AR-B9673
INDUSTRIAL GRADE
CPU BOARD
User' s Guide

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0. PREFACE

0.1 COPYRIGHT NOTICE AND DISCLAIMER

0.2 WELCOME TO THE AR-B9673 CPU BOARD

This guide introduces the Acrosser AR-B9673 CPU Board.
Use information provided in this manual describes this card's functions and features. It also helps you start, set up and operate your AR-B9673. General system information can also be found in this publication.

0.3 BEFORE YOU USE THIS GUIDE

Please refer to the Chapter 1, "Introduction" in this guide, if you have not already installed this AR-B9673. Check the packing list before you install and make sure the accessories are completely included.
AR-B9673 CD provides the newest information regarding the CPU card. **Please refer to the files of the enclosed utility CD.** It contains the modification and hardware & software information, and adding the description or modification of product function after manual printed.

0.4 RETURNING YOUR BOARD FOR SERVICE

If your board requires any services, contact the distributor or sales representative from whom you purchased the product for service information. If you need to ship your board to us for service, be sure it is packed in a protective carton. We recommend that you keep the original shipping container for this purpose.
You can help assure efficient servicing for your product by following these guidelines:
1. Include your name, address, daytime telephone, facsimile number and E-mail.
2. A description of the system configuration and/or software at the time of malfunction.
3. A brief description of the problem occurred.

0.5 TECHNICAL SUPPORT AND USER COMMENTS

Users comments are always welcome as they assist us in improving the quality of our products and the readability of our publications. They create a very important part of the input used for product enhancement and revision.
We may use and distribute any of the information you provide in any way appropriate without incurring any obligation.
You may, of course, continue to use the information you provide.
If you have any suggestions for improving particular sections or if you find any errors on it, please send your comments to Acrosser Technology Co., Ltd. or your local sales representative and indicate the manual title and book number.
Internet electronic mailto:Sales@acrosser.com
acrosser@tp.globalnet.com.tw

0.6 STATIC ELECTRICITY PRECAUTIONS

Before removing the board from its anti-static bag, read this section about static electricity precautions. Static electricity is a constant danger to computer systems. The charge that can build up in your body may be more than sufficient to damage integrated circuits on any PC board. It is, therefore, important to observe basic precautions whenever you use or handle computer components. Although areas with humid climates are much less prone to static build-up, it is always best to safeguard against accidents that may result in expensive repairs. The following measures should be sufficient to protect your equipment from static discharge:

Touch a grounded metal object to discharge the static electricity in your body (or ideally, wear a grounded wrist strap).

When unpacking and handling the board or other system components, place all materials on an anti-static surface. Be careful not to touch the components on the board, especially the "golden finger" connectors on the bottom of the board.

1. INTRODUCTION

Welcome to the AR-B9673 ISA Single Board Computer. The AR-B9673 board is PIC form factor board, which comes equipped with high performance VIA ® Eden or C3 Processor with the VIA ® advanced chipset Apollo PLE133T (VT8601T and VT82C686B). This product is designed for the system manufacturers, integrators, or VARs that want to provide all the performance, reliability, and quality at a reasonable price.

In addition, the AR-B9673 provides on chip VGA. The VGA, which provides up to True Color (32 bit) 1024x768, or High Color (16 bit) 1280x1024 resolution. The VGA memory shared with main memory.

AR-B9673 have one network controller on board, uses Realtek RTL8100B LAN controller, a fully integrated 10/100BASE-TX solution with high performance networking functions and Alert-on-LAN features.

1.1 SPECIFICATIONS

- **CPU:** VIA ® Eden 600MHz EBGA.
- **DMA channels:** 7.
- **Interrupt levels:** 15.
- **Chipset:** VIA ® Apollo PLE133T (VT8601T Integrated 2D / 3D graphics accelerator and VT82C686B).
- **Memory:** SDRAM 128M on-board.
- **VGA Controller:** Embedded VGA controller, Screen Resolution: up to True Color (32 bit) 1024x768, or High Color (16 bit) 1280x1024.
- **Display Interface:** CRT – D-SUB 15-pin female connector.
- **Ultra ATA/33/66/100 IDE Interface:** Two PCI Enhance IDE channel. The south bridge VT82C686B supports Ultra ATA/33/66/100 IDE interface. To support Ultra ATA66/100 Hard disk, a specified cable must be available.
- **Compact Flash Interface:** Supports Compact Flash Type II B Interface.
- **Floppy disk drive interface:** 2.88 MB, 1.44MB, 1.2MB, 720KB, or 360KB floppy disk drive.
- **Series ports:** Two high-speed 16550 compatible UARTs ports.
  COM1: On-board D-SUB 9-pin male external port. Shared with RS-485.
  COM2: On-board D-SUB 9-pin male external port. Only RS-232C.
- **Parallel Port**: one IEEE1284 compatible Bi-directional ports.
- **IrDA port:** Supports IrDA (HPSIR) and ASK (Amplitude Shift Keyed) IR port multiplexed on COM2.
- **USB port:** Support two USB 1.1 compatible ports.
- **Watchdog timer:** Software programmable 1~63sec.
- **Keyboard Connector & PS/2 Mouse:** Port on-board.
- **Power Consumption:** +5V@4A (Typical), +12V@1A(Typical).
- **Operating Temperature:** 0° ~ 60℃.

1.2 PACKING LIST

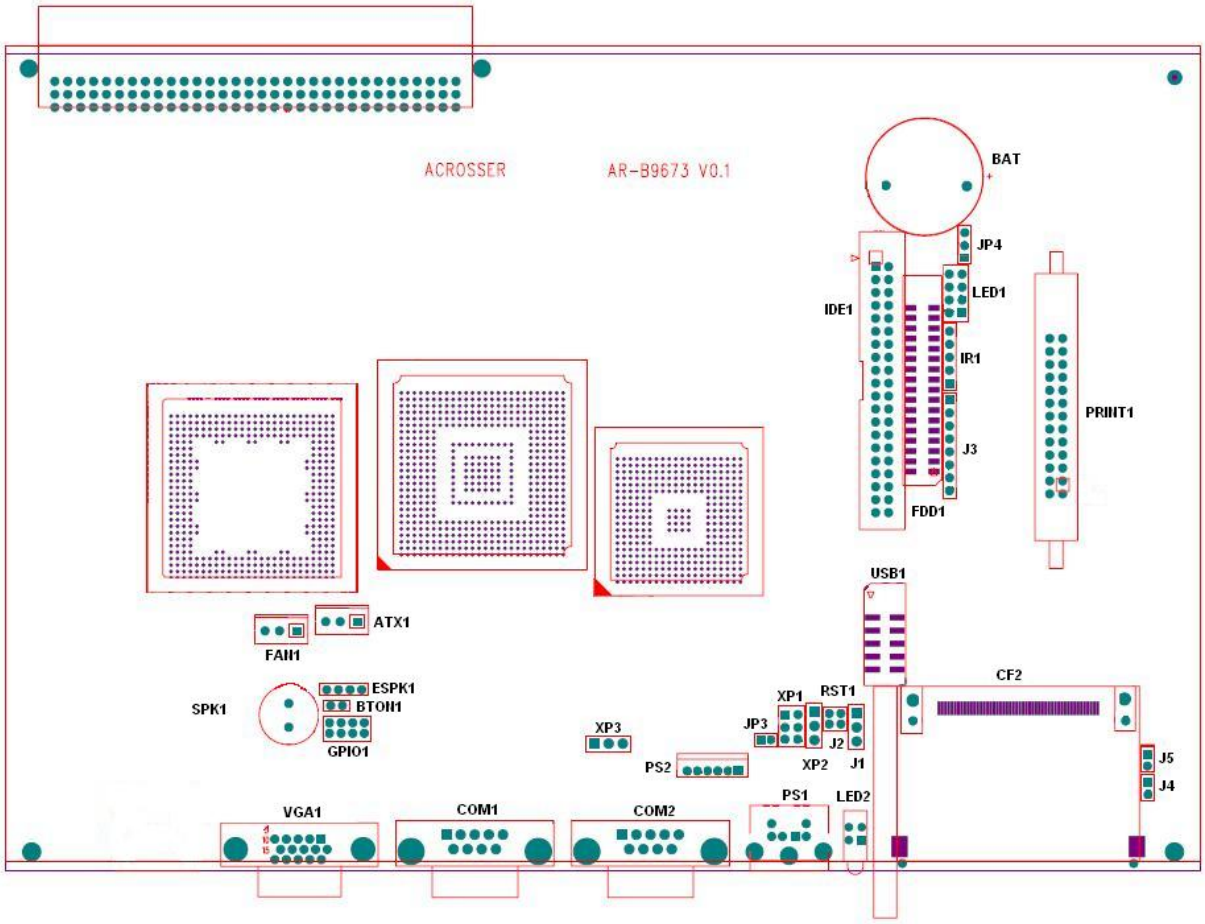
In addition to this *User's Manual*, the AR-B9673 package includes the following items:

- 1 AR-B9673 CPU board
- 1 Floppy disk drive adapter cable
- 1 Parallel port and serial port adapter cable mounted on one bracket
- 2 USB ports on one bracket/Acrosser NO.190030136-G

2. INSTALLATION

This chapter describes how to install the AR-B9673. At first, the layout of AR-B9673 is shown, and the unpacking information that you should be careful is described. The following lists the jumpers and switches setting for the AR-B9673's configuration.

2.1 AR-B9673'S LAYOUT



2.2 POWER ON CONNECTOR FOR ATX POWER SUPPLY (ATX1)

3 2 1

PIN	Signal
1	PSON
2	VCC
3	5VSB

* When AT power supplier is applied, jumper 2&3 should be tied together. (Factory preset)
* When ATX power supplier is applied, pin1&pin 3 should be connect to proper location of ATX power supplier.

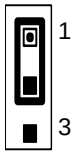
- **ATX POWER BUTTON (BTON1)**

1 2

Pin	Signal
1	-PWBN
2	GND

2.3 CLEAR CMOS (JP4)

If want to clear the CMOS Setup (for example when you forgot the password, please clear the setup and then set the password again.), you should close the pin 2-3 about 3 seconds, then open again, set back to normal operation mode, close the pin 1-2.



JP4	FUNCTION
1-2 ON	Normal Operation (Factory Preset)
2-3 ON	Clear CMOS

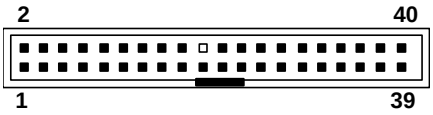
3. CONNECTION

This chapter describes how to connect peripherals, switches and indicators to the AR-B9673 board.

3.1 ULTRA ATA33/66/100 IDE DISK DRIVE CONNECTOR (IDE1)

- **IDE1: Primary IDE Connector**

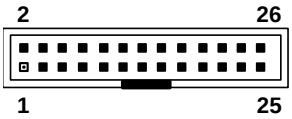
A 40-pin header type connector (IDE1) is provided to interface with up to two embedded hard disk drives (IDE AT bus). This interface, through a 40-pin cable, allows the user to connect up to two drives in a "daisy chain" fashion. To enable or disable the hard disk controller, please use the BIOS Setup program, which is explained further in chapter 5. The following table illustrates the pin assignments of the hard disk drive's 40-pin connector.



Pin	Signal	Pin	Signal
1	-RESET	2	GROUND
3	DATA 7	4	DATA 8
5	DATA 6	6	DATA 9
7	DATA 5	8	DATA 10
9	DATA 4	10	DATA 11
11	DATA 3	12	DATA 12
13	DATA 2	14	DATA 13
15	DATA 1	16	DATA 14
17	DATA 0	18	DATA 15
19	GROUND	20	N.C
21	PDDREQ	22	GROUND
23	-PDIOW	24	GROUND
25	-PDIOR	26	GROUND
27	PIORDY	28	GROUND
29	-PDDACK	30	GROUND
31	IRQ14	32	N.C
33	PDA1	34	PD66/100
35	PDA0	36	PDA2
37	-PDCS1	38	-PDCS3
39	HLEDP	40	GROUND

3.2 PARALLEL PORT CONNECTOR (PRINT1)

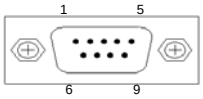
This port is usually connected to a printer. The AR-B9673 includes an on-board parallel port, and accessed through a 26-pin flat-cable connector. Three modes –SPP, EPP and ECP – are supported.



Pin	Signal	Pin	Signal
1	-STB	2	-AFD
3	PD0	4	-ERROR
5	PD1	6	-INIT
7	PD2	8	-SLIN
9	PD3	10	GND
11	PD4	12	GND
13	PD5	14	GND
15	PD6	16	GND
17	PD7	18	GND
19	-ACK	20	GND
21	BUSY	22	GND
23	PE	24	GND
25	SLCT	26	N.C

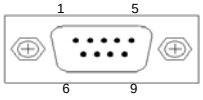
3.3 SERIAL PORTS (COM1, COM2)

- **COM1 D-SUB 9-PIN**



PIN	Signal	PIN	Signal
1	/DCD1	2	RXD1
3	TXD1	4	/DTR1
5	GND	6	/DSR1
7	/RTS1	8	/CTS1
9	/RI1	10	GND

- **COM2 D-SUB 9-PIN**



PIN	Signal	PIN	Signal
1	/DCD2	2	RXD2
3	TXD2	4	/DTR2
5	GND	6	/DSR2
7	/RTS2	8	/CTS2
9	/RI2	10	GND

3.4 COM1 RS-232/RS-485 SELECT (XP1, XP2)

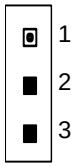
JUMPER	FUNCTION
	RS-232 *FACTORY PRESET*
	RS-485

- **RS-485 Terminator Select (J2)**

J2 (ON)
FACTORY PRESET

* When there is only one line the setting should be left off (please take off the jumper), if multiple blocks are used on a single line this should be set to "ON"(place a jumper) in order to properly terminate the connection for better transmission

- **RS-485 Header (J1)**

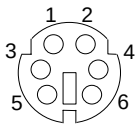


PIN	Signal
1	N485+
2	N485-
3	GND

3.5 KEYBOARD / MOUSE CONNECTOR (PS1, PS2)

The AR-B9673 provides 6-PIN JST Header and 6-PIN MINI-DIN keyboard/mouse connector.

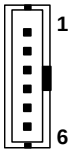
- **PS1: 6-pin Mini-DIN Keyboard/Mouse Connector**



Front View

PIN	Signal
1	KBDATA
2	MSDATA
3	GND
4	VCC
5	MSCLK
6	KBCLK

- **PS2: JST6-pin Keyboard/Mouse Connector**

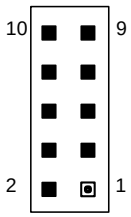


PS2

PIN	Signal
1	MSDATA
2	KBDATA
3	GND
4	VCC
5	MSCLK
6	KBCLK

3.6 USB PORT CONNECTOR (USB1)

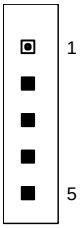
The AR-B9673 provides Two USB port.



PIN	Signal	PIN	Signal
1	VCC	2	VCC
3	USBD0-	4	USBD1-
5	USBD0+	6	USBD1+
7	GND	8	GND
9	GND	10	GND

3.7 IRDA INFRARED INTERFACE PORT (IR1)

The AR-B9673 built-in IrDA port which support Serial Infrared (SIR) or Amplitude Shift Keyed IR (ASKIR) interface. When use the IrDA port have to set SIR or ASKIR model in the BIOS's Peripheral Setup's COM 2. Then the normal RS-232 COM 2 will be disabled.



PIN	Signal
1	VCC
2	NC
3	IRRX
4	GND
5	IRTX

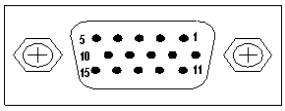
3.8 FAN CONNECTOR (FAN1)

The AR-B9673 provides CPU cooling Fan connector. CPU connectors can supply 12V/500mA to the cooling fan.

PIN	Signal
1	GND
2	+12V
3	SENSE

3.9 VGA CRT CONNECTOR (VGA1)

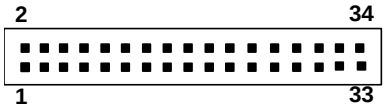
AR-B9673 built-in 15-pin VGA connector directly to your CRT monitor.



PIN	Signal	PIN	Signal	PIN	Signal
1	RED	6	GND	11	N.C
2	GREEN	7	GND	12	SDA
3	BLUE	8	GND	13	HSYNC
4	N.C	9	VCC	14	VSYNC
5	GND	10	GND	15	SCL

3.10 FLOPPY DRIVE CONNECTOR (FDD1)

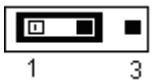
The AR-B9673 provides a 34-pin header type connector for supporting up to two floppy disk drives.
To enable or disable the floppy disk controller, please use the BIOS Setup program.



PIN	Signal	PIN	Signal
1-33(odd)	GROUND	18	DIRECTION
2	DRVEN 0	20	-STEP OUTPUT PULSE
4	NOT USED	22	-WRITE DATA
6	DRVEN 1	24	-WRITE GATE
8	-INDEX	26	-TRACK 0
10	-MOTOR ENABLE 0	28	-WRITE PROTECT
12	-DRIVE SELECT 1	30	-READ DATA
14	-DRIVE SELECT 0	32	-SIDE 1 SELECT
16	-MOTOR ENABLE 1	34	DISK CHANGE

3.11 SRAM. MEMORY BANK ADDRESS SELECT (XP3)

This section provides the information about how to use the SRAM. It divided into two parts: hardware setting and software configuration.
Step 1: Use XP3 to select the correct SRAM memory address.



XP3	ADDRESS
1-2	D000 (Factory Preset)
2-3	D800

Step 2: Insert programmed SRAM into IC U18 setting as SRAM.
The hardware divides every 16KB of memory into a memory bank. User to assign a bank number, Memory bank start from 00, last memory bank number depends on the size to the SRAM chip.
If on board the 512KB SRAM chip, the memory bank in the range of 00 to 31. The SRAM I/O Port = **75H**.

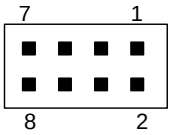
Example: Select the 10th bank of the U18. Using 512K*8, the I/O port =75H

Answer 1:(in assembly language)
MOV DX, 75H ; AR-B9673's I/O port=75h
MOV AL, 10 ; Selection the 10th bank
OUT DX, AL ;

Answer 2: (in Basic language)
OUT &H75,&10 : AR-B9673's I/O port=75h

Answer 3:(in Turbo C language)
Outportb(0x75,10)

3.12 GENERAL PURPOSE I/O (GPIO1)



Pin	Signal	Pin	Signal
1	GPI0	2	GPO0
3	GPI1	4	GPO1
5	GPI2	6	GPO2
7	GPI3	8	GPO3

3.12.1 GPIO Address Select (JP3)

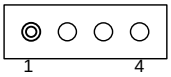
JP3

JP3	ADDRESS
ON	215H (Factory Preset)
OFF	77H

- Users could test GPIO function under 'Debug' program as follow:

C:>debug
- O 215 01H
  Generally, the GPIO2 Pin2 will be High Level, others output pin are Low Level.
- I 215
  FC
  Generally, suppose that GPIO1's Pin1 and Pin3 are High Level then will show "FC"

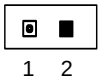
3.13 POWER CONNECTOR (PWR1, PWR2)



(PWR1)

PIN	Signal
1	+12V
2	GND
3	GND
4	VCC (+5V)

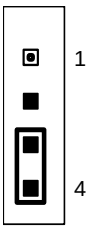
The PWR1 is a 4-pin power connector. It's the standard connectors on all Acrosser boards.



(PWR2)

PIN	Signal
1	-12V
2	-5V

3.14 INTERNAL & EXTERNAL BUZZER (ESPK1)



PIN	Signal
1	VCC
2	SBEEP
3	INTERNAL BUZZER
4	SBEEP

PIN 1,2: Connect to External BUZZER
3-4 ON (Factory Preset)
Use Internal BUZZER

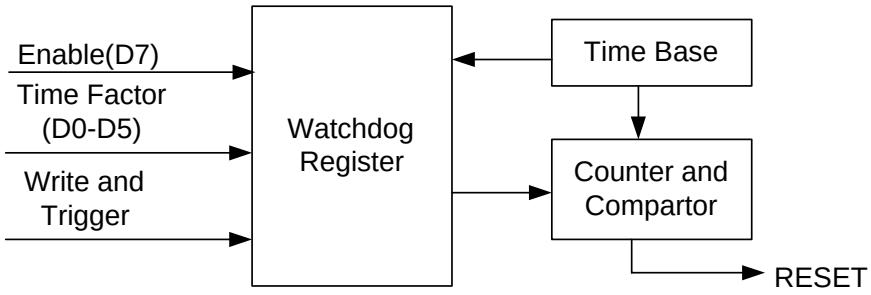
3.15 RESET SWITCH (RST1)

Shorting these two pins will reset the system.

PIN	Signal
1	RST
2	GND

4. WATCHDOG TIMER

This section describes the use of Watchdog Timer, including disable, enable, and trigger. AR-B9673 is equipped with a programmable time-out period watchdog timer that occupies I/O port **443H**. Users can use simple program to enable the watchdog timer. Once you enable the watchdog timer, the program should trigger it every time before it times out. Watchdog Timer will generate a response (system or IRQ9) due to system fails to trigger or disable watchdog timer before preset timer, times out.



Watchdog Block Diagram

4.1 WATCHDOG TIMER SETTING

The watchdog timer is a circuit that maybe be used from your program software to detect crash or hang up.

The Watchdog timer is automatically disabled after reset. Once you enabled the watchdog timer, your program should trigger the watchdog timer every time before it times out. After you trigger the watchdog timer, the timer will be set to zero and start to count again. If your program fails to trigger the watchdog timer before times out, it will generate a reset pulse to reset the system or trigger the IRQ 9 signal in order to tell your system that the watchdog time is out.

Please refer to the following table in order to properly program Watchdog function

	D7	D6	D5 D4 D3 D2 D1 D0
1	Enable	Reset	Time period
0	Disable	IRQ 9	

Users could test watchdog function under 'Debug' program as follows:

C:>debug
- O 443 C8H

Generally, watchdog function would reset system after 8 seconds
- O 443 0

Disable watchdog function

C:>debug
- O 443 88H

Generally, watchdog function would generate IRQ 9 after 8 seconds
- O 443 0H

Disable watchdog function

4.2 WATCHDOG TIMER TRIGGER

After you enable the watchdog timer, your program must write the same factor as triggering to the watchdog timer at least once during every time-out period. You can change the time-out period by writing another timer factor to the watchdog register at any time, and you must trigger the watchdog during every new time-out period in next trigger.

5. BIOS CONSOLE

This chapter describes the AR-B9673 BIOS menu displays and explains how to perform common tasks needed to get up and running, and presents detailed explanations of the elements found in each of the BIOS menus. The following topics are covered:

- Main
- Advanced
- Peripherals
- PnP/PCI
- PC Health
- Boot
- Exit

5.1 BIOS SETUP NOTICE

The BIOS is a program used to initialize and set up the I/O system of the computer, which includes the ISA bus and connected devices such as the video display, diskette drive, and the keyboard. The BIOS provides a menu-based interface to the console subsystem. The console subsystem contains special software, called firmware that interacts directly with the hardware components and facilitates interaction between the system hardware and the operating system.

The BIOS default values ensure that the system will function at its normal capability. In the worst situation the user may have corrupted the original settings set by the manufacturer.

After the computer is turned on, the BIOS will perform diagnostics on the system and display the size of the memory that is being tested. Press the [Del] key to enter the BIOS Setup program, and then the main menu will show on the screen.

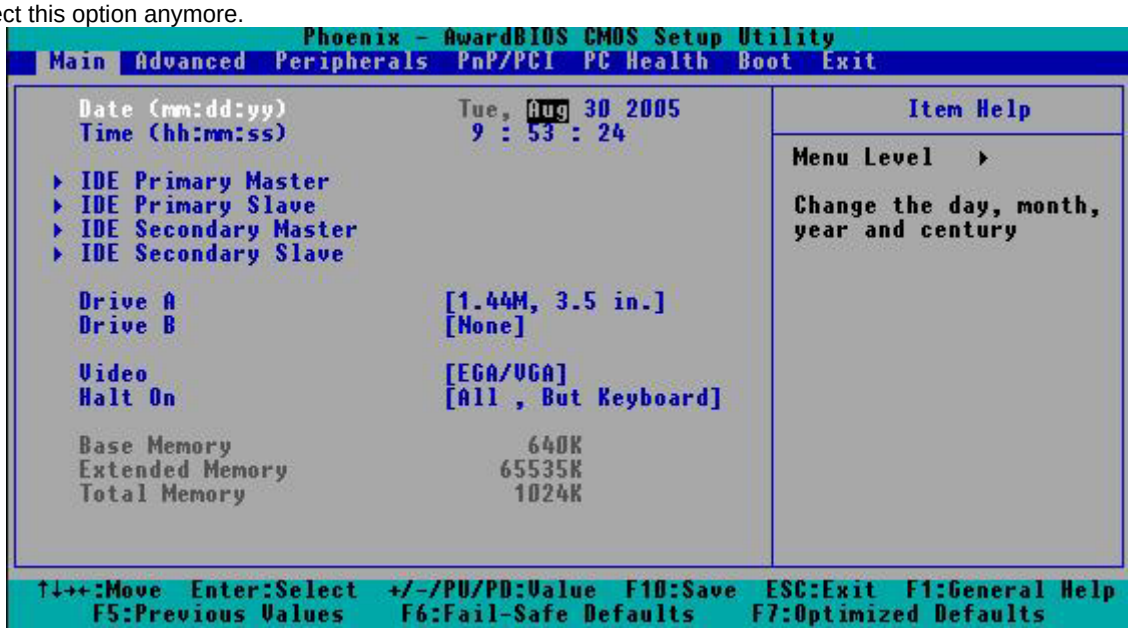
The BIOS Setup main menu includes some options. Use the [Up/Down] arrow key to highlight the option that you wish to modify, and then press the [Enter] key to select the option and configure the functions.

CAUTION:

1. AR-B9673 BIOS the factory-default setting is used to the <Optimized Defaults> Acrosser recommends using the BIOS default setting, unless you are very familiar with the setting function, or you can contact the technical support engineer.
2. If the BIOS settings are lost, the system will detect the <COMS checksum error> and boot the operation system, that situation will reduce the performance of the system. Acrosser recommends you to reset the <Optimized Defaults>. This option gives best-case values that should optimize system performance.
3. The BIOS settings are described in detail in this section.

5.2 MAIN CMOS SETUP

The <Main CMOS Setup> option allows you to record some basic system hardware configuration and set the system clock and error handling. If the CPU board is already installed in a working system, you will not need to select this option anymore.



Main CMOS Setup

Date

The date format is:

Day: Sun to Sat
Month: JAN to DEC
Date: 1 to 31
Year: 1999 to 2099

To set the date, highlight the Date field and use the PageUp / PageDown or +/- keys to set the current time.

Time

The time format is: Hour: 00 to 23

Minute: 00 to 59
Second: 00 to 59

To set the time, highlight the Time field and use the PageUp / PageDown or +/- keys to set the current time.

Floppy Setup

These fields identify the types of floppy disk drive A or drive B that has been installed in the computer. The available specifications are:

360KB	1.2MB	720KB	1.44MB	2.88MB
5.25 in.	5.25 in.	3.5 in.	3.5 in.	3.5 in.

Video

This option selects the type of adapter used for the primary system monitor that must match your video display card and monitor. Although secondary monitors are supported, you do not have to select the type in Setup.
You have two ways to boot up the system:
1. When VGA as primary and monochrome as secondary, the selection of the video type is. VGA Mode..
2. When monochrome as primary and VGA as secondary, the selection of the video type is Monochrome Mode.

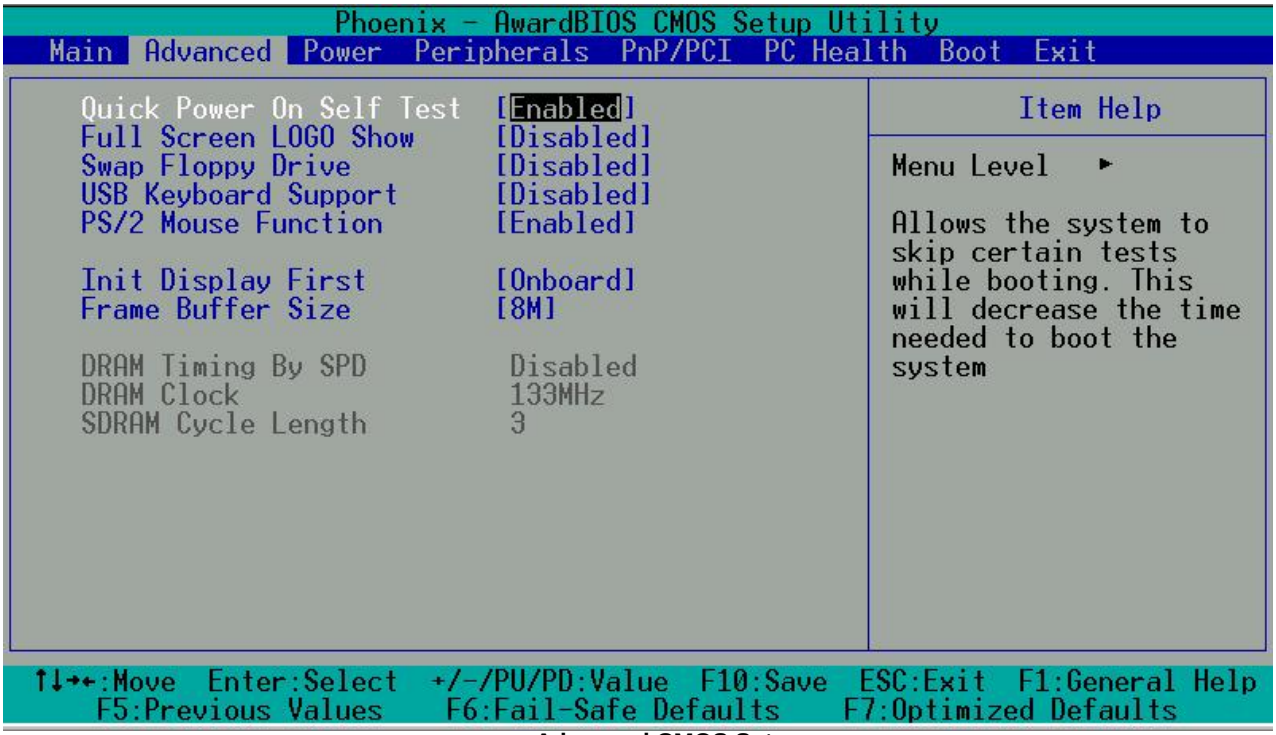
Halt On

This field determines whether the system will halt if an error is detected during power up.

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

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

5.3 ADVANCED CMOS SETUP



Advanced CMOS Setup

Quick Power On Self Test

When enabled, this field speeds up the Power On Self Test (POST) after the system is turned on. If it is set to *Enabled*, BIOS will skip some items.

Full Screen LOGO Show

This itemenables you to show the company logo on the bootup screen. Settings are:

Enabled Shows a still image(logo) on the full screen at boot.

Disabled Shows the POST messages at boot

Swap Floppy Drive

This item allows you to determine whether or not to enable Swap Floppy Drive. When enabled, the BIOS swaps floppy drive assignments so that Drive A becomes Drive B, and Drive B becomes Drive A. By default, this field is set to ***Disabled.***

USB Keyboard Support

Select *Enabled* if your system contains a Universal Serial Bus (USB) controller and you have a USB keyboard.

PS/2 Mouse Function

This item enables or disables the IRQ12 for PS/2 mouse.

Init Display First

This setting specifies which VGA card is your primary graphics adapter. Setting options are:

PCI Slot The system initializes the installed PCI VGA card.

AGP The system initializes the installed AGP card.

Frame Buffer Size

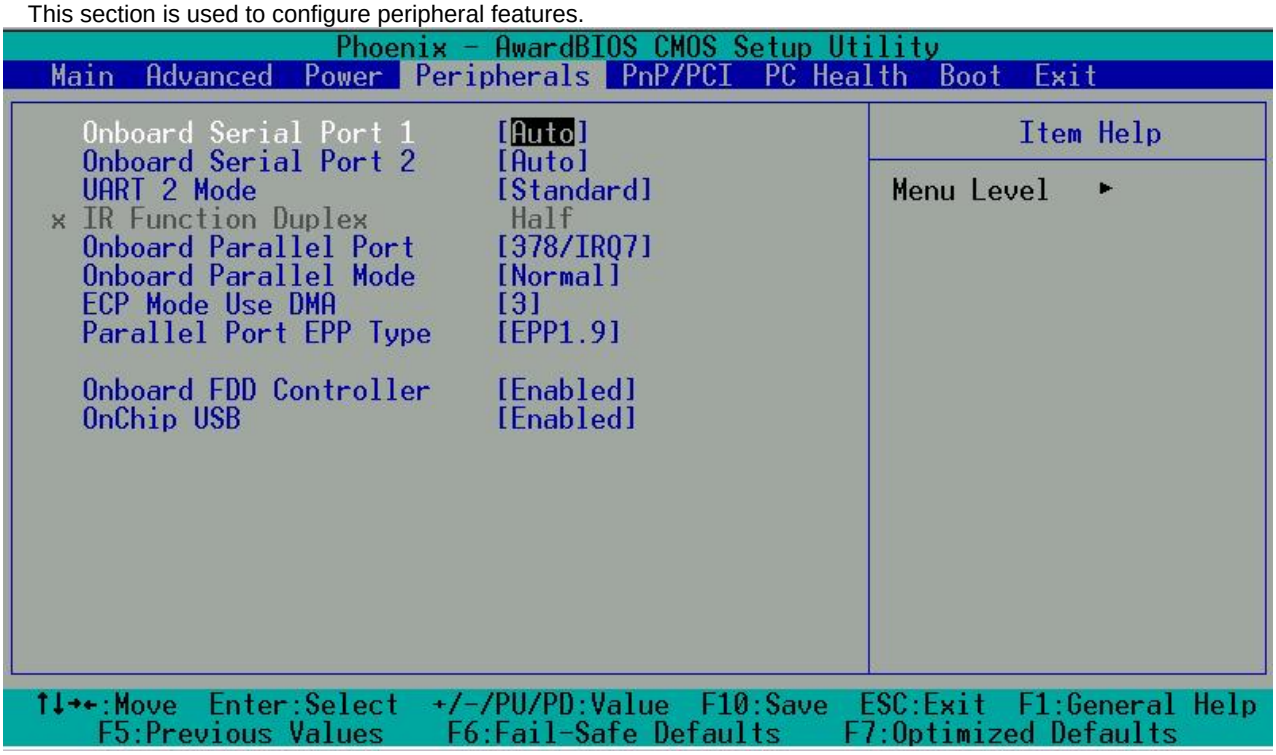
The frame buffer is the video memory that is used to hold the video image displayed on the screen. The option allows the selection of frame size of 2MB, 4MB, 8MB.

Power-Supply Type

To select your power supply Type AT/ATX.

5.4 PERIPHERALS CMOS SETUP

This section is used to configure peripheral features.



Peripherals CMOS Setup

Onboard Serial Port 1/2

These fields allow you to select the onboard serial ports addresses and IRQ.

Disabled

3F8/IRQ4

2F8/IRQ3

3E8/IRQ4

2E8/IRQ3

Auto

UART 2 Mode

This field determines the UART mode in your computer. The settings are *Standard, HPSIR and ASKIR*. The default value is ***Standard.***

IR Function Duplex

Setting option:

Full Duplex Under Full Duplex mode,synchronous,bi-directional transmission/reception is allowed

Half Duplex Under Half Duplex mode,only a synchronous,bi-directional transmission/reception is allowed

Onboard Parallel Port

These fields allow you to select the onboard parallel ports addresses and IRQ.

Disabled

3BC/IRQ7

378/IRQ7

278/IRQ5

Onboard Parallel Mode

This field allows you to determine parallel port mode function.

SPP Normal Printer Port

EPP Enhanced Parallel Port

ECP Extended Capabilities Port

ECP/ EPP Both of Extended Capabilities Port and Enhanced Parallel Port

ECP Mode Use DMA

This option is only available if the setting for the parallel Port Mode option is ECP

Parallel Port EPP Type

The item selects the EPP version used by the parallel port if the port is set to EPP mode.

Settings:EPP1.9, EPP1.7

On-board FDD Controller

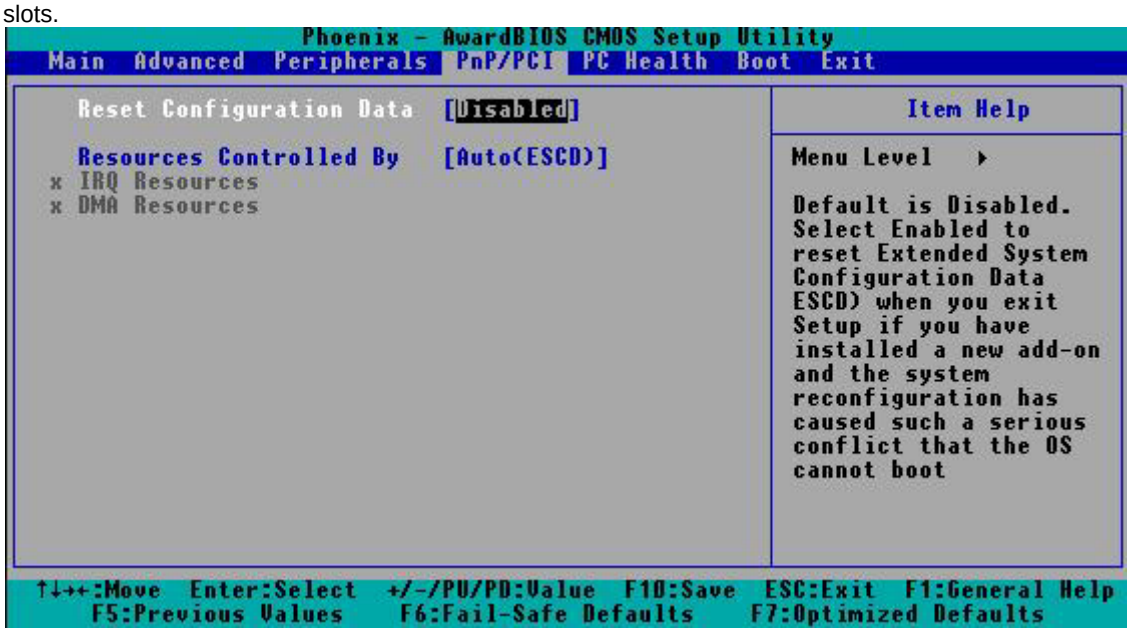
This option enables the floppy drive controller on the AR-B1673

On-chip USB

This setting is used to enable/disable the onboard USB controller.

5.5 PNP/PCI CMOS SETUP

This section is used to configure PCI / Plug and Play features. The <PCI & PNP Setup> option configures the PCI bus slots.



Power Management

Reset Configuration Data

This field allows you to determine whether or not to reset the configuration data. The default value is Disabled.

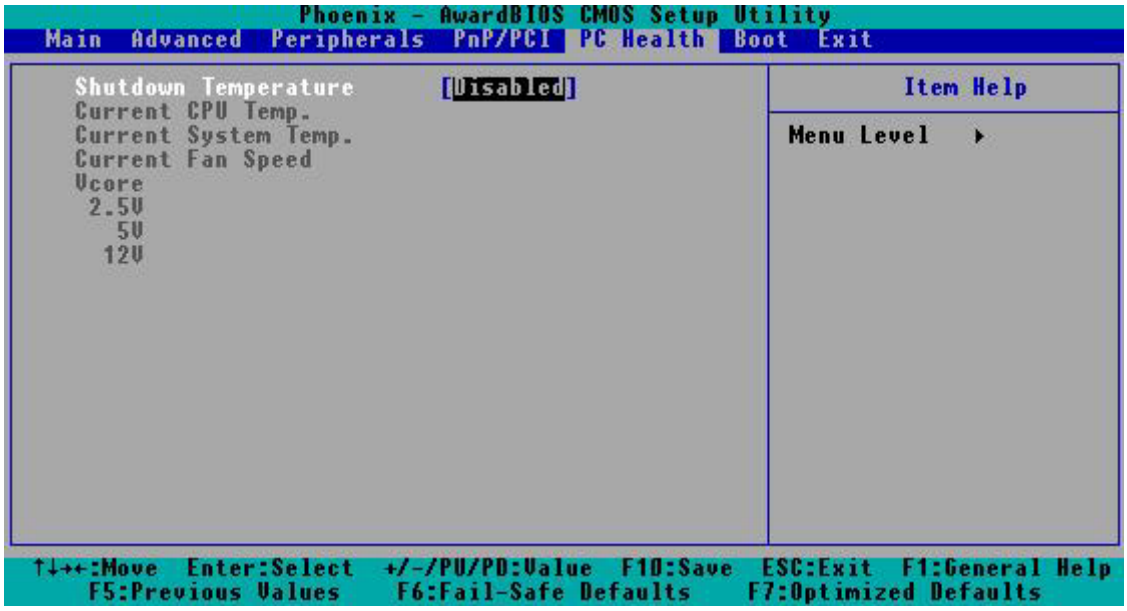
Resources Controlled by

This PnP BIOS can configure all of the boot and compatible devices automatically. However, this capability needs you to use a PnP operating system such as Windows 95. The default value is Auto[ESCD].

IRQ/ DMA Resources

These options specify the bus that the named IRQs/DMAs lines are used on. These options allow you to specify IRQs/DMAs for use by legacy ISA adapter cards. These options determine if the BIOS should remove an IRQ/DMA from the pool of availability of IRQs/DMAs passed to the BIOS configurable devices. If more IRQs/DMAs must be removed from the pool, the end user can use these PCI/PnP Setup options to remove the IRQ/DMA by assigning the option to the ISA/EISA setting. The onboard I/O is configurable with BIOS.

5.6 PC HEALTH CMOS SETUP

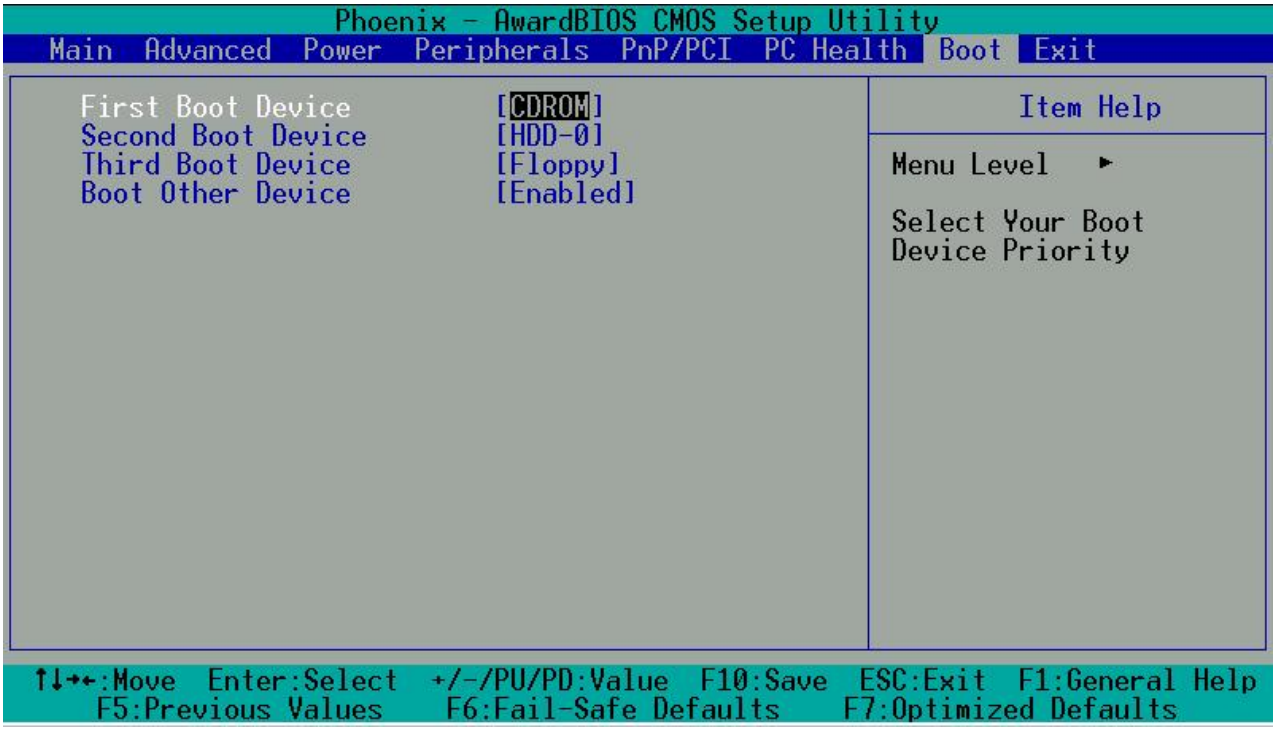


PCI / Plug And Play

Shutdown Temperature

The system will automatically produce a warning when the detected CPU temperature exceeds the warning temperature setting and will shut down the system to protect the CPU when if exceeds the shut down temperature setting.

5.7 BOOT CMOS SETUP



Boot CMOS Setup

Boot Sequence

The items allow you to set the sequence of boot devices where AwardBIOS attempts to load the operating system. The settings are: Floppy, Hard Disk, CDROM, USB-FDD, USB-ZIP, USB-CDROM, Disabled.

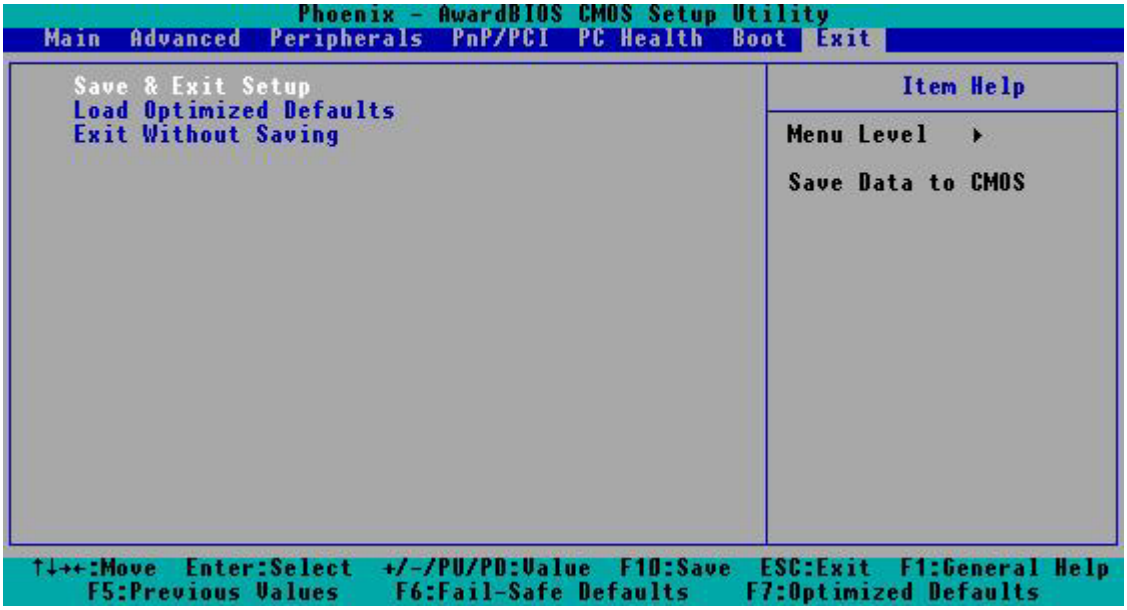
Boot Other Device

Setting the option to Enabled allows the system to try to boot from other devices if the system fails to boot from the 1st/2nd/3rd boot device.

Hard Disk Boot Priority

This item is to set up the hard disk boot device. When your hard disk devices have been changed, system bios will ask you to re-setup Hard disk boot priority.

5.8 EXIT CMOS SETUP



Save & Exit Setup

This option allows you to determine whether to accept the modifications or not. If you type .Y., you will quit the setup utility and save all changes into the CMOS memory. If you type .N., you will return to Setup utility.

Load Optimized Defaults

This option allows you to load the default values to your system configuration. These default settings are optimal and enable all high performance features.
To load SETUP defaults value to CMOS SRAM, enter .Y. If not, enter .N.

Exit Without Saving

Select this option to exit the Setup utility without saving the changes you have made in this session. Typing .Y. will quit the Setup utility without saving the modifications. Typing .N. will return you to Setup utility.

5.9 BIOS UPDATE

The BIOS program instructions are contained within computer chips called FLASH ROMs that are located on your system board. The chips can be electronically reprogrammed, allowing you to upgrade your BIOS firmware without removing and installing chips.
The AR-B9673 provides the FLASH BIOS update function for you to easily to update to a newer BIOS version. Please follow these operating steps to update to new BIOS:

Step 1:You must boot up system into MS-DOS mode first. Please don't detect files CONFIG.SYS and AUTOEXEC.BAT.

Step 2:In the MS-DOS mode, you should execute the AWDFALSH program to update BIOS.

Step 3:Follow all messages then you will update BIOS smoothly.