

Chapter 3

AMI® BIOS USER'S GUIDE

The system configuration information and chipset register information is stored in the CMOS RAM. This information is retained by a battery when the power is off. Enter the BIOS setup (if needed) to modify this information.

The following pages will describe how to enter BIOS setup, and all about options.

3.1 Enter BIOS Setup

Enter the AMI® setup Program's Main Menu as follows:

1. Turn on or reboot the system. The following screen appears with a series of diagnostic check.

```
AMIBIOS (C) 1999 American Megatrends Inc.  
AGIOMS VXXX XXXXXX
```

```
Hit <DEL> if you want to run setup
```

```
(C) American Megatrends Inc.  
61-XXXX-001169-00111111-071592-i82440FX-H
```

2. When the "Hit " message appears, press key to enter the BIOS setup screen.
3. After pressing key, the BIOS setup screen will appear.

Note: *If you don't want to modify CMOS original setting, then don't press any key during the system boot.*

<p>AMIBIOS HIFLEX SETUP UTILITIES - VERSION 1.22 (C) 1999 American Megatrends, Inc. All Rights Reserved</p>
<p>Standard CMOS Setup Advanced CMOS Setup Advanced Chipset Setup Power Management Setup PCI/Plug and Play Setup Peripheral Setup Hardware Monitor Setup Auto-Detect Hard Disks Change User Password Change Supervisor Password Auto Configuration with Optimal Settings Auto Configuration with Fail Safe Settings Save Settings and Exit Exit without Saving</p>
<p>Standard CMOS setup for changing time, hard disk type, etc.</p>

4. Use the <Up> and <Down> key to move the highlight scroll up or down.
5. Use the <ENTER> key to select the option.
6. To exit, press <ESC>. To save and exit, press <F10>.
7. Section 3.2 to 3.7 will explain the option in more details.

3.2 Standard CMOS Setup

- 1. Press <ENTER> on “Standard CMOS Setup” of the main menu screen .

AMIBIOS SETUP - STANDARD CMOS SETUP
(C)1999 American Megatrends, Inc. All Rights Reserved

Date (mm/dd/yyyy): Fri March 20, 1999
Time (hh/mm/ss): 17:09:25

Floppy Drive A: 1.44 MB 3 1/2
Floppy Drive B: Not Installed

	Type	Size	Cyln	Head	WPcom	Sec	LBA Mode	Blk Mode	PIO Mode	32Bit Mode
Pri Master	:Auto						ON	ON	AUTO	ON
Pri Slave	:Auto						ON	ON	AUTO	ON
Sec Master	:Auto						ON	ON	AUTO	ON
Sec Slave	:Auto						ON	ON	AUTO	ON

Boot Sector Virus Protection Disabled

Month : Jan-Dec
Day : 01-31
Year : 1901-9999

ESC:Exit :Sel
PgUp/PgDn:Modify
F2/F3:Color

- 2. Use <Up> and <Down> to choose the item and <PgUp> and <PgDn> keys to modify the highlighted item.
- 3. After you have finished with the Standard CMOS Setup, press <ESC> to go back to the main menu.

3.3 Advanced CMOS Setup

- 1. Press <ENTER> on “Advanced CMOS Setup” of the main menu

AMIBIOS SETUP - ADVANCED CMOS SETUP		
(C) 1999 American Megatrends, Inc. All Rights Reserved		
Quick Boot	Enabled	Available Options: Disabled Enabled
1st Boot Device	Floppy	
2nd Boot Device	IDE 0	
3rd Boot Device	CD-ROM	
4th Boot Device	Disabled	
Try Other Boot Devices	Yes	
Floppy Access Control	Read-Write	
S.M.A.R.T. For Hard Disk	Disabled	
BootUp Num-Lock	On	
BIOS Flash Protection	Enabled	
Floppy Drive Swap	Disabled	
Floppy Drive Seek	Disabled	
PS/2 Mouse Support	Enabled	
Primary Display	VGA/EGA	
Password Check	Setup	
Boot to OS/2 > 64M	No	
CPU Serial Number	Enabled	
L1 Cache	Write Back	
L2 Cache	Write Back	
Cache Bus ECC	Enabled	
System BIOS Cacheable	Disabled	
C000, 32k Shadow	Disabled	
C800, 16k Shadow	Disabled	
CC00, 16k Shadow	Disabled	
D000, 16k Shadow	Disabled	
D400, 16k Shadow	Disabled	
D800, 16k Shadow	Disabled	
DC00, 16k Shadow	Disabled	ESC:Exit :Sel PgUp/PgDn:Modify F2/F3:Color

- 2. Use <Up> and <Down> to choose the item and <PgUp> and <PgDn> keys to modify the highlighted item.
- 3. After you have finished with the Advanced CMOS Setup, press <ESC> to go back to the main menu.

Description of the item on screen follows:

Quick Boot

Set this option to Enabled to permit AMI® BIOS to boot within 5 seconds. This option replaces the old ABOVE 1 MB Memory Test option. The Optimal default setting is Enabled. The Fail-Safe default setting is Disabled.

1st Boot Device/2nd Boot Device/3rd Boot Device/4th Boot Device

This option sets the sequence of boot drives.

The settings are:

IDE0	The system will boot from the first HDD.
IDE1	The system will boot from the Second HDD.
IDE2	The system will boot from the Third HDD.
IDE3	The system will boot from the Fourth HDD.
Floppy	The system will boot from Floppy.
ZIP A:/LS120	The system will boot from ZIP, LS120.
ATAPI ZIP C	The system will boot from ZIP (ATAPI2).
SCSI	The system will boot from the SCSI.
Network	The system will boot from the Network drive.
CD-ROM	The system will boot from the CD-ROM.
Disable	Disable this sequence.

Try other Boot Devices

This option sets the other device boot, if all the Four Boot Devices failed.

Floppy Access Control

This option sets the Floppy to Read-only or Read-Write.

S.M.A.R.T. for Hard Disks

This option sets the SMART Function for the hard disk. The hard disk need to have SMART function for this feature to work.

Boot up Num Lock

When this option is set to Off, AMI® BIOS turns off the Num Lock key when the system is powered on. The end user can then use the arrow keys on both the numeric keypad and the keyboard. The settings are On or Off. The optimal default and Fail-Safe default settings are On.

BIOS Flash Protection

This item is used to protect BIOS from flashing. During Enabled, BIOS can be flash. During Disabled, you will unable to flash the BIOS.

Note: If jumper JP1 is onboard. The BIOS will not display this item.

Floppy Drive Swap

Set this option to Enabled to specify that floppy drives A: and B: are swapped. The setting are Enabled and Disabled. The Optimal and Fail-Safe default settings are Disabled.

Floppy Drive Seek

When this option is set to Enabled, AMI® BIOS performs a Seek command on floppy drive A: before booting the system. The settings are Enabled and Disabled. The Optimal and Fail-Safe default settings are Disabled.

PS/2® Mouse Support

When this option is set to Enabled, AMI® BIOS supports a PS/2® mouse. The settings are Enabled and Disabled. The Optimal and Fail-Safe default settings are Enabled.

Primary Display

This option configures the primary display subsystem in the computer. The settings are Mono(monochrome), 40CGA, 80CGA or VGA/EGA. The optimal and Fail-Safe default settings are VGA/EGA.

Password Check

This option specifies the type of AMI® BIOS password protection that is implemented. The Optimal and Fail-Safe default settings are Setup.

Boot To OS/2® > 64MB

Set this option to Enabled to permit the BIOS to run properly, if OS/2® is to be used with > 64MB of DRAM. The settings are Enabled or Disabled. The Optimal and Fail-safe default settings are Disabled.

CPU Serial Number

This option is for Pentium III processor. During Enabled, this will check the CPU Serial number. Disabled this option if you don't want the system to know the Serial number.

L1 Cache

The default value is Write Back.

Write Back(default) Write Back cache.

Disabled Disabled cache.

L2 Cache

Choose Write Back or Write through or Disabled. This item default setting is Write Back the level 2 cache memory.

Cache Bus ECC

This option is for Pentium® II/III processor. During Enabled, this will affect the system performance. Disabled this option if you don't want to affect the system performance.

System BIOS Cacheable

AMI® BIOS always copies the system BIOS from ROM to RAM for faster execution. Set this option to Enabled to permit the contents of the F0000h RAM memory segment to be written to and read from cache memory. The settings are Enabled or Disabled. The Optimal default setting is Enabled. The Fail-Safe default setting is Disabled.

C000, 32K Shadow

These options specify how the contents of the video ROM are handled. The settings are:

Disabled - the Video ROM is not copied to RAM.

Cached - the contents of the video ROM from C0000h - C7FFFh are not only copied from ROM to RAM; it can also be written to or read from cache memory.

Shadow - the Contents of the video ROM from C0000h - C7FFFh are copied(shadowed) from ROM to RAM for faster execution.

The Optimal and Fail-Safe default setting is Cached.

**C8000, 16k Shadow/CC00, 16k Shadow/D000, 16k Shadow/
D400, 16k Shadow/D800, 16k Shadow/DC00, 16k Shadow**

These options specify how the contents of the adaptor ROM named in the option title are handled. The ROM area that is not used by ISA adapter cards will be allocated to PCI adapter cards. The settings are:

Disabled- The specified ROM is not copied to RAM.

Cache- The contents of the ROM area are not only copied from ROM to RAM for faster execution, it can also be written to or read from cache memory.

Shadow- The contents of the ROM area are copied from ROM to RAM for faster execution.

The Optional and Fail-Safe default settings are Disabled.

3.4 Advanced Chipset Setup

- 1. Press <ENTER> on “Advanced Chipset Setup” of the main menu screen.

AMIBIOS SETUP - ADVANCED CHIPSET SETUP		
(C) 1999 American Megatrends, Inc. All Rights Reserved		
SDRAM CAS Latency	3 scLks	Available Options: Disabled Enabled
Memory Hole	Disabled	
ICH Delayed Transaction	Disabled	
ICH DCB Enable	Disabled	
Graphics Aperture Size	64MB	
ClkGen Spread Spectrum	Enabled	
ClkGen for PCI Slot	Enabled	
USB Function	Enabled	
USB KB/Mouse Legacy Support	Disabled	
ESC:Exit :Sel		
PgUp/PgDn:Modify		
F2/F3:Color		

- 2. Use <Up> and <Down> to choose the item and <PgUp> and <PgDn> keys to modify the highlighted item.
- 3. After you have finished with the Advanced Chipset Setup, press <ESC> to go back to the main menu.

Description of the item on screen follows:**SDRAM CAS Latency**

This option determines the CAS latency time parameter of SDRAM. The settings are 2 clks or 3 clks or Auto. The setting Auto is determines from SPD. It is recommended that this be set to 3.

Memory Hole

This option allows the end user to specify the location of a memory hole(15MB-16MB). The cycle matching the selected memory hole will be passed to the ISA bus.

ICH Delayed Transaction

Select Enabled to compliance with PCI specification version 2.1. If some PCI can't work currently. The setting is Disabled.

ICH DCB Enabled

Select Enabled the LPC DMA device and PC/PCI DMA device collection buffer Enabled. The system performance is better. This item Disabled

Graphics Aperture Size

This option determines the effective size of the graphics aperture used in the particular MCM configuration. The AGP aperture is memory - mapped, while graphics data structure can reside in a graphics aperture. The aperture range should be programmed as not cacheable in the processor cache, accesses with the aperture range are forwarded to the main memory, then MCM will translate the original issued address via a translation table that is maintained on the main memory. The option allows the selection of an aperture size of 4MB, 8MB, 16MB, 32MB, 64MB, 128MB and 256MB.

ClkGen Spread Spectrum

This item allows you to select the clock generator Spread Spectrum function for EMI. The default is enabled. This item should always be set to Disabled, if you over clock the processor.

ClkGen for PCI Slot

Select Enabled to allows close PCI clock, when PCI slot is not install any card. If you don't want to turn off clock, this item is setting Disabled.

USB Function

Set this option to Enabled or Disabled the on-chip USB controller. The Optional and Fail-Safe default setting are Disabled.

USB Keybd/Mouse Legacy Support

Set this option to Enabled or Disabled USB keyboard/mouse legacy support. The Optional and Fail-Safe default settings are Disabled.

3.5 Power Management Setup

1. Press <ENTER> on “Power Management Setup” of the main menu screen.

AMIBIOS SETUP - POWER MANAGEMENT SETUP		
(C) 1999 American Megatrends, Inc. All Rights Reserved		
Compliance With O/S	Yes	Available Options:
ACPI Sleep Type	S1/POS	Disabled
Power Management/APM	Enabled	Enabled
Green PC Monitor Power State	Stand By	
Video Power Down Mode	Suspend	
Hard Disk power Down Mode	Stand By	
Suspend Time Out (Minute)	Disabled	
Power Button Function	On/Off	
Reset Button Control	Enabled	
Green PC LED Status	Dual Color	
FAN Duty When Suspend	Stop	
Restore on AC/Power Loss	Last State	
Resume By Ring	Disabled	
Resume By LAN	Disabled	
Resume By PME# Function	Disabled	
Resume On RTC Alarm	Disabled	
RTC Alarm Date	15	
RTC Alarm Hour	12	
RTC Alarm Minute	30	
RTC Alarm Second	30	
CPU Critical Temperature	Disabled	
Throttle Slow Clock Ratio	50.0%	
--- System Power Event ---		
Keyboard & PS/2 Mouse Access	Monitor	
FDC/LPT/COM Ports Access	Monitor	
SB & MSS Audio Ports Access	Ignore	
MIDI Ports Access	Ignore	
ADLIB Ports Access	Ignore	
Primary Master IDE Access	Monitor	
Primary Slave IDE Access	Ignore	
Secondary Master IDE Access	Monitor	
Secondary Slave IDE Access	Ignore	
PIRQ[A] IRQ Active	Ignore	
PIRQ[B] IRQ Active	Ignore	
PIRQ[C] IRQ Active	Ignore	
PIRQ[D] IRQ Active	Ignore	
		ESC:Exit :Sel
		PgUp/PgDn:Modify
		F2/F3:Color

2. Use <Up> and <Down> to choose the item and <PgUp> and <PgDn> keys to modify the highlighted item.
3. After you have finished with the Power Management Setup, press <ESC> to go back to the main menu.

Description of the item on screen follows:

Compliance With O/S

Set this option to Yes the operating system is support ACPI. The setting is No, the operating system is support APM.

ACPI Sleep Type

The settings are S1/POS or S3/STR. This item default is S1/POS.

S1/POS(Power On Suspend)

The S1/POS state is low power saving state. In this state, the system context will maintains all CPU, chipset and memory power.

S3/STR(Suspen to RAM)

The S3/STR state is system off and only maintains memory power off.

Power Management/APM

Set this option to Enabled to enable the chipset's power management features and APM(Advanced Power Management). The settings are Enabled. The Optimal and Fail-Safe default settings are Disabled.

Green PC Monitor Power State

This option specifies the power state that the green PC-compliant video monitor enters when AMI® BIOS places it in a power savings state after the specified period of display inactivity has expired. The settings are Off, Standby, Suspend. The Optional and Fail-Safe default settings are Standby.

Video Power Down Mode

This option specifies the power conserving state that the VESA VGA video subsystem enters after the specified period of display inactivity has expired. The settings are Disabled, Standby or Suspend. The Optimal and Fail-Safe default settings are Standby.

Hard Disk Power Down Mode

This option specifies the power conserving state that the hard disk drive enters after the specified period of hard drive inactivity has expired. The settings are Disabled, Standby or Suspend. The Optional and Fail-Safe default settings are Disabled.

Suspend TimeOut (Minute)

This option specifies the length of a period of system inactivity. When this length of time expires, the computer enters power conserving state (see the previous page). The settings are Disabled, 1 min, 2 min, 3 min, 4 min, 5 min, 6 min, 7 min, 8 min, 9 min, 10 min, 11 min, 12 min, 13 min, 14 min or 15 min. The Optimal and Fail-Safe default settings are Disabled.

Power Button Function

During Suspend, if you push the switch once, the system goes into suspend mode and if you push it more than 4 seconds, the system will be turned off. During On/Off, the system will turn off once you push the switch.

Reset Button Control

During Enabled, if system goes into suspend mode, push the Reset Button will not resume system. During Disabled, you can resume system at any time. This purpose is prevent Push Reset Button.

Note: If jumper JP1 is onboard. The BIOS will not display this item.

Green PC LED Status

This item determines which state the Green PC LED will use. The settings are Blinking or No Changed or Dual color. During Dual Color, the Green PC LED will change its color in suspend mode. During Blinking, the Green PC LED will blink LED in suspend mode. During No Changed, the Green PC LED will always remain lit.

FAN Duty When Suspend

When system support Hardware monitor Function, you can choose stop , 25%, 50%, 75%, or Full on control all of FAN at system goes into suspend mode.

When system contains no Hardware monitor Function, you only can choose stop or Full on.

Restore on AC/Power Loss

The settings are power on or power off or last status. During power on, after every AC power loss, the system will be turned on. During power off, after every AC power loss, the system will be turned off. During last status, after every AC power loss, whatever the system status, it will be the same when the AC power returns.

Resume by Ring

During Disabled, the system will ignore any incoming call from the modem. During Enabled, the system will boot up if there's an incoming call from the modem.

Note: If you have change the setting, you must let the system boot up until it goes to the operating system. Then, power off the system. This function will work the next time you power on.

Resume by LAN

During Disabled, the system will ignore any incoming signal from the LAN network card. During Enabled, the system will boot up if there's an incoming signal from the LAN network card.

Note: If you have change the setting, you must let the system boot up until it goes to the operating system. Then, power off the system. This function will work the next time you power on.

Resume by PME# Function

The setting is Enabled to compliance with PCI specification version 2.2 and PCI card have to be support. It can power on or resume from the PME# signal.

Resume On RTC Alarm

This function is for setting the Date, Hour, Minute, and Second for your computer to boot up. During Disabled, you cannot use this function. During Enabled, Choose the Date, Hour, Minute, and Second:

RTC Alarm Date	Choose which day the system will boot up.
RTC Alarm Hour	Choose which hour the system will boot up.
RTC Alarm Minute	Choose which minute the system will boot up.
RTC Alarm Second	Choose which second the system will boot up.

Note: If you have change the setting, you must let the system boot up until it goes to the operating system. Then, power off the system. This function will work the next time you power on.

CPU Critical Temperature

This option is for setting the CPU temperature that would be critical enough, so that it would use the Thermal Slow Clock Ratio to cool down the CPU.

Throttle Slow Clock Ratio

This option sepcifies the speed at which the system clock runs in power saving states. The settings are expressed as a ratio between the normal CPU clock speed and the CPU clock speed when the computer is in the power-conserving state.

**Keyboard&PS/2 Mouse Access/ FDC/LPT/COM Ports
Access/ SB & MSS Audio Ports Access/ MIDI Ports Access/
ADLIB Ports Access/ Primary Master/Slave IDE Access /
Secondary Master/Slave IDE Access/ PIRQ[A/B/C/D] IRQ
Active**

When set to Monitor, these options enabled event monitoring on the specified hardware interrupt request line. If set to Monitor and the computer is in a power saving state, AMI® BIOS watches for activity on the specified IRQ line. The computer enters the full on power state if any activity occurs.

AMI® BIOS reloads the Standby and Suspend timeout timers if activity occurs on the specified IRQ line.

3.6 PCI/Plug and Play Setup

- 1. Press <ENTER> on “PCI/Plug and Play Setup” of the main menu screen.

AMIBIOS SETUP - PCI/PLUG AND PLAY SETUP		
(C) 1999 American Megatrends, Inc. All Rights Reserved		
Plug and Play Aware O/S	No	Available Options: Enabled Disabled
Clear NVRAM	No	
PCI Latency Timer (PCI Clocks)	64	
Primary Graphics Adapter	AGP	
PCI VGA Palette Snoop	Disabled	
offBoard PCI IDE Card	Auto	
DMA Channel 0	PnP	
DMA Channel 1	PnP	
DMA Channel 3	PnP	
DMA Channel 5	PnP	
DMA Channel 6	PnP	
DMA Channel 7	PnP	
IRQ3	PCI/PnP	
IRQ4	PCI/PnP	
IRQ5	PCI/PnP	
IRQ7	PCI/PnP	
IRQ9	PCI/PnP	
IRQ10	PCI/PnP	
IRQ11	PCI/PnP	
IRQ14	PCI/PnP	
IRQ15	PCI/PnP	
Reserved Memory Size	Disabled	
Reserved Memory Address	C8000	
		ESC:Exit :Sel PgUp/PgDn:Modify F2/F3:Color

- 2. Use <Up> and <Down> to choose the item and <PgUp> and <PgDn> keys to modify the highlighted item.
- 3. After you have finished with the PCI/Plug and Play Setup, press <ESC> to go back to the main menu.

Description of the item on screen follows:

Plug and Play Aware O/S

Set this option to Yes if the operating system in this computer is aware of and follows the Plug and Play specification. Currently, the Windows is PnP-aware. The settings are Yes or No. The Optimal and Fail-Safe default settings No.

Clear NVRAM on Every Boot

During Yes, this will clear NVRAM data on every boot.

PCI Latency Timer (PCI Clocks)

This option specifies the latency timings (in PCI clocks) for all PCI devices on the PCI bus. The settings are 32, 64, 96, 128, 160, 192, 224 or 248. The Optimal and Fail-Safe default settings are 64.

Primary Graphics Adapter

This option is for selecting which VGA card is to be your primary display graphics adapter.

PCI VGA Palette Snoop

When this option is set to Enabled, multiple VGA devices operating on different buses can handle data from the CPU on each set of palette registers on every video device. Bit 5 of the command register in the PCI device configuration space is the VGA Palette Snoop bit (0 is disabled). For example, if there are two VGA devices in the computer (one PCI and ISA) and the Bit settings are:

Disabled - Data read and written by the CPU is only directed to the PCI VGA device's palette registers.

Enabled - Data read and written by the CPU is directed to both the PCI VGA device's palette registers and the ISA VGA device palette registers, permitting the palette registers of both devices to be identical.

This option must be set to Enabled if an ISA adapter card requires VGA palette snooping. The settings are Enabled or Disabled. The Optimal and Fail-Safe default settings are Disabled.

OffBoard PCI IDE Card

This option specifies if an off board PCI IDE controller adapter card is installed in the computer. You must specify the PCI expansion slot on the mainboard where the offboard PCI IDE controller is installed. If an offboard PCI IDE controller is used, the onboard IDE controller is automatically disabled. The settings are Auto(AMI® BIOS automatically determines where the offboard PCI IDE controller adapter card is installed), Slot1, Slot2, Slot3 or Slot4. The Optimal and Fail-Safe settings are Auto.

If an off board PCI IDE controller adapter card is installed in the computer, you must also set the Offboard PCI IDE Primary IRQ and Offboard PCI IDE Secondary IRQ options.

DMA Channel 0/1/3/5/6/7

These options specify the bus that the specified DMA channel is used. These options allow you to reserve DMAs for legacy ISA adapter cards.

These options determine if AMI® BIOS should remove a DMA from the available DMAs passed to devices that are configurable by the system BIOS. The available DMA pool is determined by reading the ESCD NVRAM. If more DMAs must be removed from the pool, the end user can use these options to reserve the DMA by assigning an ISA/EISA setting to it.

IRQ3/IRQ4/IRQ5/RQ7/IRQ9/IRQ10/IRQ11/IRQ14/IRQ15

These options specify the bus that the specified IRQ line is used on. These options allow you to reserve IRQs for legacy ISA adapter cards.

These options determine if AMI® BIOS should remove an IRQ from the pool of available IRQs passed to devices that are configurable by the system BIOS. The available IRQ pool is determined by reading the ESCD NVRAM. If more IRQs must be removed from the pool, the end user can use these options to reserve the IRQ by assigning an ISA/EISA setting to it. Onboard I/O is configured by AMI® BIOS. All IRQs used by onboard I/O

are configured as PCI/PnP. If all IRQs are set to ISA/EISA and IRQ14 and 15 are allocated to the onboard PCI IDE, IRQ9 will still be available for PCI and PnP devices, because at least one IRQ must be available for PCI and PnP devices. The settings are ISA/EISA or PCI/PnP. The Optimal and Fail-Safe default settings are IRQ3 through 7 are ISA/EISA. The Optimal and Fail-Safe default settings PCI/PnP.

Reserved Memory Size

This option specifies the size of the memory area reserved for legacy ISA adapter cards. The settings are Disabled, 16K, 32K or 64K. The Optimal and Fail-Safe default settings are Disabled.

Reserved Memory Address

This option specifies the beginning address(in hex) of the reserved memory area. The specified ROM memory area is reserved for use by legacy ISA adapter cards.

3.7 Peripheral Setup

- 1. Press <ENTER> on “Peripheral Setup” of the main menu screen.

AMIBIOS SETUP - PERIPHERAL SETUP		
(C) 1999 American Megatrends, Inc. All Rights Reserved		
Onboard FDC	Auto	Available Options: Auto Disabled Enabled
Onboard Serial Port A	Auto	
Onboard Serial Port B	Auto	
Serial Port B Mode	Normal	
IR Duplex Mode	N/A	
IR Pin Select	N/A	
Onboard CIR Port	Disabled	
CIR IRQ Select	10	
Onboard Parallel Port	Auto	
Parallel Port Mode	ECP	
EPP Version	N/A	
Parallel Port IRQ	Auto	
Parallel Port DMA Channel	Auto	
Onboard Midi Port	290	
Midi IRQ Select	9	
Onboard Game Port	200	ESC:Exit :Sel PgUp/PgDn:Modify F2/F3:Color
Keyboard PowerOn Function	Disabled	
Specific Key for Power On	N/A	
Mouse PowerOn Function	Disabled	
OnBoard IDE	Both	
OnBoard Audio	Enabled	
OnBoard AC'97 Modem	Disabled	
OnBoard LAN Controller	Enabled	

- 2. Use <up> and <down> to choose the item and <PgUp> and <PgDn> keys to modify the highlighted item.
- 3. After you have finished with the Peripheral Setup, press <ESC> to go back to the main menu.

Description of the item on screen follows:

Onboard FDC

Choose Auto, for the BIOS to automatically detect the device

If the ISA add-on card has	Onboard FDC to be set at
FDC exist	Disabled
none FDC exist	Enabled

Choose Enabled, Enabling onboard FDC.

Choose Disabled, Disabling onboard FDC.

The Optimal and Fail-Safe default settings are Auto.

Onboard Serial Port A/Onboard Serial Port B

Choose 3F8, for the BIOS to automatically detect the device.

If the ISA add-on card has				Onboard Serial port to be set at			
COM1 (I/O:3F8H)	COM2 (I/O:3F8H)	COM3 (I/O:3E8H)	COM4 (I/O:2E8H)	PORT1	IRQ ASSIGNED	PORT2	IRQ ASSIGNED
✓	✓	✓	✓	DISABLED	X	DISABLED	X
✓	✓	X	X	COM3	4	COM4	3
X	X	✓	✓	COM1	4	COM2	3
✓	X	X	✓	COM2	3	COM3	4
X	✓	✓	X	COM1	4	COM4	3
✓	✓	✓	X	COM4	3	DISABLED	X
✓	✓	X	✓	COM3	4	DISABLED	X
✓	X	✓	✓	COM2	3	DISABLED	X
X	✓	✓	✓	COM1	4	DISABLED	X
X	X	X	X	COM1	4	COM2	3
✓	X	X	X	COM2	3	COM3	4
X	✓	X	X	COM1	4	COM3	4
X	X	✓	X	COM1	4	COM2	3
X	X	X	✓	COM1	4	COM2	3

Note: If the onboard serial port interrupt and ISA add-on card interrupt are in conflict, the serial port will not work properly. Please disable one of the devices.

Serial PortB Mode

Choosing Normal will set the Serial Port B for normal use, not for IR device. Choosing IrDA or Ask IR will set it for use with IR device using these protocols.

IR Duplex Mode

Can be set as either Half or Full duplex.

IR Pin Select

Set this option to IRRX/IRTX when using an internal IR device which is connected to IR1 connector.

Onboard CIR Port

Setting Enabled, the system support consuem IR and yor device have to be connect to J6 conntor.

CIR IRQ Select

Select IRQ 3, 4, 9, 10 or 11 to support CIR Interrupt.

Onboard Parallel Port

Choose Auto, the BIOS automatically assigned onboard parallel port to the available parallel port or disabled.

If the ISA add-on card has			Onboard parallel port to be set as	
LPT1 I/O:378H	LPT2 I/O:278H	LPT3 I/O:3BCH	PORT ASSIGNED	IRQ ASSIGNED
✓	✓	✓	Disabled	X
✓	✓	X	LPT3	5
✓	X	✓	LPT2	5
X	✓	✓	LPT1	7
✓	X	X	LPT2	5
X	✓	X	LPT1	7
X	X	✓	LPT1	7
X	X	X	LPT1	7

Note: If the onboard parallel port interrupt and ISA add-on card interrupt are in onflict, the parallel port will not work properly. Please disable one of the devices.

Parallel Port Mode

This option allows user to choose the operating mode of the onboard parallel port. The settings are Normal, Bi-Direct/EPP or ECP mode.

EPP Version

This option is for setting which EPP version will be used. The settings are 1.7 and 1.9.

Parallel Port IRQ

If the onboard parallel mode is not on auto mode, the user can select the interrupt line for onboard parallel port. We suggest that the user select the interrupt for the onboard parallel port as shown below:

Onboard parallel port set at	Parallel Port IRQ
LPT1(378H)	7
LPT2(278H)	5
LPT3(3BCH)	5

Parallel Port DMA Channel

This option allows user to choose DMA channel 1 to 3 for the onboard parallel port on ECP mode.

Onboard Midi Port

Choose 290H, 292H, 300H, 330H, support MIDI device.

MIDI IRQ Select

Choose 5, 7, 9, 10, support MIDI device interrupt.

Onboard GAME Port

Choose 200H, 208H, support Joystick device

Note: If onboard is Hardware Audio, no display this item in the peripheral setup.

Keyboard Power on Function

This function allows you to Enabled or Disabled the Keyboard Power On. The default setting is Disabled.

Specific Key for Power On

If keyboard power on function choose specific key.

Note: The specific Key can input specifical password, it maximum can't over 5 words.

Mouse Power on Function

This function allows you to Disabled ,Left-button or Right-button Mouse Power on. The default setting is Disabled.

Onboard IDE

Set this option to enable or disable on board IDE controller.

Onboard Audio/Onboard AC'97 Modem

This item allows you to decide to enable/disable the Intel 810 chipset family to support AC97 Audio/Modem. The settings are Enabled, Disabled.

Onboard LAN Controller

This item allows you to Enabled or Disabled. Choose "Enabled" to use the onboard LAN Controller for accessing the RJ-45. Otherwise choose "Disabled" to use the add-on LAN Card.

3.8 Hardware Monitor Setup (optional)

The Hardware Monitor Setup is used to set the CPU speed and monitor the current CPU Temperature, CPU Fan speed, Chassis Fan Speed, Power fan speed, Vcore, etc.

- 1. Press <ENTER> on “Hardware Monitor Setup” of the main menu screen.

AMIBIOS SETUP - HARDWARE MONITOR SETUP		
(C) 1999 American Megatrends, Inc. All Rights Reserved		
CPU Ratio Selection	3.0X	Available Options: Manual Auto
CPU Host Clock(Mhz)	100	
CPU Voltage(V)	Auto	
--- System Hardware Monitor ---		
Chassis Intrusion	Disabled	ESC:Exit :Sel PgUp/PgDn:Modify F2/F3:Color
Current CPU Temperature	39°C/102°F	
Current System Temperature	35°C/95°F	
Current Ultra Temperature	Not Present	
Current CPU Fan Speed	0 RPM	
Current Chassis Fan Speed	0 RPM	
Current Power Fan Speed	4218 RPM	
CPU VID	1.80V	
Vcore	1.600V	
Vtt	1.456V	
Vio	3.232V	
+5,000V	5.113V	
+12,000V	11.619V	
-12,000V	-11.989V	
-5,000V	-5.077V	
Battery	3.152V	
+5V SB	4.775V	

- 2. Use <Up> and <Down> to choose the item and <PgUp> and <PgDn> keys to modify the highlighted item.
- 3. After you have finished with the PCI/Plug and Play Setup, press <ESC> to go back to the main menu.