWDFLASH xxxx.bin

Follow the instruction through the process. Don't turn off power or reset the system until the BIOS upgrade has been completed.

If you require more detailed information concerning AWDFLASH Utility, for example, the different usage of parameters, please type A:\>AWDFLASH/?

Note: AWDFLASH.EXE (version>7.07) utility must be used to upgrade the WinneX 3E mainboard BIOS instead of QDI flash utility. So far QDI flash utility — **FLASH.EXE (V1.3)** does not support the Flash EPROM on WinneX 3E mainboard.





AWARD BIOS Description

Entering Setup

Power on the computer, when the following message briefly appears at the bottom of the screen during the POST (Power On Self Test), press key or simultaneously press the <Ctrl> + <Alt> + <Esc> keys, to enter the AWARD BIOS CMOS Setup Utility.

Press to enter SETUP

Once you have entered, the Main Menu (Figure 1) appears on the screen. The main menu allows you to select from eleven setup functions and two exit choices. Use the arrow keys to select among the items and press the <Enter> key to accept or enter the sub-menu.



Figure-1 Main Menu

Load Optimized Defaults

The Optimized Defaults are common and efficient. It is recommended users load the optimized defaults first, then modify the needed configuration settings.

Standard CMOS Features Setup

The basic CMOS settings included in “Standard CMOS Features” are Date, Time, Hard Disk Drive Types, Floppy Disk Drive Types, and VGA etc. Use the arrow keys to highlight the item, then use the <PgUp> or <PgDn> keys to select the value desired in each item.





CMOS Setup Utility - Copyright (C) 1994 - 1996 Award BIOS					
Default Main: Default Secondary: Default Tertiary: Default Quaternary:					
IDE HDD Auto-Detect	Force FDI	Help			
IDE Primary Master	Auto	<input type="checkbox"/> No Diskette <input checked="" type="checkbox"/> HD To add or remove the HDD's drive, refer to the manual on this option.			
Secondary Master	0 MB				
Quaternary Master	Auto				
Cache	2				
Mode	2				
Frequency	2				
Busling 20/25	2				
Center	2				

Exit : Select Item
 F10: Exit without
 F2: Load Defaults
 F5: Load Defaults
 F9: Save
 F10: Exit
 F1: Help
 F1: General Help

Hard Disk

Primary Master/Primary Slave/Secondary Master/Secondary Slave

CYLS	number of cylinders	HEAD	number of heads
PRECOMP	w rite pre-compensation	LANDZ	landing zone
SECTOR	number of sectors	MODE	HDD access mode



The Award BIOS supports 3 HDD modes: NORMAL, LBA and LARGE.

NORMAL

Generic access mode in which neither the BIOS nor the IDE controller will make any transformation during accessing. The maximum number of cylinders, heads and sectors for NORMAL mode are 1024, 16 and 63.

If the user sets his HDD to NORMAL mode, the maximum accessible HDD size will be 528 megabytes even though its physical size may be greater than that.

LBA (Logical Block Addressing) mode

A new HDD accessing method to overcome the 528 Megabyte bottleneck. The number of cylinders, heads and sectors shown in setup may not be the number physically contained in the HDD.

During HDD accessing, the IDE controller will transform the logical address described by sector, head and cylinder number into its own physical address inside the HDD. The maximum HDD size supported by LBA mode is 8.4 Gigabytes.

LARGE mode

Some IDE HDDs contain more than 1024 cylinder without LBA support (in some cases, users do not want LBA). The Award BIOS provides another alternative to support these kinds of HDD.

BIOS tricks DOS (or other OS) into dividing the number of cylinders is less than 1024 by dividing it by 2. At the same time, the number of heads is multiplied by 2. A reverse transformation process will be made inside INT13h in order to access the right HDD address.

If using Auto detect, the BIOS will automatically detect the IDE hard disk mode and set it as one of the three modes.

Remark

To support LBA or LARGE mode of HDDs, there must be some softwares involved which are located in Award HDD Service Routine (INT13h). It may fail to access a HDD with LBA (LARGE) mode selected if you are running under an Operating System which replaces the whole INT 13h.





Video

Set this field to the type of video display card installed in your system.

EGA/ VGA	Enhanced Graphics Adapter / Video Graphic Array. For EGA, VGA, SEGA, SVGA, or PGA monitor adapters.
CGA 40	Color Graphic Adapter, powering up in 40 column mode.
CGA 80	Color Graphic Adapter, powering up in 80 column mode.
MONO	Monochrome adapter, including high resolution monochrome

Halt On

This category determines whether or not the computer will stop if an error is detected during powering up.

No errors	The system boot will not stop for any errors that may be detected.
All errors	Whenever the BIOS detects a non-fatal error, the system will stop and you will be prompted.
All, But Keyboard	The system boot will not stop for a keyboard error; but it will stop for all other errors.
All, But Diskette	The system boot will not stop for a disk error; but it will stop for all other errors.
All, But Disk/Key	The system boot will not stop for a keyboard or disk error, but it will stop for all other errors.

Memory

This is a Display-Only Category, determined by POST (Power On Self Test) of the BIOS.

Base Memory	The POST of the BIOS will determine the amount of base (or conventional) memory installed in the system.
Extended Memory	The BIOS determines how much extended memory is presented during the POST.
Other Memory	This is the memory that can be used for different applications. Shadow RAM is most used in this area.
Total Memory	Total memory of the system equals the sum of the above memory.





CPU SpeedEasy Setup

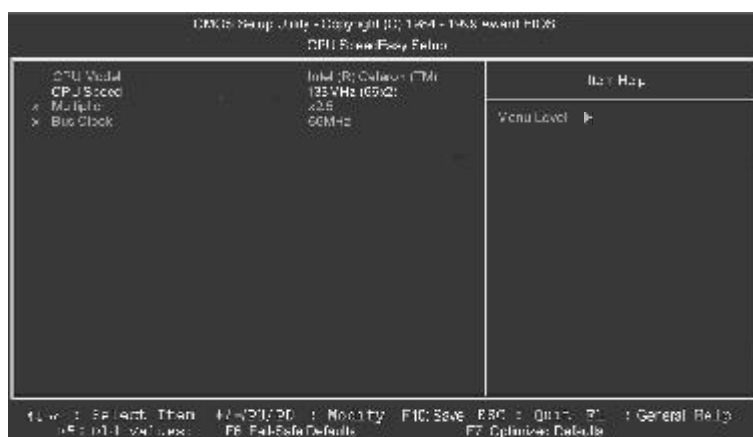


Figure-3 CPU SpeedEasy Setup Menu

The following indicates the options for each item and describes their meaning.

<u>Item</u>	<u>Option</u>	<u>Description</u>
● CPU Speed	<i>Jumper Emulation</i>	This item is only for users who understand all the CPU parameters, i.e. system bus frequency, "66MHz" and multiplication of processor core frequency for system bus frequency "x2.5, x3, x3.5, x4, x4.5, x5, x5.5, x6, x6.5, x7, x7.5, x8".
	133MHz(66x2)	Selects the CPU speed according to your CPU brand and type.
	166MHz(66x2.5)	
	.	
	.	
	.	
	533MHz(66x8)	
	200MHz(100x2)	
	250MHz(100x2.5)	
	.	
	.	
	.	
	800MHz(100x8)	

