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Static Electricity Precautions

1. Don't take this motherboard and components out of their original static-proof package until you are ready to install them.
2. While installing, please wear a grounded wrist strap if possible. If you don't have a wrist strap, discharge static electricity by touching the bare metal of the system chassis.
3. Carefully hold this motherboard by its edges. Do not touch those components unless it is absolutely necessary. Put this motherboard on the top of static-protection package with component side facing up while installing.

Pre-Installation Inspection

1. Inspect this motherboard whether there are any damages to components and connectors on the board.
2. If you suspect this motherboard has been damaged, do not connect power to the system. Contact your motherboard vendor about those damages.

Table of Contents

Notice:

1. Owing to Microsoft's certifying schedule is various to every supplier, we might have some drivers not certified yet by Microsoft. Therefore, it might happen under Windows XP that a dialogue box (shown as below) pops out warning you this software has not passed Windows Logo testing to verify its compatibility with Windows XP. Please rest assured that our RD department has already tested and verified these drivers. Just click the "Continue Anyway" button and go ahead the installation.

2. USB 2.0 Driver Limitations:
2-1. The USB 2.0 driver only supports Windows XP and Windows 2000.
2-2. If you connect a USB 2.0 hub to the root hub, plugging USB devices into this hub, the system might not successfully execute certain USB devices' connection because it could not recognize these devices.

Currently, we are working on such limitations' solution. As soon as the olution is done, the updated USB drive will be released to our website: www.pcchips.com for your downloading.

Chapter 1 Introduction

This motherboard has a **Socket AM2** supporting the newest and advanced **AM2 AMD Athlon 64 FX/Athlon 64 X2 Dual-Core/Athlon 64/Sempron** CPUs with **HyperTransport Technology** processors, Front-Side Bus (FSB) speeds up to **1000** MHz.

This motherboard is based on **MCP61 Value** media and communications processor that supports the **Serial ATA** interface for high-performance and mainstream desktop PCs, and the built-in **USB 2.0** providing higher bandwidth. It implements **Universal Serial Bus Specification Revision 2.0.**

It supports 6-channel **High Definition Audio Codec** and provides one **IDE Ultra DMA 133**/100/66/33 channel. It has two 32-bit **PCI** slots, one **PCI Express Pro** slot and one **PCI Express x1** slot, and supports the onboard **10Base-T/100Base-TX Network** interface (optional). In addition, this motherboard has a full set of I/O ports including two PS/2 ports for mouse and keyboard, one serial port, one parallel port, one LAN port (optional), one VGA port, four back-panel **USB2.0** ports, and three audio jacks for microphone, line-in and line-out. Onboard USB header(s) can provide extra ports by connecting the Extended USB Module to the motherboard.

This motherboard is a **micro-ATX size** motherboard and has power connectors for an ATX power supply.

Key Features

The key features of this motherboard include:

Socket-AM2 Processor Support

- Supports AM2 **AMD Athlon 64 FX/Athlon 64 X2 Dual-Core/Athlon 64/Sempron** processors
- Supports Front-Side Bus **1000 MHz**

Note: HyperTransport Technology is a point-to-point link between two devices, it enables integrated circuits to exchange information at much higher speeds than currently available interconnect technologies.

Chipset

There is a single chip "NVIDIA nForce® MCP61 Value media", in this chipset in accordance with an innovative and scalable architecture with proven reliability and performance.

- HyperTransport link up to 1.0 GHz to the CPU
- DirectX 9.0c Shader Model 3.0 graphics processing unit
- Two separate PCI Express controllers with 2 total lanes configured as one x16 (support x1 VGA Interface) and one x1 PCI Express slots
- Support 2 SATA2 3.0 Gb/s devices

1

- IEEE 802.3 NVIDIA MAC for 100BASE-T/10BASE-T Fast Ethernet/ Ethernet
- USB 2.0 EHCI , supporting up to eight ports
- Fast ATA-133 IDE Controller

Memory Support

- Two 240-pin DIMM slots for DDR2 SDRAM memory modules
- Supports **DDR2 800**/667/533/400 memory bus
- Maximum installed memory is 16 GB

Expansion Slots

- One Azalia CNR slot
- One PCI Express Pro slot
- One PCI Express x1 slot
- Two 32-bit PCI slots

Onboard IDE channels

- One IDE Connector
- Supports PIO (Programmable Input/Output) and DMA (Direct Memory Access) modes
- Supports IDE Ultra DMA bus mastering with transfer rates of **133**/100/ 66/33 MB/sec

Serial ATA

- Two Serial ATA Connectors
- Compliant with the SATA2 with 3 Gb/s per direction per channel

Audio Codec

- Three Stereo DACs support 16/20/24-bit PCM format for 5.1 channel audio solution
- ADCs support 44.1k/48k/96k sample rate
- Meets Microsoft WHQL/WLP 3.0x audio requirements
- Direct Sound 3D^{TM} compatible

Onboard I/O Ports

- Two PS/2 ports for mouse and keyboard
- One serial port
- One parallel port
- Four back-panel USB2.0 ports
- One VGA port
- One LAN port (optional)
- Audio jacks for microphone, line-in and line-out

Fast Ethernet LAN (optional)

- Built-in **10Base-T/100Base-Tx** IEEE 802.3u fast Ethernet transceiver
- Low-power mode
- MII and 7-wire serial interface

USB 2.0

- Compliant with Universal Serial Bus Specification Revision 2.0
- Compliant with Universal Host Controller Interface Specification Revision 1.1

BIOS Firmware

This motherboard uses Award BIOS that enables users to configure many system features including the following:

- Power management
- Wake-up alarms
- CPU parameters and memory timing
- CPU and memory timing

The firmware can also be used to set parameters for different processor clock speeds.

Dimensions

- Micro-ATX form factor of 244 x 214 mm

Note: Hardware specifications and software items are subject to change without notification.

Package Contents

Your motherboard package ships with the following items:

- ❑ The motherboard
- ❑ The User's Guide
- ❑ One diskette drive ribbon cable (optional)
- ❑ One IDE drive ribbon cable
- ❑ The Software support CD

Optional Accessories

You can purchase the following optional accessories for this motherboard.

- ❑ The Extended USB module
- ❑ The Serial ATA cable
- ❑ The Serial ATA power cable

Note: You can purchase your own optional accessories from the third party, but please contact your local vendor on any issues of the specification and compatibility.

Chapter 2 Motherboard Installation

To install this motherboard in a system, please follow these instructions in this chapter:

- ❑ Identify the motherboard components
- ❑ Install a CPU
- ❑ Install one or more system memory modules
- ❑ Make sure all jumpers and switches are set correctly
- ❑ Install this motherboard in a system chassis (case)
- ❑ Connect any extension brackets or cables to headers/connectors on the motherboard
- ❑ Install peripheral devices and make the appropriate connections to headers/connectors on the motherboard

Note:

1   Before installing this motherboard, make sure jumper CLR_CMOS is under Normal setting. See this chapter for information about locating CLR_CMOS and the setting options.

2   Never connect power to the system during installation; otherwise, it may damage the motherboard.

Motherboard Components
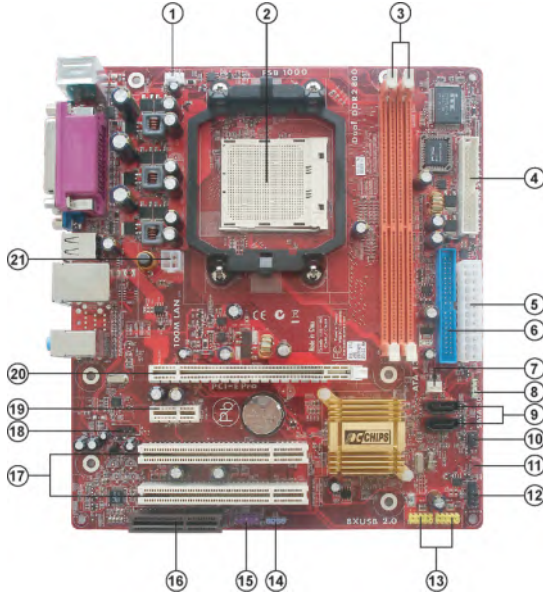
ITEM	LABEL	COMPONENTS
1	CPU_FAN	CPU cooling fan connector
2	CPU Socket	Socket AM2 for AMD Athlon 64 FX/Athlon 64 X2 Dual-Core/Athlon 64 /Sempron processor
3	DDRII1~2	240-pin DDR2 SDRAM slots
4	FDD	Floppy Disk Drive connector
5	PWR1	Standard 24-Pin ATX Power connector
6	IDE1	Primary IDE connector
7	SYS_FAN	System cooling fan connector
8	SPK1	Speaker Header
9	SATA1~2	Serial ATA connectors
10	IR1	Infrared Header
11	CLR_CMOS	Clear CMOS jumper
12	PANEL1	Front Panel switch/LED header
13	F_USB1~2	Front Panel USB headers
14	SPDIFO1	SPDIF out header
15	F_AUDIO	Front Panel Audio header
16	AZ1	Azalia CNR slot(optional)
17	PCI1~2	32-bit PCI slots
18	CD_IN	Analog Audio Input header
19	PCIEX1	PCI Express x1 slot
20	PCIEX16	PCI Express Pro slot for graphics interface
21	PWR2	Standard 4-Pin ATX Power connector

I/O Ports

The illustration below shows a side view of the built-in I/O ports on the motherboard.
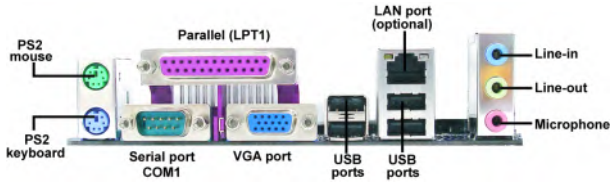
PS/2 Mouse	Use the upper PS/2 port to connect a PS/2 pointing device.
PS/2 Keyboard	Use the lower PS/2 port to connect a PS/2 keyboard.
Parallel Port (LPT1)	Use the Parallel port to connect printers or other parallel communications devices.
Serial Port (COM1)	Use the COM port to connect serial devices such as mice or fax/modems. COM1 is identified by the system as COM1.
VGA Port	Use the VGA port to connect the VGA devices.
LAN Port (optional)	Connect an RJ-45 jack to the LAN port to connect your computer to the Network.
USB Ports	Use the USB ports to connect USB devices.
Audio Ports	Use these three audio jacks to connect audio devices. The first jack is for stereo Line-In signal, the second jack for stereo Line-Out signal, and the third jack for Microphone.

Installing the Processor

This motherboard has an AM2 processor socket. When choosing a processor, consider the performance requirements of the system. Performance is based on the processor design, the clock speed and system bus frequency of the processor, and the quantity of internal cache memory and external cache memory.

CPU Installation Procedure

Follow these instructions to install the CPU:
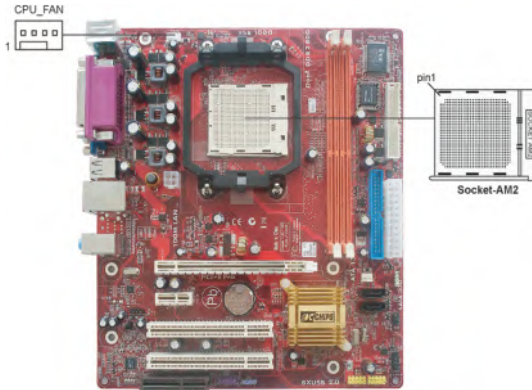
1   Unhook the locking lever of the CPU socket. Pull the locking lever away from the socket and raising it to the upright position.
2   Match the pin1 corner marked as the beveled edge on the CPU with the pin1 corner on the socket. Insert the CPU into the socket. Do not use force.
3   Push the locking lever down and hook it under the latch on the edge of socket.
4   Apply thermal grease to the top of the CPU.
5   Install the cooling fan/heatsink unit onto the CPU, and secure them all onto the socket base.
6   Plug the CPU fan power cable into the CPU fan connector (CPU_FAN) on the motherboard.

Note: To achieve better airflow rates and heat dissipation, we suggest that you use a high quality fan with 4800 rpm at least. CPU fan and heatsink installation procedures may vary with the type of CPU fan/heatsink supplied. The form and size of fan/heatsink may also vary.

Installing Memory Modules

This motherboard accommodates two 240-pin DIMM sockets (Dual Inline Memory Module) for unbuffered **DDR2 800**/667/533/400 memory modules (Double Data Rate SDRAM), and maximum 16 GB installed memory.

Over its predecessor, DDR2-SDRAM offers greater bandwidth and density in a smaller package along with a reduction in power consumption. In addition, DDR2-SDRAM offers new features and functions that enable a higher clock rate and data rate operations of 800/667/533/400 MHz. DDR2 transfers 64 bits of data twice every clock cycle.
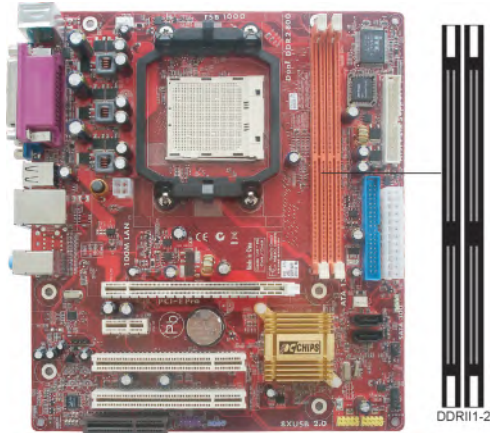
Memory Module Installation Procedure

These modules can be installed with up to 16 GB system memory. Refer to the following to install the memory module.

1. Push down the latches on both sides of the DIMM socket.
2. Align the memory module with the socket. There is a notch on the DIMM socket that you can install the DIMM module in the correct direction. Match the cutout on the DIMM module with the notch on the DIMM socket.
3. Install the DIMM module into the socket and press it firmly down until it is seated correctly. The socket latches are levered upwards and latch on to the edges of the DIMM.
4. Install any remaining DIMM modules.

9
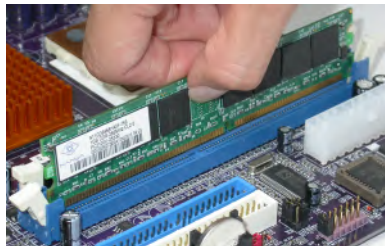
Note for dual-channel DDR:
1. You CAN NOT use only one DIMM2 for it might cause the system shutdown.
2. You need to use DIMM1 and DIMM2 with the same size of memory modules.

Jumper Settings

Connecting two pins with a jumper cap is SHORT; removing a jumper cap from these pins, OPEN.
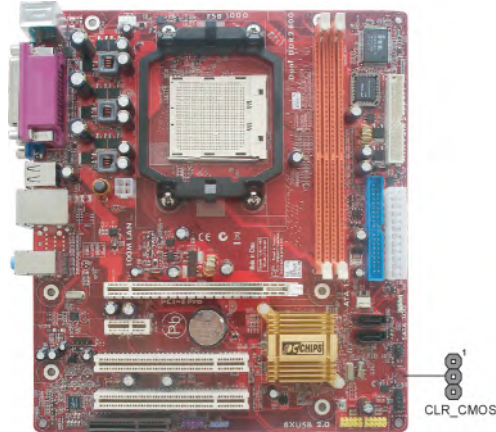
CLR_CMOS: Clear CMOS Jumper

Use this jumper to clear the contents of the CMOS memory. You may need to clear the CMOS memory if the settings in the Setup Utility are incorrect and prevent your motherboard from operating. To clear the CMOS memory, disconnect all the power cables from the motherboard and then move the jumper cap into the CLEAR setting for a few seconds.

Function	Jumper
Normal	Short Pins 1-2
Clear CMOS	Short Pins 2-3

Note: To avoid the system unstability after clearing CMOS, we recommend users to enter the main BIOS setting page to "Load Optimal De-faults" and then "Save Changes and Exit".

Install The Motherboard

Install the motherboard in a system chassis (case). The board is an micro-ATX size motherboard. You can install this motherboard in an ATX case. Make sure your case has an I/O cover plate matching the ports on this motherboard.

Install the motherboard in a case. Follow the case manufacturer's instructions to use the hardware and internal mounting points on the chassis.
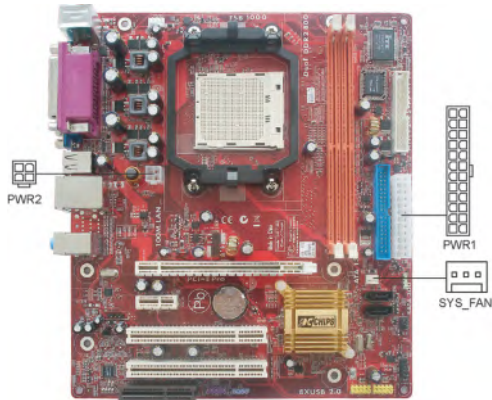
Connect the power connector from the power supply to the **PWR1** connector on the motherboard. **PWR2** is a +12V connecotr for CPU Vcore power.

If there is a cooling fan installed in the system chassis, connect the system cooling fan cable to the **SYS_FAN** fan power connector on the motherboard.

Connect the case switches and indicator LEDs to the **PANEL1** header.

Pin	Signal	Pin	Signal
1	HD_LED_P(+)	2	FP PWR/SLP(+)
3	HD_LED_N(-)	4	FP PWR/SLP(-)
5	RESET_SW_N(-)	6	POWER_SW_P(+)
7	RESET_SW_P(+)	8	POWER_SW_N(-)
9	RSVD_DNU	10	KEY

Connecting Optional Devices

Refer to the following for information on connecting the motherboard's optional devices:
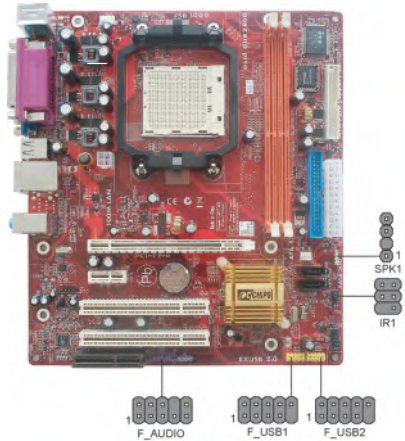
SPK1: Speaker Header

Connect the cable from the PC speaker to the SPK1 header on the motherboard.

Pin	Signal
1	SPKR
2	NC
3	GND
4	+5V

F_AUDIO: Front Panel Audio Header

This header allows the user to install auxiliary front-oriented microphone and line-out ports for easier access.

Pin	Signal	Pin	Signal
1	PORT 1L	2	GND
3	PORT 1R	4	PRESENCE#
5	PORT 2R	6	Sense1_return
7	SENCE_SEND	8	KEY
9	PORT 2L	10	Sense2_return

F_USB1/2: Front Panel USB Headers

The motherboard has USB ports installed on the rear edge I/O port array. Additionally, some computer cases have USB ports at the front of the case. If you have this kind of case, use auxiliary USB headers F_USB1/2 to connect the front-mounted ports to the motherboard.

Here is a list of USB pin assignments.

Pin	Signal	Pin	Signal
1	VERG_FP_USBPWR0	2	VERG_FP_USBPWR0
3	USB_FP_P0(-)	4	USB_FP_P1(-)
5	USB_FP_P0(+)	6	USB_FP_P1(+)
7	GROUND	8	GROUND
9	KEY	10	USB_FP_OC0

1. Locate the F_USB1/2 header on the motherboard.
2. Plug the bracket cable onto the F_USB1/2 header.
3. Remove a slot cover from one of the expansion slots on the system chassis. Install an extension bracket in the opening. Secure the extension bracket to the chassis with a screw.

IR1: Infrared Port Header

The infrared port allows the wireless exchange of information between your computer and similarly equipped devices such as printers, laptops, Personal Digital Assistants (PDAs), and other computers.

Pin	Signal	Pin	Signal
1	NC	2	KEY
3	+5V	4	GND
5	IRTX	6	IRRX

1. Locate the infrared port-**IR1** header on the motherboard.
2. If you are adding an infrared port, connect the ribbon cable from the port to the SIR1 header and then secure the port to an appropriate place in your system chassis.

Install Other Devices

Install and connect any other devices in the system following the steps below.
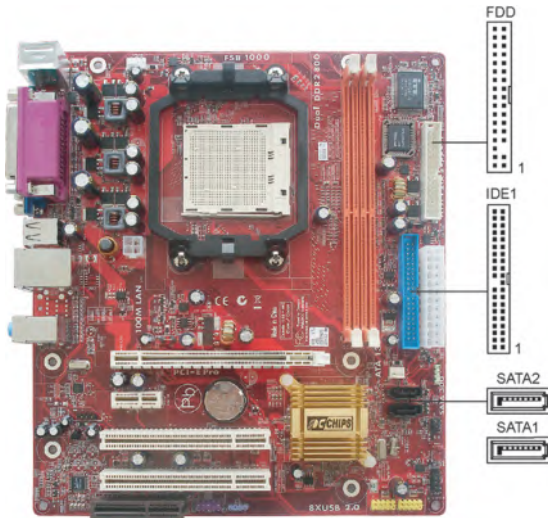
Floppy Disk Drive

The motherboard ships with a floppy disk drive cable that can support one or two drives. Drives can be 3.5" or 5.25" wide, with capacities of 360K, 720K, 1.2MB, 1.44MB, or 2.88MB.

Install your drives and connect power from the system power supply. Use the cable provided to connect the drives to the floppy disk drive connector **FDD**.

IDE Devices

IDE devices include hard disk drives, high-density diskette drives, and CD-ROM or DVD-ROM drives, among others.

The mainboard ships with an IDE cable that can support one or two IDE devices. If you connect two devices to a single cable, you must configure one of the drives as Master and one of the drives as Slave. The documentation of the IDE device will tell you how to configure the device as a Master or Slave device. The Master device connects to the end of the cable.

Install the device(s) and connect power from the system power supply. Use the cable provided to connect the device(s) to the Primary IDE channel connector **IDE1** on the motherboard.

Serial ATA Devices

The **Serial ATA (Advanced Technology Attachment)** is the standard interface for the IDE hard drives, which is designed to overcome the design limitations while enabling the storage interface to scale with the growing media rate demands of PC platforms. It provides you a faster transfer rate of **3.0 Gb/s**. If you have installed a Serial ATA hard drive, you can connect the Serial ATA cables to the Serial ATA hard drive or the connector on the motherboard.

On the motherboard, locate the Serial ATA connectors **SATA1-2**, which support new Serial ATA devices for the highest data transfer rates, simpler disk drive cabling and easier PC assembly.

It eliminates limitations of the current Parallel ATA interface, but maintains register compatibility and software compatibility with Parallel ATA.

Analog Audio Input Header

If you have installed a CD-ROM drive or DVD-ROM drive, you can connect the drive audio cable to the onboard sound system.
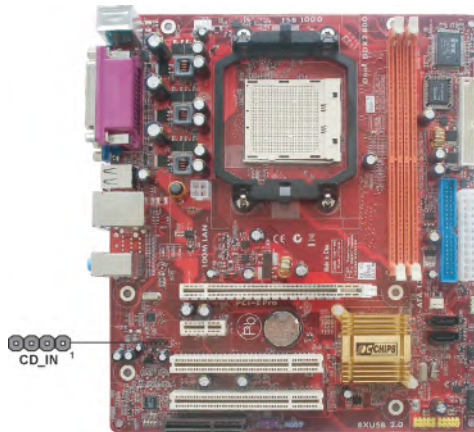
When you first start up your system, the BIOS should automatically detect your CD-ROM/DVD drive. If it doesn't, enter the Setup Utility and configure the CD-ROM/DVD drive that you have installed. On the motherboard, locate the 4-pin header **CD_IN**.

Here is a list of CD_IN pin assignments.

Pin	Signal
1	CD IN L
2	GND
3	GND
4	CD IN R

Expansion Slots

This motherboard has one PCI Ex16, one PCI Ex1 slots, two 32-bit PCI slots and one optional CNR slot.
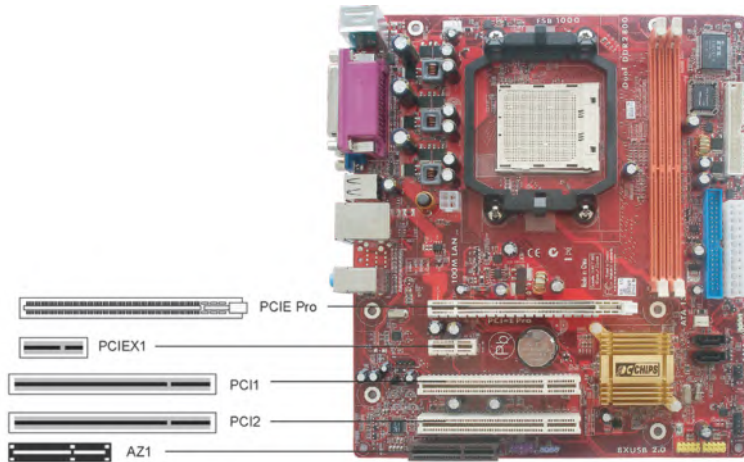
Follow the steps below to install an PCI Express Pro/ PCI Express x1/Azalia CNR/PCI expansion card.

1. Locate the PCI Express Pro, PCI Express x1,Azalia CNR and PCI slots on the mainboard.
2. Remove the blanking plate of the slot from the system chassis.
3. Install the edge connector of the expansion card into the slot. Ensure the edge connector is correctly seated in the slot.
4. Secure the metal bracket of the card to the system chassis with a screw.
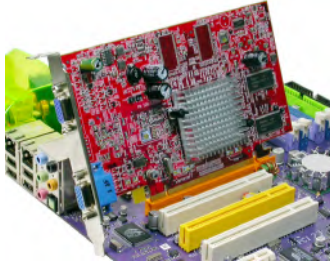
PCI Express Pro Slot(Support x1 VGA Interface)

The one PCI Express Pro slot is fully compliant to the PCI Express Base Specification revision 1.0a as well.

PCI Express x1 Slot

The one PCI Express x1 slot is fully compliant to the PCI Express Base Specification revision 1.0a as well.

Azalia CNR Slot (Optional)

You can install the CNR (Communications and Networking Riser) cards in this slot, including Modem functions.

PCI Slots

You can install the 32-bit PCI interface expansion cards in the slots.

Table A: Supported PCI-E 8X VGA Cards List

VGA Chip	BUS	Model Name
ATI	8X	ASUS EAX300LE A334C/TD
		ASUS EAX1600XT SILENT/TVD/256M/A
		ASUS EAX1300PRO/TD/256M/A
		ASUS EAX850XTP/2DHTV/256M/A
		ASUS EAX1800XT2DHTV/512M/A
		ATI RADEON X850 CrossFire Edition 256M
		Colorful ATI X300/TV Out 128M
		Colorful X800XL/CH 128MB DDR
		Colorful X1300-GD3 /128M/128bit/DDR3
		Colorful X1300-GD2 UP 256M/128bit/DDR2
		Colorful X1600PRO-GD3/128M/128bit/DDR3
		Colourful Radium WindX550-GD2 CT
		DATALAND Radeon X300/128Bit/128M
		DATALAND X700Pro/DVI/TV/128Bit/256M
		ELSA FALCONX X70PRO 256B3
		GIGABYTE GV-RX60XT 128V
		GIGABYTE X700Pro/DVI+Tv Out 128M
		Jetway 600XT 256M
		MSI RX800XT-VDT256E
		MSI RX1300 TD256E
		MSI X800Pro TD256E
		MAXSUM MS-X550-G2-128B-DT
		MAXSUN X550 128Bit/256M
		MAXSUN X1600XT 256M/128bit/DDR3
		ONDA X550 256MB/128Bit
		SAPPHIRE ATI Radeon X700 VPU 128MB
		SAPPHIRE ATI Radeon X800 VPU 128MB
		SAPPHIRE X1900XT 512M PCI-E
		UNIKA FireWindPAC5528 TURBO

VGA Chip	BUS	Model Name
nVidia	**8X**	ASL Power Stick 6600LE 256M 128Bit GD2
		ASUS EN5750/A
		ASUS EN7800GTX/2DHTV/OSP/A
		ASUS EN5750/TD/P/128M
		ASUS EN6600LE/SILENCER/TD/256M/A
		ASUS EN6800XT/HTD/256M/V1.00
		BD3466 V1.2 GeForce 6600/256M
		BD3493 6200TC 128M
		Colorful 6600GT/128M
		Colorful 7800GT/CH 512MB DDRIII
		ECS N6200LE-128TT DDR1 128M
		ECS N6200LE-128TY/128M/64bit/DDR2
		ECS N6600LE-128DV DDR1 128M
		ECS N6600LE-256DY DDR2 256M
		ECS N7300LE -256DZ DDR2 256M
		ECS N7300LE-128TY DDR2 128M
		ELSA PCX935
		ELSA GLADIAC 760GT 256B3 2DT
		FORSA 7900GT 256MB DDRIII Dual DVI/HDTV
		GIGABYTE GV-NX53128D
		GIGABYET GV-NX62128D
		GIGABYTE GV-NX62TC256D
		GIGABYTE GV-NX66T128D
		Leadtek Nvidia Quadro FX1300 128MB
		MAXSUN 7600GS 256MB/128Bit/DDRII
		MSI NX7900GTX-T2D512E
		PixelView PV-N72EM2
		SPARK 7300LE 128MB DDRII
		UNIKA PCX7618GS Pro/128MB/128Bit
		UNIKA PCX7858 GTX 512MB/256Bit
		UNIKA PCX7958GTX 512MB/256Bit
		WINFAST PX6600TD/128MB
		WINFAST PX6600TD/256MB
		WINFAST PX6800GS
		WINFAST PX6800Ultra
		WINFAST PX350XT
		XFX GF 5300/128M
		XFX 6800LE GF 6800LE 128M DDR
		YESTON G7300GS 128MB/GD2
		ZENO GeForce 7600GS-128M DDR3

Chapter 3 BIOS Setup Utility

Introduction

The BIOS Setup Utility records settings and information of your computer, such as date and time, the type of hardware installed, and various configuration settings. Your computer applies the information to initialize all the components when booting up and basic functions of coordination between system components.

If the Setup Utility configuration is incorrect, it may cause the system to malfunction. It can even stop your computer booting properly. If it happens, you can use the clear CMOS jumper to clear the CMOS memory which has stored the configuration information; or you can hold down the **Page Up** key while rebooting your computer. Holding down the **Page Up** key also clears the setup information.

You can run the setup utility and manually change the configuration. You might need to do this to configure some hardware installed in or connected to the motherboard, such as the CPU, system memory, disk drives, etc.

Running the Setup Utility

Every time you start your computer, a message appears on the screen before the operating system loading that prompts you to "*Hit <DEL>if you want to run SETUP*". Whenever you see this message, press the **Delete** key, and the Main menu page of the Setup Utility appears on your monitor.

```
          Phonex-AwardBIOS CMOS Setup Utility

 ►  Standard CMOS Setup              Load Fail-Safe Defaults
 ►  Advanced BIOS Features           Load Optimized Defaults
 ►  Advanced Chipset Features        Set Supervisor Password
 ►  Integrated Peripherals           Set User Password
 ►  Power Management Setup            Save & Exit Setup
 ►  PnP/PCI Configurations           Exit without Saving
 ►  PC Health Status

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

                  Time, Date, Hard Disk Type...
```

You can use cursor arrow keys to highlight anyone of options on the main menu page. Press **Enter** to select the highlighted option. Press the **Escape** key to leave the setup utility. Press +/-/ to modify the selected field's values.

Some options on the main menu page lead to tables of items with installed values that you can use cursor arrow keys to highlight one item, and press **PgUp** and **PgDn** keys to cycle through alternative values of that item. The other options on the main menu page lead to dialog boxes requiring your answer OK or Cancel by selecting the **[OK]** or **[Cancel]** key.

If you have already changed the setup utility, press **F10** to save those changes and exit the utility. Press **F1** to display a screen describing all key functions. Press **F9** to install the setup utility with a set of default values.

Standard CMOS Setup Page

This page displays a table of items defining basic information about your system.

```
                    Phonex-AwardBIOS CMOS Setup Utility
                          Standard CMOS Setup

   Date (mm:dd:yy)      Wed, Jan. 1  2006           Help Item
   Time (hh:mm:ss)       0 : 15 : 47

 ► IDE Channel 0 Master    [PIONEER DVD-ROM DVD]    Menu Level  ►
 ► IDE Channel 0 Slave     [None]
 ► IDE Channel 2 Master    [WDC WD1600JS-22MHB0]  Change the day, month, year and century
 ► IDE Channel 3 Master    [None]
 ► IDE Channel 4 Master    [None]
 ► IDE Channel 5 Master    [None]

   Drive A               [1.44M, 3.5 in.]

   Video                 [EGA/VGA]
   Halt On Setting       [All, But Keyboard]

   Base Memory               640K
   Extended memory         523264K
   Total Memory            524288K

   ↑↓←→ : Move   Enter: Select  +/-/: Value   F10: Save   Esc: Exit
         F1: General Help F5: Previous Values  F6: Fial-Safe Defaults  F7: Optimized Defaults
```

System Date & System Time

These items set up system date and time.

IDE Channel 0/2/3/4/5 Master & IDE Channel 0 Salve

Use these items to configure devices connected to the Primary/Secondary IDE channels. To configure an IDE hard disk drive, choose *Auto*. If the *Auto* setting fails to find a hard disk drive, set it to *User*, and then fill in the hard disk characteristics (Size, Cyls, etc.) manually. If you have a CD-ROM drive, select the setting *CDROM*. If you have an ATAPI device with removable media (e.g. a ZIP drive or an LS-120), select *Floptical*.

Drive A

This item define the characteristics of any diskette drive attached to the system. You can connect one or two diskette drives.

Video

This item defines the video mode of the system. The motherboard has a built-in VGA graphics system; you must leave this item at the default value.

Halt On Setting

This item defines the operation of the system POST (Power On Self Test) routine. You can use this item to select which types of errors in the POST are sufficient to halt the system.

Base Memory, Extended Memory, and Total Memory

These items are automatically detected by the system at start up time. These are display-only fields. You cannot make changes to these fields.

Advanced BIOS Features Page

This page sets up more advanced information about your system. Handle this page with caution. Any changes can affect the operation of your computer.

```
                  Phonex-AwardBIOS CMOS Setup Utility
                        Advanced BIOS Features

 ► CPU Feature                     [Press Enter]        Help Item
 ► Removable Device Priority       [Press Enter]
 ► Hard Disk Boot Priority         [Press Enter]    Allows BIOS to skip certain
 ► CD-ROM Boot Priority            [Press Enter]    tests while booting. This will
 ► Network Boot Priority           [Press Enter]    decrease the time needed to
   CPU Internal Cache              [Enabled]        boot the system.
   External Cache                  [Enabled]
   Quick Power On Self Test        [Enabled]
   First Boot Device               [Floppy]
   Second Boot Device              [Hard Disk]
   Third Boot Device               [CDROM]
   Boot Other Device               [Enabled]
   Boot Up Floppy Seek             [Disabled]
   Boot Up NumLock Status          [On]
   Gate A20 Option                 [Fast]
   Typematic Rate Setting          [Disabled]
 X Typematic Rate (Chars/Sec)       6
 X Typematic Delay (Msec)           250
   Security Option                 [Setup]
  ↑↓←→: Move   Enter: Select  +/-/: Value  F10: Save  Esc: Exit
    F1: General Help F5: Previous Values F6: Fial-Safe Defaults F7: Optimized Defaults
```

► **CPU Feature (Press Enter)**

Scroll to this item and press <Enter> to view the following screen:

```
┌────────────────────────────────────────────────────────────────────┐
│              Phonex-AwardBIOS CMOS Setup Utility                     │
│                        CPU Feature                                   │
├─────────────────────────────────────────┬──────────────────────────┤
│                                          │        Help Item         │
│  NPT Fid Control          [Auto]         │                          │
│  NPT Vid Control          [Auto]         │ Use < > or < ↓ > to      │
│                                          │ select a device,         │
│                                          │ then press <+> to move it │
│                                          │ up, or <-> to move it     │
│                                          │ down the list. Press      │
│                                          │ to exit this menu.        │
│                                          │                          │
│                                          │                          │
├─────────────────────────────────────────┴──────────────────────────┤
│  ↑↓←→ : Move   Enter: Select  +/-: Value  F10: Save  Esc: Exit       │
│     F1: General Help F5: Previous Values  F6: Fial-Safe Defaults     │
│     F7: Optimized Defaults                                           │
└────────────────────────────────────────────────────────────────────┘
```

NPT Fid Control (Auto)

This item allows users to adjust the CPU frequency; the range will be varied accoeding to the different CPUs. We stronly recommend you leave this item at its default value.

NPT Vid Control (Auto)

This item allows users to adjust the CPU voltage.We stronly recommend you leave this item at its default value.

Press <Esc> to return to Advanced BIOS Features   page.

▶ Removable Device Priority (Press Enter)

Scroll to this item and press <Enter> to view the following screen:

```
┌────────────────────────────────────────────────────────────────────┐
│              Phonex-AwardBIOS CMOS Setup Utility                     │
│                   Removable Device Priority                          │
├─────────────────────────────────────────┬──────────────────────────┤
│                                          │        Help Item         │
│   1. Floppy Disks                        │                          │
│                                          │ Use < > or < ↓ > to      │
│                                          │ select a device,         │
│                                          │ then press <+> to move it │
│                                          │ up, or <-> to move it     │
│                                          │ down the list. Press      │
│                                          │ to exit this menu.        │
│                                          │                          │
│                                          │                          │
├─────────────────────────────────────────┴──────────────────────────┤
│  ↑↓←→ : Move   Enter: Select  +/-: Value  F10: Save  Esc: Exit       │
│     F1: General Help F5: Previous Values  F6: Fial-Safe Defaults     │
│     F7: Optimized Defaults                                           │
└────────────────────────────────────────────────────────────────────┘
```

Press <Esc> to return to Advanced BIOS Features   page.

▶ **Hard Disk Boot Priority (Press Enter)**

Scroll to this item and press <Enter> to view the following screen:

```
                 Phonex-AwardBIOS CMOS Setup Utility
                       Hard Disk Boot Priority
┌──────────────────────────────────────────┬─────────────────────────┐
│                                            │        Help Item        │
│  1. Ch2 M        : WDCWD1600JS-22MHB0      │                         │
│  2. Bootable Add-in Cards                  │ Use < ▷ or < ↓  > to select a device, │
│                                            │ then press <+> to move it up, or <- │
│                                            │ > to move it down the list.  Press  │
│                                            │ to exit this menu.      │
│                                            │                         │
│                                            │                         │
└──────────────────────────────────────────┴─────────────────────────┘
   ↑↓←→ : Move   Enter: Select  +/-/: Value  F10: Save  Esc: Exit
        F1: General Help F5: Previous Values  F6: Fial-Safe Defaults  F7: Optimized Defaults
```

Press <Esc> to return to Advanced BIOS Features page.

▶ **CD-ROM Boot Priority (Press Enter)**

Scroll to this item and press <Enter> to view the following screen:

```
                 Phonex-AwardBIOS CMOS Setup Utility
                       CD-ROM Boot Priority
┌──────────────────────────────────────────┬─────────────────────────┐
│                                            │        Help Item        │
│  1. Ch0 M        : PIONEER DVD-ROM DVD-126P│                         │
│                                            │ Use < ▷ or < ↓  > to select a device, │
│                                            │ then press <+> to move it up, or <- │
│                                            │ > to move it down the list.  Press  │
│                                            │ to exit this menu.      │
│                                            │                         │
│                                            │                         │
└──────────────────────────────────────────┴─────────────────────────┘
   ↑↓←→ : Move   Enter: Select  +/-/: Value  F10: Save  Esc: Exit
        F1: General Help F5: Previous Values  F6: Fial-Safe Defaults  F7: Optimized Defaults
```

Press <Esc> to return to Advanced BIOS Features page.

▶ **CD-ROM Boot Priority (Press Enter)**

Scroll to this item and press <Enter> to view the following screen:

```
                 Phonex-AwardBIOS CMOS Setup Utility
                       Network Boot Priority
┌──────────────────────────────────────────┬─────────────────────────┐
│                                            │        Help Item        │
│  1. Network 0: NVIDIA Boot Agent 227.0524  │                         │
│                                            │ Use < ▷ or < ↓  > to select a device, │
│                                            │ then press <+> to move it up, or <- │
│                                            │ > to move it down the list.  Press  │
│                                            │ to exit this menu.      │
│                                            │                         │
│                                            │                         │
└──────────────────────────────────────────┴─────────────────────────┘
   ↑↓←→ : Move   Enter: Select  +/-/: Value  F10: Save  Esc: Exit
        F1: General Help F5: Previous Values  F6: Fial-Safe Defaults  F7: Optimized Defaults
```

Press <Esc> to return to Advanced BIOS Features page.

CPU Internal Cache (Enabled)

All processors that can be installed in this motherboard use internal level 1 (L1) cache memory to improve performance. Leave this item at the default value for better performance.

External Cache (Enabled)

Most processors that can be installed in this system use external level 2 (L2) cache memory to improve performance. Leave this item at the default value for better performance.

Quick Power On Self Test (Enabled)

Enable this item to shorten the power on testing (POST) and have your system start up faster. You might like to enable this item after you are confident that your system hardware is operating smoothly.

First/Second/Third Boot Device (Floppy/Hard Disk/CDROM)

Use these three items to select the priority and order of the devices that your system searches for an operating system at start-up time.

Boot Other Device (Enabled)

When enabled, the system searches all other possible locations for an operating system if it fails to find one in the devices specified under the First, Second, and Third boot devices.

Boot Up Floppy Seek (Disabled)

If this item is enabled, it checks the size of the floppy disk drives at start-up time. You don't need to enable this item unless you have a legacy diskette drive with 360K capacity.

Boot Up NumLock Status (On)

This item defines if the keyboard Num Lock key is active when your system is started.

Gate A20 Option (Fast)

This item defines how the system handles legacy software that was written for an earlier generation of processors. Leave this item at the default value.

Typematic Rate Setting (Disabled)

If this item is enabled, you can use the following two items to set the typematic rate and the typematic delay settings for your keyboard.

- Typematic Rate (Chars/Sec): Use this item to define how many characters per second are generated by a held-down key.
- Typematic Delay (Msec): Use this item to define how many milliseconds must elapse before a held-down key begins generating repeat characters.

Security Option (Setup)

If you have installed password protection, this item defines if the password is required at system start up, or if it is only required when a user tries to enter the Setup Utility.

APIC Mode (Enabled)

This item allows you to enable or disable the APIC (Advanced Programmable Interrupt Controller) mode. APIC provides symmetric multi-processing (SMP) for systems, allowing support for up to 60 processors.

MPS Version Control For OS (1.4)

This item displays MPS version control for OS.

OS Select For DRAM > 64 MB (Non-OS2)

This item is only required if you have installed more than 64 MB of memory and you are running the OS/2 operating system. Otherwise, leave this item at the default.

Small Logo (EPA) Show (Disabled)

Enables or disables the display of the EPA logo during boot.

Summary Screen Show (Enabled)

This item determines whether the summary system information will be showed during boot-up.

ATA 66/100 IDE Cable Msg. (Enabled)

This item enables or disables the display of the ATA 66/100 Cable MSG.

BIOS Write Protect (Disabled)

This item enables or disables the BIOS write protect.

BIOS Bootblock Protect (Disabled)

This item enables or disables the BIOS bootblock protect.

Advanced Chipset Features Page

These items define critical timing parameters of the motherboard. You should leave the items on this page at their default values unless you are very familiar with the technical specifications of your system hardware. If you change the values incorrectly, you may introduce fatal errors or recurring instability into your system.

```
┌─────────────────────────────────────────────────────────────────────┐
│              Phonex-AwardBIOS CMOS Setup Utility                      │
│                  Advanced Chipset Features                            │
├─────────────────────────────────────────────────────────────────────┤
│  Onboard GPU              [Enable If No Ext GPU]                      │
│  Frame Buffer Size        [64M]                    Help Item          │
│  GPU Bank Flip[Disabled]                                              │
│  PMU                      [Disabled]                                  │
│   CPU Frequency           [200.0]                  Menu Level  ▶      │
│   K8<->NB HT Speed        [Auto]                                      │
│   K8<->NB HT Width        [Auto]                                      │
│ ▶ DRAM Configuration      [Press Enter]                               │
│  PCIE Spread Spectrum     [Disabled]                                  │
│  SATA Spread Spectrum     [Disabled]                                  │
│  HT Spread Spectrum       [Disabled]                                  │
│  PCIE Clock               [100Mhz]                                    │
│  SSE/SSE2 Instructions    [Enabled]                                   │
│  TPM Control              [No Change]                                 │
│  System BIOS Cacheable    [Disabled]                                  │
├─────────────────────────────────────────────────────────────────────┤
│  ↑↓←→: Move   Enter: Select  +/-/: Value   F10: Save   Esc: Exit      │
│      F1: General Help F5: Previous Values  F6: Fial-Safe Defaults  F7: Optimized Defaults │
└─────────────────────────────────────────────────────────────────────┘
```

Onboard GPU

This item enables the onboard GPU function. Disable this item if you are going to install an external GPU.

Frame Buffer Size

This item enables users to specify the Onboard VGA share memory size.

GPU Bank Flip

This item enables or disables GPU Bank flip.

PMU (Disabled)

This item enables or disables ACPI power management unit function.

K8 ↔ NB HT Speed (Auto)

This item enables users to set the speed of HyperTransport between the CPU and Northbridge.

K8 <-> NB HT Width (Auto)

This item enables users to set the HyperTransport width between CPU and the Northbridge .

```
┌─────────────────────────────────────────────────────────────────────┐
│              Phonex-AwardBIOS CMOS Setup Utility                      │
│                     DRAM  Configuration                               │
├───────────────────────────────────────────┬─────────────────────────┤
│  Onboard GPU              [Enable If No Ext GPU]                      │
│  Frame Buffer Size        [64M]            │        Help Item         │
│  GPU Bank Flip [Disabled]                  │                          │
│  PMU                      [Disabled]       │                          │
│    CPU Frequency          [200.0]          │    Menu Level  ▶         │
│    K8<->NB HT Speed       [Auto]           │                          │
│    K8<->NB HT Width       [Auto]           │                          │
│  ▶ DRAM Configuration     [Press Enter]    │                          │
│  PCIE Spread Spectrum     [Disabled]       │                          │
│  SATA Spread Spectrum     [Disabled]       │                          │
│  HT Spread Spectrum       [Disabled]       │                          │
│  PCIE Clock               [100Mhz]         │                          │
│  SSE/SSE2 Instructions    [Enabled]        │                          │
│  TPM Control              [No Change]      │                          │
│  System BIOS Cacheable    [Disabled]       │                          │
├───────────────────────────────────────────┴─────────────────────────┤
│  ↑↓←→ : Move   Enter: Select  +/-/: Value  F10: Save  Esc: Exit       │
│       F1: General Help F5: Previous Values  F6: Fial-Safe Defaults  F7: Optimized Defaults │
└─────────────────────────────────────────────────────────────────────┘
```

Timing Mode

This item allows you to set up the DRAM timing nanually or automatically.

Memory Clock value or Limi

When DDR2 Timing Setting by is set to Manual, use this item to set the DRAM frequency.

DQS Training Control

DQS training is used to place the DQS strobe in the center of the data eye.

CKE base power down mode

When in power down mode, if all pages of the DRAMs associated with a CKE pin are closed, then these parts are placed in power down mode. Only pre-charge power down mode is supported, not active power down mode.

CKE based powerdown

The DRAM channel is placed in power down when all chip selects associated with the channel are idle.

Memclock tri-stating

This item enables or disables memclock tri-stating function.

Memory Hole Remapping

This item allows users to enable or disable memory hole remapping.

Auto Optimize Bottom IO

This item is used to set the Auto Optimized Bottom IO.

Bottom of [31:24] IO space

This item is used to select the memory that will be remapped higher than 00E0.

Bottom of UMA DRAM [31:24]

This item is used to set the bottom of UMA DRAM [31:24]. We strongly recommend that you leave this item at its default setting.

PCIE Spread Spectrum

This item, when enabled, can significantly reduce the EMI (Electromagnetic Interference) generated by the PCIE.

SATA Spread Spectrum

This item, when enabled, can significantly reduce the EMI (Electromagnetic Interference) generated by the SATA.

HT Spread Spectrum

This item, when enabled, can significantly reduce the EMI (Electromagnetic Interference) generated by the HT.

PCIE Clock

This item is used to set the frequency of PCIE clock.

SSE/SSE2 Instructions

This item enables or disables SSE/SSE2 instructions.

TPM Control

This item is used to set TPM control. Leave this item at its default setting.
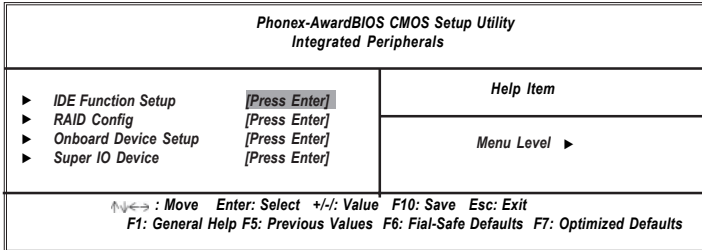
System BIOS Cacheable

This item enables users to enable or disable the system BIOS cache.

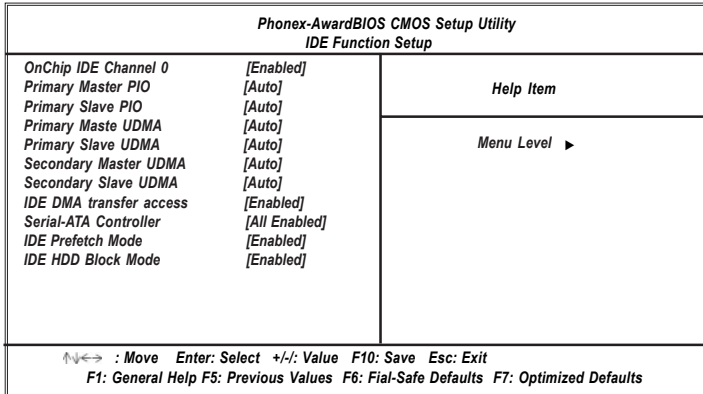Press <Esc> to return to the main menu setting page.

Integrated Peripherals Page

These options display items that define the operation of peripheral components on the system's input/output ports.

```
           Phonex-AwardBIOS CMOS Setup Utility
                 Integrated Peripherals

   ►  IDE Function Setup       [Press Enter]        Help Item
   ►  RAID Config              [Press Enter]
   ►  Onboard Device Setup     [Press Enter]       Menu Level  ►
   ►  Super IO Device          [Press Enter]

        ↑↓←→ : Move   Enter: Select  +/-: Value  F10: Save  Esc: Exit
          F1: General Help F5: Previous Values  F6: Fial-Safe Defaults  F7: Optimized Defaults
```

► IDE Function Setup (Press Enter)

Scroll to this item and press <Enter> to view the following screen:

```
           Phonex-AwardBIOS CMOS Setup Utility
                  IDE Function Setup

   OnChip IDE Channel 0       [Enabled]
   Primary Master PIO         [Auto]              Help Item
   Primary Slave PIO          [Auto]
   Primary Maste UDMA         [Auto]
   Primary Slave UDMA         [Auto]             Menu Level  ►
   Secondary Master UDMA      [Auto]
   Secondary Slave UDMA       [Auto]
   IDE DMA transfer access    [Enabled]
   Serial-ATA Controller      [All Enabled]
   IDE Prefetch Mode          [Enabled]
   IDE HDD Block Mode          [Enabled]


        ↑↓←→ : Move   Enter: Select  +/-: Value  F10: Save  Esc: Exit
          F1: General Help F5: Previous Values  F6: Fial-Safe Defaults  F7: Optimized Defaults
```

On-Chip IDE Channel 0

Use these items to enable or disable the PCI IDE channels that are integrated on the motherboard.

Primary Master/Slave PIO

Each IDE channel supports a master device and a slave device. These four items let you assign the kind of PIO (Programmed Input/Output) was used by the IDE devices. Choose Auto to let the system auto detect which PIO mode is best, or select a PIO mode from 0-4.

Primary/Secondary Master/Slave UDMA

Each IDE channel supports a master device and a slave device. This motherboard supports UltraDMA technology, which provides faster access to IDE devices.

If you install a device that supports UltraDMA, change the appropriate item on this list to Auto. You may have to install the UltraDMA driver supplied with this motherboard in order to use an UltraDMA device.

IDE DMA transfer access

This item allows you to enable the transfer access of the IDE DMA then burst onto the PCI bus and nonburstable transactions do not.

Serial-ATA Controller

This item allows you to enable or disable the onboard SATA controller.

IDE Prefetch Mode

The onboard IDE drive interface supports IDE prefetching, for faster drive access. If you install a primary and secondary add-in IDE interface, set this field to Disabled if the interface does not support prefetching.

IDE HDD Block Mode

Block mode is also called block transfer, multiple commands, or multiple sector read/write. If your IDE hard drive supports block mode, select Enabled for automatic detection of the optimal number of block read/write per sector the drive can support.

Press <Esc> to return to the Integrated Peripherals page.

▶ **RAID Configuration (Press Enter)**

Scroll to this item and press <Enter> to view the following screen:

Phonex-AwardBIOS CMOS Setup Utility		
RAID Configuration		
RAID Enable	[Disabled]	Help Item
× SATA 1 Primary RAID	Disabled	Menu Level ▶ ▶
× SATA 1 Secondary RAID	Disabled	
× SATA 2 Primary RAID	Disabled	
× SATA 2 Secondary RAID	Disabled	
↑↓←→ : Move Enter: Select +/-/: Value F10: Save Esc: Exit		
F1: General Help F5: Previous Values F6: Fial-Safe Defaults F7: Optimized Defaults		

RAID Enable

This item allows you to enable or disable the onboard RAID function of RAID function of RAID supporting devices.

- ***SATA 1/2 Primary/Secondary RAID (Disabled):*** These four items enable or disable the SATA 1/2 Primary/Secondary RAID.

Press <Esc> to return to the Integrated Peripherals page.

▶ Onboard Device Setup (Press Enter)

Scroll to this item and press <Enter> to view the following screen:

```
        Phonex-AwardBIOS CMOS Setup Utility
               Onboard Device Setup

  Onchip USB                   [V1.1 + V2.0]
  USB Memory Type              [SHADOW]            Help Item
  USB Keyboard Support         [Enabled]
  USB Mouse Support            [Enabled]
  HD Audio                     [Auto]            Menu Level  ▶
  Onboard Lan                  [Enabled]
  Onboard Lan Boot ROM         [Enabled]
  MAC Media Interface          [Pin Strap]
x Machine MAC(NV) Adress       [Press Enter]


  ↑↓←→  : Move   Enter: Select  +/-/: Value  F10: Save  Esc: Exit
      F1: General Help F5: Previous Values  F6: Fial-Safe Defaults  F7: Optimized Defaults
```

F5:Previous Values   F6: Fail-Safe Defaults   F7:Optimized Defaults

Onchip USB

This item enables users to enable or disable the onchip USB function, setting it to be USB1.1 or USB2.0 compatible.

USB Memory Type

This item indicates the USB memory type.

USB Keyboard Support

Enable this item if you plan to use a keyboard connected through the USB port in a legacy operating system (such as DOS) that does not support Plug and Play.

USB Mouse Support

Enable this item if you plan to use a mouse connected through the USB port in a legacy operating system (such as DOS) that does not support Plug and Play.

HD Audio

Enables and disables the onboard audio chip. Disable this item if you are going to install a PCI audio add-in card.

Onboard Lan   ▶

Enables or disables the Onboard Lan.

Onboard Lan Boot ROM

This item enables or disables LAN Boot ROM.

MAC Media Interface

This item is used to select MAC Media interface.

Machine MAC(NV) Adress

Enable this field to enter the MAC(NV) address in the field below.

Press <Esc> to return to the Integrated Peripherals page.

▶ **SuperIO Device (Press Enter)**

Scroll to this item and press <Enter> to view the following screen:

Phonex-AwardBIOS CMOS Setup Utility SuperIO Device		
Onboard FDC Controller	[Enabled]	Help Item
Onboard Serial Port 1	[3F8/IRQ4]	
Onboard Serial Port 2	[2F8/IRQ3]	
UART Mode Select	[Normal]	Menu Level ▶
x UR2 Duplex Mode	Half	
Onboard Parallel Port	[378/IRQ7]	
Parallel Port Mode	[ECP+EPP]	
x ECP Mode Use DMA	[3]	
↑↓←→: Move Enter: Select +/-/: Value F10: Save Esc: Exit F1: General Help F5: Previous Values F6: Fial-Safe Defaults F7: Optimized Defaults		

Onboard FDC Controller

This option enables the onboard floppy disk drive controller.

Onboard Serial Port 1

This option is used to assign the I/O address and interrupt request (IRQ) for onboard serial port 1/2.

UART Mode Select

This field is available if the Onboard Serial Port 2 field is set to any option but Disabled. . UART Mode Select enables you to select the infrared communication protocol-IrDA, ASKIR or SCR.

UR2 Duplex Mode

This field is available when UART Mode is set to either ASKIR or IrDA. This item enables you to determine the infrared function of the onboard infrared chip. The options are Full and Half (default). Full-duplex means that you can transmit and send information simultaneously. Half-duplex is the transmission of data in both directions, but only one direction at a time.

Onboard Parallel Port

This option is used to assign the I/O address and interrupt request (IRQ) for the onboard parallel port.

Parallel Port Mode

Enables you to set the data transfer protocol for your parallel port. There are four options: SPP (Standard Parallel Port), EPP (Enhanced Parallel Port), ECP (Extended Capabilities Port) and ECP+EPP.

SPP allows data output only. Extended Capabilities Port (ECP) and Enhanced Parallel Port (EPP) are bi-directional modes, allowing both data input and output. ECP and EPP modes are only supported with EPP- and ECP-aware peripherals.

ECP Mode Use DMA

When the onboard parallel port is set to ECP mode, the parallel port can use DMA 3 or DMA 1.

Power Management Setup Page

This option lets you control system power management. The system has various power-saving modes including powering down the hard disk, turning off the video, suspending to RAM, and software power down that allows the system to be automatically resumed by certain events.

```
                    Phonex-AwardBIOS CMOS Setup Utility
                         Power Management Setup

   ACPI Function                    [Enabled]         Help Item
   ACPI Suspend Type                [S1&S3]
   Power Management                 [User Define]
   Video Off Method                 [DPMS Support]    Menu Level  ▶
   HDD Power Down                   [Disabled]
   Soft-Off by PBTN                 [Instant-Off]
   HPET Support                     [Enabled]
   Resume By PCI-E PME              [Enabled]
   Resume By PCI PME                [Enabled]
   Resume By WOM/RING               [Disabled]
   Resume By USB (S3)               [Disabled]
   Resume By PS2 MS(S3)             [Disabled]
   Resume By PS2 KB(S3)             [Disabled]
 X Power On By Button                Enabled
 X Hot Key Power ON                  Ctrl-F1
   Power-On by Alarm                [Disabled]
 X Day of Month Alarm                0
 X Time (hh:mm:ss) Alarm             0 : 0 : 0
   Power on After Power Fial        [Off]

   ↑↓←→ : Move  Enter: Select  +/-: Value  F10: Save  Esc: Exit
      F1: General Help F5: Previous Values  F6: Fial-Safe Defaults  F7: Optimized Defaults
```

ACPI Function

Use this item to enable or disable ACPI function.

ACPI Suspend Type

Use this item to define how your system suspends. In the default, S3 (STR), the suspend mode is a suspend to RAM, i.e., the system shuts down with the exception of a refresh current to the system memory.

Power Management

This item is used to enable or disable users manually define power management.

Video Off Method

This item defines how the video is powered down to save power. This item is set to DPMS (Display Power Management Software) by default.

HDD Power Down

The IDE hard drive will spin down if it is not accessed within a specified length of time.

Soft-Off by PBTN

Under ACPI (Advanced Configuration and Power management Interface) you can create a software power down. In a software power down, the system can be resumed by Wake Up Alarms. This item lets you install a software power down that is controlled by the power button on your system. If the item is set to Instant-Off, then the power button causes a software power down. If the item is set to

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Delay 4 Sec. then you have to hold the power button down for four seconds to cause a software power down.

HPET Support

This item enables or disables HPET support.

Resume by PCI-E PME

This system can be turned off with a software command. If you enable this item, the system can automatically resume if there is an incoming call on the PCI Express card. You must use an ATX power supply inorder to use this feature. Use this item to do wake-up action if inserting the PCI Express card.

Resume by PCI PME

This system can be turned off with a software command. If you enable this item, the system can automatically resume if there is an incoming call on the PCI Modem card or PCI LAN card. You must use an ATX power supply inorder to use this feature. Use this item to do wake-up action if inserting the PCI card.

Resume by WOM/Ring

An input signal on the serial Ring indicator (RI) line (in other words, and incoming call on the modem)/LAN awakens the system from a soft off state.

Resume By USB (S3)

This item allows users to enable or disable the USB device Walk-up from S3 mode.

Resume By PS2 MS/KB (S3)

These items enable or disable you to allow mouse or keyboard activity to awaken the system from power saving mode.

Power On By Button

This item enables or diables you to use only the power button to power on the system.

Hot Key Power ON

Use this item to allocate the hot key to wake up the system.

Power-On by Alarm

This item allows users to enable or disable the alarm to wake up the system. If set to Enabled, users can specify the specific day of month and the exact time to power up the system.

Power On After Power Fail

This item enables your computer to automatically restart or return to its last operating status.

Press <Esc> to return to the main menu setting page.

PnP/PCI Configurations Page

These options configure how PnP (Plug and Play) and PCI expansion cards operate in your system. Both the the ISA and PCI buses on the motherboard use system IRQs (Interrup ReQuests) and DMAs (Direct Memory Access). You must set up the IRQ and DMA assignments correctly through the PnP/PCI Configurations Setup utility for the motherboard to work properly. Selecting PnP/PCI Configurations on the main program screen displays this menu:

```
                    Phonex-AwardBIOS CMOS Setup Utility
                         PnP/PCI Configurations

                                                         Help Item
    Init Display First          [PCI Slot]
    PNP OS Installed            No
 ▶  IRQ Resources               [Press Enter]            Menu Level ▶

    PCI/VGA Palette Snoop       [Disabled]         Default is Disabled. Select Enabled to reset
    Assign IRQ For VGA          Enabled            Extended System Configuration Data ESCD)
    Assign IRQ For USB          [Enabled]          when you exit Setup if you have installed a
                                                   new add-on and the system reconfiguration
    ** PCI Express relative items**                has caused such a serious conflict that the
    Maximum Payload Size        [4096]             OS cannot boot

        ↑↓←→ : Move   Enter: Select  +/-/: Value  F10: Save  Esc: Exit
        F1: General Help F5: Previous Values  F6: Fial-Safe Defaults  F7: Optimized Defaults
```

Init Display First

This item allows you to choose the primary display card.

IRQ Resources

In the IRQ Resources submenu, if you assign an IRQ to Legacy ISA, then that Interrupt Request Line is reserved for a legacy ISA expansion card. Press <Esc> to close the IRQ Resources submenu.

PCI/VGA Palette Snoop

This item is designed to overcome problems that can be caused by some nonstandard VGA cards. This board includes a built-in VGA system that does not require palette snooping so you must leave this item disabled.

Assign IRQ For VGA/USB

Names the interrupt request(IRQ) line assigned to the VGA/USB on your system.

Activity of the selected IRQ always awakens the system.

Maximum Payload Size

This item specifies the maximum payload size for the PCI Express function.

PC Health Status Page

On motherboards that support hardware monitoring, this item lets you monitor the parameters for critical voltages, temperatures and fan speeds.

```
                    Phonex-AwardBIOS CMOS Setup Utility
                            PC Health Status

   Smart Fan Function        [Press Enter]              Help Item
   Shutdown Temperature      [Disabled]
   Warning Temperature       [Disabled]
   CPU Tcontrol              24°C                      Menu Level   ▶
   System Temperature        29°C
   CPU Fan Speed             2518 RPM
   System Fan Speed          0 RPM
   CPU Vcore                 1.36V

   VDIMM                     1.79V




         ↕←→  : Move   Enter: Select  +/-/: Value   F10: Save   Esc: Exit
             F1: General Help F5: Previous Values  F6: Fial-Safe Defaults  F7: Optimized Defaults
```

▶ Smart Fan Function (Press Enter)

Scroll to this item and press <Enter> to view the following screen:

```
              Phoenix-Award WorkstationBIOS CMOS Setup Utility
                            Smart Fan Function

    CPU Smart  Fan Function          [Disabled]          Item Help
  X CPU FAN Low PWM                  0
  X CPU FAN Temp of Low PWM          0               Menu Level    ▶▶
  X CPU FAN Slope(PWM/°C)            0
  X CPU SMART FAN Delta T            0






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

CPU/SYS Smart Fan Function

These items enable you to define the CPU/System temperatur by smartly adjusting the CPU/System fan. When it is set at certain temperature, the CPU/SYS Fan PWM value will change accordingly.

Press <Esc> to return to the main menu setting page.

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Shutdown Temperature

Enables you to set the maximum temperature the system can reach before powering down.

Warning Temperature

Enables you to set the warning temperature before powering down.

System Component Characteristics

These fields provide you with information about the systems current operating status. You cannot make changes to these fields.

- CPU Tcontrol
- System Temperature
- System Fan Speed
- CPU Vcore
- Vdimm

Load Fail-Safe Defaults

This option opens a dialog box that lets you install fail-safe defaults for all appropriate items in the Setup Utility:

Press <Y> and then <Enter> to install the defaults. Press <N> and then <Enter> to not install the defaults. The fail-safe defaults place no great demands on the system and are generally stable. If your system is not functioning correctly, try installing the fail-safe defaults as a first step in getting your system working properly again. If you only want to install fail-safe defaults for a specific option, select and display that option, and then press <F6>.

Load Optimized Defaults

This option opens a dialog box that lets you install optimized defaults for all appropriate items in the Setup Utility. Press <Y> and then <Enter> to install the defaults. Press <N> and then <Enter> to not install the defaults. The optimized defaults place demands on the system that may be greater than the performance level of the components, such as the CPU and the memory. You can cause fatal errors or instability if you install the optimized defaults when your hardware does not support them. If you only want to install setup defaults for a specific option, select and display that option, and then press <F7>.

Set Supervisor/User Password

When this function is selected, the following message appears at the center of the screen to assist you in creating a password.

ENTER PASSWORD

Type the password, up to eight characters, and press <Enter>. The password typed now will clear any previously entered password from CMOS memory. You will be asked to confirm the password. Type the password again and press <Enter>. You may also press <Esc> to abort the selection.

To disable password, just press <Enter> when you are prompted to enter password. A message will confirm the password being disabled. Once the password is disabled, the system will boot and you can enter BIOS Setup freely.

PASSWORD DISABLED

If you have selected "System" in "Security Option" of "BIOS Features Setup" menu, you will be prompted for the password every time the system reboots or any time you try to enter BIOS Setup.

If you have selected "Setup" at "Security Option" from "BIOS Features Setup" menu, you will be prompted for the password only when you enter BIOS Setup.

Supervisor Password has higher priority than User Password. You can use Supervisor Password when booting the system or entering BIOS Setup to modify all settings. Also you can use User Password when booting the system or entering BIOS Setup but can not modify any setting if Supervisor Password is enabled.

Save & Exit Setup

Highlight this item and press <Enter> to save the changes that you have made in the Setup Utility and exit the Setup Utility. When the Save and Exit dialog box appears, press <Y> to save and exit, or press <N> to return to the main menu.

Exit Without Saving

Highlight this item and press <Enter> to discard any changes that you have made in the Setup Utility and exit the Setup Utility. When the Exit Without Saving dialog box appears, press <Y> to discard changes and exit, or press <N> to return to the main menu.

Note: If you have made settings that you do not want to save, use the "Exit Without Saving" item and press <Y> to discard any changes you have made.

This concludes Chapter 3. Refer to the next chapter for information on the software supplied with the motherboard.

Chapter 4 Software & Applications

Introduction

This chapter describes the contents of the support CD-ROM that comes with the motherboard package.

The support CD-ROM contains all useful software, necessary drivers and utility programs to properly run our products. More program information is available in a README file, located in the same directory as the software.

To run the support CD, simply insert the CD into your CD-ROM drive. An Auto Setup screen automatically pops out, and then you can go on the auto-installing or manual installation depending on your operating system.

If your operating system is Windows 2000/XP, it will automatically install all the drivers and utilities for your motherboard; if Windows NT or manual installation, please follow the instructions described as the Installing under Windows NT or Manual Installation section.

Installing Support Software

1　Insert the support CD-ROM disc in the CD-ROM drive.
2　When you insert the CD-ROM disc in the system CD-ROM drive, the CD automatically displays an Auto Setup screen.
3　The screen displays three buttons of **Setup**, **Browse CD** and **Exit** on the right side, and three others **Setup**, **Application** and **ReadMe** at the bottom. Please see the following illustration.

The **Setup** button runs the software auto-installing program as explained in next section.

The **Browse CD** button is a standard Windows command that you can check the contents of the disc with the Windows 98 file browsing interface.

The **Exit** button closes the Auto Setup window. To run the program again, reinsert the CD-ROM disc in the drive; or click the CD-ROM driver from the Windows Explorer, and click the Setup icon.

The **Application** button brings up a software menu. It shows the bundled software that this mainboard supports.

The **ReadMe** brings you to the Install Path where you can find out path names of software driver.

Auto-Installing under Windows 2000/XP

If you are under Windows 2000/XP, please click the **Setup** button to run the software auto-installing program while the Auto Setup screen pops out after inserting the support CD-ROM:

1   The installation program loads and displays the following screen. Click the **Next** button.

2   Select the items that you want to setup by clicking on it (the default options are recommended). Click the **Next** button to proceed.
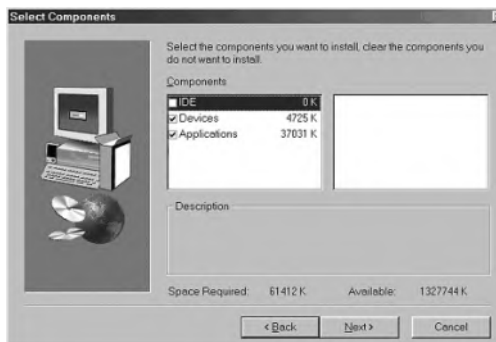
Note: To install the CNR card driver, please select the "Modem" item manually after the Auto Setup. Click on "Next >" and the CNR card driver will be installed automatically.
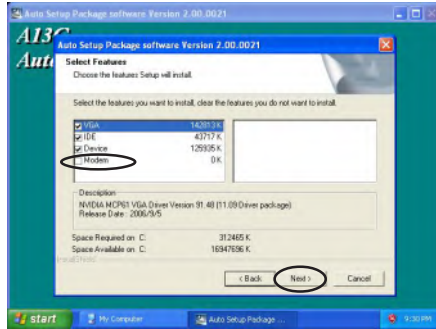
3   The support software will automatically install.

Once any of the installation procedures start, software is automatically installed in sequence. You need to follow the onscreen instructions, confirm commands and allow the computer to restart as few times as needed to complete installing whatever software you selected. When the process is finished, all the support software will be installed and start working.

Installing under Windows NT or Manual Installation

If you are under Windows NT, the auto-installing program doesn't work out; or you have to do the manual installation, please follow this procedure while the Auto Setup screen pops out after inserting the support CD-ROM:

1   Click the **ReadMe** to bring up a screen, and then click the Install Path at the bottom of the screen.
2   Find out your mainboard model name and click on it to obtain its correct driver directory.
3   Install each software in accordance with the corresponding driver path.

Bundled Software Installation

All bundled software available on the CD-ROM is for users' convenience. You can install bundled software as follows:

1   Click the **Application** button while the Auto Setup screen pops out after inserting the support CD-ROM.
2   A software menu appears. Click the software you want to install.
3   Follow onscreen instructions to install the software program step by step until finished.