

XP-P4S8X-VM

Intel® Pentium® 4 Processor Motherboard

User's Manual

M-050702

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Terms of Use

To avoid unnecessary errors of operation, please consult the user manual prior to hardware installation. For more up-to-date information, please link to our company website at <http://www.axper.com.tw>

Prior to beginning installation procedures, please make sure that your computer turned off and is connected to a grounded power outlet. If your system is not turned off during installation, this could result in harm or damage to the motherboard, the components as well as to the user.

Declaration of Conformity

Wir, Hersteller/Importeur
 Gigatrend Technology Co., Ltd.
 Ausschlager Weg 41, D-73537 Heimbach, Germany
 declare that the product
 (Description of the apparatus, system, installation to which it refers)
**Motherboard
 XP-P4S8X-VM**
 is in conformity with
 (Reference to the specification to which conformity is declared)
 in accordance with 89/339/EEC (EMC Directive)

- | | | | |
|---|---|-------------------------------------|---|
| <input type="checkbox"/> EN 55011 | Limits and methods of measurement of radio interference characteristics of industrial, scientific, and medical (ISM) high frequency equipment | <input type="checkbox"/> EN 61008-2 | Disturbances in supply systems caused by household appliances and similar electrical appliances of "public Use/locations" |
| <input type="checkbox"/> EN 55013 | Limits and methods of measurement of radio disturbance characteristics of broadcast receivers and associated equipment | <input type="checkbox"/> EN 61008-3 | Disturbances in supply systems caused by household appliances and similar electrical appliances of "public Use/locations" |
| <input type="checkbox"/> EN 55014-1 | Limits and methods of measurement of radio disturbance characteristics of portable tools and similar electrical apparatus | <input type="checkbox"/> EN 55024 | Information Technology equipment/terminals Characteristics-Limits and methods of measurement |
| <input type="checkbox"/> EN 55015 | Limits and methods of measurement of radio disturbance characteristics of broadcast receivers and associated equipment | <input type="checkbox"/> EN 50082-1 | Generic immunity standard Part 1: Radiated: Commercial and light industry |
| <input type="checkbox"/> EN 55016 | Limits and methods of measurement of radio disturbance characteristics of broadcast receivers and associated equipment | <input type="checkbox"/> EN 50082-2 | Generic immunity standard Part 1: Industrial environment |
| <input type="checkbox"/> EN 55020 | Immunity from radio interference of broadcast receivers and associated equipment | <input type="checkbox"/> EN 55014-2 | Immunity requirements for household appliances tools and similar apparatus |
| <input type="checkbox"/> EN 55022 | Limits and methods of measurement of radio disturbance characteristics of information technology equipment | <input type="checkbox"/> EN 50081-2 | EMC standards for uninterruptible power systems (UPS) |
| <input type="checkbox"/> DIN VDE 0855
part 10
part 12 | Classed distribution systems: Equipment for receiving direct distribution from second and television signals | | |

CE marking



(CE conformity marking)

The manufacturer also declares the conformity of above mentioned product with the relevant important safety standards in accordance with LVD 73/23/EEC

- | | | | |
|-----------------------------------|---|-------------------------------------|---|
| <input type="checkbox"/> EN 60955 | Safety requirements for mains operated electronic and related apparatus for household and similar general use | <input type="checkbox"/> EN 60956 | Safety for information technology equipment including electrical business equipment |
| <input type="checkbox"/> EN 60335 | Safety of household and similar electrical appliances | <input type="checkbox"/> EN 50091-1 | General and Safety requirements for uninterruptible power systems (UPS) |

Manufacturer/Importer

Signature: Jimmy Huang

(Stamp)

Date: Jul. 8, 2005

Name: Jimmy Huang

DECLARATION OF CONFORMITY

Per FCC Part 2 Section 2.1077(a)



Responsible Party Name: **Gigatrend Technology Co., Ltd**

Address: **17358 Railroad Street
 City of Industry, CA 91748(U.S.A.)
 Phone/Fax No: (818) 854-9338/ (818) 854-9339**

hereby declares that the product

Product Name: Motherboard

Model Number: XP-P4S8X-VM

Conforms to the following specifications:

FCC Part 15, Subpart B, Section 15.107(a) and Section 15.109(a),
 Class B Digital Device

Supplementary Information:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful and (2) this device must accept any interference received, including that may cause undesired operation.

Representative Person's Name: ERIC LU

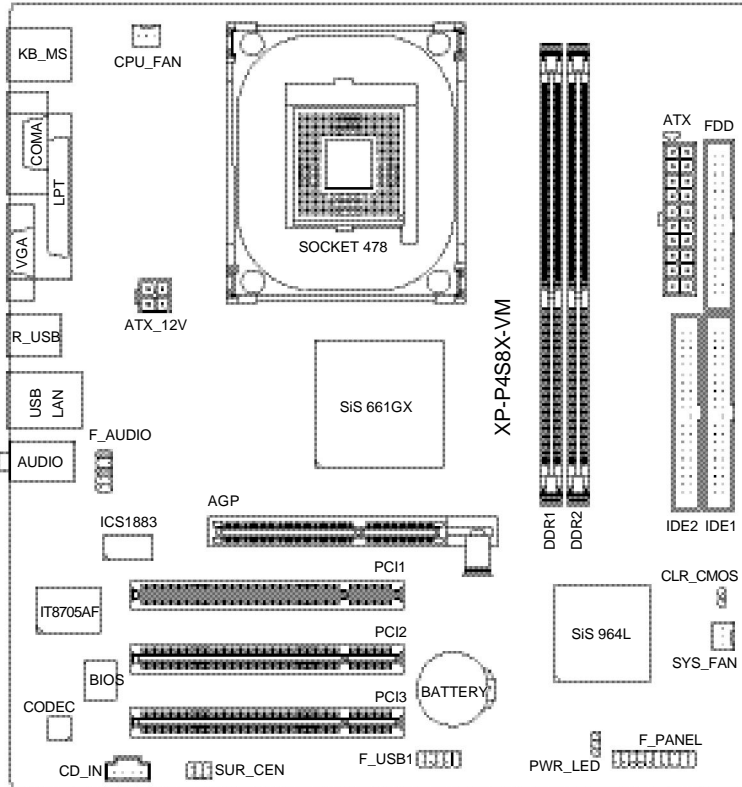
Signature: ERIC LU

Date: Jul. 8, 2005


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Motherboard Layout



1. Product Introduction

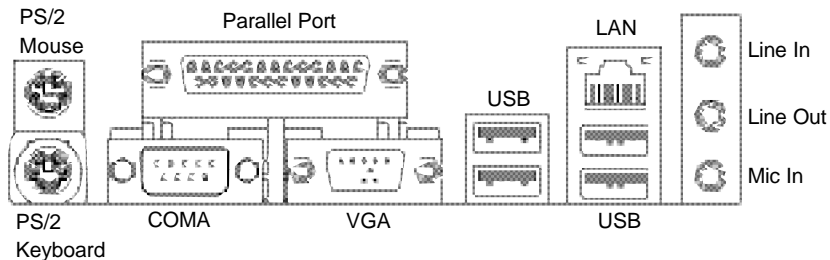
The user manual provides steps related to quick installation. If you wish to view complete product information, please select the , Open User Manual button located on the driver CD or link to our website at <http://www.axper.com> to received the most up-to-date information.

1.1. Feature Summary

CPU	Socket 478 for Intel® Pentium® 4 (Northwood, Prescott) with HT Technology Intel® Pentium® 4 800(overclock)/533MHz FSB L2 cache depends on CPU
Chipset	North Bridge: SiS® 661GX South Bridge: SiS® 964L
Memory	2 184-pin DDR DIMM sockets, supports up to 2GB DRAM (Max) Supports DDR400/DDR333/DDR266 DIMM Supports only 2.5V DDR SDRAM
Slots	1 AGP slot support 4X/8X(1.5V) device 3 PCI slots support 33MHz & PCI 2.2 compliant
On-Board IDE	2 IDE controller provide IDE HDD/CD-ROM(IDE1, IDE2) with PIO, Bus Master (Ultra DMA33/ATA66/ATA100/ATA133) operation modes Can connect up to 4 IDE devices
On-Board Floppy	1 Floppy port supports 2 FDD with 360K, 720K, 1.2M, 1.44M and 2.88M bytes
On-Board Peripherals	1 Parallel port supports Normal/EPP/ECP mode 1 VGA port, 1 Serial port (COMA) 6 USB 2.0/1.1 ports (4 x Rear, 2 x Front by cable) 1 Front Audio connector 1 PS/2 Keyboard 1 PS/2 Mouse
On-Board VGA	Built-in SiS® 661GX Chipset
On-Board LAN	Built-in ICS1883 chipset 1 RJ45 port
On-Board Sound	Realtek ALC655 CODEC Support 2 / 4 / 6 channel Line Out / Line In / Mic In CD In connection
BIOS	Licensed AWARD BIOS Supports BIOSNow!
I/O Control	IT8705AF
Hardware Monitor	System voltage detect CPU temperature detect CPU/System fan revolution detect
Form Factor	Micro-ATX form factor, 24.4cm x 23.0cm

1.2. I/O Back Panel and Connectors & Jumper Setting

1.2.1. I/O Back Panel

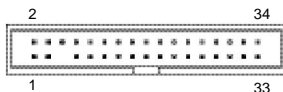


PS/2 Keyboard	Connects PS/2 standard keyboard and PS/2 standard mouse
PS/2 Mouse connector	Connects PS/2 standard keyboard and PS/2 standard mouse
Parallel port (LPT)	Connects to printer
COMA (Serial port)	Connects to serial-based mouse or data processing devices
VGA Port	Connects to 15pin D-Sub device such as a monitor
USB (Universal Serial Bus Port)	Prior to use, please make sure that your system as well as the connected attachments support the USB interface. If driver installation is required, please consult the USB section of the user manual.
LAN (RJ45 LAN Port)	Internet connection with speed of up to 10/100Mbps
Line In	Connects to optical devices, CD players and other audio input devices
Line Out	Connects to speakers or headphones
Mic In	Connects to microphone

1.2.2. Connectors & Jumper Setting

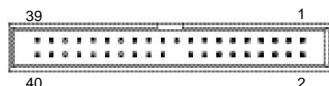
FDD (Floppy Disk Drive Connector)

The FDD connector is able to connect a single floppy disk drive via a FDD cable. Usually one edge of the FDD cable is marked in red, please attach this marked edge to position 1 on the connector.



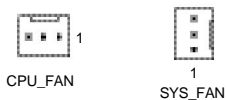
IDE1 / IDE2 (IDE1 and IDE2 Connector)

The IDE connector is able to connect two IDE devices via an IDE cable and requires checking of the IDE jumper setting. It is recommended that the hard drive be connected to the first IDE connector while the optical drive be connected to the second IDE connector.



CPU_FAN (CPU Fan Power Connector); SYS_FAN (System Fan Power Connector)

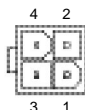
The CPU_Fan power connector provides the largest amount of power to the CPU fan at 600mA. You can connect the casing fan to the SYS_FAN connector to enhance system cooling.



PIN	SIGNAL
1	GND
2	+12V
3	Sense

ATX_12V (+12V Power Connector)

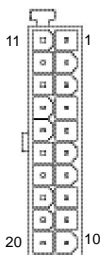
The ATX_12V power connector provides power to the CPU. If this connector is not attached, the system will not start.



PIN	SIGNAL
1	GND
2	GND
3	+12V
4	+12V

ATX (ATX Power Connector)

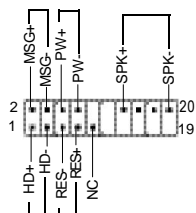
The ATX power connector provides power to the motherboard. Prior to connection, please make sure that the power supply is disconnected.



PIN	SIGNAL	PIN	SIGNAL
1	3.3V	11	3.3V
2	3.3V	12	-12V
3	GND	13	GND
4	+5V	14	PS_ON (soft on/off)
5	GND	15	GND
6	+5V	16	GND
7	GND	17	GND
8	Power Good	18	-5V
9	5VSB (stand by +5V)	19	+5V
10	+12V	20	+5V

F_PANEL (Front Panel Control Connector)

The F_Panel Control Connector connects to certain connectors on the front panel of the system casing such as IDE Hard Disk Active LED, speaker, reset, and power on/off connectors. You can use the schematic diagram below as the basis for connection.



PIN	SIGNAL
HD	IDE Hard Disk Active LED
SPK	Speaker Connector
RES	Reset Switch
PW	Power Switch
MSG	Message LED/Power/Sleep LED
NC	NC

PWR_LED

Connects to the system power LED indicator whereby the power is indicated as ON or OFF. However, the indicator will flash when the system is suspended.



PIN	SIGNAL
1	MPD+
2	MPD-
3	MPD-

CLR_CMOS (Clear CMOS)

You can clear the motherboard CMOS with the jumper to return your system to its initial status. To prevent improper usage, the jumper does not include the jumper plug. If you wish to use the Clear CMOS function, please short circuit the 1-2Pin.



Short : Clear CMOS



Open : Normal

F_AUDIO (Front Audio Connector)

Connects to the audio connector located on the front panel of the system casing (dependent on case design). When use of the front panel audio connector is required, please remove the 5-6 pin, 9-10pin jumper. Please note that use of only the front panel audio connector or the rear panel audio connector is permitted.



PIN	SIGNAL	PIN	SIGNAL
1	MIC	6	Rear Audio (R)
2	GND	7	Reserved
3	MIC_BIAS	8	NO PIN
4	POWER	9	Front Audio (L)
5	Front Audio (R)	10	Rear Audio (L)

CD_IN (Optical Drive Audio Connector)

Connects CD-ROM or DVD-ROM audio connector.



PIN	SIGNAL
1	CD_L
2	GND
3	GND
4	CD_R

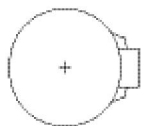
F_USB1 (Front USB Connector)

Connects to the USB connector located on the front panel of the system casing (dependent on case design). Note: Please make sure that each USB connection matches its designated position. If connections are made incorrectly, the result can lead to inability to use the function or even damage.



PIN	SIGNAL	PIN	SIGNAL
1	POWER	6	USB Dy+
2	POWER	7	GND
3	USB Dx-	8	GND
4	USB Dy-	9	NO PIN
5	USB Dx+	10	NC

BATTERY



The improper removal of the battery can result in harm. When replacing a battery, please make sure you use one that is of similar brand and model number.

For information related to battery specifications and precautions, please refer to the manufacturer instructions.

If you wish to delete the data stored in the CMOS, please follow the steps below:

1. Please turn off your computer and unplug the power.
2. Remove the battery from the motherboard.
3. Wait 10 minutes and then replace the battery onto the motherboard.
4. Plug in the power supply and turn on your system.

SUR_CEN (Surround Center Connector)

Connects to the optional surround center cable.



PIN	SIGNAL
1	SUR OUTL
2	SUR OUTR
3	GND
4	No Pin
5	CENTER_OUT
6	LEF_OUT

2. Hardware Installation



1. Please make sure that the CPU used is supported by your motherboard.
2. Please be aware of the placement position of the CPU. If the CPU does not insert properly, do not apply force but check the placement position.
3. Please make sure that an even layer of heat sink paste is added between the CPU and the fan sink.
4. Please do not turn on the power prior to installing the fan sink. Doing so can result in overheating and lead to permanent damage to the CPU.
5. Please follow the CPU specifications when setting the frequency. It is not recommended that system speed settings exceed that of hardware specifications. If you wish to set your system speed to exceed the recommended specifications, please check your hardware specifications eg: CPU, graphics card, memory, hard drive

The following must be supported to allow the use of Hyper-Threading Technology:

- an Intel Pentium 4 CPU with HT
- a motherboard supporting HT
- HT selection feature within BIOS
- an operating system supporting HT

2.1. Installation of a Pentium 4 CPU and Fan Sink



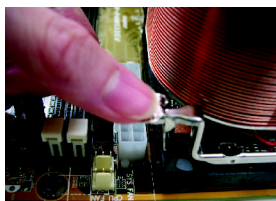
1

Note the small gold colored triangle on one corner of the CPU. Place the triangle in the corner closest to the metal lever and gently insert the CPU into its position.



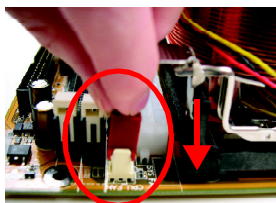
2

When the CPU is inserted into its position, gently press the metal lever downwards until a click is heard. Then add an even layer of heat sink paste between the CPU and fan sink for heat dissipation.



3

Position and attach the clips on one end of the fan sink firmly atop the CPU. Please do the same for the clips on the other end of the fan sink.



4

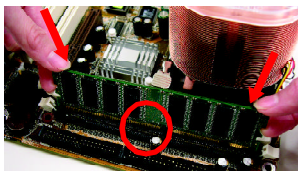
Connect the 3-pin cooler power connector to the CPU Fan connector located on the motherboard.

2.2. Installation of Memory

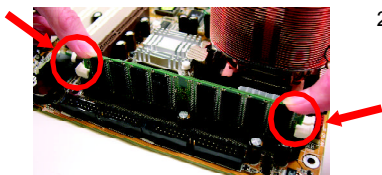


1. Before installing or removing memory, please make sure that the computer power is turned off to prevent hardware damage.
2. Please make sure that the memory used is supported by the motherboard.
3. Memory modules have a foolproof insertion design. The memory can be installed only when facing the correct position. If you cannot insert the module, please switch directions.
4. It is recommended that memory of similar capacity, specifications and brand be used.

The motherboard supports DIMM memory modules, whereby BIOS will automatically detect memory capacity and specifications. Memory modules are designed so that they can be inserted only in one direction.



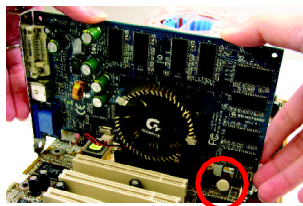
1. Unfasten the clips on each end of the memory slots. Correctly align the memory module in the slot and push downwards..



2. Once the memory module is correctly inserted, the clips will automatically refasten. If the memory module is positioned in the wrong direction, it will not insert. If this occurs, please switch directions.

2.3. Installation of the Graphics Card

1. Before installing the graphics card, please carefully read the accompanying user manual. As well, make sure the computer power is turned off.
2. Your graphics card must be 1.5V and support the AGP4X/8X specification.
3. When installing or removing the graphics card, first pull out the white AGP knob before insertion or removal. Releasing the AGP knob will hold the graphics card firmly in place.



3. BIOS Setup

BIOS (Basic Input and Output System) stores all the information of the motherboard settings that is needed for system initiation within the CMOS. The CMOS SETUP utility allows the user to make changes in BIOS configurations that are required or to activate certain features. The CMOS SETUP saves each item configuration in the CMOS SRAM of the motherboard. When the power is turned off, the battery on the motherboard supplies the required power to the CMOS SRAM.

When the power is turned on, pushing the button during the BIOS POST (Power-On Self Test) will bring up the CMOS SETUP screen. If you wish to enter the BIOS setup, please press "Ctrl + F1" at the BIOS setup screen.

When using BIOS setup for the first time, it is recommended that you save the present BIOS onto a disk in case you need to reset the BIOS back to its original settings. If you wish to update to a new BIOS, the "BIOSNow!" can be used.

The user can select "BIOSNOW!" as a way to quickly and easily update or back up BIOS without entering the operating system.

3.1. Setup Screen Features (BIOS version: E3)

- ※ When you enter the CMOS SETUP screen, you will see the following screen and setting selections as shown below.

CMOS Setup Utility-Copyright (C) 1984-2005 Award Software	
<ul style="list-style-type: none"> ▶ Standard CMOS Features ▶ Advanced BIOS Features ▶ Integrated Peripherals ▶ Power Management Setup ▶ PnP/PCI Configurations ▶ PC Health Status ▶ MB Intelligent Tweaker (M.I.T.) 	<ul style="list-style-type: none"> Load Fail-Safe Defaults Load Optimized Defaults Set Supervisor Password Set User Password Save & Exit Setup Exit Without Saving
ESC: Quit	↑↓→←: Select Item
F8: BIOSNow!	F10: Save & Exit Setup
Time, Date, Hard Disk Type...	

Instructions

- <↑, ↓, ←, →, Enter> Movement in all four directions to highlight a desired option, pressing <Enter> will select the option and take you to its appropriate screen
- <Page Up, Page Down> Used to toggle up and down the available options for a particular item, whereby <Page Up> can also be used to increase value option and <Page Down> to decrease value option
- <Esc> Return to main setup screen or exit setup
- <F1> Gives the list of options available for each item
- <F2> Gives the list of options available for the current item
- <F5> Returns settings to previous values (not applicable to main setup screen)

<F6>	Gives the list of options available for each item
<F7>	Return to Optimized default values (not applicable to main setup screen)
<F8>	Enters BIOSNow! feature
<F9>	Displays system information
<F10>	Saves settings and exits setup

3.2. Standard CMOS Features

- ※ Includes the settings for items such as date, time, floppy disk drive specifications, and hard drives connected to the IDE interface.

CMOS Setup Utility-Copyright (C) 1984-2005 Award Software
Standard CMOS Features

Date (mm:dd:yy)	Tue, May 24 2005	Item Help
Time (hh:mm:ss)	22:31:24	Menu Level▶ Change the day, month, year
▶ IDE Primary Master	[None]	<Week> Sun. to Sat.
▶ IDE Primary Slave	[None]	<Month> Jan. to Dec.
▶ IDE Secondary Master	[None]	<Day> 1 to 31 (or maximum allowed in the month)
▶ IDE Secondary Slave	[None]	<Year> 1999 to 2098
Drive A	[1.44M, 3.5"]	
Drive B	[None]	
Floppy 3 Mode Suport	[Disabled]	
Halt On	[All, But Keyboard]	
Base Memory	640K	
Extended Memory	127M	
Total Memory	128M	
↑↓→←: Move Enter: Select +/-/PU/PD: Value F10: Save ESC: Exit F1: General Help F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults		

■ Date (mm:dd:yy)

Allows you to setup the date in the mm:dd:yy fashion.

■ Time (hh:mm:ss)

Allows you to set up the date in the hh:mm:ss fashion. The time must be entered in the 24-hour format.

■ IDE Primary Master(Slave) / IDE Secondary Master(Slave)

[IDE Device Setup]

IDE HDD Auto-Detection Press "Enter" to select this option for automatic device detection.

IDE Primary Master(Slave) / IDE Secondary Master(Slave) IDE Device Setup. You can use one of three methods:

Auto Allows BIOS to automatically detect IDE devices during POST(default)

None Select this if no IDE devices are used and the system will skip the automatic detection step and allow for faster system start up.

Manual User can manually input the correct settings

Access Mode Use this to set the access mode for the hard drive. The four options are:
CHS/LBA/Large/Auto(default:Auto)

Hard drive information should be labeled on the outside drive casing. Enter the appropriate option based on this information.

3.3. Advanced BIOS Features

- ※ Allows the configuration of advanced settings such as boot sequence, password check, etc.

CMOS Setup Utility-Copyright (C) 1984-2005 Award Software
Advanced BIOS Features

First Boot Device	[Floppy]	Item Help
Second Boot Device	[HDD-0]	Menu Level▶
Third Boot Device	[CDROM]	
Boot Up Floppy Seek	[Disabled]	
Password Check	[Setup]	
CPU Hyper-Threading ^(Note 1)	[Enabled]	
Init Display First	[Disabled]	
Limit CPUID Max. to 3 ^(Note 2)	[Disabled]	
↑↓→←: Move Enter: Select +/-/PU/PD: Value F10: Save ESC: Exit F1: General Help F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults		

■ First / Second / Third Boot Device

The user can select the order in which the system will boot.

Options: Floppy, LS120, HDD-0~HDD-3, SCSI, CDROM, ZIP, USB-FDD, USB-ZIP, USB-CDROM, USB-HDD, LAN, Disabled

■ Boot Up Floppy Seek

This feature controls whether the BIOS checks for a floppy drive while booting up. (default:Disabled)

■ Password Check

Allows user to set a password. To remove the password entry requirement, enter SETUP and make sure there is no entry and then press <Enter>.

Options: System (Password entry is required during system start up and to enter CMOS SETUP)
Setup (Password entry is required to enter CMOS SETUP)(default:Setup)

■ CPU Hyper-Threading^(Note 1)

Allows user to enable the CPU Hyper-Threading function, of which must also be supported by the operating system. (default: Enabled)

■ Init Display First

Allows you to select whether to boot the system using the AGP graphics card or the PCI graphics card.

Options: AGP (boot using AGP graphics card)
PCI(boot using PCI graphics card). (default: AGP)

■ Limit CPUID Max. to 3^(Note 2)

This option will be available when you install an Intel Prescott processor. Enable this item when you install old operating systems (example: NT4.0). (default: Disabled)

(Note 1) If the installed CPU is an Intel Pentium 4 CPU supporting Hyper-Threading Technology, the system will automatically provide this option.

(Note 2) If you install an Intel Prescott CPU, the system will automatically provide this option.

3.4. Integrated Peripherals

- ※ This menu allows you to control the various ports of the computer such as IDE, SATA, USB, IEEE1394, COM port, LPT port, AC97 audio, etc.

CMOS Setup Utility-Copyright (C) 1984-2005 Award Software
Integrated Peripherals

		Item Help
IDE1 Conductor Cable	[Auto]	Menu Level▶
IDE2 Conductor Cable	[Auto]	
On-Chip Primary PCI IDE	[Enabled]	
On-Chip Secondary PCI IDE	[Enabled]	
AC97 Audio	[Enabled]	
Onboard LAN device	[Enabled]	
USB Controller	[Enabled]	
USB Legacy Support	[Disabled]	
Onboard Serial Port 1	[3F8/IRQ4]	
Onboard Parallel Port	[378/IRQ7]	
Parallel Port Mode	[ECP]	
ECP Mode Use DMA	[3]	

↑↓→←: Move Enter: Select +/-/PU/PD: Value F10: Save ESC: Exit F1: General Help
 F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults

■ IDE1 Conductor Cable

Allows user to select the type of IDE1 conductor cable. Prior to selecting the setting, please make sure that the IDE device and cables support the desired setting.

Options: Auto, ATA66/100/133, ATA33 (default:Auto)

■ IDE2 Conductor Cable

Allows user to select the type of IDE2 conductor cable. Prior to selecting the setting, please make sure that the IDE device and cables support the desired setting.

Options: Auto, ATA66/100/133, ATA33 (default:Auto)

■ On-Chip Primary PCI IDE

Allows the user to enable or disable the first onboard IDE channel. (default:Enabled)

■ On-Chip Secondary PCI IDE

Allows the user to enable or disable the second onboard IDE channel. (default:Enabled)

■ AC97 Audio

Allows the user to use the onboard AC97 audio. (default:Enabled)

■ Onboard LAN device

Allows the user to enable or disable the onboard LAN. (default:Enabled)

■ USB Controller

Allows the user to enable or disable the onboard USB controller. (default: Enabled)

■ USB Legacy Support

Allows the user to use a USB keyboard or mouse. (default:Disabled)

■ Onboard Serial Port 1

Allows the user to enable or disable the first onboard serial port.

Options: Auto, 3F8/IRQ4, 2F8/IRQ3, 3E8/IRQ4, 2E8/IRQ3, Disabled (default:3F8/IRQ4)

■ Onboard Parallel Port

Allows the user to enable or disable the onboard parallel port.

Options: 378/IRQ7, 278/IRQ5, 3BC/IRQ7, Disabled (default: 378/IRQ7)

■ Parallel Mode

Use this to select the operation mode for the parallel port. (default: SPP)

Options: SPP (normal)

EPP (Enhanced Parallel Port)

ECP (Extended Capabilities Port)

ECP+EPP (both ECP and EPP)

■ ECP Mode Use DMA

Allows the user to select the ECP Mode Use DMA.

Options: 1, 3 (default: 3)

3.5. Power Management Setup

※ This is used to control the various power saving features of the PC.

CMOS Setup Utility-Copyright (C) 1984-2005 Award Software
Power Management Setup

		Item Help
ACPI Suspend Type	[S1(POS)]	Menu Level▶
Soft-Off by PWR_BTTN	[Off]	
System After AC Back	[Off]	
IRQ [3-7, 9-15], NMI	[Enabled]	[S1]
ModemRingOn	[Enabled]	Set suspend type to
PME Event Wake Up	[Enabled]	Power On Suspend under
Power On by Keyboard	[Disabled]	ACPI OS
Power On by Mouse	[Disabled]	
Resume by Alarm	[Disabled]	[S3]
x Month Alarm	NA	Set suspend type to
x Day (of Month)	Everyday	Suspend to RAM under
x Time (hh:mm:ss)	0 : 0 : 0	ACPI OS
Power LED in S1 state	[Blinking]	
↑↓→←: Move Enter: Select +/-/PU/PD: Value F10: Save ESC: Exit F1: General Help F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults		

■ ACPI Suspend Type

Allows user to select the Advanced Configuration and Power Interface(ACPI) as S1/POS (Power On Suspend) or S3/STR(Suspend To RAM) (default:S1/POS)

■ Soft-off by PWR_BTTN

Controls whether the PC shuts off immediately after hitting the power button or delaying a few seconds. (default:Off)

Options: Off (PC shuts off immediately)

Suspend (Press power button 4 sec. to power off. Enter suspend if button is pressed less than 4 sec.)

■ System After AC BACK

Allows user to select system status when power is removed and returned.

- Options: Off (Always in off state when AC back)
 On (Always power on system when AC back)
 Laststate (System power on depends on the status before AC lost)
 (default:Off)

■ IRQ [3-7, 9-15], NMI

When IRQ [3-7, 9-15] or NMI triggered, the suspend timer will be reloaded to prevent system gets into green mode. (default:Enabled)

■ ModemRingOn

To use this feature, an Ethernet card supporting the PCI2.2 or newer standard must be used. (default:Enabled)

■ PME Event Wake Up

Allows user to select the Power Management Event (PME) wake up function which requires the system to have a +5VSB power supply using a rate of 1A or less.
 (default:Enabled)

■ Power On by Keyboard

Allows user to turn on system using the keyboard.

- Options: Password (input an 8 character long password)
 Any Key (power on by any key)
 Disabled (default:Disabled)

■ Power On by Mouse

Allows user to turn on system using the mouse. (default:Disabled)

■ Resume by Alarm

If set to Enabled, the user can set the date and time for automatic system power-on.
 (default:Disabled)

- Settings: Month Alarm : NA, 1~12
 Date (of Month) Alarm : Everyday, 1~31
 Time (hh: mm: ss) Alarm : (0~23) : (0~59) : (0~59)

■ Power LED in S1 state

Allows user to select the system LED status in the S1 (POS - Power On Suspend) state.

- Options: Blinking (LED will blink)
 Dual/OFF (When selecting this, the LED will turn off for a single-colored LED or change color for a dual-colored LED)(default:Blinking)

3.6. PnP/PCI Configuration

- ✖ This menu allows you to configure your PCI slots. You can assign IRQ's for various PCI slots.

CMOS Setup Utility-Copyright (C) 1984-2005 Award Software
PnP/PCI Configurations

PCI 1 IRQ Assignment	[Auto]	Item Help
PCI 2 IRQ Assignment	[Auto]	Menu Level▶
PCI 3 IRQ Assignment	[Auto]	Device(s) using this INT:
↑↓→←: Move Enter: Select +/-/PU/PD: Value F10: Save ESC: Exit F1: General Help F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults		

■ PCI 1 IRQ Assignment

Allows user to assign an IRQ for the 1st PCI slot. Options: Auto,3,4,5,7,9,10,11,12,14,15 (default: Auto)

■ PCI 2 IRQ Assignment

Allows user to assign an IRQ for the 2nd PCI slot. Options: Auto,3,4,5,7,9,10,11,12,14,15 (default: Auto)

■ PCI 3 IRQ Assignment

Allows user to assign an IRQ for the 3rd PCI slot. Options: Auto,3,4,5,7,9,10,11,12,14,15 (default: Auto)

3.7. PC Health Status

- ※ This menu displays the current CPU temperature, the fan speeds, voltages etc.

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PC Health Status

Vcore	OK	Item Help
DDR2.5V	OK	Menu Level▶
+3.3V	OK	
+12V	OK	
Current CPU Temperature	25°C	
Current CPU FAN Speed	4440 RPM	
Current SYSTEM FAN Speed	0 RPM	
↑↓→←: Move Enter: Select +/-/PU/PD: Value F10: Save ESC: Exit F1: General Help F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults		

- **Current Voltage(V) Vcore / DDR25V / +3.3V / +12V**
Automatically checks system voltage.
- **Current CPU Temperature**
Automatically checks CPU temperature.
- **Current CPU / SYSTEM FAN Speed (RPM)**
Automatically checks CPU/SYSTEM fan speed.
- **CPU Warning Temperature**
Allows user to monitor the CPU temperature at selected temperature.
Options: Disabled, 60°C/140°F, 70°C/158°F, 80°C/176°F, 90°C/194°F (default: Disabled)
- **CPU Smart FAN Control**
Allows user to enable smart fan control function. If the CPU temperature is higher than 65°C, CPU fan will run at full speed. If the CPU temperature is more than 41°C and less than 65°C, CPU fan will increase linearly. If the CPU temperature is lower than 40°C, CPU fan will stop. (default: Enabled)

■ **DRAM Clock (MHz)**

If you wish to use this feature, please set the "Linear Frequency Control" to Enabled.
 If you have a DDR 200 DRAM module, please set the "DRAM Clock" to 200MHz.
 If you have a DDR 266 DRAM module, please set the "DRAM Clock" to 266MHz.
 If you have a DDR 333 DRAM module, please set the "DRAM Clock" to 333MHz.

■ **AGP/PCI Clock Control**

Allows user to set up AGP/PCI Clock. (default:Auto)

Options: Auto (sets AGP/PCI clock automatically)
 Manual (sets AGP/PCI clock manually)

■ **AGP Clock (MHz)**

If you wish to use this feature, please set the "AGP/PCI Clock Control" to Manual. Please set AGP Clock according to your requirement.

■ **PCI Clock (MHz)**

If you wish to use this feature, please set the "AGP/PCI Clock Control" to Manual. Please set PCI Clock according to your requirement.

3.9. Load Fail-Safe Defaults

- ※ Use this option to reset your BIOS settings to the system defaults. You should only use this if you are encountering serious problems.
 Please select <Y> and <Enter> to load Fail-Safe defaults. Once this is loaded, your system may be slowed since this uses a minimal performance setting to allow stable system running.

3.10. Load Optimized Defaults

- ※ Like the Fail-Safe mode above, this option loads the BIOS default settings, but runs the system at optimal performance.
 Please select <Y> and <Enter> to load optimized defaults.

3.11. Set User Password

- ※ Use this to set the password that is needed to either enter into the BIOS or to boot the system. Entering in a blank field will disable the password.
 Please input an 8 character long password and then select Enter. You will be required to re-enter the password for confirmation. If you wish to remove the need for password entry, leave the entry blank and then select Enter. BIOS will then display "PASSWORD DISABLED". Once you have completed the password setting, you will need to go to "Advanced BIOS Features" and select "Password Check" for setup of password check.

3.12. Save & Exit Setup

- ※ To save any changes you made to the BIOS you must choose this option. The system will automatically exit setup and perform a system restart. Pushing <F10> will have the same effect.
 Push <Y> and <Enter> to save and exit setup. If you do not wish to save, select <N> or <Esc> to return to the main menu.

3.13. Exit Without Saving

- × Use this option instead of the one above if you wish to exit the BIOS without saving the changes you have made. Pushing <ESC> will have the same effect.
Push <Y> and <Enter> to exit setup. You can return to the main menu by pushing <N> or <Esc>.

4. Driver Installation

Driver installation for the Windows 98/98SE/200/ME/XP operating systems is simple. Once you insert the provided driver disks into your optical drive, the AUTORUN screen will appear. If this screen does not appear, you can use "D:\setup.exe" (with "D" being the specified drive) to bring up the screen shown below. Just follow the screen instructions to easily complete driver installation.

The screenshot shows the 'axper' driver installation window. The window title bar reads 'ASU 1.2.R5.0525.1'. The main area is titled 'axperInstall' and contains a list of drivers with checkboxes: SIS AGP Driver, SIS VGA Driver, SIS Mini IDE Driver, USB Patch for WinXP, SIS PCI Lan Driver, SIS 7012 Sound Driver, and USB 2.0 Driver. On the left, there are four menu items: 'axper Install', 'Customize Installation', 'axper Utilities', and 'Software'. At the bottom right, there is a 'GO' button. Callouts from the right side point to icons for 'Open User Manual', 'Display system information', 'Open Readme File', 'Browse CD', and 'Contact Us'. Callouts from the bottom point to the menu items: 'axper Install - Displays required driver installation, select "Go" for automatic installation', 'Customize Installation - Allows specific choice of drivers for installation', 'axper Utilities - Displays axper's unique utilities', and 'Software - Displays the required software'.

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