# AR-B1893

Pentium M inside, On Board VGA with On Board DDR and SO DIMM, 4 Port built in LAN, 1 Mini PCI, 1 CF

> Edition: 1.1 Book Number: AR-B1893-05.07.26

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# 1 Introduction

# 1.1 Specifications:

- CPU : Pentium M or Celeron M
- Chipset : GMCH 852GM and ICH4 82810DB
- **RAM memory** : On Board DDR up to 256MB/266MHz & 1 DDR SO-DIMM Socket up to 1 GB/266MHz.
- Ultra DMA 133 IDE Interface : Two PCI Enhance IDE channel.
- **CompactFlash<sup>™</sup> interface** : Supports CompactFlash<sup>™</sup> Type II socket for Compact Flash Disk or IBM Micro Drive.
- Series ports : Two high-speed 16C550 compatible UARTs ports
- USB port : Support four USB 2.0 compatible ports.
- Watchdog timer : Time setting form 1 to 255 second / minute System Reset generate when CPU did not periodically trigger the timer.
- Broadcom 4401 Embedded LAN: 2 ports IEEE 802.3u Auto-Negotiation support for 10BASE-T/100BASE-TX. Built-In Watch-Dog Timer for Bypass function between port 1 and port 2. Connected to your LAN through RJ45 connector.
- Broadcom 5788 Embedded Giga LAN: 2 ports IEEE 802.3u Auto-Negotiation support for 10BASE-T/100BASE-TX/1000BASE-TX. Connected to your LAN through RJ45 connector.
- Power Consumption : 12V/0.7A ; 5V/ 3 A
- **Operating Temperature** : 0° ~ 60° C ( CPU needs Cooler & Fan)

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# 1.2 What You Have

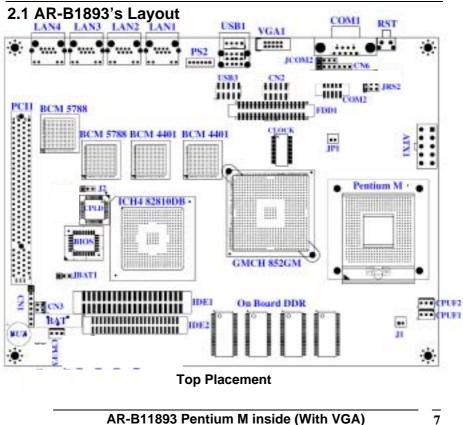
In addition to this *User's Manual*, the AR-B1893 package includes the following items:

- AR-B1893 board
- One IDE Cable
- VGA cable
- Keyboard / Mouse Adapter Y Cable
- One RS-232 serial ports Cable with bracket
- One power button cable
- One power cable

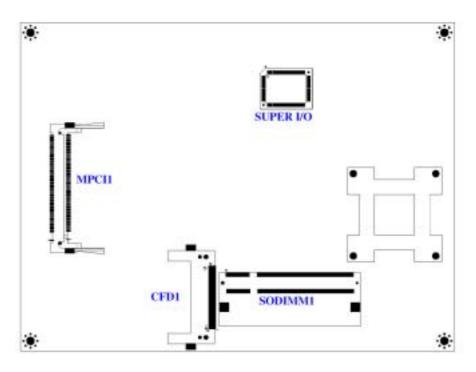
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# 2 Installation

This chapter describes how to install the AR-B1893. At first, the layout of AR-B1893 is shown, and the unpacking information that you should be careful is described. The jumpers and switches setting for the AR-B1893's configuration



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**Bottom Placement** 

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# 2.2 Power Button Setting

Place power button cable on CN3 pin 1-2 & use Mechanical Power Button.

# • CN3 : Power Button Connector

Pin	DESCRIPTION
1 – 2	'ower Button
3	12 V Button LED
4	NC



# 2.3 CMOS Reset

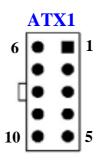
# • JBAT1 : CMOS pin header

		J	BA'	<b>T1</b>
JBAT1	DESCRIPTION		-	
1-2	Norr al Operation	ш	-	-
2-3	Reset CMOS	1	2	3

# 2.4 ATX Power Connector

# • ATX1 : ATX Power connector

PIN	Description	PIN	Description
1	PS-ON	6	5V
2	5VSB	7	+12V
3	GND	8	-12V
4	5V	9	NC
5	GND	10	GND



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# 2.4 Jumper description

• J1 : Banias or Dothan CPU

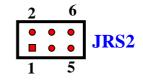
14	Description		<b>J1</b>
JI	Description		
Close	Support Bar as CPU (default)	1	<b>I I I I I I I I I I</b>
Open	Support Dothan CPU		

• JP1 : CPU Power start setting

JP1	Description
open	Normal start CF J Power (default)
close	Soft start CPU Power

• JRS2 : COM2 for RS-232 / RS-422 / RS-485

JRS2	Description
1 - 2	RS-232 (default)
3 - 4	RS-422
5 - 6	RS-485



2

JP1

• J2 : Bypass setting

J2	DESCRIPTION
2-3	Normal (default)
1-2	Bypass

$\blacksquare \bullet \bullet J2$
-----------------------------------

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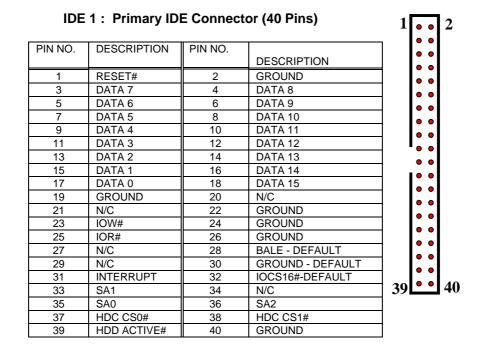
# 3

# Connection

This chapter describes how to connect peripherals, switches and indicators to the AR-B1893 board.

# 3.1 Ultra ATA33/66/100 IDE Disk Drive Connector

You can attach two IDE( Integrated Device Electronics) hard disk drives to the AR-B1893 IDE controller.



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PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION	
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	N/C	22	GROUND	•••
23	IOW#	24	GROUND	
25	IOR#	26	GROUND	
27	N/C	28	BALE - DEFAULT	
29	N/C	30	GROUND - DEFAULT	
31	INTERRUPT	32	IOCS16#-DEFAULT	
33	SA1	34	N/C	
35	SA0	36	SA2	
37	HDC CS0#	38	HDC CS1#	
39	HDD ACTIVE#	40	GROUND	
41	+5V LOGIC	42	+5V MOTOR	
43	GROUND	44	TYPE	

# IDE 2 : Secondary IDE Connector (44 Pins)

#### 3.2 **Serial Ports**

The AR-B1893 offers two high speeds NS16C550 compatible UARTs with Read/Receive 16 byte FIFO serial ports.

COM1 : COM1 RS-232 COM2 : COM2 for RS-232

**CN5** : COM2 for RS-485 or RS-422

**CN6** : COM2 for LCD Display

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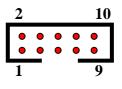
# • COM1 : DB-9 Male

PIN NO.	DESCRIPTION	
1	DATA CARRIER DETECT	(DCD)
2	RECEIVE DATA	(RXD)
3	TRANSMIT DATA	(TXD)
4	DATA TERMINAL READY	(DTR)
5	GROUND	
6	DATA SET READY	(DSR)
7	REQUEST TO SEND	(RTS)
8	CLEAR TO SEND	(CTS)
9	RING INDICATOR	(RI)



#### COM2 : 10-pin Connector

PIN NO.	DESCRIPTION	
1	DATA CARRIER DETECT	(DCD)
2	DATA SET READY	(DSR)
3	RECEIVE DATA	(RXD)
4	REQUEST TO SEND	(RTS)
5	TRANSMIT DATA	(TXD)
6	CLEAR TO SEND	(CTS)
7	DATA TERMINAL READY	(DTR)
8	RING INDICATOR	(RI)
9	GROUND	
10	NC	
10	NC	



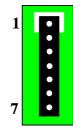
• JCOM2 : 4-pin Connector for RS-422 / RS-485

PIN NO.	For RS-422	For RS-485
1	TX+	RTX+
2	TX-	RTX-
3	RX+	
4	RX-	



# CN6: 7-pin Connector for LCD Display

PIN NO.	Description
1	VCC
2	VCC
3	TRANSMIT DATA (TXD)
4	RECEIVE DATA (RXD)
5	REQUEST TO SEND (RTS)
6	CLEAR TO SEND (CTS)
7	GROUND



Note : if CN6 is used, COM2 connector can't be used

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# 3.3 Keyboard / Mouse Connector

The AR-B1893 provides PS/2 Mouse & Keyboard Connector.

# • PS1 : 6-pin Mini-DIN Keyboard/Mouse Connector

PIN NO.	DESCRIPTION		
1	MOUSE DATA		
2	KEYBOARD DATA		
3	GROUND	•••	• • •
4	+5V	1	6
5	MOUSE CLOCK	1	U
6	KEYBOARD CLOCK		

# 3.4 USB Port Connector

The AR-B1893 provides four USB port, port 0, port 1, port 3 and port 4.

# USB1 Port (Port 0 & Port 1) :

1.	VCC
2.	USB0-
3.	USB0+
4.	GROUND
5.	VCC
6.	USB1-
7.	USB1-
8.	GROUND
-	• • • • • • • • • • • • • • • • • • •

.,.	1		4	
				-
	5		8	

# USB3 Pin Header (Port 3 & Port 4) :

1.	VCC
2.	VCC
3.	USB2-
4.	USB3-
5.	USB2+
6.	USB3+
7.	GROUND
8.	GROUND



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# 3.5 Fan Connector

The AR-B1893 provides 3 connectors for CPU cooling fan & system fan & they can be controlled by Super I/O Chip.

# • CPUF1, CPUF2 & CPUF3: Fan Connector for CPU & System

PIN NO.	DESCRIPTION
1	Sense
2	12 V
3	Ground



# 3.6 LAN RJ45 Connector

AR-B1893 is equipped with built-in 2 x 10/100Mbps and 2 x 10/100/1000Mbps Ethernet Controller. You can connect it to your LAN through RJ45 LAN connector. The pin assignments are as following:

#### • LAN1, LAN2 : LAN RJ45 Connector

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION	
1	TX+	5.	N/C	
2	TX-	6.	RX-	
3.	RX+	7.	N/C	
4.	N/C	8.	N/C	8



🔲 : Link LED E : Act LED

#### LAN3, LAN4 : LAN RJ45 Connector

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION	
1	TX0+	5.	TX1-	
2	TX0-	6.	RX0-	
3.	RX0+	7.	RX1+	
4.	TX1+	8.	RX1-	8 1

: Link LED : Act LED

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# 3.7 VGA Connector

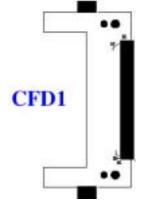
# • VGA1 : 10-pin Connector

PIN NO.	DESCRIPTION						
1	RED(R)						
2	GROUND						
3	GREEN (G)		2				10
4	GROUND			_	_	_	_
5	BLUE (B)				•		
6	GROUND		•	_	•	•	•
7	VERTICAL SYNCHRON (VS)	_	1				9
8	CLOCK (CLK)		•				,
9	HORIZONTAL SYNCHRON (HS)						
10	DATA (SDATA)						

#### 3.8 **Compact Flash Storage Card Socket**

The AR-B1893 configures Compact Flash Storage Card in IDE Mode. This type II Socket is compatible with IBM Micro Drive.

•CFD1 : Compact Flash Storage Card Socket pin assignment

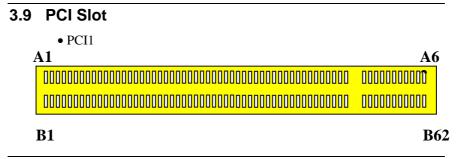


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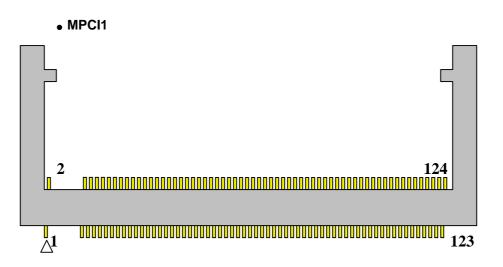
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	GROUND	26	CARD DETECT1
2	D3	27	D11
3	D4	28	D12
4	D5	29	D13
5	D6	30	D14
6	D7	31	D15
7	CS1#	32	CS3#
8	N/C	33	N/C
9	GROUND	34	IOR#
10	N/C	35	IOW#
11	N/C	36	PULL HIGH
12	N/C	37	IRQ15
13	VCC	38	VCC
14	N/C	39	MASTER/SLAVE
15	N/C	40	N/C
16	N/C	41	RESET#
17	N/C	42	IORDY
18	A2	43	N/C
19	A1	44	PULL HIGH
20	A0	45	ACTIVE#
21	D0	46	PDIAG#
22	D1	47	D8
23	D2	48	D9
24	N/C	49	D10
25	CARD DETECT2	50	GROUND

Note: If IDE2 & CFD1 both in used, CFD1 must be as "Master" & IDE2 is as "Slave".

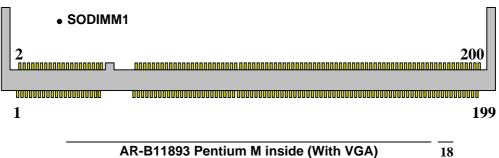
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# 3.10 Mini PCI Slot



# 3.11 DDR SODIMM Socket



with On Board DDR, 4 Port built in LAN, 1 Mini PCI, 1 CF

# 3.12 GPIO

# • CN2

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION	
1	GPIO1	6	GPIO7	<u>9 1</u>
2	GPIO5	7	GPIO4	• • • • •
3	GPIO2	8	GPIO8	
4	GPIO6	9	GROUND	10 2
5	GPIO3	10	VCC	

# 3.13 Internal Buzzer

• BZ1



# 3.14 Reset Button

• BTN1

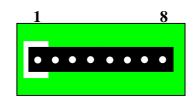


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# 3.15 ISP CPLD Connector

# • CN1

PIN NO.	DESCRIPTION
1	+3V
2	TDO
3	TDI
4	NC
5	NC
6	TMS
7	GROUND
8	TCK



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4

# Award BIOS Setup

# **4.1 Introduction**

This chapter discusses the Setup program built into the BIOS. The Setup program allows users to configure the system. This configuration is then stored in battery-backed CMOS RAM so that it retains the Setup information while the power is off.

# 4.2 Starting Setup

The BIOS is immediately active when you turn on the computer. While the BIOS is in control, the Setup program can be activated in one of two ways:

- 1. By pressing <Del> immediately after switching the system on, or
- By pressing the <Del> key when the following message appears briefly at the bottom of the screen during the POST (Power On Self-Test).

# Press DEL to enter SETUP.

If the message disappears before you respond and you still wish to enter Setup, restart the system to try again by turning it OFF then ON or pressing the "RESET" button on the system case. You may also restart by simultaneously pressing <Ctrl>, <Alt>, and <Delete> keys. If you do not press the keys at the correct time and the system does not boot, an error message will be displayed and you will again be asked to...

# PRESS F1 TO CONTINUE, DEL TO ENTER SETUP

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# 4.3 Using Setup

In general, you can use the arrow keys to highlight items, press <Enter> to select, use the PageUp and PageDown keys to change entries, press <F1> for help and press <Esc> to quit. The following table provides more details about how to navigate in the Setup program using the keyboard.

Key	Function
Up Arrow	Move to the previous item
Down	Move to the next item
Arrow	
Left Arrow	Move to the item on the left (menu bar)
Right Arrow	Move to the item on the right (menu bar)
Esc	Main Menu: Quit without saving changes
	Submenus: Exit Current page to the next higher level
	menu
Move Enter	Move to the item you desired
PgUp key	Increase the numeric value or make changes
PgDn key	Decrease the numeric value or make changes
+ key	Increase the numeric value or make changes
- key	Decrease the numeric value or make changes
Esc key	Exit Menu Quit and not save changes into CMOS
	Status Page Setup Menu and Option Page Setup
	Menu Exit current page and return to Main Menu
F1 key	General help on Setup navigation keys
F5 key	Load previous values from CMOS
F6 key	Load the fail-safe defaults from BIOS default table
F7 key	Load the optimized defaults
F10 key	Save all the CMOS changes and exit

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# 4.4 Main Menu

The items in Standard CMOS Setup Menu are divided into 10 categories. Each category includes no, one or more than one setup items. Use the arrow keys to highlight the item and then use the <PgUp> or <PgDn> keys to select the value you want in each item.

> Date (mm:dd:yy)Sun, Jan 5 2003 Time (hh:mm:ss)2 : 53 : 40

> IDE Primary Master [None]

> IDE Primary Slave [None]

> IDE Secondary Master [None]

> IDE Secondary Slave [None]

Drive A [None] Drive B [None]

Video [EGA / VGA]

Halt On[All, But Keyboard]

Base Memory 640K Extended Memory261120K Total Memory262144K

Figure 1: The Main Menu

# **Main Menu Selections**

l em	Options	Description
Date	MM DD YYYY	Set the system date.
Time	HH : MM : SS	Set the system time

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IDE	Options are in its sub	Press <enter> to enter</enter>
Primary Master	menu	the sub menu of detailed
	(described in Table 3)	options
IDE	Options are in its sub	Press <enter> to enter</enter>
Primary Slave	menu	the sub menu of detailed
	(described in Table 3)	options
IDE	Options are in its sub	Press <enter> to enter</enter>
Secondary Master	menu	the sub menu of detailed
	(described in Table 3)	options
IDE	Options are in its sub	Press <enter> to enter</enter>
Secondary Slave	menu	the sub menu of detailed
	(described in Table 3)	options
Drive A & Drive B	None	Select what kind of floppy
	360K, 5.25 in	type you install
	1.2M, 5.25 in	
	1.720K, 3.5 in	
	1.44K, 3.5 in	
	2.88K, 3.5 in	
Video	EGA / VGA	Select what type of
	CGA 40	Display you use
	CGA 80	
	Mono	
Halt On	All Errors	Select the situation in
	No Errors	which you want the BIOS
	All, but Keyboard	to stop the POST
	All, but Diskette	process and notify you
	All, but Disk/Key	
Base Memory	N/A	Displays the amount of
		conventional memory
		detected during boot up
Extended Memory	N/A	Displays the amount of
		extended memory
		detected during boot up
Total Memory	N/A	Displays the total
		memory available in the
		system

Table 1 Main Menu Selections

IDE Adapters

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The IDE adapters control the hard disk drive. Use a separate sub menu to configure each hard disk drive. Figure 2 shows the IDE primary master sub menu.

IDE HDD Auto-Detection[Press Enter]

IDE Primary Master[Auto] Access Mode [Auto] Capacity0MB

Cylinder0 Head0 Precomp0 Landing Zone0 Sector0

Figure 2 IDE Primary Master sub menu

Use the legend keys to navigate through this menu and exit to the main menu. Use Table 2 to configure the hard disk.

Item		Options	De scription
IDE HDD Auto-detection	Press Ei	nter	Press Enter to auto-detect the HDD on this channel. If detection is successful, it fills the remaining fields on this menu.
IDE Primary Master	None Auto Manual		Selecting 'manual' lets you set the remaining fields on this screen. Selects the type of fixed disk. "User Type" will let you select the number of cylinders, heads, etc. Note: PRECOMP=65535 means NONE !
Capacity	Auto	Display	Disk drive capacity

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	your o size	disk	drive	(Approximated). Note that this size is usually slightly greater than the size of a formatted disk given by a disk checking program.
Access Mode	CHS LBA Large Auto			Choose the access mode for this hard disk

Table 2 Hard disk selections

# 4.5 Advanced BIOS Features

This section allows you to configure your system for basic operation.

Quick Power On Self Test Full Screen LOGO Show APIC Mode Console Redirection Baud Rate	[Disable] [Disable] [Enabled] [115200]
Agent after boot	[Disable]
Swap Floppy Drive	[Disable]
USB Keyboard Support	[Disabled]
Init Display First	[On Board / AGP]
Boot Display	[CRT]

AR-B11893 Pentium M inside (With VGA) 26 with On Board DDR, 4 Port built in LAN, 1 Mini PCI, 1 CF On Chip Frame Buffer Size[32MB]ACPI function[Disable]ACPI Suspend Type[S1(Pos)]Power Supply Type[AT]Power On After Power Fail[Off]

Figure 3 Advanced menu

#### **Quick Power On Self Test**

This category speeds up Power On Self Test (POST) after you power up the computer. If it is set to Enable, BIOS will shorten or skip some check items during POST.

Enabled	Enable quick POST
Disabled	Normal POST

# Full Screen LOGO Show

This item allows you to enable or disable show full screen LOGO. The Choice: Enabled, Disabled.

#### APIC Mode

This item allows use Advanced Programmable Interrupt Controller feature.

The Choice: Enabled, Disabled.

#### **Console Redirection**

The BIOS redirects console output to COM 1 by default (9600, 8N1, no handshake) until a bootloader program is run from the hard disk drive. The Choice: Enabled, Disabled.

#### Baud Rate

This item allows you to setup the data transfer rate for the console port. The choice: 9600, 19200, 38400, 57600 and 115200

#### Agent After Boot

This item allows you to enable or disable the agent after boot. The Choice: Enabled, Disabled.

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#### Swap Floppy Drive

If the system has two floppy drives, choose enable to assign physical drive B to logical drive A & vice Versa. The Choice: Enabled, Disabled.

#### **USB Keyboard Support**

This item allows you to enable or disable USB keyboard support. The Choice: Enabled, Disabled.

#### Init Display First

This item allows you to choose which Display to be first detected. The Choice: PCI Slot, On Board / AGP.

#### **Boot Display**

This item allows you to choose display interface. The Choice: Vbios default, CRT, EFP, TV, CRT + EFP, CRT + TV.

#### **On-Chip Frame Buffer Size**

This item allows you to Choose the Frame Buffer size for Display. The Choice: 1MB, 4MB, 8MB, 16MB, 32MB.

#### **ACPI Function**

This item allows you to enable or disable Advanced Configuration and Power Management (ACPI) function. The Choice: Enabled, Disabled.

#### ACPI Suspend Type

This item allows you to Choose Suspend Type for ACPI function. The Choice: S1(Pos), S3(STR), S1 & S3.

#### **Power Supply Type**

This item allows you to choose the Type of Power Supply in use. The Choice: AT, ATX.

#### **PWRON After Power-Fail**

This item allows you to choose the Option of Power Status after Power Fail by ATX Power Supply. The Choice: Former-STS, On, Off.

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# 4.6 PnP/PCI Configuration Setup

Reset Configuration Data[Disabled]

```
Resources Controlled By[Auto(ESCD)]
```

x IRQ Resources

Figure 4 PnP/PCI menu

#### Resource controlled by

The Award Plug and Play BIOS has the capacity to automatically configure all of the boot and Plug and Play compatible devices. However, this capability means absolutely nothing unless you are using a Plug and Play operating system such as Windows®95. If you set this field to "manual" choose specific resources by going into each of the sub menu that follows this field (a sub menu is preceded by a " $\geq$ "). The choice: Auto(ESCD), Manual.

#### **IRQ** Resources

When resources are controlled manually, assign each system interrupt a type, depending on the type of device using the interrupt.

#### IRQ3/4/5/7/9/10/11/12/14/15 assigned to

This item allows you to determine the IRQ assigned to the ISA bus and is not available to any PCI slot. Legacy ISA for devices compliant with the original PC AT bus specification, PCI/ISA PnP for devices compliant with the Plug and Play standard whether designed for PCI or ISA bus architecture.

The Choice: PCI Device, Reserved.

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# 4.7 Peripheral

Onboard Serial Port 1[3F8/IRQ4] Onboard Serial Port 2[2F8/IRQ3]

UART Mode Select [Normal] On Board Parallel Port [3BC/IRQ7] Parallel Port Mode SPP

USB Controller[Enabled]

USB 2.0 Controller [Enable]

Figure 5 Peripheral menu

#### **Onboard Serial Port 1/Port 2**

Select an address and corresponding interrupt for the first and second serial ports. The choice: 3F8/IRQ4, 2E8/IRQ3, 3E8/IRQ4, 2F8/IRQ3, Disabled,

The choice: 3F8/IRQ4, 2E8/IRQ3, 3E8/IRQ4, 2F8/IRQ3, Disabled, Auto

# UART Mode Select

Select the Function Mode for UART. The choice: IrDA, ASKIR, Normal

# **Onboard Parallel Port**

Select 3BC/IRQ7 to enable On Board Parallel Port as first Parallel Interface.

The choice: Disable, 378/IRQ7, 278/IRQ5, 3BC/IRQ7.

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# **USB** Controller

Select *Enabled* if your system contains a Universal Serial Bus (USB) controller and you have USB peripherals. The Choice: Enabled, Disabled.

# **USB 2.0 Controller**

This Entry is for disable / enable EHCI controller only. The Bios itself may / may not have high speed USB support. If the Bios has high speed USB support built in, the support will be automatically turn on when high speed device were attached.

The Choice: Enabled, Disabled.

# 4.8 PC Health

CPU Warning Temp. [Disabled]

Current System Temp 26°C/78°F Current CPU1 Temp 32°C/89°F Current CPU2 Temp 32°C/89°F Current CPUFAN1 Speed 6887 RPM Current CPUFAN2 Speed IN0(V) 1.16V IN1(V)1.48V IN2(V)3.29V +5V5.02V +12V 12.28V -12V 0.00V -5V 0.00V **VBAT(V)** 3.20V 5VSB(V) 4.72

Shutdown Temperature [Disabled]

Figure 5 H/W Monitor menu

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#### **CPU Warning Temp**

This item allows you to enable or disable the agent after boot. The Choice: Enabled, Disabled.

#### Shutdown Temperature

This item allows the system to reset when temperature reach the trigger level. The Choice: Disabled, 60°C/140°F, 65°C/149°F, 70°C/158°F, 75°C/167 °F

# 4.9 Boot

First Boot Device[CDROM] Second Boot Device[Hard Disk] Third Boot Device[USB-FDD] Boot Other Device[Enabled]

OnBoard LAN Boot Select [Disable]

Hard Disk Boot Priority

Figure 6 Boot menu

# First/Second/Third/Other Boot Device

The BIOS attempts to load the operating system from the devices in the sequence selected in these items. The Choice:

- ➢ Floppy......[]
- ▶ LS120......[]
- ➢ Hard Disk ….[]

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- > ZIP100 .....[]
- > USB-ZIP ......[]
- ➢ USB-CDROM ..[₊] ➢ On Board LAN...[]

# **On Board LAN Boot Select**

Select through which LAN Channel should the system boot. The Choice: Disable, LAN-1, LAN-2, LAN-3, LAN-4

Figure 7 Select device submenu

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# 4.10 Exit Selecting

- Save & Exit Setup
- Load Optimized Defaults
- Exit Without Saving
- Load Fail-Save Default

Figure 8 Exit menu

# Save & Exit Setup

Pressing <Enter> on this item asks for confirmation:

# Save to CMOS and EXIT (Y/N)? Y

Pressing "Y" stores the selections made in the menus in CMOS – a special section of memory that stays on after you turn your system off. The next time you boot your computer, the BIOS configures your system according to the Setup selections stored in CMOS. After saving the values the system is restarted again.

#### Load Optimized Defaults

Use this menu to load the BIOS default values that are factory settings for optimal performance system operations. While Award has designed the custom BIOS to maximize performance, the factory has the right to change these defaults to meet their needs.

When you press <Enter> on this item you get a confirmation dialog box with a message similar to:

Load Optimized Defaults (Y/N) ? N

Pressing 'Y' loads the default values that are factory settings for optimal performance system operations.

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# **Exit Without Saving**

Pressing <Enter> on this item asks for confirmation:

# Quit without saving (Y/N)? Y

This allows you to exit Setup without storing in CMOS any change. The previous selections remain in effect. This exits the Setup utility and restarts your computer.

# Load Fail-Safe Defaults

Use this menu to load the BIOS default values that are factory settings for safety system operations.

When you press <Enter> on this item you get a confirmation dialog box with a message similar to:

Load Fail-Safe Defaults (Y/N)? N

Pressing 'Y' loads the default values that are factory settings for Fail-Safe system operations.

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