IEI Technology Corp.

17” Medical Panel PC with Intel® Penitum® M Processor Touch Screen, 802.11 a/b/g/n Wi-Fi, Two RJ-45 GbE, VGA, DVI, DVD Combo Drive, 80 GB SATA HDD and Battery

User Manual

Rev. 1.00 November 2008

RoHS Lead Free

Revision

Date	Version	Changes
2008-11	1.00	Initial release

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Manual Conventions

WARNING!

Warnings appear where overlooked details may cause damage to the equipment or result in personal injury. Warnings should be taken seriously. Warnings are easy to recognize. The word “warning” is written as “**WARNING**,” both capitalized and bold and is followed by text. The text is the warning message. A warning message is shown below:

WARNING:

This is an example of a warning message. Failure to adhere to warning messages may result in permanent damage to the POC-3174B-A330 or personal injury to the user. Please take warning messages seriously.

CAUTION!

Cautionary messages should also be heeded to help reduce the chance of losing data or damaging the POC-3174B-A330. Cautions are easy to recognize. The word “caution” is written as “**CAUTION**,” both capitalized and bold and is followed. The italicized text is the cautionary message. A caution message is shown below:

CAUTION:

This is an example of a caution message. Failure to adhere to cautions messages may result in permanent damage to the POC-3174B-A330. Please take caution messages seriously.

NOTE:

These messages inform the reader of essential but non-critical information. These messages should be read carefully as any directions or instructions contained therein can help avoid making mistakes. Notes are easy to recognize. The word “note” is written as “**NOTE**,” both capitalized and bold and is followed by text. The text is the cautionary message. A note message is shown below:

NOTE:

This is an example of a note message. Notes should always be read. Notes contain critical information about the POC-3174B-A330. Please take note messages seriously.

Packing List

NOTE:

If any of the components listed in the checklist below are missing, please do not proceed with the installation. Contact the IEI reseller or vendor you purchased the POC-3174B-A330 from or contact an IEI sales representative directly. To contact an IEI sales representative, please send an email to sales@iei.com.tw.

The items listed below should all be included in the POC-3174B-A330 package.

- 1 x POC-3174B-A330 medical panel PC
- 1 x Power cord (Europe standard)
- 1 x Medical grade power adapter
- 1 x Screw kit
- 1 x Touch pen
- 1 x User Manual and driver CD

Images of the above items are shown in **Chapter 3**.

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1

Introduction

1.1 General Overview

Figure 1-1: POC-3174B-A330 Medical Panel PC

The POC-3174B-A330 is Intel® Pentium® M powered flat panel PCs with a rich variety of functions and peripherals. The POC-3174B-A330 is designed for easy and simplified integration in to medical applications.

The POC-3174B-A330 is a PC-based system with 17" color TFT LCD display that is capable of delivering 1280 x 1024 resolution. An Intel® 915GME graphics memory controller hub (GMCH) coupled with an Intel® ICH6 input/output controller hub ensures optimal memory, graphics, and peripheral I/O support. The system comes with 1.0 GB of preinstalled DDR2 SDRAM and supports a maximum of 2.0 GB of DDR2 SDRAM ensuring smooth data throughputs with reduced bottlenecks and fast system access. The POC-3174B-A330 is also preinstalled with a 2.5” 80 GB SATA HDD for data storage.

Three serial ports and two external USB 2.0 ports ensure simplified connectivity to a variety of external peripheral devices. A VGA connector enables connectivity to other monitors. 802.11 a/b/g/n Wi-Fi capabilities and two RJ-45 Ethernet connectors ensure smooth connection of the system to an external LAN.

To facilitate multimedia performance, the POC-3174B-A330 is equipped with a side-mounted slim Combo CD/DVD-ROM, an ExpressCard/54 slot. The POC-3174B-A330 panel PC also comes with an expansion PCI slot which allows flexible implementations making it the perfect platform for comprehensive lifestyle computing applications.

1.1.1 Features and Model Variation

The POC-3174B-A330 features are listed below:

- Rugged mechanism design with ABS/PC case
- High resolution and high brightness 17” industrial grade panel
- IP 64 dustproof and waterproof front panel
- Mainstream panel PC designing with dual display function.
- Preinstalled 1.0 GB DDR2 memory
- Preinstalled 80 GB SATA HDD
- 802.11 a/b/g/n Wireless LAN
- Dual 10/100/1000 Mbps Ethernet support
- Simplified installation process
- RoHS compliance

1.2 External Overview

The POC-3174B-A330 is a flat panel PC. The monitor and all internal components are enclosed in an aluminum chassis. An ABS/PC plastic cover surrounds the aluminum chassis. VESA compliant screw holes in the rear panel allow the POC-3174B-A330 to be attached to any VESA compliant mounting. The bottom of the POC-3174B-A330 gives access to a VGA port, a DVI port, two USB ports, two Ethernet ports, two RS-232 ports, two audio jacks, two keyboard and mouse connectors, power input and power switch.

1.2.1 Front Panel

The front side of the POC-3174B-A330 is a flat panel 17” TFT LCD screen surrounded by an ABS/PC plastic frame with five Poly Dome buttons and one LED indicator. The functions of the buttons and indicators are described in **Figure 1-2**.

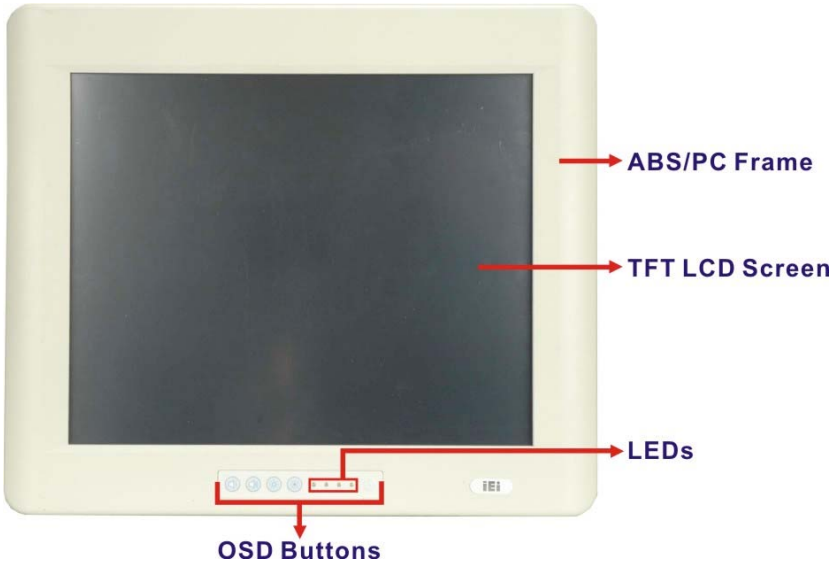


Figure 1-2: Front View

LCD ON/OFF Switch	This button activates the LCD display. The embedded computing main board is powered on or off using a reset switch at the bottom of the unit.	
System Power LED	Green:	LCD is on and system is powered on
	Red:	Power is supplied but the system has not been turned on
	Amber:	System is in a sleep mode
Power Adapter LED	On:	The power adapter is connected to the system and the power adapter switch is turned on.
Battery LED	On	The battery is connected and fully charged
	Blinking:	Charging the battery
UPS LED	On:	The system is on and using battery power
	Blinking:	Battery low

Volume Adjustment	Volume “+”	Volume “-”
Backlight Brightness Adjustment	Brightness”+”	Brightness”-”

Table 1-1: LCD Front Controls

1.2.2 Rear Panel

The rear panel provides access to fan ventilation vents and retention screw holes that support a 100 mm x 100 mm or a 75 mm x 75 mm VESA standard wall mount or desktop stand. See **Figure 1-3**.

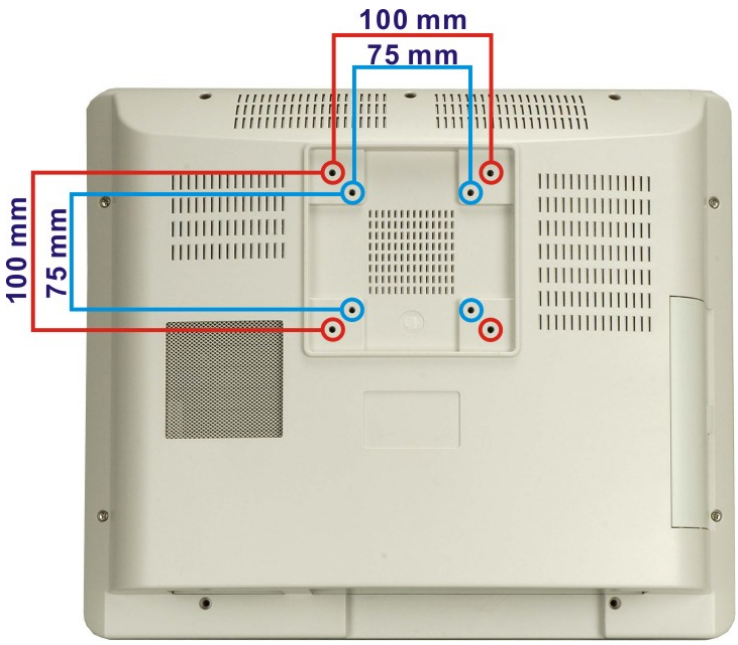


Figure 1-3: Rear View

1.2.3 Bottom Panel

The bottom panel of the POC-3174B-A330 has the following I/O interfaces (**Figure 1-4**):

- 1 x AT/ATX mode switch

- 2 x Audio jacks
- 1 x Clear CMOS button
- 1 x CompactFlash® slot
- 1 x DVI connector
- 1 x PCI add-on card slot
- 1 x Power input connector
- 1 x Power switch
- 2 x PS/2 keyboard/mouse connectors
- 1 x Remote monitor RJ-45 connector
- 2 x RJ-45 GbE connectors
- 2 x RS-232 serial port (COM) connectors
- 2 x USB connectors
- 1 x UPS/Battery mode switch
- 1 x VGA connector

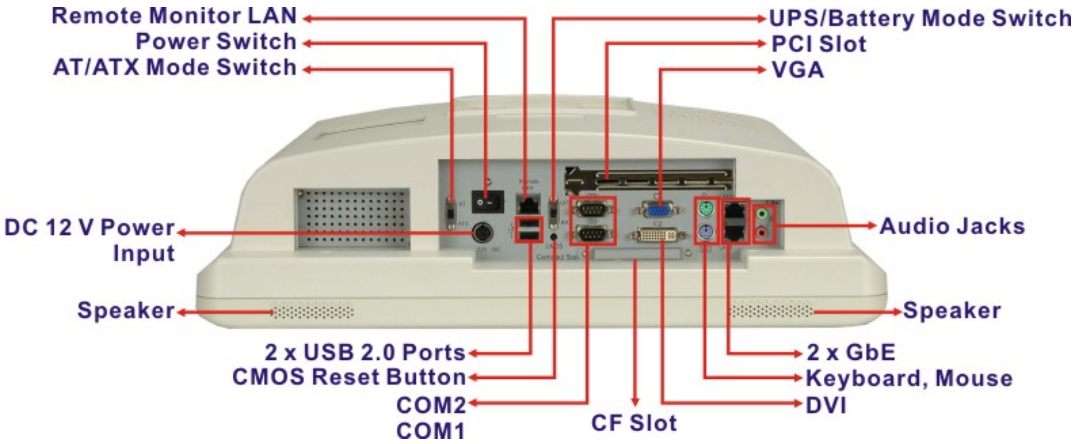


Figure 1-4: Bottom View

1.2.4 Side Panel

The left side panel provides access to a slim type CD/DVD drive bay and an ExpressCard/54 slot (**Figure 1-5**). The removable device peripherals are protected by a peripheral chamber protection cover.

Figure 1-5: Left View

1.3 Specifications

1.3.1 Preinstalled Hardware Components

The POC-3174B-A330 medical flat panel PC has the following preinstalled components:

- 1 x Motherboard
- 1 x TFT LCD screen
- 1 x Touch screen panel
- 1 x Inverter
- 1 x Wireless LAN module
- 1 x 1.0 GB DDR2 memory module
- 1 x 80 GB HDD
- 1 x CD/DVD combo drive
- 1 x Power supply
- 2 x Speakers

The technical specifications for the system, and some of these components, are shown in the sections below.

1.3.2 System Specifications

The technical specifications for the POC-3174B-A330 systems are listed in **Table 1-2.**

SPECIFICATION	POC-3174B-A330
LCD Size	17”
Max Resolution	1280 x 1024
Brightness (cd/m^2)	300
Contrast Ratio	500:1
LCD Color	16.2M
Pixel Pitch (mm)	0.264 (H) x 0.264 (V)
Viewing Angle (H-V)	140 / 130
Backlight MTBF	50,000 hours
SBC Model	A330
CPU	2.0 GHz Intel® Pentium® M 760 processor
Chipsets	Intel® 915GME + ICH6
Memory	One 200-pin 1.0 GB DDR2 SO-DIMM preinstalled
I/O Ports	1 x AT/ATX mode switch 2 x Audio jacks 1 x Clear CMOS button 1 x CompactFlash® slot 1 x DVI connector 1 x PCI add-on card slot 1 x Power input connector 1 x Power switch 2 x PS/2 keyboard/mouse connectors 1 x Remote control RJ-45 connector 2 x RJ-45 GbE connectors 2 x Serial port (COM) connectors 2 x USB connectors 1 x UPS/Battery mode switch 1 x VGA connector
LED Functions	1 x System power on/off LED 1 x Adapter on/off LED 1 x Battery LED 1 x UPS LED
OSD Functions	5 x OSD buttons on the front panel (LCD on/off, volume and brightness)
Storage	One 2.5” 80 GB SATA HDD preinstalled

SPECIFICATION	POC-3174B-A330
Drive Bay	1 x slim type CD/DVD drive bay
Speakers	2 x 3 W AMP
Expansion	1 x PCIe Mini Wireless LAN Module 1 x PCIe slot for an PCI/PCIe add-on card 1 x ExpressCard/54 slot 1 x CompactFlash® Type II
Construction Material	ABS + PC Plastic
Mounting	VESA MIS-D mount for wall, stand and arm mounting
Front Panel Color	Cool Gray 2C
Dimensions	432 (W) mm x 374 (H) mm x 122 (D) mm
Operating Temperature	0°C ~ 40°C
Storage Temperature	-20°C ~ 60°C
IP Level	IP 64 (front panel)
Safety and EMI	UL60601-1, EN60601-1, CCC, CE (EN60601-1-2), FCC Parts 18
Touch Screen	Resistive Type 5 Wire (RS-232 interface)
Power Input	12 V DC In
Power Adapter	12 V AC to DC Medical Grade Power Adapter

Table 1-2: System Specifications

Chapter

2

Specifications

2.1 Dimensions

The dimensions of the POC-3174B-A330 medical panel PC are shown in **Figure 2-1** below.

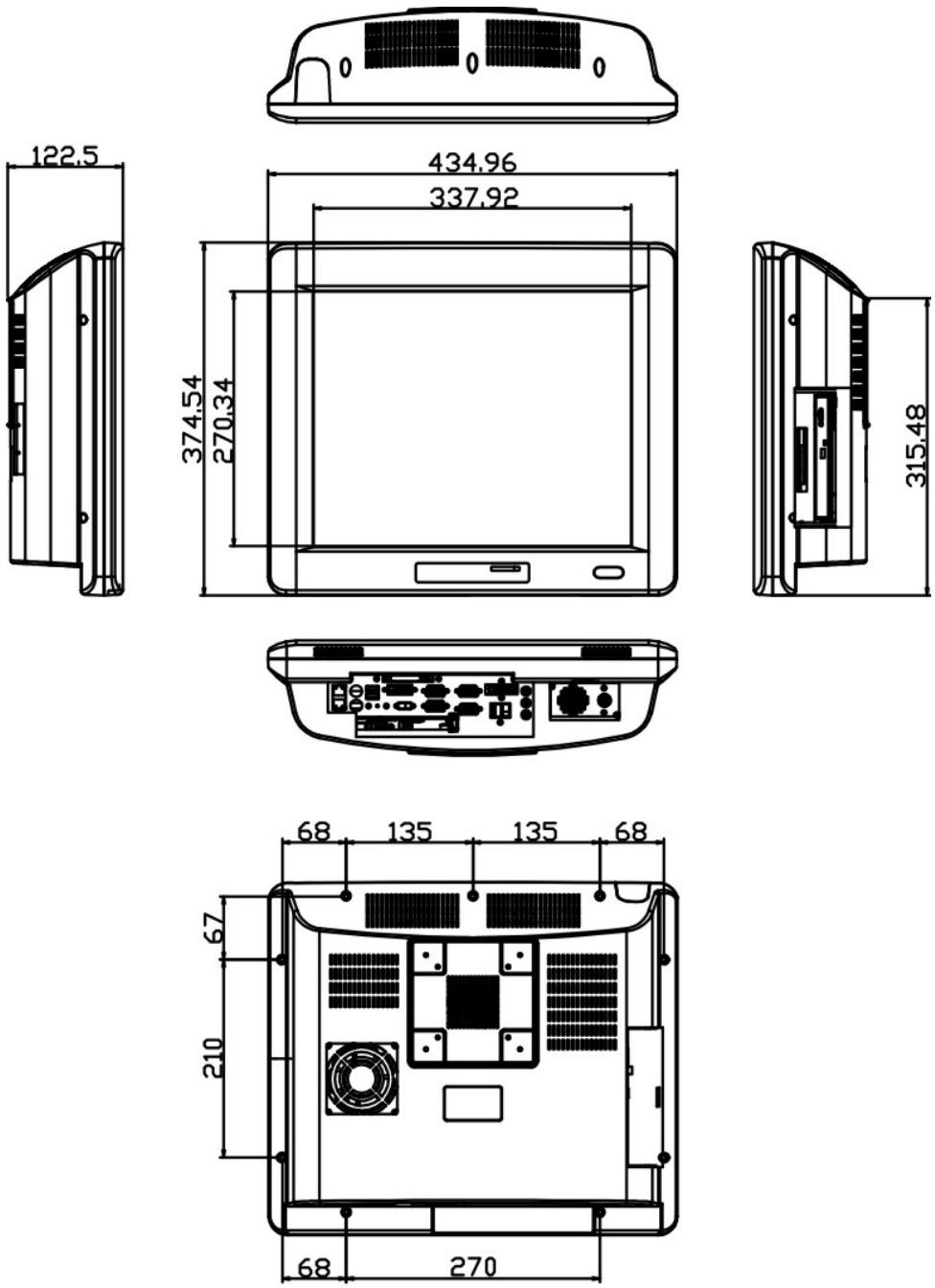


Figure 2-1: POC-3174B-A330 Dimensions (units in mm)

2.2 Intel® Processor Support

The POC-3174B-A330 is installed with an Intel® Pentium® M 760 processor. The Intel® Pentium® M 760 processor has a CPU speed of 2.0 GHz, a 533 MHz front side bus (FSB) and a 2.0 MB L2 cache. Intel® Pentium® M processor supports the following Intel® features: ‘,m

- 90nm architecture
- Intel® SpeedStep® Technology
- Execute Disable Bit support
- Intel® Mobile Voltage Positioning

2.3 Motherboard Components

The following sections describe some of the features on the motherboard.

2.3.1 Memory Support

2.3.1.1 Installed Memory

One 200-pin 1.0 GB DDR2 SDRAM SO-DIMM are installed in the POC-3174B-A330 and controlled by the Intel® 915GME GMCH installed on the internal motherboard.

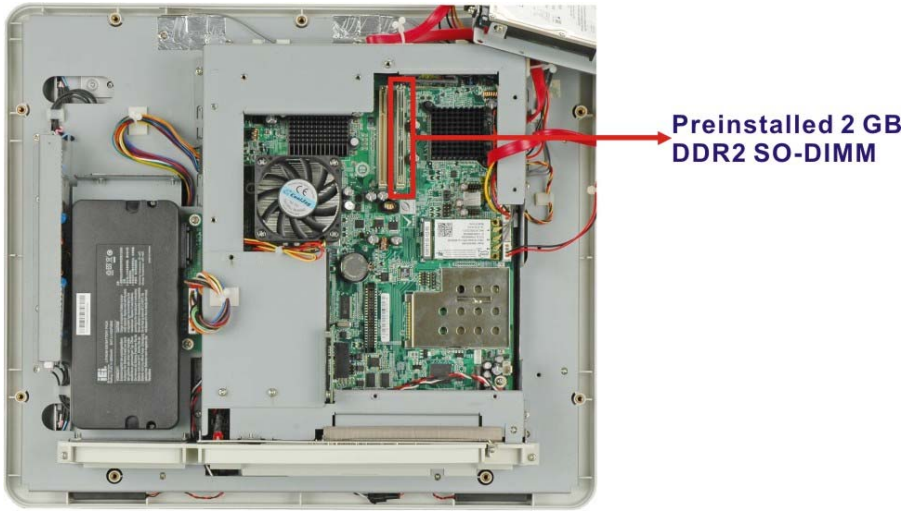


Figure 2-2: Memory Module and Memory Socket

2.3.1.2 Additional Memory

The Intel® 915GME is capable of supporting two 200-pin 1.0 GB (max.) 533/667 MHz DDR2 SDRAM SO-DIMM (system max. 2.0 GB). If additional memory is required, please contact an IEI sales representative and discuss the necessary system requirement.

2.3.2 Storage Capacity

The POC-3174B-A330 is preinstalled with a 2.5" 80 GB SATA hard disk drive. An easy-access slim combo CD/DVD-ROM is mounted on the right side panel and is protected with a cover. The system can also support an easily installed CompactFlash® Type II (CF Type II) memory disk.

2.4 External Peripheral Interface Connectors

The following section describes the external peripheral interface connectors on the rear panel of the subsystem.

2.4.1 Serial Port Connectors

The POC-3174B-A330 has two external serial ports. The COM1 and COM2 serial ports are RS-232 only ports. Pin 9 on all ports can be designated as a 5 V or 12 V power supply. Refer to **Section 5.6.1** for the COM port voltage select jumper settings.

These two serial ports (COM1 and COM2) are interfaced to the ITE IT8718 super IO, through the low pin count (LPC) bus to the ICH6 Southbridge.

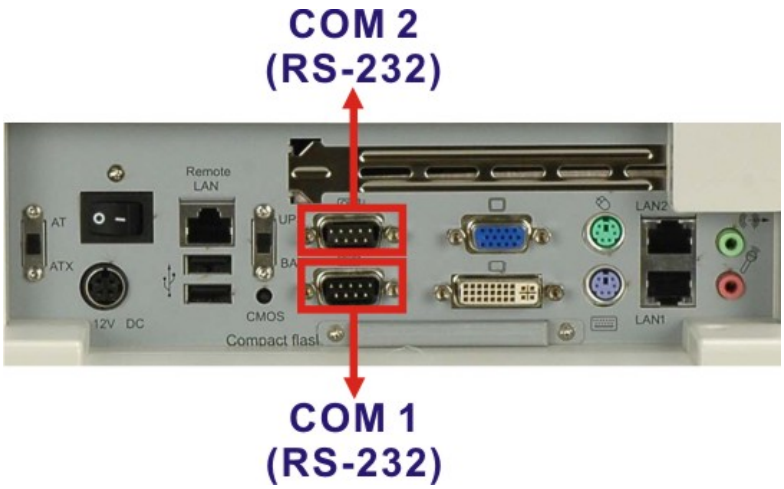


Figure 2-3: COM Ports

2.4.2 LAN Connectivity

The POC-3174B-A330 has two GbE connectors on the bottom panel. The PCIe lane from the Intel® ICH6 chipset of the POC-3174B-A330 is interfaced to two PCIe gigabit Ethernet (GbE) controllers, Realtek RTL8111CP GbE controllers. The GbE controllers are then connected directly to the RJ-45 connectors on the bottom panel and provide external GbE connectivity.

Figure 2-4: RJ-45 Ethernet Connectors

2.4.3 LAN Connector for Remote Control

The RJ-45 connector labeled Remote LAN on the bottom panel is for remote control. The POC-3174B-A330 can be turned on or off through a remote computer using IEI Ethernet Device Discoverer tool. Please refer to **Section 8.3** for more detailed description.

Figure 2-5: RJ-45 Remote Control Connector

2.4.4 External USB Connectors

There are two USB 2.0 connectors on the bottom panel of the POC-3174B-A330. All the USB 2.0 connectors are interfaced directly to the USB controllers on the ICH6 Southbridge. The USB connectors are all fully compliant with USB specification Revision 2.0 and USB specification Revision 1.1 and can be interfaced to both USB 1.1 and USB 2.0 compliant devices.

Figure 2-6: External USB Ports

2.5 POC-3174B-A330 Front Side

2.5.1 Monitor

A LCD screen is installed on the front of the POC-3174B-A330 and connected to the LVDS connector on the motherboard. The screen is shown in **Figure 2-7** below.

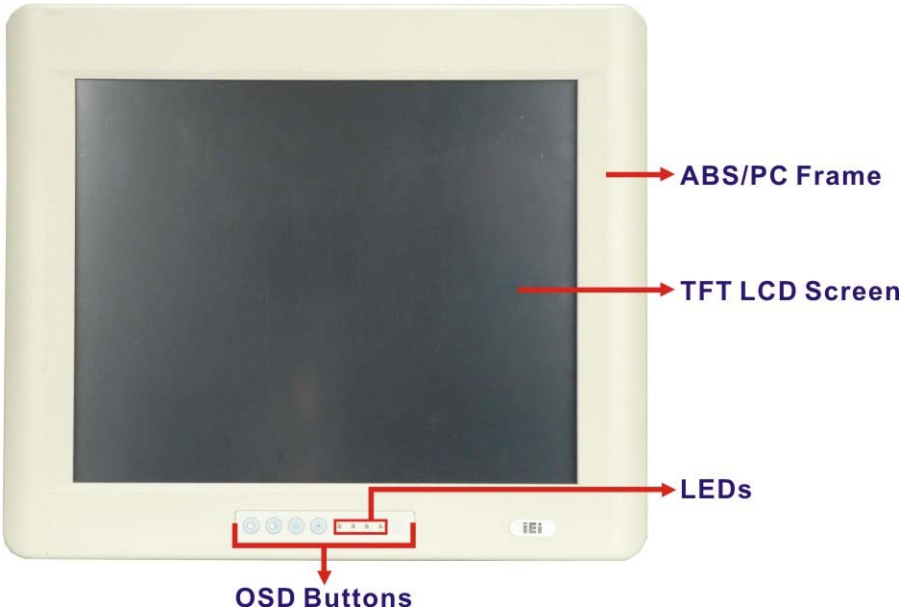


Figure 2-7: LCD Screen

2.5.2 Touch-Screen Module

A controller for the 5-wire resistive touch screen is installed on the motherboard. The sensitive touch screen is accurate, reliable and durable.

2.6 Graphics

2.6.1 Intel® 915GME Integrated Graphics Media Accelerator 900

The Intel® 915GME has the mobile Intel® Graphics Media Accelerator (GMA) 900 integrated into the chipset and interfaced to one VGA connector and one DVI connector. The Intel® GMA 900, with an integrated 400 MHz DAC frequency, supports both analog CRT and digital monitors up to QXGA.

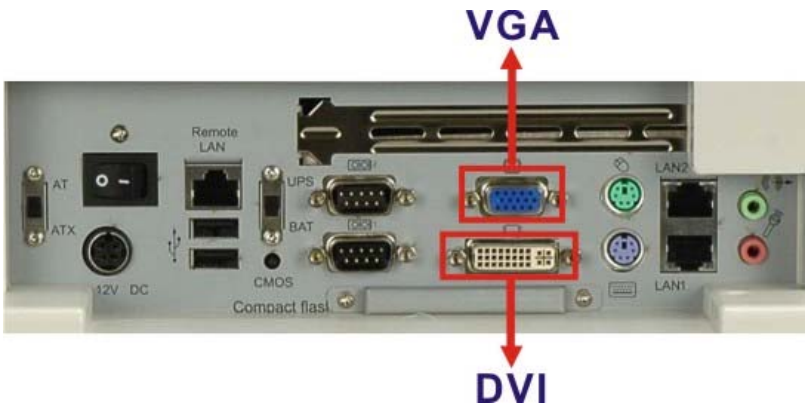


Figure 2-8: VGA and DVI Connectors

2.6.2 Dual-Display

The system supports dual display capabilities. An additional monitor can be connected to the POC-3174B-A330 through the VGA connector or DVI connector described above.

2.7 Audio

2.7.1 High Definition Audio Controller

The integrated High Definition Audio compliant audio controller on the Intel® ICH6 Southbridge is integrated to a RealTek ALC888 audio codec. The RealTek ALC888 is

connected to the external audio jacks, which are then connected to compliant audio devices. The RealTek ALC888 is a 7.1+2 channel High Definition Audio codec with ten DACs channels and two stereo ADCs. The audio connectors are shown in **Figure 2-9**.

Figure 2-9: Audio Jacks

2.7.2 Stereo Speakers

Two stereo speakers on the bottom of the POC-3174B-A330 are interfaced to the system through dual 3 W output amplifier.

Figure 2-10: Stereo Speakers

2.8 System Power

2.8.1 Power Adapter

The system is shipped with a 90 V to 264 V AC medical grade power adapter that has a maximum power output of 100 W. The power adapter has a 12 V DC output connector and a power switch. The power adapter specifications are listed in **Appendix A**.

2.8.2 Power Connector

The power connector is located on the bottom panel interface panel. A 12 V DC input connector is a standard 4-pin power connector shown in **Figure 2-11** below.

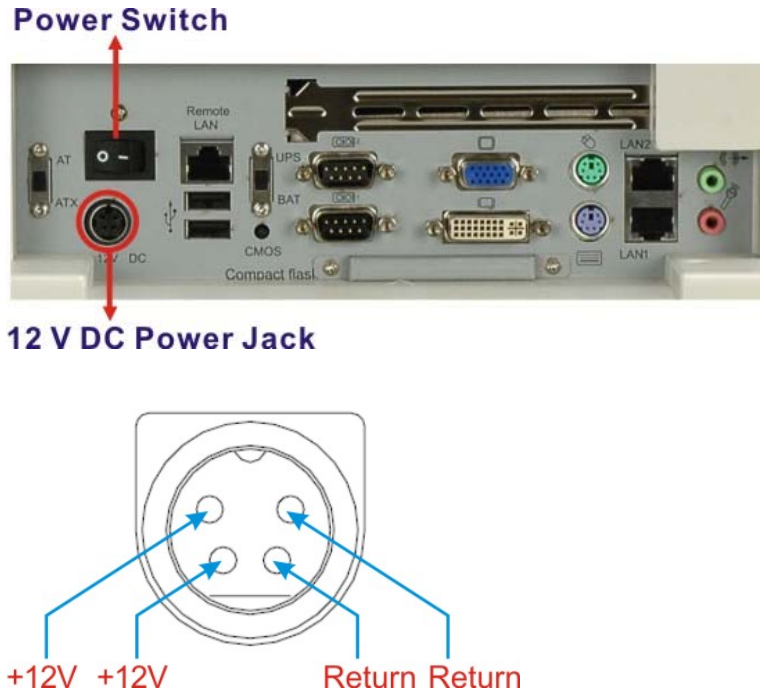


Figure 2-11: Power Connector

2.8.3 Lithium Battery

A 3800mAh Lithium Battery Pack is preinstalled in the POC-3174B-A330 series to provide backup power for the system. Before using the battery function, make sure the battery is connected to the system (refer to **Section 4.5**). Once the battery is connected to the system, the battery starts discharging even when the system power is off. Users can use the AUPS to monitor the battery status (refer to **Chapter 8**). To charge the battery, connect the power adapter to the system and turn on the power adapter.

Figure 2-12: Lithium Battery Pack

2.8.4 Power Mode

The system can be run in the AT power mode or the ATX power mode. The power mode switch is shown in **Figure 2-13**.

Figure 2-13: AT/ATX Mode Switch

The POC-3174B-A330 is also has an UPS/Battery mode switch shown in Figure 2-14.

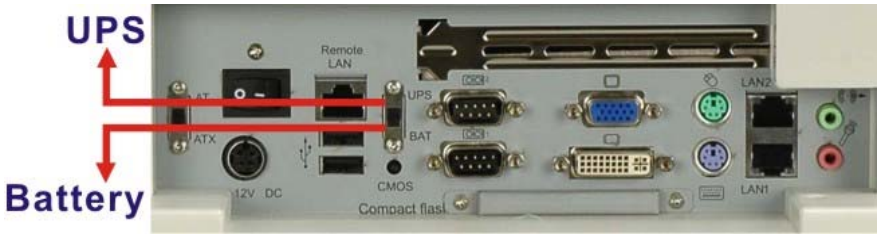


Figure 2-14: UPS/Battery Mode Switch

2.8.5 Power On/Off

On	UPS Mode		Battery Mode	
AT Mode	Battery Only	NOT able to turn on by the power button.	Battery Only	NOT able to turn on by the power button.
	Battery + Adapter	Turn on automatically when the power is connected.	Battery + Adapter	Turn on automatically when the power is connected.
ATX Mode	Battery Only	NOT able to turn on by the power button.	Battery Only	Able to turn on by the power button
	Battery + Adapter	Able to turn on by the power button	Battery + Adapter	Able to turn on by the power button

Table 2-1: Power Modes (Turning on the System)

Off	UPS Mode		Battery Mode	
AT Mode	Battery Only	Able to turn off by the power button and the power will be disconnected.	Battery Only	Able to turn off by the power button and the power will be disconnected.
	Battery + Adapter	Able to turn off by the power button and the power will be disconnected.	Battery + Adapter	Able to turn off by the power button and the power will be disconnected.
ATX Mode	Battery Only	Able to turn off the system in the OS.	Battery Only	Able to turn off the system in the OS.
	Battery + Adapter	Able to turn off the system in the OS.	Battery + Adapter	Able to turn off the system in the OS.

Table 2-2: Power Modes (Turning off the System)

2.9 Wireless Ethernet Connections

An integrated 802.11 a/b/g/n wireless LAN module and PIFA antennas on the POC-3174B-A330 ensure an uninterrupted wireless connection. PIFA antennas can receive high-quality, uniform signals in any location from all directions without any signal degradation or impedance and are the most efficient antennas on the market.

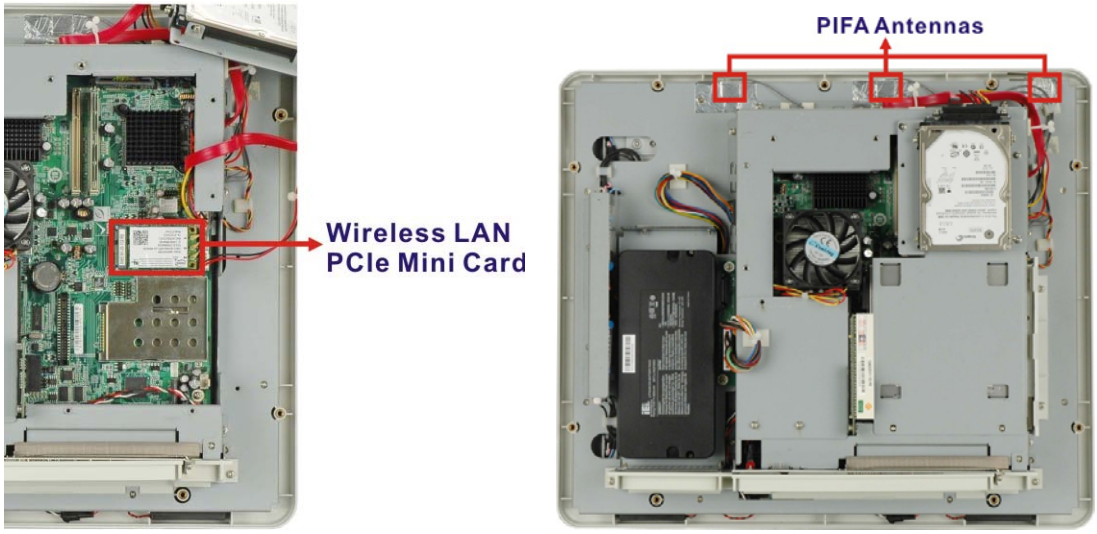


Figure 2-15: Wireless LAN Module and PIFA Antennas

Chapter

3

Unpacking

3.1 Unpacking

To unpack the flat panel PC, follow the steps below:

WARNING!

The front side LCD screen has a protective plastic cover stuck to the screen. Only remove the plastic cover after the flat panel PC has been properly installed. This ensures the screen is protected during the installation process.

Step 1: Use box cutters, a knife or a sharp pair of scissors that seals the top side of the external (second) box.

Step 2: Open the external (second) box.

Step 3: Use box cutters, a knife or a sharp pair of scissors that seals the top side of the internal (first) box.

Step 4: Lift the monitor out of the boxes.

Step 5: Remove both polystyrene ends, one from each side.

Step 6: Pull the plastic cover off the flat panel PC.

Step 7: Make sure all the components listed in the packing list are present.

3.1.1 Packing List

The POC-3174B-A330 medical panel PC is shipped with the following components:

Quantity	Item	Image
Standard		
1	POC-3174B-A330 medical panel PC	
1	Power cord (Europe standard)	
1	Medical grade power adapter	
1	Screw kit	
1	Touch pen	
1	User manual CD and driver CD	

If any of these items are missing or damaged, contact the distributor or sales representative immediately.

Chapter

4

Installation

4.1 Anti-static Precautions

WARNING:

Failure to take ESD precautions during the maintenance of the POC-3174B-A330 may result in permanent damage to the POC-3174B-A330 and severe injury to the user.

Electrostatic discharge (ESD) can cause serious damage to electronic components, including the POC-3174B-A330. Dry climates are especially susceptible to ESD. It is therefore critical that whenever the POC-3174B-A330 is accessed internally, or any other electrical component is handled, the following anti-static precautions are strictly adhered to.

- ***Wear an anti-static wristband***: - Wearing a simple anti-static wristband can help to prevent ESD from damaging the board.
- ***Self-grounding***: - Before handling the board touch any grounded conducting material. During the time the board is handled, frequently touch any conducting materials that are connected to the ground.
- ***Use an anti-static pad***: - When configuring the POC-3174B-A330, place it on an antic-static pad. This reduces the possibility of ESD damaging the POC-3174B-A330.

4.2 Installation Precautions

When installing the flat panel PC, please follow the precautions listed below:

- **Power turned off**: When installing the flat panel PC, make sure the power is off. Failing to turn off the power may cause severe injury to the body and/or damage to the system.
- **Certified Engineers**: Only certified engineers should install and modify onboard functionalities.
- **Mounting**: The flat panel PC is a heavy device. When mounting the system onto a rack, panel, wall or arm please make sure that at least two people are

assisting with the procedure.

- **Anti-static Discharge**: If a user open the rear panel of the flat panel PC, to configure the jumpers or plug in added peripheral devices, ground themselves first and wear and anti-static wristband.

4.3 Installation and Configuration Steps

The following installation steps must be followed.

Step 1: Unpack the flat panel PC

Step 2: Connect the battery connector

Step 3: Install a PCI expansion card (optional)

Step 4: Install the CF card (optional)

Step 5: Mount the flat panel PC

Step 6: Connect peripheral devices

4.4 Plastic Back Cover Removal

WARNING!

Take antistatic precautions when working with internal components. The interior of the POC-3174B-A330 contains very sensitive electronic components. These components are easily damaged by electrostatic discharge (ESD). Before working with the internal components make sure all the anti-static precautions described earlier have been observed.

WARNING!

Watch out for the three internal PIFA antennas when removing the back cover. There are three PIFA antennas preinstalled on the top of the

internal chassis (see **Figure 2-15**). To prevent these antennas from damage, be very careful when lifting the back cover off the POC-3174B-A330.

To remove the back cover, remove the nine retention screws indicated below (**Figure 4-1**) and carefully lift the back cover off the POC-3174B-A330.

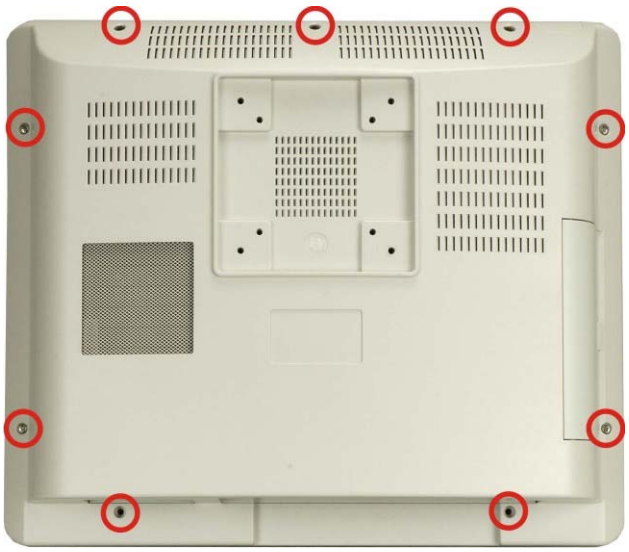


Figure 4-1: Back Cover Retention Screws

4.5 Connect the Battery

The POC-3174B-A330 panel PC is preinstalled with a Li-on battery. To start using the battery for backup power, the battery connector must be connected. To connect the battery, follow the steps below.

Step 1: Remove the plastic back cover. See **Section 4.4**.

Step 2: Locate the battery cable. Connect the battery cable to the battery connector (**Figure 4-2**).

Figure 4-2: Connect the Battery

4.6 PCI Expansion Card Installation

The POC-3174B-A330 has one slot on the bottom panel for PCI card expansion. To install the PCI card, follow the instructions below.

Step 1: Remove the plastic back cover. See **Section 4.4**.

Step 2: Remove the PCI slot cover by removing the PCI slot cover retention screw.

Step 3: Insert a PCI card into the PCI slot (**Figure 4-3**).

Step 4: Secure the PCI card with the retention screw (**Figure 4-3**).

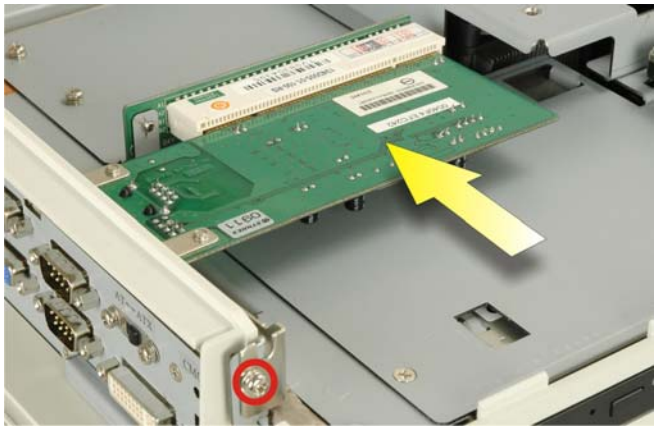


Figure 4-3: PCI Card Installation

Step 5: Replace the plastic back cover.

4.7 CF Card Installation

The POC-3174B-A330 has one CompactFlash® Type II slot on the bottom panel. To install the CF card, follow the instructions below.

Step 1: Remove the two CF slot cover retention screws (**Figure 4-4**) and remove the cover off the flat panel PC.

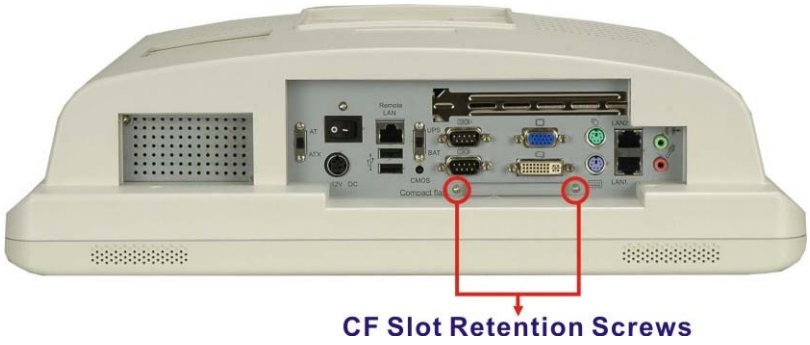


Figure 4-4: CF Slot Cover Retention Screws

Step 2: Locate the CF slot. Align the CF card with the guides on the slot.

Step 3: Insert a CF card into the slot (**Figure 4-5**).

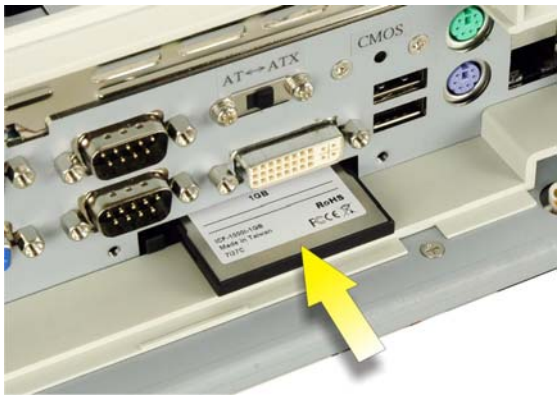


Figure 4-5: CF Card Installation

4.8 AT/ATX Mode Selection

AT and ATX power modes can both be used on the POC-3174B-A330. The selection is made through an AT/ATX switch on the bottom panel (**Figure 4-6**). To select AT mode or ATX mode, follow the steps below.

Step 1: Locate the AT/ATX switch on the bottom panel (**Figure 4-6**).

Figure 4-6: AT/ATX Switch Location

Step 2: The system is set to ATX mode by default. To change to the AT mode, just adjust the AT/ATX switch to AT mode.

Step 3: To switch from AT mode to ATX mode, please **load BIOS default or clear CMOS first**. Then adjust the switch to ATX mode.

NOTE:

To load BIOS default, please use the **Load Optimal Defaults** option of the Exit menu in the BIOS (refer to **Section** on **page 94**) to load the optimal default values for each of the parameters on the Setup menus. **F9 key can be used for this operation.**

4.9 Mounting the System

WARNING!

When mounting the flat panel PC onto an arm, onto the wall or onto a stand, it is better to have more than one person to help with the installation to make sure the panel PC does not fall down and get damaged.

The four methods of mounting the POC-3174B-A330 are listed below.

- Wall mounting
- Arm mounting
- Stand mounting

The four mounting methods are described below.

4.9.1 Wall Mounting

To mount the flat panel PC onto the wall, please follow the steps below.

Step 1: Select the location on the wall for the wall-mounting bracket.

Step 2: Carefully mark the locations of the four brackets screw holes on the wall.

Step 3: Drill four pilot holes at the marked locations on the wall for the bracket retention screws.

Step 4: Align the wall-mounting bracket screw holes with the pilot holes.

Step 5: Secure the mounting-bracket to the wall by inserting the retention screws into the four pilot holes and tightening them (**Figure 4-7**).

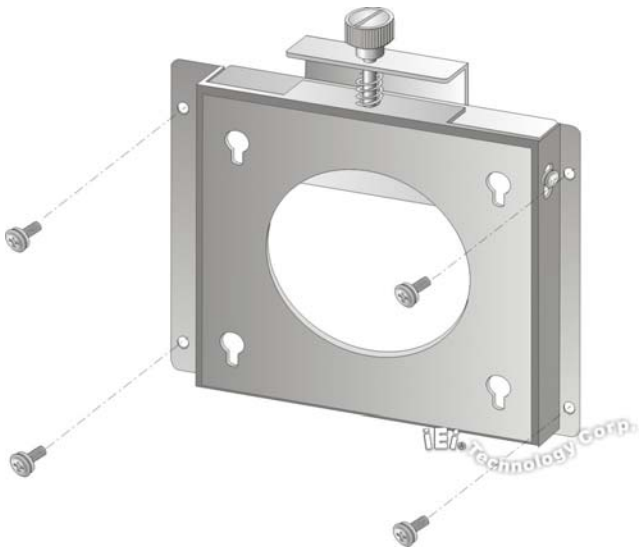


Figure 4-7: Wall-mounting Bracket

Step 6: Insert the four monitor mounting screws provided in the wall mounting kit into the four screw holes on the real panel of the flat panel PC and tighten until the screw shank is secured against the rear panel (**Figure 4-8**).

Step 7: Align the mounting screws on the monitor rear panel with the mounting holes on the bracket.

Step 8: Carefully insert the screws through the holes and gently pull the monitor downwards until the monitor rests securely in the slotted holes (**Figure 4-8**). Ensure that all four of the mounting screws fit snuggly into their respective slotted holes.

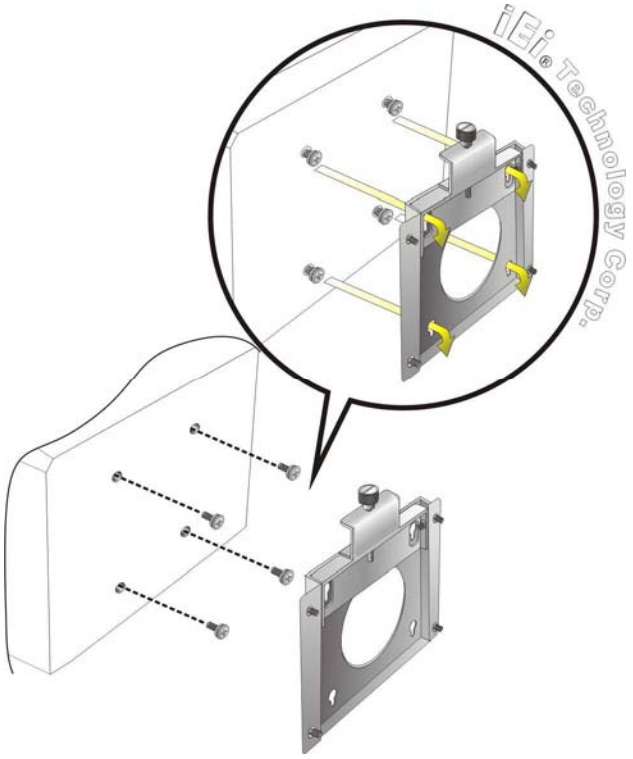


Figure 4-8: Chassis Support Screws

NOTE:

In the diagram below the bracket is already installed on the wall.

Step 9: Secure the panel PC by fastening the retention screw of the wall-mounting bracket. (**Figure 4-9**).

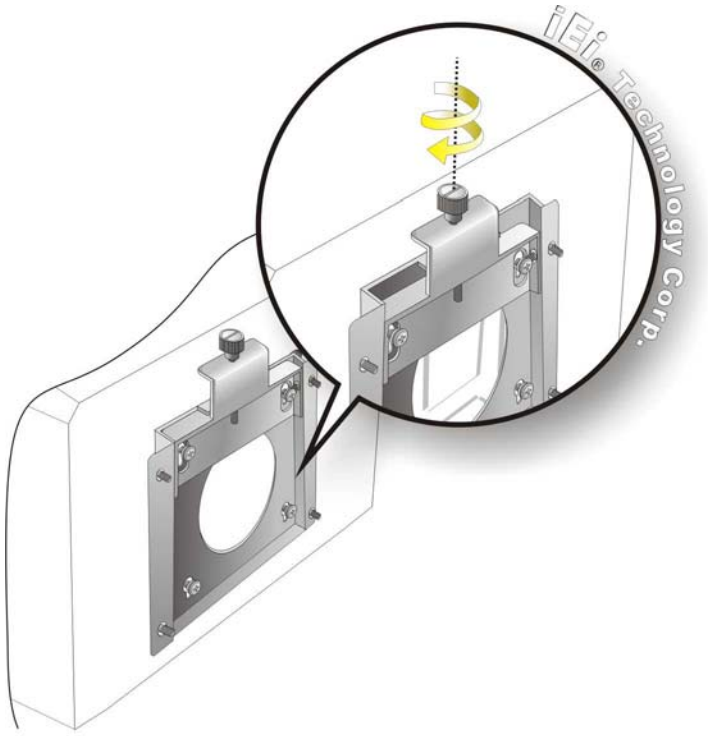


Figure 4-9: Secure the Panel PC

4.9.2 Arm Mounting

The POC-3174B-A330 is VESA (Video Electronics Standards Association) compliant and can be mounted on an arm with a 75 mm or 100 mm interface pad. To mount the POC-3174B-A330 on an arm, please follow the steps below.

Step 1: The arm is a separately purchased item. Please correctly mount the arm onto the surface it uses as a base. To do this, refer to the installation documentation that came with the mounting arm.

NOTE:

When purchasing the arm please ensure that it is VESA compliant and that the arm has a 75 mm or 100 mm interface pad. If the mounting arm is not VESA compliant it cannot be used to support the POC-3174B-A330.

Step 2: Once the mounting arm has been firmly attached to the surface, lift the flat panel PC onto the interface pad of the mounting arm.

Step 3: Align the retention screw holes on the mounting arm interface with those in the flat panel PC, as shown in **Figure 4-10**.

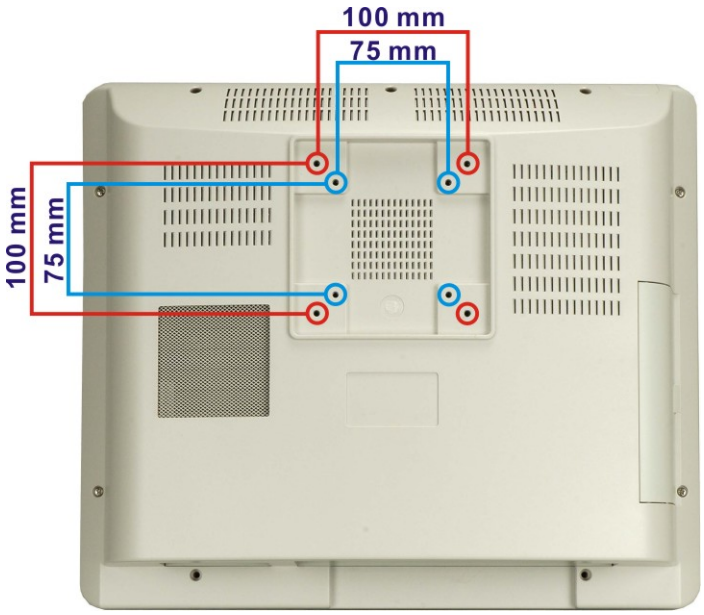


Figure 4-10: Arm Mounting Retention Screw Holes

Step 4: Secure the flat panel PC to the interface pad by inserting four retention screws through the bottom of the mounting arm interface pad and into the flat panel PC.

4.10 Bottom Panel Connectors

All the external peripheral interface connectors are located at the bottom of the rear panel on the POC-3174B-A330 medical panel PC.

4.10.1 Audio Connection

Audio signals are interfaced through three phone jack connections. The pink phone jack is for Mic In and green is for Speaker Out. Follow the steps below to connect audio devices to the POC-3174B-A330.

Step 1: **Locate the audio phone jacks**. The locations of the audio phone jacks are shown in **Chapter 3**.

Step 2: **Insert audio phone jack plugs**. Insert audio phone jack plugs into the audio phone jacks on the external peripheral interface. See **Figure 4-11**.

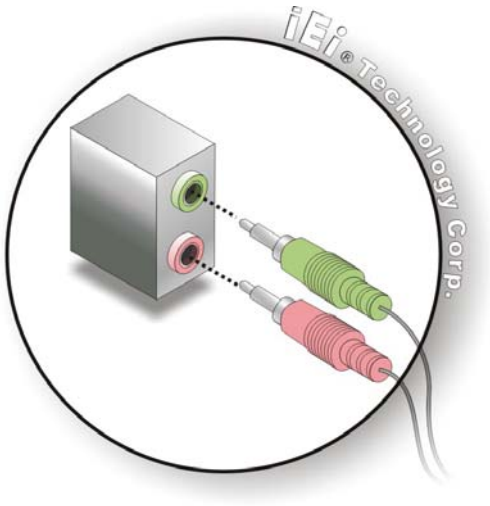


Figure 4-11: Audio Connectors

4.10.2 DVI Display Device Connection

The POC-3174B-A330 has a single female DVI-I connector on the bottom panel. The DVI-I connector is connected to a digital display device. To connect a digital display device to the POC-3174B-A330, please follow the instructions below.

Step 1: **Locate the DVI-I connector**. The location of the DVI-I connector is shown in **Chapter 2**.

Step 2: **Align the DVI-I connector**. Align the male DVI-I connector on the digital display device cable with the female DVI-I connector on the external peripheral interface.

Step 3: **Insert the DVI-I connector** Once the connectors are properly aligned with the male connector, insert the male connector from the digital display device into the female connector on the POC-3174B-A330. See **Figure 4-12**.

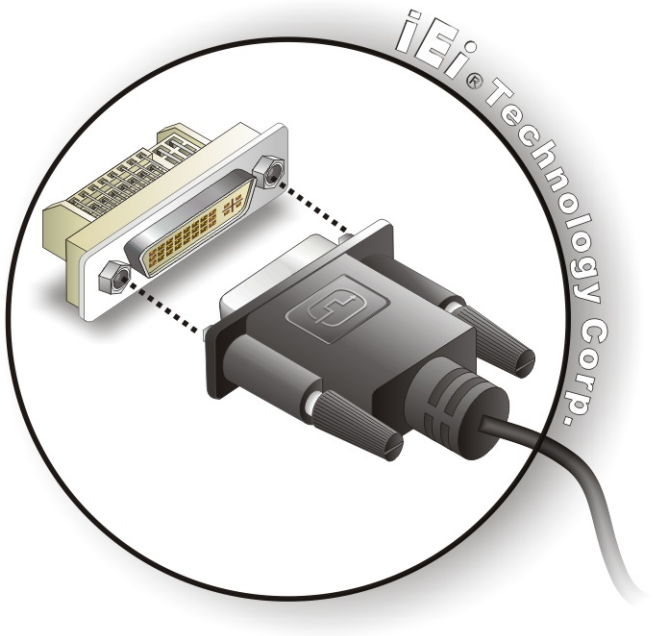


Figure 4-12: DVI Connector

Step 4: **Secure the connector.** Secure the DVI-I connector from the digital display device to the external interface by tightening the two retention screws on either side of the connector.

4.10.3 LAN Connection

There are two external RJ-45 LAN connectors. The RJ-45 connectors enable connection to an external network. To connect a LAN cable with an RJ-45 connector, please follow the instructions below.

Step 1: **Locate the RJ-45 connectors** on the bottom panel of the POC-3174B-A330.

Step 2: **Align the connectors.** Align the RJ-45 connector on the LAN cable with one of the RJ-45 connectors on the bottom panel of the POC-3174B-A330. See **Figure 4-13**.

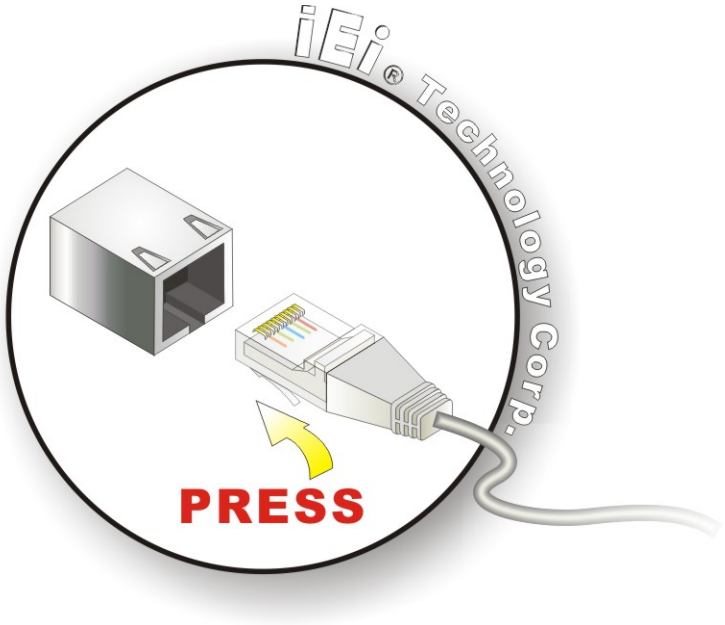


Figure 4-13: LAN Connection

Step 3: **Insert the LAN cable RJ-45 connector.** Once aligned, gently insert the LAN cable RJ-45 connector into the onboard RJ-45 connector.

4.10.4 PS/2 Keyboard and Mouse Connection

The POC-3174B-A330 has a dual PS/2 connector on the external peripheral interface panel. The dual PS/2 connector is used to connect to a keyboard and mouse to the system. Follow the steps below to connect a keyboard and mouse to the POC-3174B-A330.

Step 1: **Locate the dual PS/2 connector**. The location of the dual PS/2 connector is shown in **Chapter 3**.

Step 2: **Insert the keyboard/mouse connector**. Insert a PS/2 keyboard or mouse connector into the appropriate PS/2 connector on the external peripheral interface connector. See **Figure 4-14**.

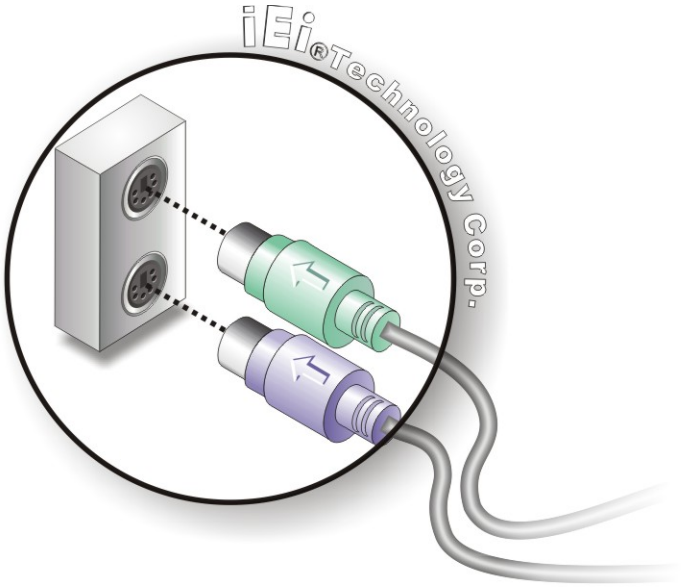


Figure 4-14: PS/2 Keyboard/Mouse Connector

4.10.5 Serial Device Connection

The POC-3174B-A330 has three single female DB-9 connectors on the bottom panel for a serial device. Follow the steps below to connect a serial device to the POC-3174B-A330 panel PC.

Step 1: **Locate the DB-9 connector**. The location of the DB-9 connector is shown in **Chapter 2**.

Step 2: **Insert the serial connector**. Insert the DB-9 connector of a serial device into the DB-9 connector on the bottom panel. See **Figure 4-15**.

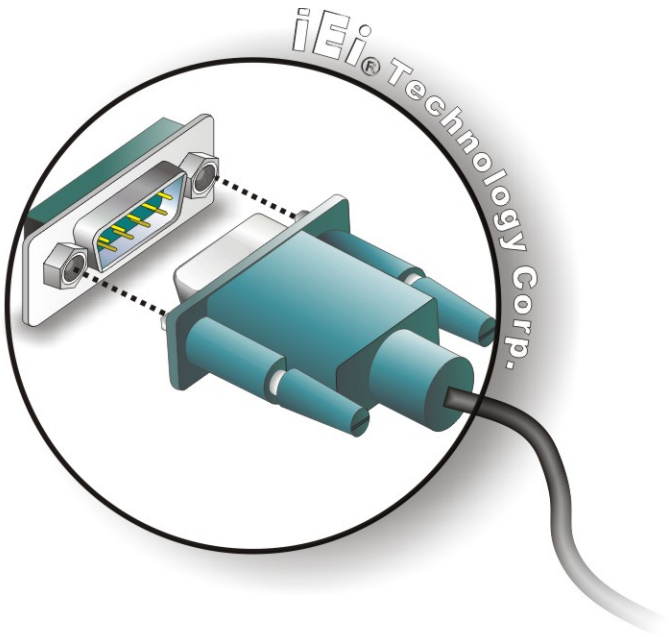


Figure 4-15: Serial Device Connector

Step 3: **Secure the connector**. Secure the serial device connector to the external interface by tightening the two retention screws on either side of the connector.

4.10.6 USB Device Connection

There are two external USB 2.0 connectors. All connectors are perpendicular to the POC-3174B-A330. To connect a USB 2.0 or USB 1.1 device, please follow the instructions below.

Step 1: **Locate the USB connectors**. The locations of the USB connectors are shown in **Chapter 2**.

Step 2: **Align the connectors.** Align the USB device connector with one of the connectors on the bottom panel. See **Figure 4-16**.

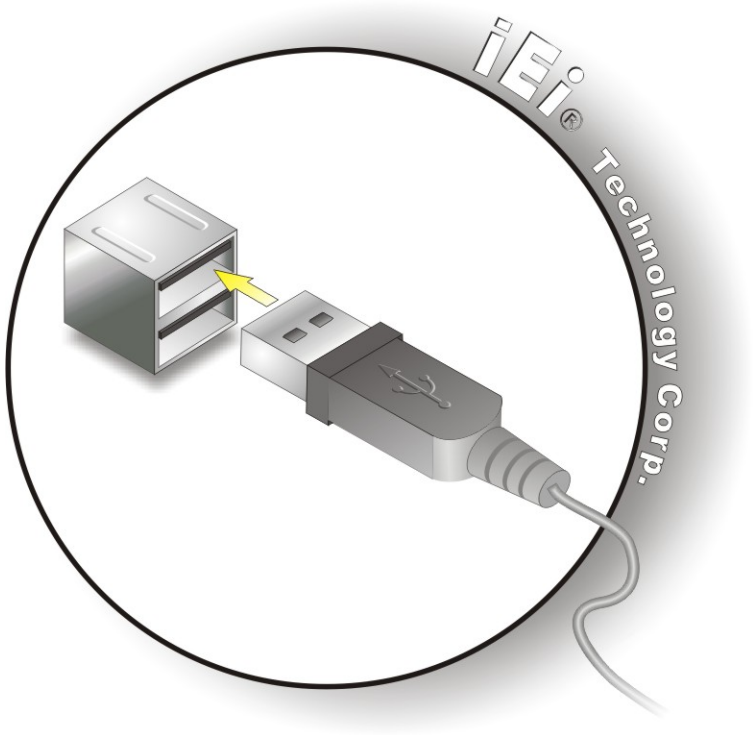


Figure 4-16: USB Device Connection

Step 3: **Insert the device connector.** Once aligned, gently insert the USB device connector into the onboard connector.

4.10.7 VGA Monitor Connection

The POC-3174B-A330 has a single female DB-15 connector on the external peripheral interface panel. The DB-15 connector is connected to a CRT or VGA monitor. To connect a monitor to the POC-3174B-A330, please follow the instructions below.

Step 1: **Locate the female DB-15 connector**. The location of the female DB-15 connector is shown in **Chapter 3**.

Step 2: **Align the VGA connector**. Align the male DB-15 connector on the VGA screen cable with the female DB-15 connector on the external peripheral interface.

Step 3: **Insert the VGA connector** Once the connectors are properly aligned with the insert the male connector from the VGA screen into the female connector on the POC-3174B-A330. See **Figure 4-17**.

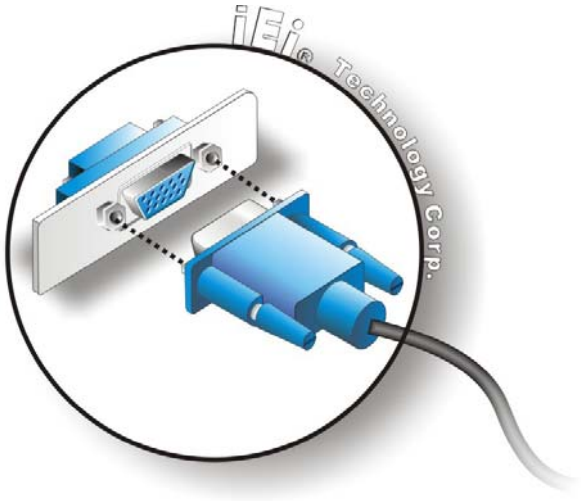


Figure 4-17: VGA Connector

Step 4: **Secure the connector**. Secure the DB-15 VGA connector from the VGA monitor to the external interface by tightening the two retention screws on either side of the connector.

Chapter

5

System Maintenance

5.1 Introduction

If the components of the POC-3174B-A330 fail they must be replaced, such as the wireless LAN module or the HDD. Please contact the system reseller or vendor to purchase the replacement parts. Back cover removal instructions and jumper settings for the POC-3174B-A330 are described below.

5.2 Motherboard Replacement

A user cannot replace a motherboard. If the motherboard fails it must be shipped back to IEI to be replaced. If the system motherboard has failed, please contact the system vendor, reseller or an IEI sales person directly.

5.3 Plastic Back Cover Removal

WARNING!

Turn the power off before removing the back cover. Failing to do so may lead to severe damage of POC-3174B-A330 and injury to the body.

WARNING!

Take antistatic precautions when working with internal components. The interior of the POC-3174B-A330 contains very sensitive electronic components. These components are easily damaged by electrostatic discharge (ESD). Before working with the internal components make sure all the anti-static precautions described earlier have been observed.

To replace any of the following components,

- HDD
- DDR2 module
- Wireless LAN module
- CD/DVD-ROM
- PCI expansion card

The back cover of the POC-3174B-A330 must be removed. To remove the back cover, remove the nine retention screws indicated below (**Figure 5-1**).

WARNING!

Watch out for the three internal PIFA antennas when removing the back cover. There are three PIFA antennas preinstalled on the top of the internal chassis (see **Figure 2-15**). To prevent these antennas from damage, be very careful when lifting the back cover off the POC-3174B-A330.

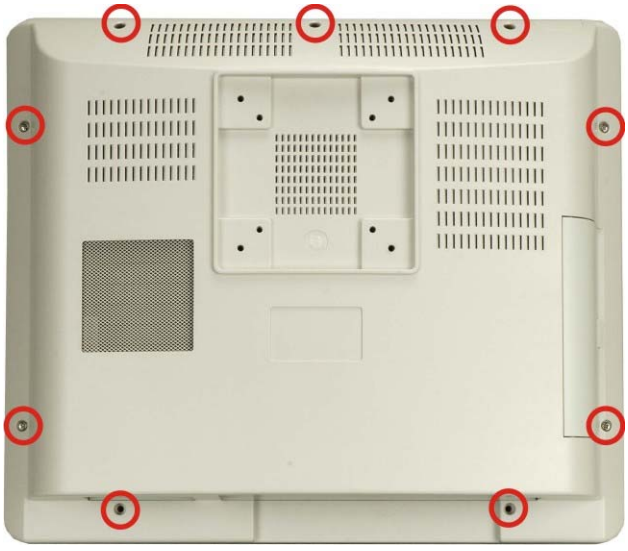


Figure 5-1: Back Cover Retention Screws

5.4 HDD Replacement

The POC-3174B-A330 medical panel PC is preinstalled with an 80 GB SATA HDD. If the HDD fails, follow the instructions below to replace the HDD.

Step 1: Disconnect the system power cable.

Step 2: Remove the back cover. See **Section 5.3**.

Step 3: The wall mount bracket is attached to the aluminum platform by eight retention screws. Remove the eight retention screws from the aluminum platform. (**Figure 5-2**).

Figure 5-2: Wall Mount Bracket Retention Screws

Step 4: Remove the HDD from the aluminum platform. Remove the four retention screws from the both sides of the HDD. Disconnect the HDD from the SATA cable and remove the HDD (**Figure 5-3**).

Figure 5-3: Hard Drive Retention Screws

Step 5: Attach a new hard drive to the aluminum platform. To do this, align the four retention screw holes on sides of the hard drive with the screw holes on the platform. Fasten four round head retention screws to secure the hard drive to the platform.

Step 6: Reinstall the previously removed wall mount bracket.

Step 7: Replace the plastic back cover.

5.5 Memory Module Replacement

The medical panel PC is preinstalled with a DDR2 memory module. If the memory module fails, follow the instructions below to replace the memory module.

Step 1: Remove the back cover. See **Section 5.3**.

Step 2: Remove the wall mount bracket. See **Section 5.4 Step 3**.

Step 3: Remove the CD/DVD-ROM plastic panel. To do this, remove the two retention screws (**Figure 5-4**).

Step 4: Remove the HDD and CD-ROM support platform. The platform is attached to the system with five retention screws, two flat head screws and three round

head screws. Remove the five retention screws (**Figure 5-4**) and lift the elevated platform off the chassis.

Figure 5-4: Platform Retention Screws

Step 5: Locate the DDR2 memory module on the motherboard of the medical panel PC (**Figure 5-5**).

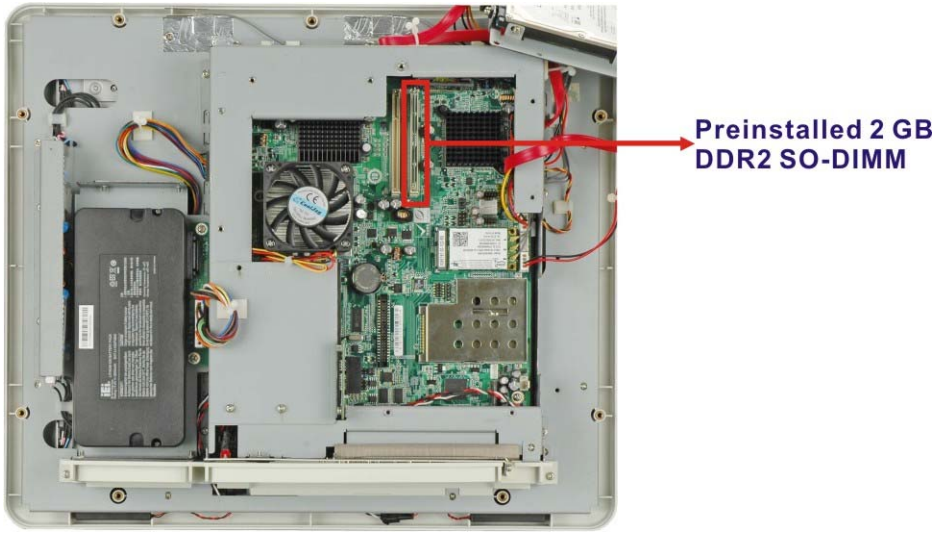


Figure 5-5: SO-DIMM Socket Locations

Step 6: Remove the DDR2 memory module by pulling both the spring retainer clips outward from the socket.

Step 7: Grasp the DDR2 memory module by the edges and carefully pull it out of the socket.

Step 8: Install the new DDR2 memory module by pushing it into the socket at an angle (**Figure 5-6**).

Step 9: Gently pull the spring retainer clips of the SO-DIMM socket out and push the rear of the DDR2 memory module down (**Figure 5-6**).

Step 10: Release the spring retainer clips on the SO-DIMM socket. They clip into place and secure the DDR2 memory module in the socket.

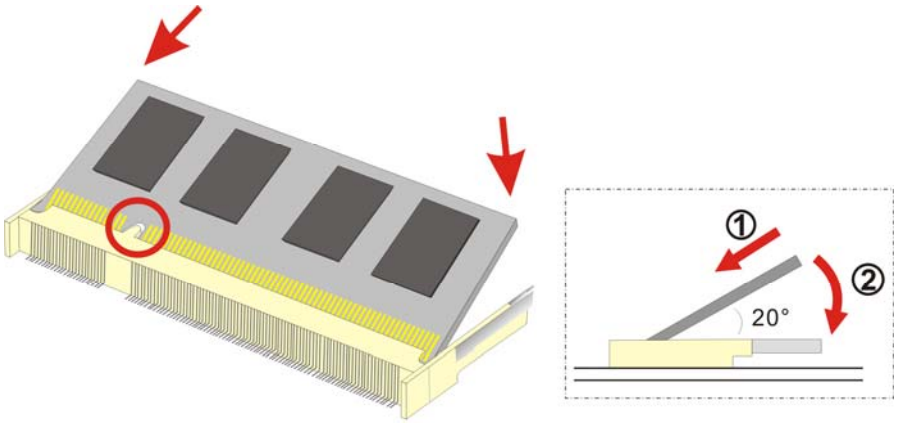
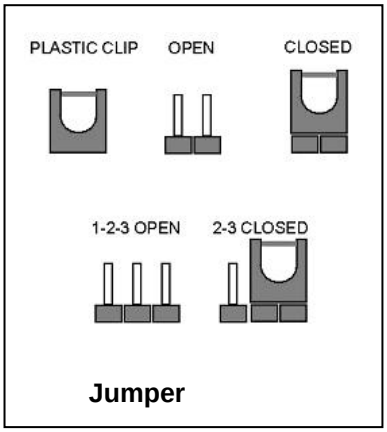


Figure 5-6: DDR2 SO-DIMM Module Installation

5.6 Jumper Settings

NOTE:

A jumper is a metal bridge that is used to close an electrical circuit. It consists of two metal pins and a small metal clip (often protected by a plastic cover) that slides over the pins to connect them. To CLOSE/SHORT a jumper means connecting the pins of the jumper with the plastic clip and to OPEN a jumper means removing the plastic clip from a jumper.



Jumper

The jumpers listed below can be setup for POC-3174B-A330.

- COM port voltage select (J4)
- CompactFlash® setup (J7)

5.6.1 COM Port Voltage Select (J4)

J4 jumper is located on the motherboard as shown in **Figure 5-7**. The J4 jumper is used to select the COM ports (COM 1 and COM2) pin-9 voltage. To access the jumper, please refer to **Section 5.5** **Step 1~Step 3**.

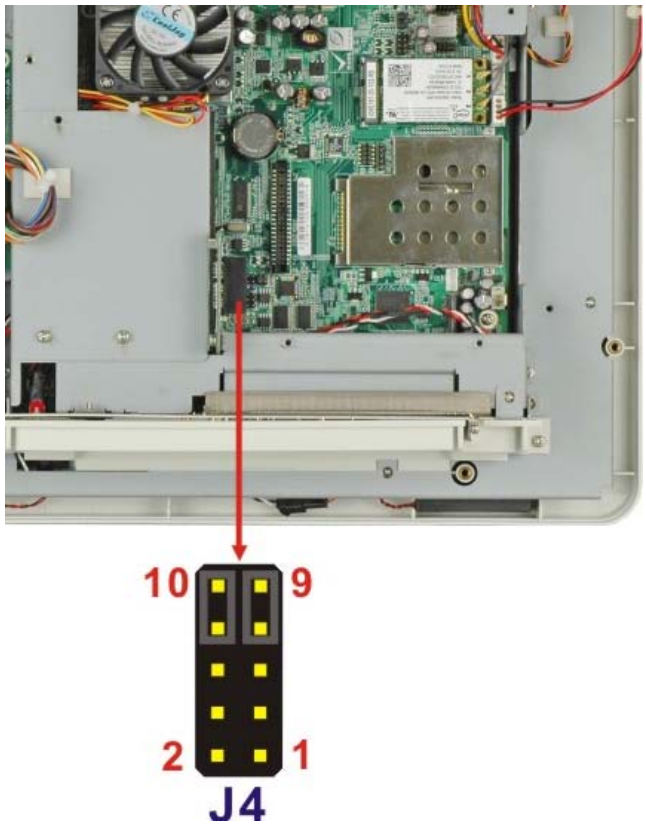


Figure 5-7: COM Port Voltage Select Jumper Location

The COM ports pin-9 signal can be selected as 12 V or 5 V. The COM Port Voltage selection options are shown in **Table 5-1**.

J4	Description	
Short 1-3	12 V (COM1)	
Short 3-5	5V (COM1)	
Short 2-4	12 V (COM2)	
Short 4-6	5 V (COM2)	
Short 7-9	COM1 RS-232	Default
Short 8-10	COM2 RS-232	Default

Table 5-1: COM Port Voltage Settings

5.6.2 CompactFlash® Setup (J9)

The Master/Slave selection allows the CompactFlash® slot to be setup as either the IDE master or the IDE slave. If no other IDE device is used in the system, then the setting does not need to be changed.

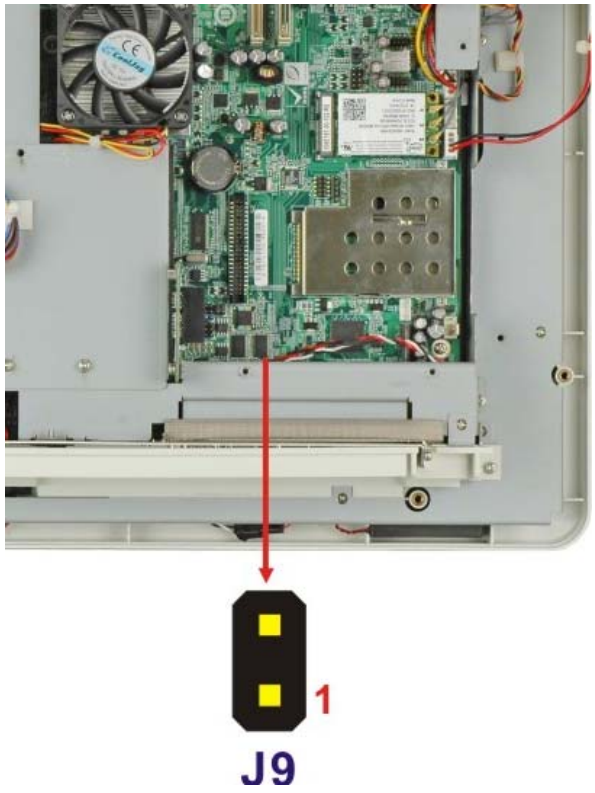


Figure 5-8: COM Port Voltage Select Jumper Location

J9	Description	
Short	Master	
Open	Slave	Default

Table 5-2: CompactFlash® Master/Slave Selection

Chapter

6

AMI BIOS Setup

6.1 Introduction

A licensed copy of AMI BIOS is preprogrammed into the ROM BIOS. The BIOS setup program allows users to modify the basic system configuration. This chapter describes how to access the BIOS setup program and the configuration options that may be changed.

6.1.1 Starting Setup

The AMI BIOS is activated when the computer is turned on. The setup program can be activated in one of two ways.

1. Press the **DELETE** key as soon as the system is turned on or
2. Press the **DELETE** key when the "**Press Del to enter SETUP**" message appears on the screen.

If the message disappears before the **DELETE** key is pressed, restart the computer and try again.

6.1.2 Using Setup

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. Navigation keys are shown in.

Key	Function
Up arrow	Move to previous item
Down arrow	Move to next item
Left arrow	Move to the item on the left hand side
Right arrow	Move to the item on the right hand side
Esc key	Main 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
Page Up key	Increase the numeric value or make changes
Page Dn key	Decrease the numeric value or make changes

F1 key	General help, only for Status Page Setup Menu and Option Page Setup Menu
F2 /F3 key	Change color from total 16 colors. F2 to select color forward.
F10 key	Save all the CMOS changes, only for Main Menu

Table 6-1: BIOS Navigation Keys

6.1.3 Getting Help

When **F1** is pressed a small help window describing the appropriate keys to use and the possible selections for the highlighted item appears. To exit the Help Window press **Esc** or the **F1** key again.

6.1.4 Unable to Reboot After Configuration Changes

If the computer cannot boot after changes to the system configuration is made, CMOS defaults. Use the jumper described in **Chapter 5** or disconnect the battery from the connector.

6.1.5 BIOS Menu Bar

The **menu bar** on top of the BIOS screen has the following main items:

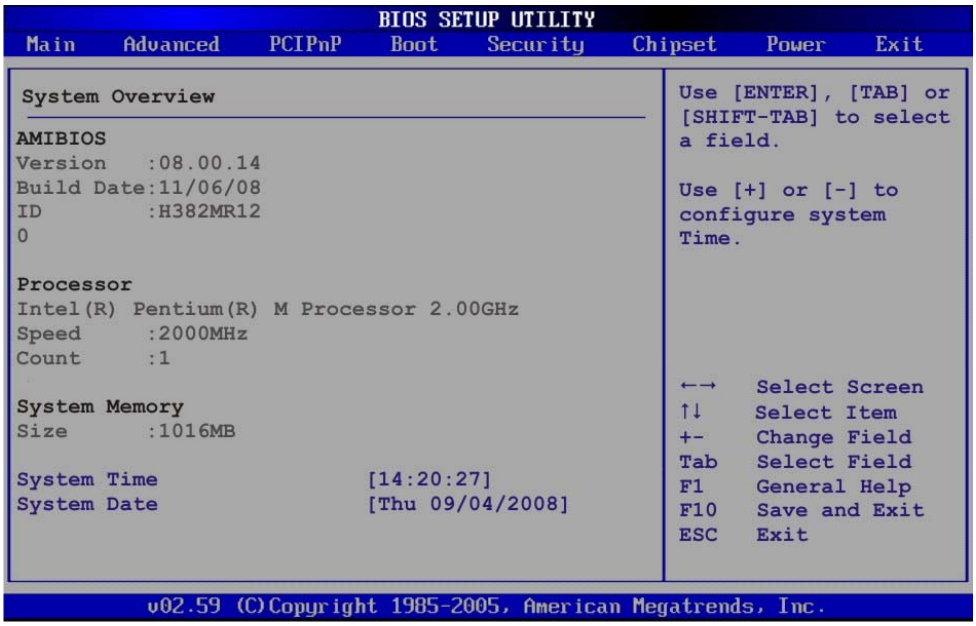
- **Main** Changes the basic system configuration.
- **Advanced** Changes the advanced system settings.
- **PCIPnP** Changes the advanced PCI/PnP Settings
- **Boot** Changes the system boot configuration.
- **Security** Sets user and supervisor passwords.
- **Chipset** Changes the chipset settings.
- **Power** Changes power management settings.
- **Exit** Selects exit options and loads default settings

The following sections completely describe the configuration options found in the menu items at the top of the BIOS screen and listed above.

6.2 Main

The **Main** BIOS menu (**BIOS Menu 1**) appears when the **BIOS Setup** program is entered.

The **Main** menu gives an overview of the basic system information.



BIOS Menu 1: Main

➔ System Overview

The **System Overview** lists a brief summary of different system components. The fields in **System Overview** cannot be changed. The items shown in the system overview include:

- **AMI BIOS**: Displays auto-detected BIOS information
  - **Version**: Current BIOS version
  - **Build Date**: Date the current BIOS version was made
  - **ID**: Installed BIOS ID
- **Processor**: Displays auto-detected CPU specifications
  - **Type**: Names the currently installed processor
  - **Speed**: Lists the processor speed
  - **Count**: The number of CPUs on the motherboard
- **System Memory**: Displays the auto-detected system memory.
  - **Size**: Lists memory size

The **System Overview** field also has two user configurable fields:

➔ **System Time [xx:xx:xx]**

Use the **System Time** option to set the system time. Manually enter the hours, minutes and seconds.

➔ **System Date [xx/xx/xx]**

Use the **System Date** option to set the system date. Manually enter the day, month and year.

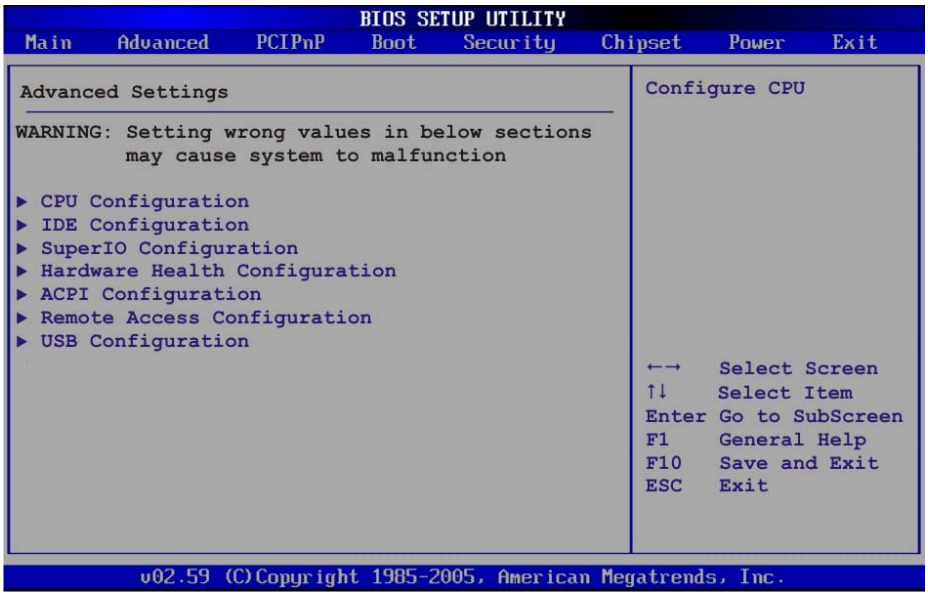
6.3 Advanced

Use the **Advanced** menu (**BIOS Menu 2**) to configure the CPU and peripheral devices through the following sub-menus:

WARNING!

Setting the wrong values in the sections below may cause the system to malfunction. Make sure that the settings made are compatible with the hardware.

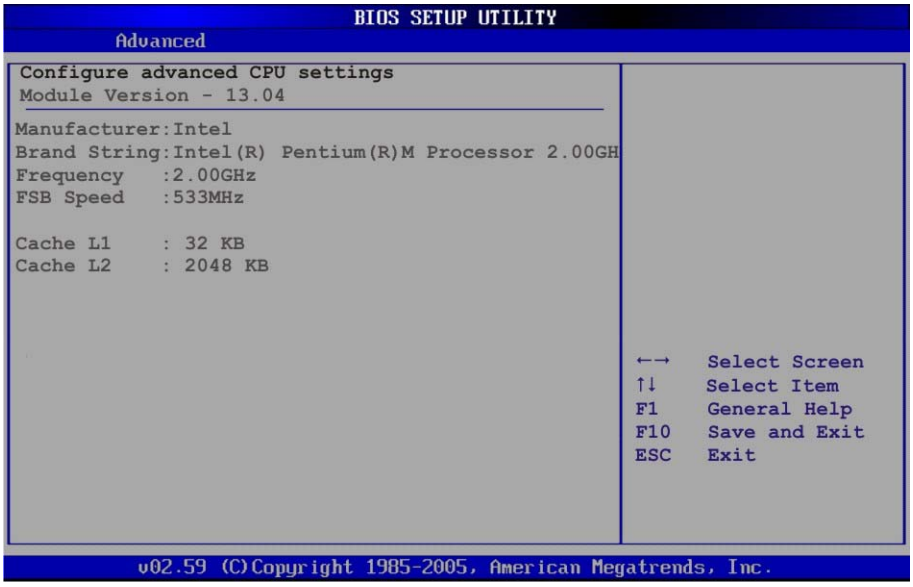
- CPU Configuration (see **Section 6.3.1**)
- IDE Configuration (see **Section 6.3.2**)
- Super IO Configuration (see **Section 6.3.3**)
- Hardware Health Configuration (see **Section 6.3.4**)
- ACPI Configuration (see **Section 6.3.5**)
- Remote Access Configuration (see **Section 6.3.6**)
- USB Configuration (see **Section 6.3.7**)



BIOS Menu 2: Advanced

6.3.1 CPU Configuration

Use the **CPU Configuration** menu (**BIOS Menu 3**) to view detailed CPU specifications and configure the CPU.



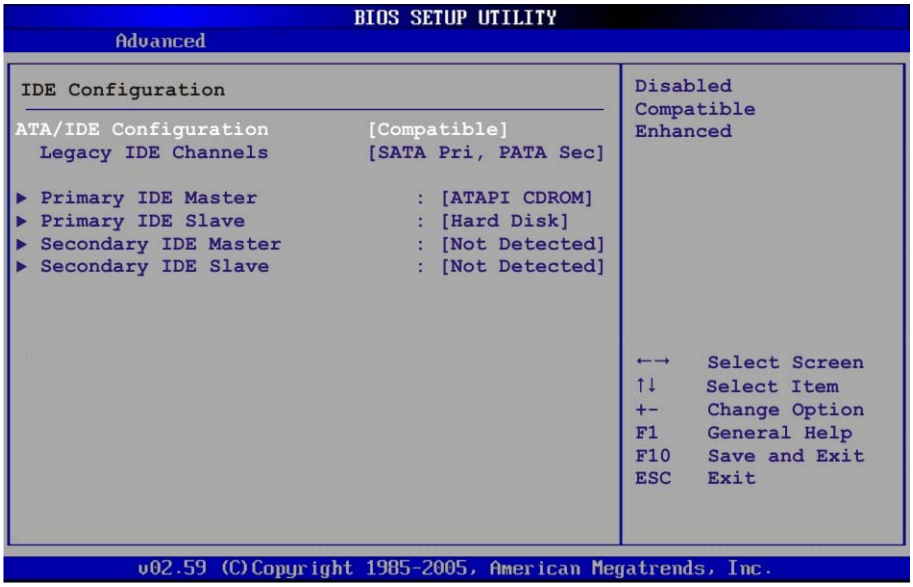
BIOS Menu 3: CPU Configuration

The CPU Configuration menu (**BIOS Menu 3**) lists the following CPU details:

- **Manufacturer**: Lists the name of the CPU manufacturer
- **Frequency:** Lists the CPU processing speed
- **FSB Speed**: Lists the FSB speed
- **Cache L1**: Lists the CPU L1 cache size
- **Cache L2**: Lists the CPU L2 cache size

6.3.2 IDE Configuration

Use the **IDE Configuration** menu (**BIOS Menu 4**) to change and/or set the configuration of the IDE devices installed in the system.



BIOS Menu 4: IDE Configuration

➔ **ATA/IDE Configurations [Compatible]**

Use the **ATA/IDE Configurations** option to configure the ATA/IDE controller.

➔ **Disabled** Disables the on-board ATA/IDE controller.

➔ **Compatible** **DEFAULT** Configures the on-board ATA/IDE controller to be in

compatible mode. In this mode, a SATA channel will replace one of the IDE channels. This mode supports up to 4 storage devices.

➔ **Enhanced** Configures the on-board ATA/IDE controller to be in Enhanced mode. In this mode, IDE channels and SATA channels are separated. This mode supports up to 6 storage devices. Some legacy OS do not support this mode.

➔ **Legacy IDE Channels [SATA Pri., PATA Sec]**

- ➔ **SATA Only**
- ➔ **SATA Pri., PATA Sec** **DEFAULT**
- ➔ **PATA Only**

➔ **IDE Master and IDE Slave**

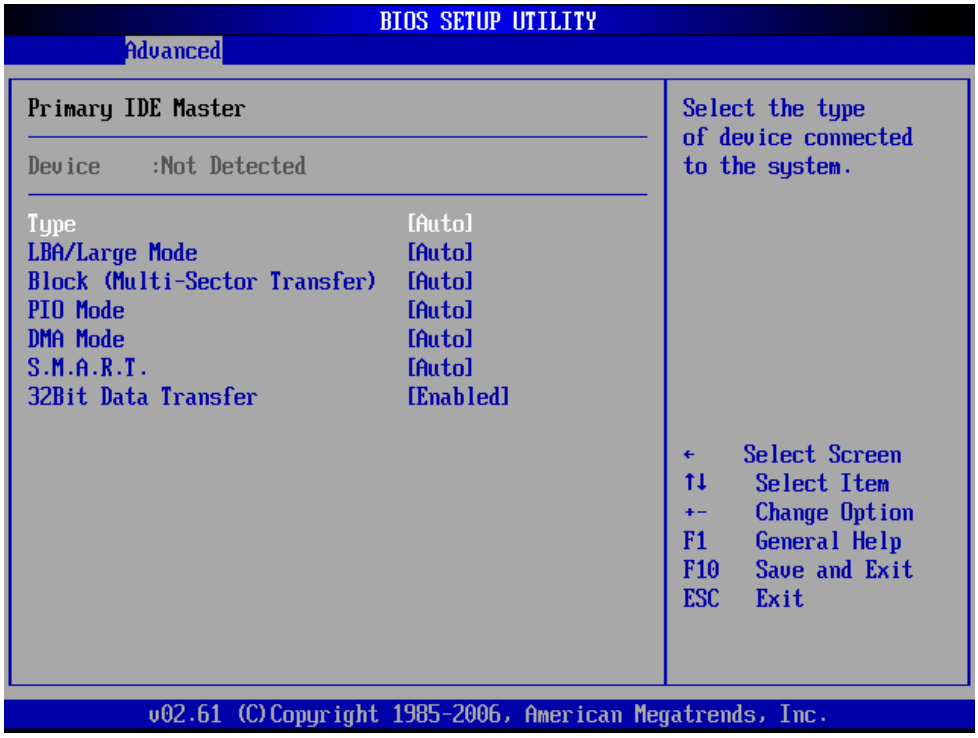
When entering setup, BIOS auto detects the presence of IDE devices. BIOS displays the status of the auto detected IDE devices. The following IDE devices are detected and are shown in the **IDE Configuration** menu:

- Primary IDE Master
- Primary IDE Slave
- Secondary IDE Master
- Secondary IDE Slave

The **IDE Configuration** menu (**BIOS Menu 4**) allows changes to the configurations for the IDE devices installed in the system. If an IDE device is detected, and one of the above listed four BIOS configuration options are selected, the IDE configuration options shown in **Section 6.3.2.1** appear.

6.3.2.1 IDE Master, IDE Slave

Use the **IDE Master** and **IDE Slave** configuration menu to view both primary and secondary IDE device details and configure the IDE devices connected to the system.



BIOS Menu 5: IDE Master and IDE Slave Configuration

➔ **Type [Auto]**

Use the **Type** BIOS option select the type of device the AMIBIOS attempts to boot from after the Power-On Self-Test (POST) is complete.

➔ **Not Installed** BIOS is prevented from searching for an IDE disk drive on the specified channel.

➔ **Auto** **DEFAULT** The BIOS auto detects the IDE disk drive type attached to the specified channel. This setting should be used if an IDE hard disk drive is attached to the

specified channel.

➔ **CD/DVD** The CD/DVD option specifies that an IDE CD-ROM drive is attached to the specified IDE channel. The BIOS does not attempt to search for other types of IDE disk drives on the specified channel.

➔ **ARMD** This option specifies an ATAPI Removable Media Device. These include, but are not limited to:

- ➔ **ZIP**
- ➔ **LS-120**

➔ **LBA/Large Mode [Auto]**

Use the **LBA/Large Mode** option to disable or enable BIOS to auto detects LBA (Logical Block Addressing). LBA is a method of addressing data on a disk drive. In LBA mode, the maximum drive capacity is 137 GB.

➔ **Disabled** BIOS is prevented from using the LBA mode control on the specified channel.

➔ **Auto** **DEFAULT** BIOS auto detects the LBA mode control on the specified channel.

➔ **Block (Multi Sector Transfer) [Auto]**

Use the **Block (Multi Sector Transfer)** to disable or enable BIOS to auto detect if the device supports multi-sector transfers.

➔ **Disabled** BIOS is prevented from using Multi-Sector Transfer on the specified channel. The data to and from the device occurs

one sector at a time.

➔ **Auto** **DEFAULT** BIOS auto detects Multi-Sector Transfer support on the drive on the specified channel. If supported the data transfer to and from the device occurs multiple sectors at a time.

➔ **PIO Mode [Auto]**

Use the **PIO Mode** option to select the IDE PIO (Programmable I/O) mode program timing cycles between the IDE drive and the programmable IDE controller. As the PIO mode increases, the cycle time decreases.

➔ **Auto** **DEFAULT** BIOS auto detects the PIO mode. Use this value if the IDE disk drive support cannot be determined.

➔ **0** PIO mode 0 selected with a maximum transfer rate of 3.3MBps

➔ **1** PIO mode 1 selected with a maximum transfer rate of 5.2MBps

➔ **2** PIO mode 2 selected with a maximum transfer rate of 8.3MBps

➔ **3** PIO mode 3 selected with a maximum transfer rate of 11.1MBps

➔ **4** PIO mode 4 selected with a maximum transfer rate of 16.6MBps

(This setting generally works with all hard disk drives manufactured after 1999. For other disk drives, such as IDE CD-ROM drives, check the specifications of the drive.)

➔ **DMA Mode [Auto]**

Use the **DMA Mode** BIOS selection to adjust the DMA mode options.

➔ **Auto** **DEFAULT** BIOS auto detects the DMA mode. Use this value if the IDE disk drive support cannot be determined.

- **SWDMA0** Single Word DMA mode 0 selected with a maximum data transfer rate of 2.1MBps
- **SWDMA1** Single Word DMA mode 1 selected with a maximum data transfer rate of 4.2MBps
- **SWDMA2** Single Word DMA mode 2 selected with a maximum data transfer rate of 8.3MBps
- **MWDMA0** Multi Word DMA mode 0 selected with a maximum data transfer rate of 4.2MBps
- **MWDMA1** Multi Word DMA mode 1 selected with a maximum data transfer rate of 13.3MBps
- **MWDMA2** Multi Word DMA mode 2 selected with a maximum data transfer rate of 16.6MBps
- **UDMA1** Ultra DMA mode 0 selected with a maximum data transfer rate of 16.6MBps
- **UDMA1** Ultra DMA mode 1 selected with a maximum data transfer rate of 25MBps
- **UDMA2** Ultra DMA mode 2 selected with a maximum data transfer rate of 33.3MBps
- **UDMA3** Ultra DMA mode 3 selected with a maximum data transfer rate of 44MBps (To use this mode, it is required that an 80-conductor ATA cable is used.)
- **UDMA4** Ultra DMA mode 4 selected with a maximum data transfer rate of 66.6MBps (To use this mode, it is required that an 80-conductor ATA cable is used.)
- **UDMA5** Ultra DMA mode 5 selected with a maximum data transfer

rate of 99.9MBps (To use this mode, it is required that an 80-conductor ATA cable is used.)

➔ **S.M.A.R.T [Auto]**

Use the **S.M.A.R.T** option to auto-detect, disable or enable Self-Monitoring Analysis and Reporting Technology (SMART) on the drive on the specified channel. **S.M.A.R.T** predicts impending drive failures. The **S.M.A.R.T** BIOS option enables or disables this function.

➔	**Auto**	**DEFAULT**	BIOS auto detects HDD SMART support.
➔	**Disabled**		Prevents BIOS from using the HDD SMART feature.
➔	**Enabled**		Allows BIOS to use the HDD SMART feature

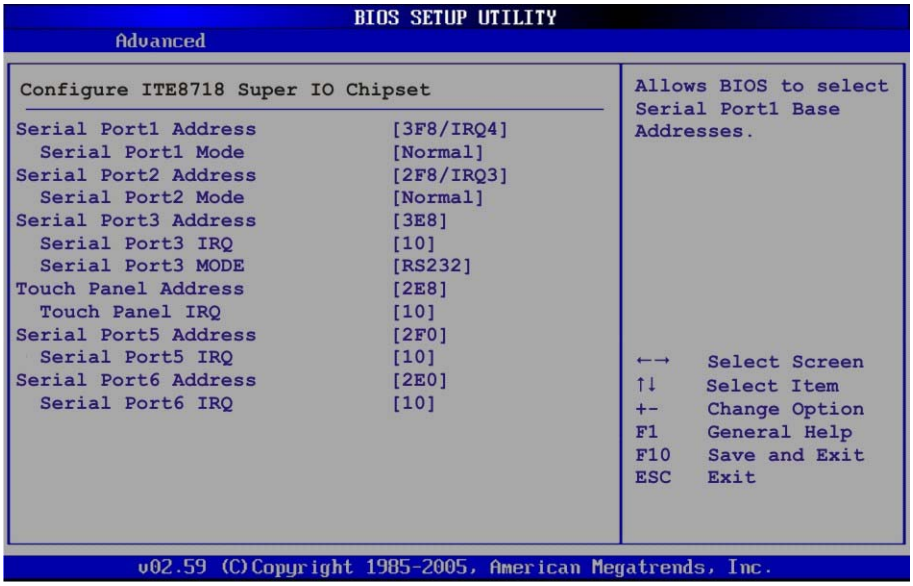
➔ **32Bit Data Transfer [Enabled]**

Use the **32Bit Data Transfer** BIOS option to enables or disable 32-bit data transfers.

➔	**Disabled**		Prevents the BIOS from using 32-bit data transfers.
➔	**Enabled**	**DEFAULT**	Allows BIOS to use 32-bit data transfers on supported hard disk drives.

6.3.3 Super IO Configuration

Use the **Super IO Configuration** menu (**BIOS Menu 6**) to set or change the configurations for the serial ports.



BIOS Menu 6: Super IO Configuration

➔ **Serial Port1 Address [3F8/IRQ4]**

Use the **Serial Port1 Address** option to select the Serial Port 1 base address.

➔ **Disabled** No base address is assigned to Serial Port 1

➔ **3F8/IRQ4** **DEFAULT** Serial Port 1 I/O port address is 3F8 and the interrupt address is IRQ4

➔ **3E8/IRQ4** Serial Port 1 I/O port address is 3E8 and the interrupt address is IRQ4

➔ **2E8/IRQ3** Serial Port 1 I/O port address is 2E8 and the interrupt address is IRQ3

➔ **Serial Port1 Mode [Normal]**

Use the **Serial Port1 Mode** option to select the transmitting and receiving mode for the first serial port.

➔ **Normal**	**DEFAULT**	Serial Port 1 mode is normal
➔ **IrDA**		Serial Port 1 mode is IrDA
➔ **ASK IR**		Serial Port 1 mode is ASK IR

➔ **Serial Port2 Address [2F8/IRQ3]**

Use the **Serial Port2 Address** option to select the Serial Port 2 base address.

➔ **Disabled**		No base address is assigned to Serial Port 2
➔ **2F8/IRQ3**	**DEFAULT**	Serial Port 2 I/O port address is 3F8 and the interrupt address is IRQ3
➔ **3E8/IRQ4**		Serial Port 2 I/O port address is 3E8 and the interrupt address is IRQ4
➔ **2E8/IRQ3**		Serial Port 2 I/O port address is 2E8 and the interrupt address is IRQ3

➔ **Serial Port2 Mode [Normal]**

Use the **Serial Port2 Mode** option to select the Serial Port2 operational mode.

➔ **Normal**	**DEFAULT**	Serial Port 2 mode is normal
➔ **IrDA**		Serial Port 2 mode is IrDA
➔ **ASK IR**		Serial Port 2 mode is ASK IR

➔ **Serial Port3 Address [3E8]**

Use the **Serial Port3 IRQ** option to select the interrupt address for serial port 3.

➔ **Disabled**		No base address is assigned to serial port 3
➔ **3F8**		Serial port 3 I/O port address is 3F8
➔ **2F8**		Serial port 3 I/O port address is 2F8
➔ **3E8**	**DEFAULT**	Serial port 3 I/O port address is 3E8
➔ **2E8**		Serial port 3 I/O port address is 2E8
➔ **2F0**		Serial port 3 I/O port address is 2F0
➔ **2E0**		Serial port 3 I/O port address is 2E0

➔ **Serial Port3 IRQ [10]**

Use the **Serial Port3 IRQ** option to select the Serial Port 3 interrupt address.

➔ **10**	**DEFAULT**	IRQ10 is assigned as the serial port 3 interrupt address
➔ **11**		IRQ11 is assigned as the serial port 3 interrupt address

➔ **Serial Port3 Mode [RS232]**

Use the **Serial Port3 Mode** option to select the Serial Port 3 signaling mode.

➔ **RS232**	**DEFAULT**	Serial Port 2 signaling mode is RS-232
➔ **RS422/485**		Serial Port 2 signaling mode is RS-422/485

➔ **Touch Panel Address [2E8]**

Use the **Touch Panel Address** option to select the interrupt address for serial port 4 which is connected to the touch panel.

➔ **3E8**	Serial port 3 I/O port address is 3E8

- ➔ **2E8** **DEFAULT** Serial port 3 I/O port address is 2E8
- ➔ **2F0** Serial port 3 I/O port address is 2F0
- ➔ **2E0** Serial port 3 I/O port address is 2E0

➔ **Touch Panel IRQ [10]**

Use the **Touch Panel IRQ** option to select the touch panel port interrupt address.

- ➔ **10** **DEFAULT** IRQ10 is assigned as the touch panel port interrupt address
- ➔ **11** **DEFAULT** IRQ11 is assigned as the touch panel port interrupt address

➔ **Serial Port5 Address [2F0]**

Use the **Serial Port5 IRQ** option to select the interrupt address for serial port 5.

- ➔ **Disabled** No base address is assigned to serial port 5
- ➔ **3E8** Serial port 5 I/O port address is 3E8
- ➔ **2E8** Serial port 5 I/O port address is 2E8
- ➔ **2F0** **DEFAULT** Serial port 5 I/O port address is 2F0
- ➔ **2E0** Serial port 5 I/O port address is 2E0

➔ **Serial Port5 IRQ [10]**

Use the **Serial Port5 IRQ** option to select the Serial Port 5 interrupt address.

- ➔ **10** **DEFAULT** IRQ10 is assigned as the serial port 5 interrupt address
- ➔ **11** IRQ11 is assigned as the serial port 5 interrupt address

➔ **Serial Port6 Address [2E0]**

Use the **Serial Port6 Address** option to select the interrupt address for serial port 6.

➔ **Disabled**		No base address is assigned to serial port 6
➔ **3E8**		Serial port 6 I/O port address is 3E8
➔ **2E8**		Serial port 6 I/O port address is 2E8
➔ **2F0**	**DEFAULT**	Serial port 6 I/O port address is 2F0
➔ **2E0**		Serial port 6 I/O port address is 2E0

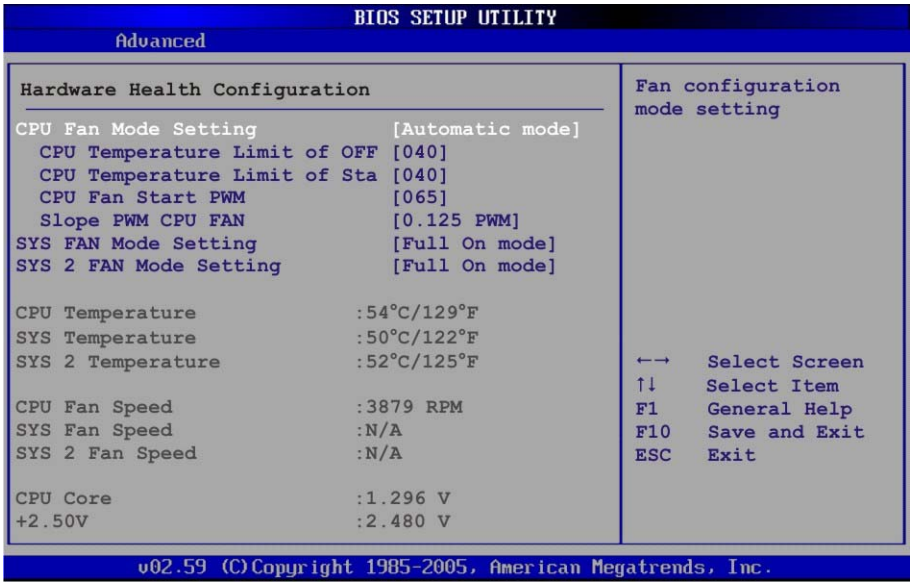
➔ **Serial Port6 IRQ [10]**

Use the **Serial Port6 IRQ** option to select the Serial Port 6 interrupt address.

➔ **10**	**DEFAULT**	IRQ10 is assigned as the serial port 6 interrupt address
➔ **11**		IRQ11 is assigned as the serial port 6 interrupt address

6.3.4 Hardware Health Configuration

The **Hardware Health Configuration** menu (**BIOS Menu 7**) shows the operating temperature, fan speeds and system voltages.



BIOS Menu 7: Hardware Health Configuration

➔ **CPU FAN Mode Setting [Automatic mode]**

Use the **CPU FAN Mode Setting** option to configure the CPU fan.

➔ **Full On Mode**		Fan is on all the time
➔ **Automatic mode**	**DEFAULT**	Fan is off when the temperature is low enough. Parameters must be set by the user.
➔ **PWM Manual mode**		Pulse width modulation set manually

➔ **SYS FAN Mode Setting [Full On mode]**

Use the **SYS FAN Mode Setting** option to configure the second system fan.

➔ **Full On Mode**	**DEFAULT**	Fan is on all the time
➔ **Automatic mode**		Fan is off when the temperature is low enough. Parameters must be set by the user.
➔ **PWM Manual mode**		Pulse width modulation set manually

When the **CPU/SYS FAN Mode Setting** option is in the **Automatic Mode**, the following parameters can be set.

- Temp. Limit of OFF
- Temp. Limit of Start
- Temp. Limit of Full
- Fan Start PWM
- Slope PWM 1

When the **CPU/SYS FAN Mode Setting** option is in the **PWM Manual Mode**, the following parameters can be set.

- Fan PWM control

➔ **Temp. Limit of OFF**

WARNING:

Setting this value too high may cause the fan to stop when the CPU is at a high temperature and therefore cause the system to be damaged.

The **Temp. Limit of OFF** option can only be set if the **FAN Mode Setting** option is set to **Automatic Mode**. Use the **Temp. Limit of OFF** option to select the CPU temperature at

which the cooling fan should automatically turn off. To select a value, select the **Temp. Limit of OFF** option and enter a decimal number between 000 and 127. The temperature range is specified below.

- Minimum Value: 0°C
- Maximum Value: 127°C

➔ **Temp. Limit of Start**

WARNING:

Setting this value too high may cause the fan to start only when the CPU is at a high temperature and therefore cause the system to be damaged.

The **Temp. Limit of Start** option can only be set if the **FAN Mode Setting** option is set to **Automatic Mode**. Use the **Temp. Limit of Start** option to select the CPU temperature at which the cooling fan should automatically turn on. When the fan starts, it rotates using the starting pulse width modulation (PWM) specified in the **Fan Start PWM** option below. To select a value, select the **Temp. Limit of Start** option and enter a decimal number between 000 and 127. The temperature range is specified below.

- Minimum Value: 0°C
- Maximum Value: 127°C

➔ **Fan Start PWM**

The **Fan Start PWM** option can only be set if the **FAN Mode Setting** option is set to **Automatic Mode**. Use the **Fan Start PWM** option to select the PWM mode the fan starts to rotate with after the temperature specified in the **Temperature 3 Limit of Start** is exceeded. The Super I/O chipset supports 128 PWM modes. To select a value, select the **Fan Start PWM** option and enter a decimal number between 000 and 127. The temperature range is specified below.

- PWM Minimum Mode: 0
- PWM Maximum Mode: 127

➔ **Slope PWM 1**

The **Slope PWM 1** option can only be set if the **FAN Mode Setting** option is set to **Automatic Mode**. Use the **Slope PWM 1** option to select the linear rate at which the PWM mode increases with respect to an increase in temperature. A list of available options is shown below:

- 0.125 PWM
- 0.25 PWM
- 0.5 PWM
- 1 PWM
- 2 PWM
- 4 PWM
- 8 PWM
- 15 PWM

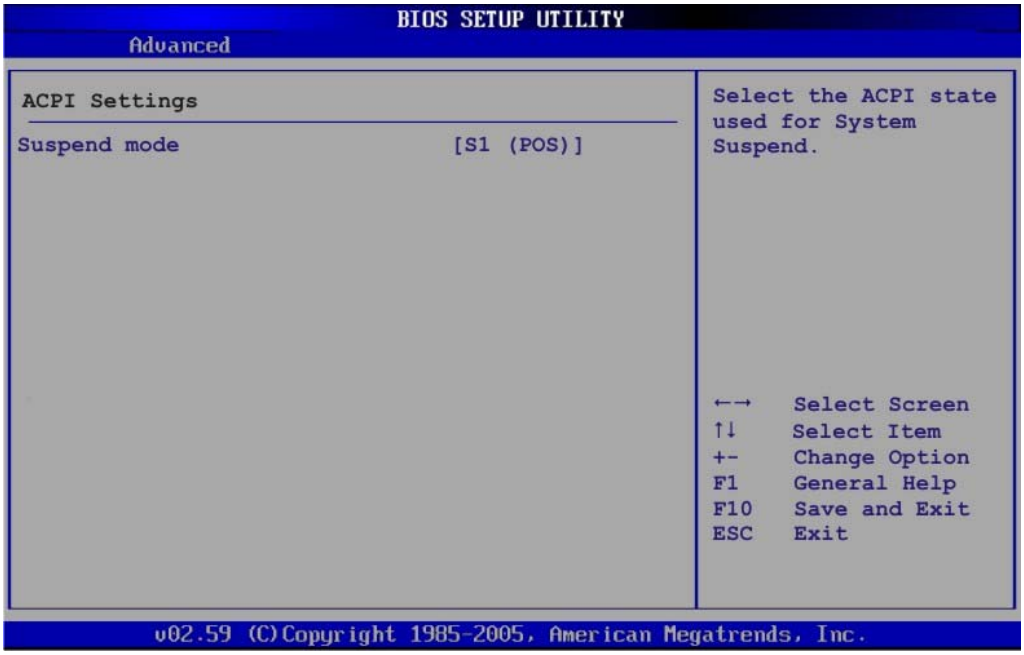
The following system parameters and values are shown. The system parameters that are monitored are:

- System Temperatures: The following system temperatures are monitored
  - CPU Temperature
  - System Temperature
- Fan Speeds: The CPU cooling fan speed is monitored.
  - CPU Fan
  - SYS Fan #1
  - SYS Fan #2
- Voltages: The following system voltages are monitored
  - CPU Core
  - +2.50V
  - +3.30V
  - +5.00V
  - +12.0V
  - VCCSM

- GMCH
- 5VSB
- VBAT

6.3.5 ACPI Configuration

The **ACPI Configuration** menu (**BIOS Menu 8**) configures the Advanced Configuration and Power Interface (ACPI) and Power Management (APM) options.



BIOS Menu 8: ACPI Configuration

➔ **Suspend Mode [S1 (POS)]**

Use the **Suspend Mode** option to specify the sleep state the system enters when it is not being used.

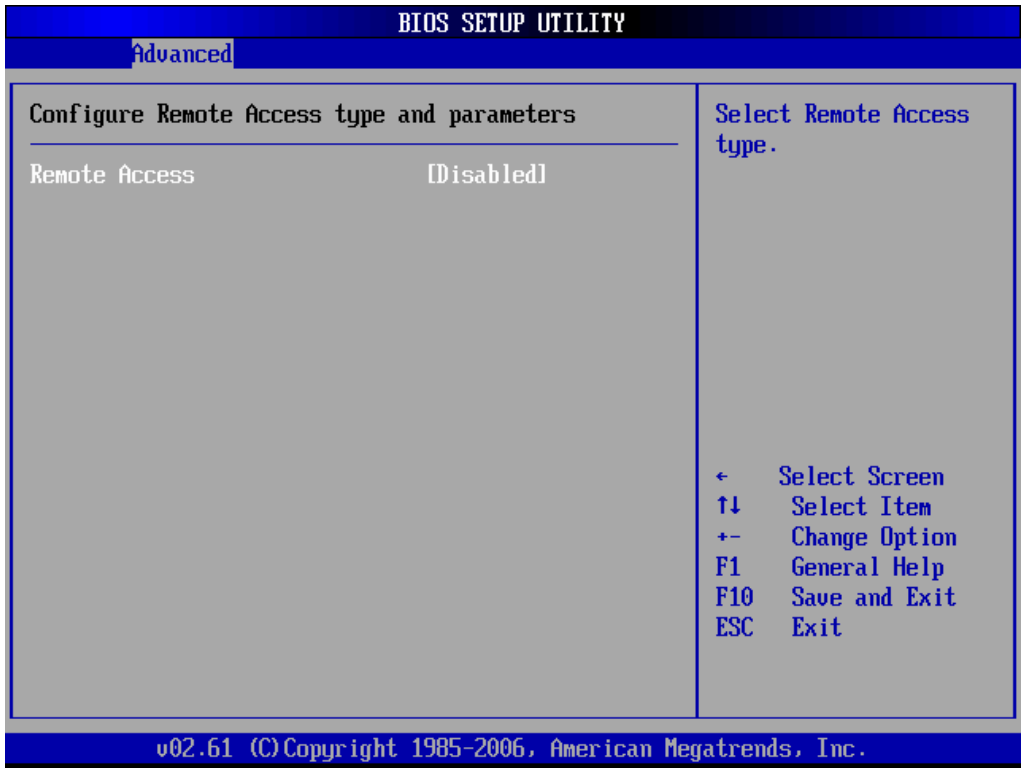
➔ **S1 (POS)** **DEFAULT** The system enters S1(POS) sleep state. The system appears off. The CPU is stopped; RAM is refreshed; the system is running in a low power mode.

➔ **S3 (STR)** **DEFAULT** The caches are flushed and the CPU is powered off.

Power to the RAM is maintained. The computer returns slower to a working state, but more power is saved.

6.3.6 Remote Access Configuration

Use the **Remote Access Configuration** menu (**BIOS Menu 9**) to configure remote access parameters. The **Remote Access Configuration** is an AMIBIOS feature and allows a remote host running a terminal program to display and configure the BIOS settings.



BIOS Menu 9: Remote Access Configuration [Advanced]

➔ **Remote Access [Disabled]**

Use the **Remote Access** option to enable or disable access to the remote functionalities of the system.

➔ **Disabled** **DEFAULT** Remote access is disabled.

➔ **Enabled** Remote access configuration options shown below appear:

- ➔ **Serial Port Number**
- ➔ **Serial Port Mode**
- ➔ **Redirection after BIOS POST**
- ➔ **Terminal Type**

These configuration options are discussed below.

➔ **Serial Port Number [COM1]**

Use the **Serial Port Number** option to select the serial port used for remote access.

➔ **COM1**	**DEFAULT**	System is remotely accessed through COM1
➔ **COM2**		System is remotely accessed through COM2
➔ **COM3**		System is remotely accessed through COM3
➔ **COM5**		System is remotely accessed through COM5
➔ **COM6**		System is remotely accessed through COM6

NOTE: Make sure the selected COM port is enabled through the Super I/O configuration menu.

➔ **Base Address, IRQ [3F8h,4]**

The **Base Address, IRQ** option cannot be configured and only shows the interrupt address of the serial port listed above.

➔ **Serial Port Mode [115200 8,n,1]**

Use the **Serial Port Mode** option to select baud rate through which the console redirection is made. The following configuration options are available

- 115200 8,n,1 **DEFAULT**
- 57600 8,n,1
- 38400 8,n,1
- 19200 8,n,1
- 09600 8,n,1

NOTE:

Identical baud rate setting musts be set on the host (a management computer running a terminal software) and the slave

➔ **Redirection After BIOS POST [Always]**

Use the **Redirection After BIOS POST** option to specify when console redirection should occur.

➔ **Disabled**		The console is not redirected after POST
➔ **Boot Loader**		Redirection is active during POST and during Boot Loader
➔ **Always**	**DEFAULT**	Redirection is always active (Some OSes may not work if set to Always)

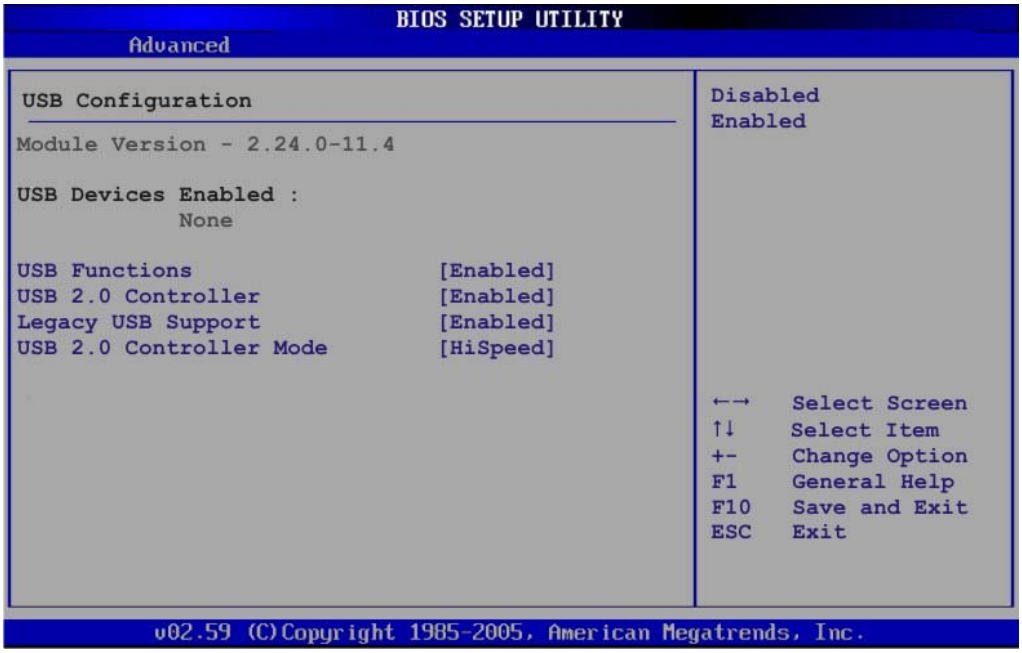
➔ **Terminal Type [ANSI]**

Use the **Terminal Type** BIOS option to specify the remote terminal type.

➔ **ANSI**	**DEFAULT**	The target terminal type is ANSI
➔ **VT100**		The target terminal type is VT100
➔ **VT-UTF8**		The target terminal type is VT-UTF8

6.3.7 USB Configuration

Use the **USB Configuration** menu (**BIOS Menu 10**) to read USB configuration information and configure the USB settings.



BIOS Menu 10: USB Configuration

➔ **USB Functions [Enabled]**

Use the **USB Functions** BIOS option to enable or disable USB function support.

➔ **Disabled** USB function support disabled

➔ **Enabled** **DEFAULT** USB function support enabled

➔ **USB 2.0 Controller [Enabled]**

Use the **USB 2.0 Controller** BIOS option to enable or disable the USB 2.0 controller

➔ **Enabled** **DEFAULT** USB 2.0 controller enabled

➔ **Disabled** USB 2.0 controller disabled

➔ **Legacy USB Support [Enabled]**

Use the **Legacy USB Support** BIOS option to enable USB mouse and USB keyboard support.

Normally if this option is not enabled, any attached USB mouse or USB keyboard does not become available until a USB compatible operating system is fully booted with all USB drivers loaded. When this option is enabled, any attached USB mouse or USB keyboard can control the system even when there is no USB driver loaded onto the system.

➔ **Disabled**		Legacy USB support disabled
➔ **Enabled**	**DEFAULT**	Legacy USB support enabled
➔ **Auto**		Legacy USB support disabled if no USB devices are connected

➔ **USB2.0 Controller Mode [HiSpeed]**

Use the **USB2.0 Controller Mode** option to set the speed of the USB2.0 controller.

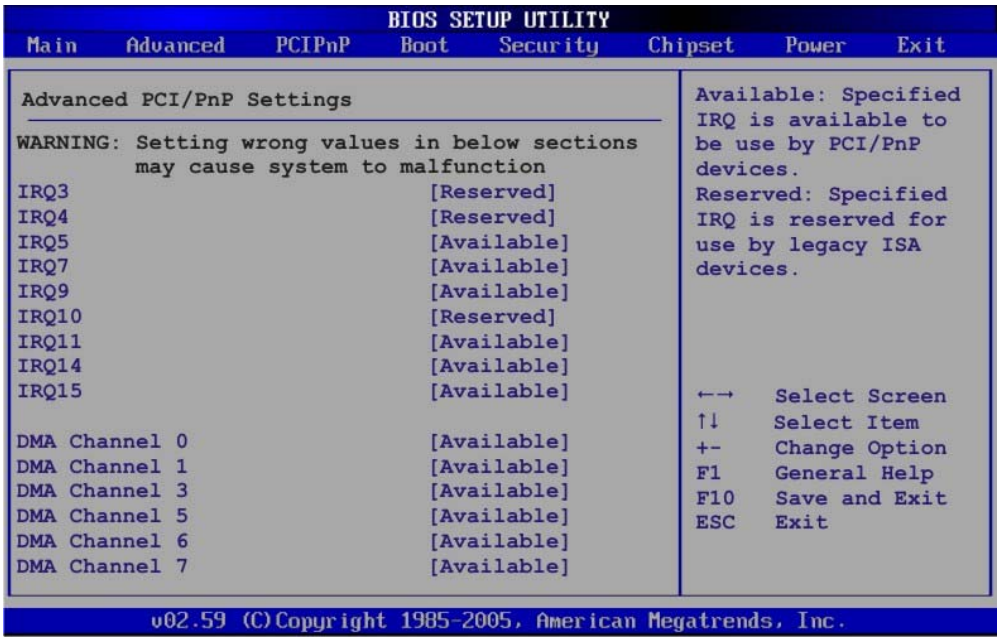
➔ **FullSpeed**		The controller is capable of operating at 12Mb/s
➔ **HiSpeed**	**DEFAULT**	The controller is capable of operating at 480Mb/s

6.4 PCI/PnP

Use the PCI/PnP menu (**BIOS Menu 11**) to configure advanced PCI and PnP settings.

WARNING:

Setting wrong values for the BIOS selections in the PCIPnP BIOS menu may cause the system to malfunction.



BIOS Menu 11: PCI/PnP Configuration

➔ **IRQ# [Available]**

Use the **IRQ#** address to specify what IRQs can be assigned to a particular peripheral device.

➔ **Available** **DEFAULT** The specified IRQ is available to be used by PCI/PnP devices

➔ **Reserved** The specified IRQ is reserved for use by Legacy ISA devices

Available IRQ addresses are:

- IRQ3
- IRQ4
- IRQ5
- IRQ7
- IRQ9
- IRQ10

- IRQ 11
- IRQ 14
- IRQ 15

➔ **DMA Channel# [Available]**

Use the **DMA Channel#** option to assign a specific DMA channel to a particular PCI/PnP device.

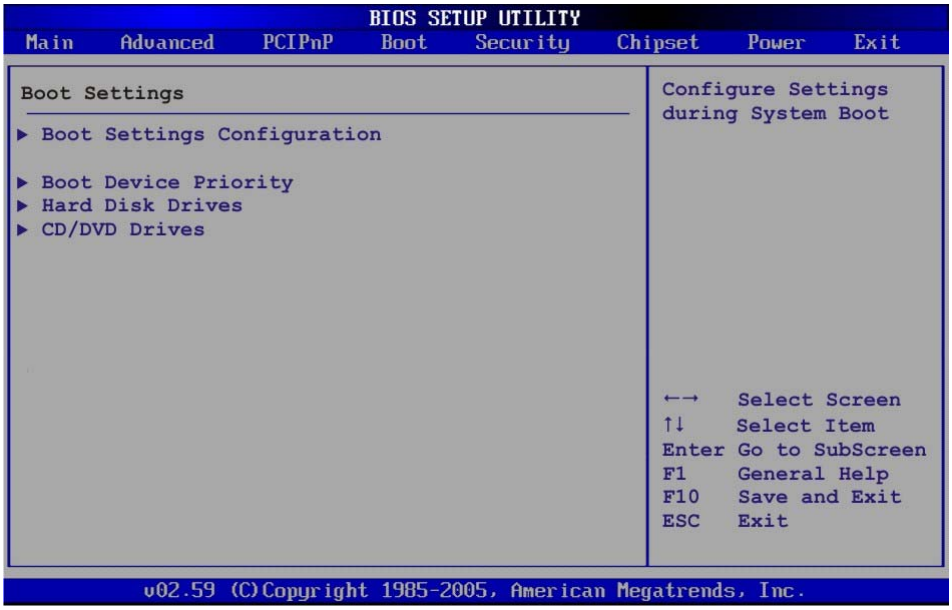
➔ **Available**	**DEFAULT**	The specified DMA is available to be used by PCI/PnP devices
➔ **Reserved**		The specified DMA is reserved for use by Legacy ISA devices

Available DMA Channels are:

- DM Channel 0
- DM Channel 1
- DM Channel 3
- DM Channel 5
- DM Channel 6
- DM Channel 7

6.5 Boot

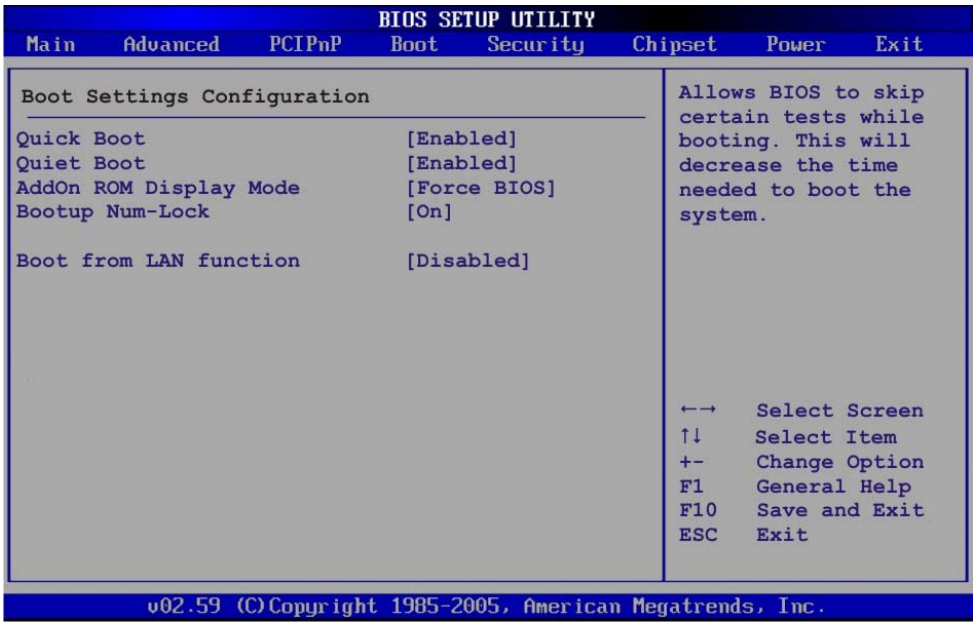
Use the Boot menu (**BIOS Menu 12**) to configure system boot options.



BIOS Menu 12: Boot

6.5.1 Boot Settings Configuration

Use the Boot Settings Configuration menu (**BIOS Menu 13**) to configure advanced system boot options.



BIOS Menu 13: Boot Settings Configuration

➔ **Quick Boot [Enabled]**

Use the **Quick Boot** BIOS option to make the computer speed up the boot process.

➔ **Disabled** No POST procedures are skipped

➔ **Enabled** **DEFAULT** Some POST procedures are skipped to decrease the system boot time

➔ **Quiet Boot [Enabled]**

Use the **Quiet Boot** BIOS option to select the screen display when the system boots.

➔ **Disabled** Normal POST messages displayed

➔ **Enabled** **DEFAULT** OEM Logo displayed instead of POST messages

➔ **AddOn ROM Display Mode [Force BIOS]**

The **AddOn ROM Display Mode** option allows add-on ROM (read-only memory) messages to be displayed.

➔ **Force BIOS**	**DEFAULT**	Allows the computer system to force a third party BIOS to display during system boot.
➔ **Keep Current**		Allows the computer system to display the information during system boot.

➔ **Bootup Num-Lock [On]**

The **Bootup Num-Lock** BIOS option allows the Number Lock setting to be modified during boot up.

➔ **Off**		Does not enable the keyboard Number Lock automatically. To use the 10-keys on the keyboard, press the Number Lock key located on the upper left-hand corner of the 10-key pad. The Number Lock LED on the keyboard lights up when the Number Lock is engaged.
➔ **On**	**DEFAULT**	Allows the Number Lock on the keyboard to be enabled automatically when the computer system boots up. This allows the immediate use of the 10-key numeric keypad located on the right side of the keyboard. To confirm this, the Number Lock LED light on the keyboard is lit.

➔ **Boot from LAN Support [Disabled]**

Use the **Boot from LAN Support** option to enable the system to be booted from a remote system.

➔ **Disabled**	**DEFAULT**	Cannot be booted from a remote system through the

LAN

➔ **Enabled** Can be booted from a remote system through the LAN

6.5.2 Boot Device Priority

Use the **Boot Device Priority** menu to specify the boot sequence from the available devices. Possible boot devices may include:

- HDD
- CD/DVD

6.5.3 Hard Disk Drives

Use the **Hard Disk Drives** menu to specify the boot sequence of the available HDDs. When the menu is opened, the HDDs connected to the system are listed as shown below:

- 1st Drive [Internal SATA: PS-(part number)]

NOTE:

Only the drives connected to the system are shown. For example, if only two HDDs are connected only "**1st Drive**" and "**2nd Drive**" are listed.

The boot sequence from the available devices is selected. If the "**1st Drive**" option is selected a list of available HDDs is shown. Select the first HDD the system boots from. If the "**1st Drive**" is not used for booting this option may be disabled.

6.5.4 CD/DVD Drives

Use the **CD/DVD Drives** menu to specify the boot sequence of the available CD/DVD drives. When the menu is opened, the CD drives and DVD drives connected to the system are listed as shown below:

- 1st Drive [CD/DVD: PM-(part ID)]

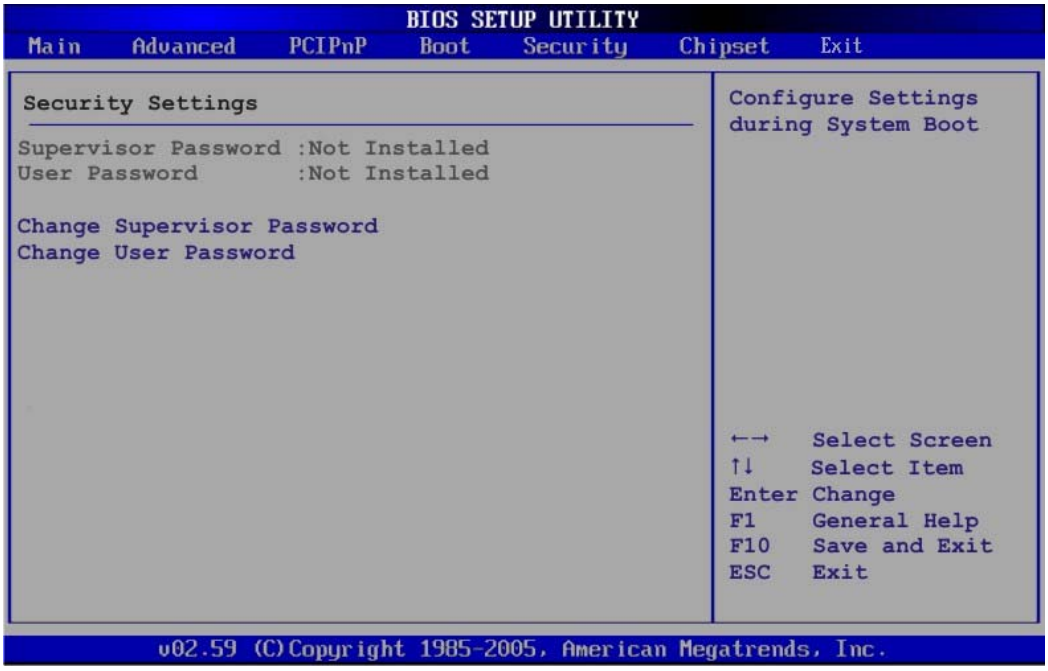
NOTE:

Only the drives connected to the system are shown. For example, if only two CDs or DVDs are connected only "**1st Drive**" and "**2nd Drive**" are listed.

The boot sequence from the available devices is selected. If the "**1st Drive**" option is selected a list of available CD/DVD drives is shown. Select the first CD/DVD drive the system boots from. If the "**1st Drive**" is not used for booting this option may be disabled.

6.6 Security

Use the Security menu (**BIOS Menu 14**) to set system and user passwords.



BIOS Menu 14: Security

➔ **Change Supervisor Password**

Use the **Change Supervisor Password** to set or change a supervisor password. The default for this option is **Not Installed**. If a supervisor password must be installed, select

this field and enter the password. After the password has been added, **Install** appears next to **Change Supervisor Password**.

➔ **Change User Password**

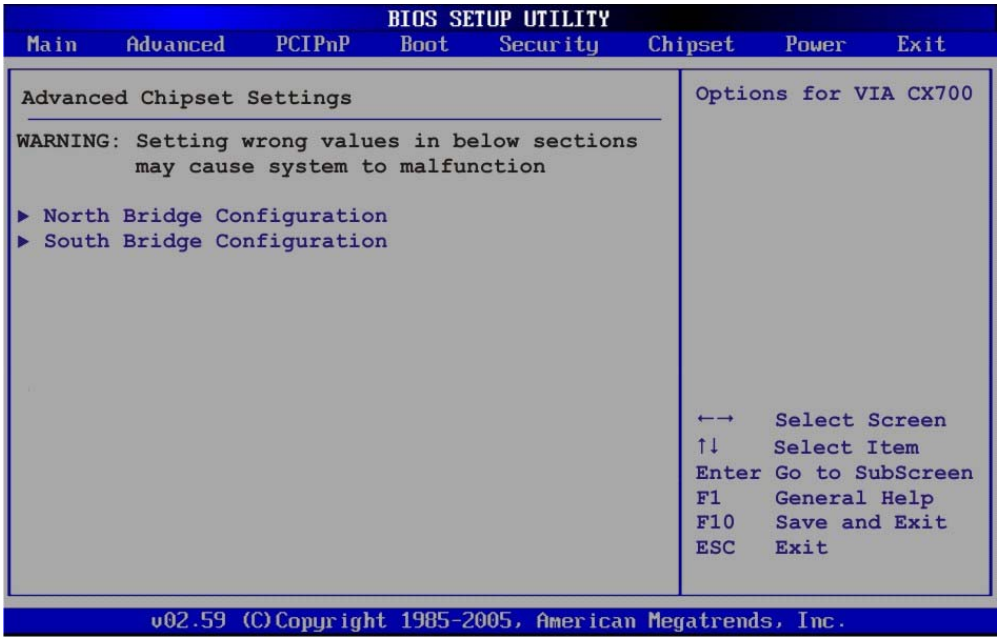
Use the **Change User Password** to set or change a user password. The default for this option is **Not Installed**. If a user password must be installed, select this field and enter the password. After the password has been added, **Install** appears next to **Change User Password**.

6.7 Chipset

Use the **Chipset** menu to access the Northbridge and Southbridge configuration menus

WARNING!

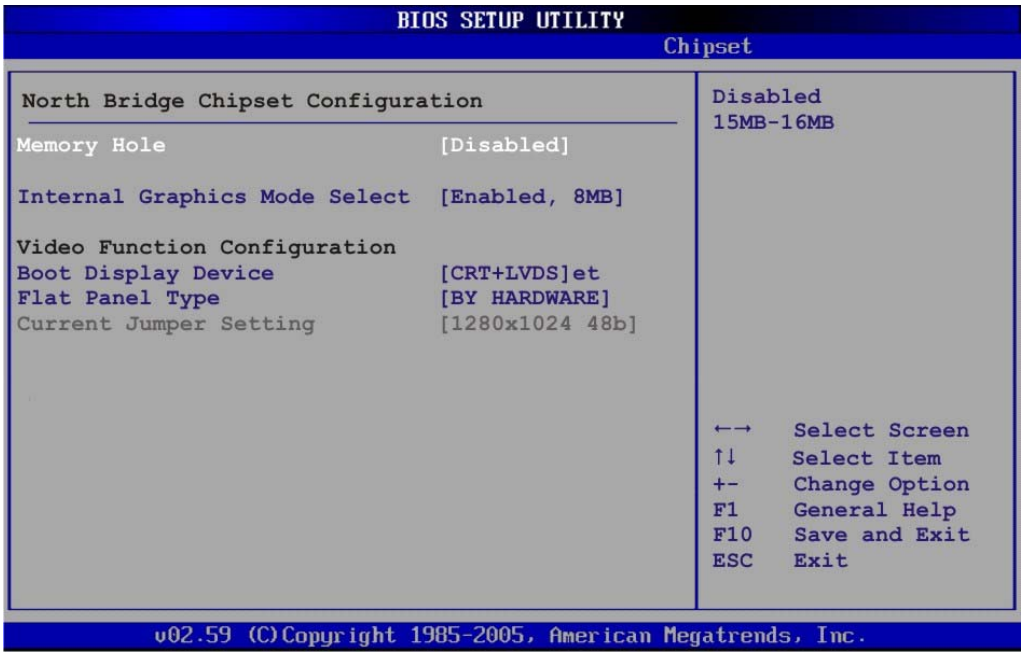
Setting the wrong values for the Chipset BIOS selections in the Chipset BIOS menu may cause the system to malfunction.



BIOS Menu 15: Chipset

6.7.1 North Bridge Configuration

Use the North Bridge Configuration menu (**BIOS Menu 16**) to check the Northbridge chipset settings.



BIOS Menu 16:North Bridge Chipset Configuration

➔ **Memory Hole [Disabled]**

Use the **Memory Hole** option to reserve memory space between 15MB and 16MB for ISA expansion cards that require a specified area of memory to work properly. If an older ISA expansion card is used, please refer to the documentation that came with the card to see if it is necessary to reserve the space.

➔ **Disabled**	**DEFAULT**	Memory is not reserved for ISA expansion cards
➔ **15MB – 16MB**		Between 15MB and 16MB of memory is reserved for ISA expansion cards

➔ **Internal Graphics Mode Select [Enable, 8MB]**

Use the **Internal Graphic Mode Select** option to specify the amount of system memory that can be used by the Internal graphics device.

➔ **Disable**

➔ **Enable, 1MB** 1MB of memory used by internal graphics device

➔ **Enable, 8MB** **DEFAULT** 8MB of memory used by internal graphics device

➔ **Boot Display Device [Auto]**

Use the **Boot Display Device** BIOS feature to determine what displays are used. Dual display functionality is enabled here. Dual display configuration options are listed below:

- CRT **DEFAULT**
- DVI
- LVDS
- CRT+LVDS

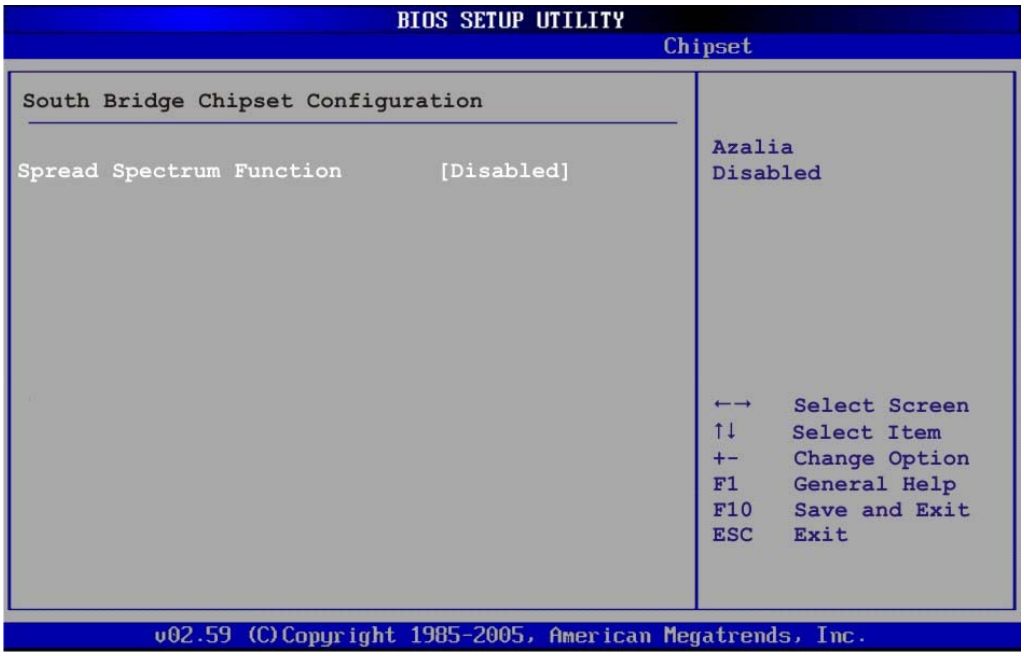
➔ **Flat Panel Type**

Use the **Flat Panel Type** to determine the LCD panel resolution. Configuration options are listed below:

- 640 x 480 18b
- 800 x 600 18b
- 1024 x 768 18b
- 1024 x 768 24b
- 1024 x 768 48b
- 1280 x 1024 48b
- 1600 x 1200 48b
- BY HARDWARE

6.7.2 South Bridge Configuration

The South Bridge Configuration menu (**BIOS Menu 17**) enables the Southbridge chipset to be configured.



BIOS Menu 17:South Bridge Chipset Configuration

➔ **Spread Spectrum Function [Disabled]**

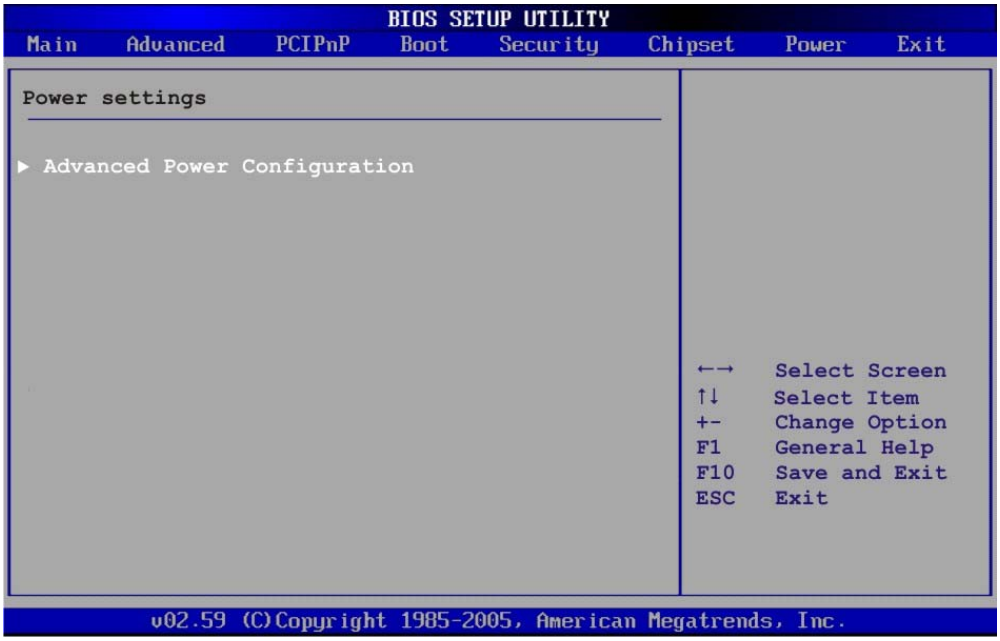
Use the **Spread Spectrum Function** option to reduce the EMI. Excess EMI is generated when the system clock generator pulses have extreme values. Spreading the pulse spectrum modulates changes in the extreme values from spikes to flat curves, thus reducing the EMI. This benefit may in some cases be outweighed by problems with timing-critical devices, such as a clock-sensitive SCSI device.

➔ **Disabled** **DEFAULT** EMI not reduced

➔ **Enabled** EMI reduced

6.7.3 Power Configuration

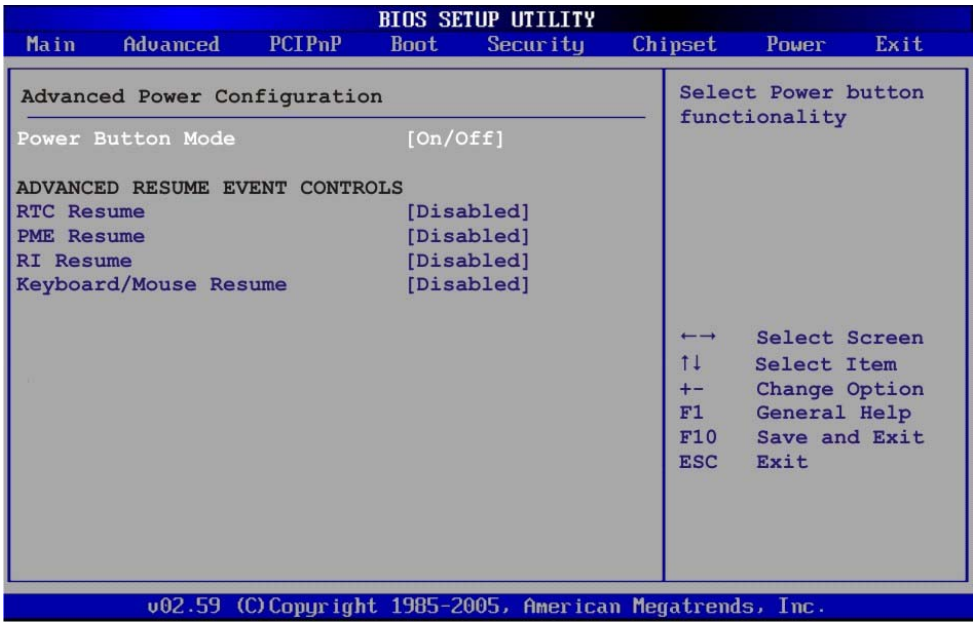
The **Power Configuration** menu (**BIOS Menu 18**) allows the advanced power management options to be configured.



BIOS Menu 18: Power Configuration

6.7.4 Advanced Power Configuration

The **Advanced Power Configuration** menu (**BIOS Menu 18**) allows the advanced power management options to be configured.



BIOS Menu 19: Advanced Power Configuration

➔ **Power Button Mode [On/Off]**

Use the **Power Button Mode** BIOS to specify how the power button functions.

➔ **On/Off** **DEFAULT** When the power button is pressed the system is either turned on or off

➔ **Suspend** When the power button is pressed the system goes into suspend mode

➔ **RTC Resume [Disabled]**

Use the **RTC Resume** option to specify the time the system should be roused from a suspended state.

➔ **Disabled** **DEFAULT** The real time clock (RTC) cannot generate a wake event

➔ **Enabled** If selected, the following appears with values that can be selected:

- ➔ **RTC Alarm Date (Days)**
- ➔ **RTC Alarm Time**

After setting the alarm, the computer turns itself on from a suspend state when the alarm goes off.

➔ **PME Resume [Disabled]**

Use the **PME Resume** BIOS option to enable activity on the PCI PME (power management event) controller to rouse the system from a suspend or standby state.

➔ **Disabled** **DEFAULT** Wake event not generated by PCI PME controller activity

➔ **Enabled** Wake event generated by PCI PME controller activity

➔ **RI Resume [Disabled]**

The **RI Resume** BIOS option specifies if the system will be roused from a suspended or standby state when there is activity on the RI (ring in) modem line. That is, the system will be roused by an incoming call on a modem.

➔ **Disabled** **DEFAULT** Wake event not generated by an incoming call

➔ **Enabled** Wake event generated by an incoming call

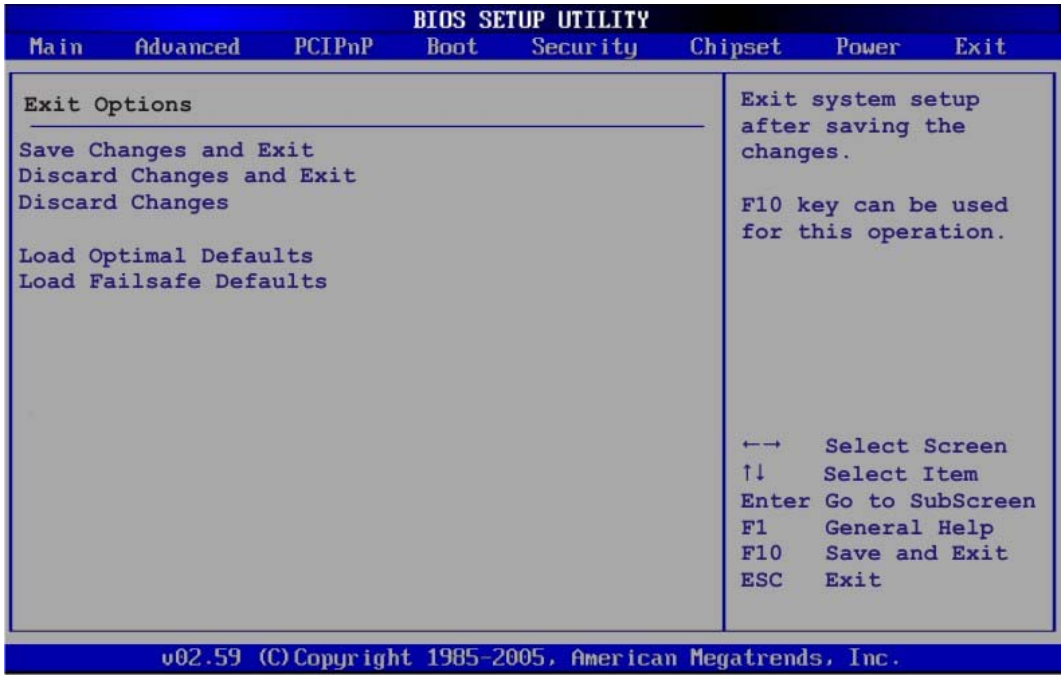
➔ **Keyboard/Mouse Resume [Disabled]**

Use the **Keyboard/Mouse Resume** BIOS option to enable activity on either the keyboard or mouse to rouse the system from a suspend or standby state. That is, the system is roused when the mouse is moved or a button on the keyboard is pressed.

➔ **Disabled**	**DEFAULT**	Wake event not generated by activity on the keyboard or mouse
➔ **Resume On KeyBoard**		Wake event not generated by activity on the keyboard
➔ **Resume On Mouse**		Wake event not generated by activity on the mouse
➔ **Enabled**		Wake event generated by activity on the keyboard or mouse

6.8 Exit

Use the **Exit** menu (**BIOS Menu 20**) to load default BIOS values, optimal failsafe values and to save configuration changes.



BIOS Menu 20:Exit

➔ **Save Changes and Exit**

Use the **Save Changes and Exit** option to save the changes made to the BIOS options and to exit the BIOS configuration setup program.

➔ **Discard Changes and Exit**

Use the **Discard Changes and Exit** option to exit the BIOS configuration setup program without saving the changes made to the system.

➔ **Discard Changes**

Use the **Discard Changes** option to discard the changes and remain in the BIOS configuration setup program.

➔ **Load Optimal Defaults**

Use the **Load Optimal Defaults** option to load the optimal default values for each of the parameters on the Setup menus. **F9 key can be used for this operation.**

➔ **Load Failsafe Defaults**

Use the **Load Failsafe Defaults** option to load failsafe default values for each of the parameters on the Setup menus. **F8 key can be used for this operation.**

Chapter

7

Software Drivers

7.1 Available Software Drivers

NOTE:

The content of the CD may vary throughout the life cycle of the product and is subject to change without prior notice. Visit the IEI website or contact technical support for the latest updates.

The following drivers can be installed on the system:

- Intel® chipset driver
- VGA driver
- LAN driver
- Wireless LAN driver
- Audio driver
- Touch screen driver

Installation instructions are given below.

7.2 Intel® Chipset Driver

To install the Intel® chipset driver, please follow the steps below.

Step 1: Insert the driver CD into the system. Click the **CHIPSET** option and locate the icon for the **Setup** installation file. Once located, use the mouse to double click the icon.

Step 2: The **Intel® Package Manager** begins to extract the installation files. See **Figure 7-1**.

Figure 7-1: Intel® Package Manager

Step 3: The **Intel® Setup Welcome** screen. See **Figure 7-2**.

Figure 7-2: Intel® Setup Welcome Screen

Step 4: Click **NEXT** to continue.

Step 5: The Intel® license agreement in appears.

Figure 7-3: Intel® Chipset Driver License Agreement

Step 6: Accept the terms and conditions by clicking **YES**.

Step 7: The **Readme** file in **Figure 7-4** appears.

Figure 7-4: Readme File

Step 8: Click **NEXT** to continue.

Step 9: The driver is then installed.

Step 10: When the installation process is complete, the Setup Complete screen appears. See **Figure 7-5**.

Figure 7-5: Intel® Chipset Driver Complete Installation Screen

Step 11: To complete the chipset driver installation, click **FINISH**.

7.3 Intel® Graphics Media Accelerator Driver

To install the chipset driver, please follow the steps below:

Step 1: Insert the driver CD into the system. Click the **VGA** option and locate the **xxx.exe** installation file according to the OS. Once located, use the mouse to double click the icon.

Step 2: The Readme information file shown in **Figure 7-6** appears.

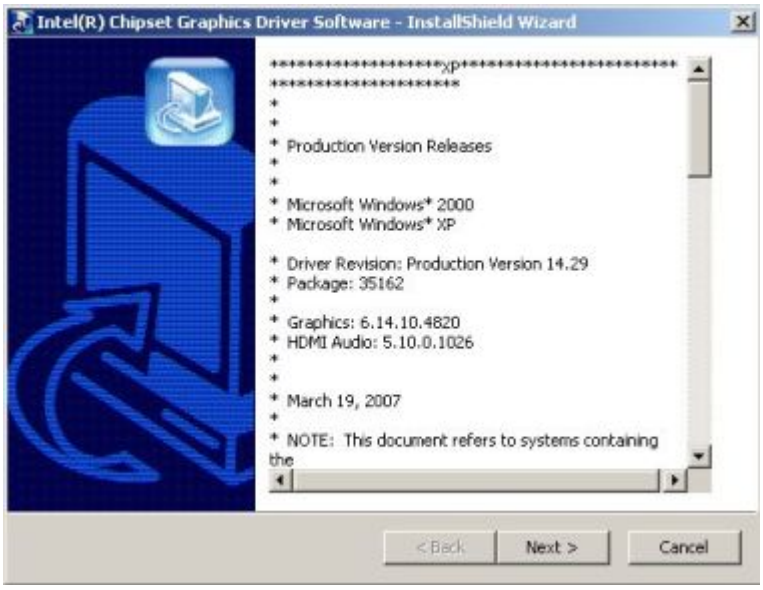


Figure 7-6: GMA Driver Readme File

Step 3: Click **NEXT** to extract the GMA driver files. See **Figure 7-7**.

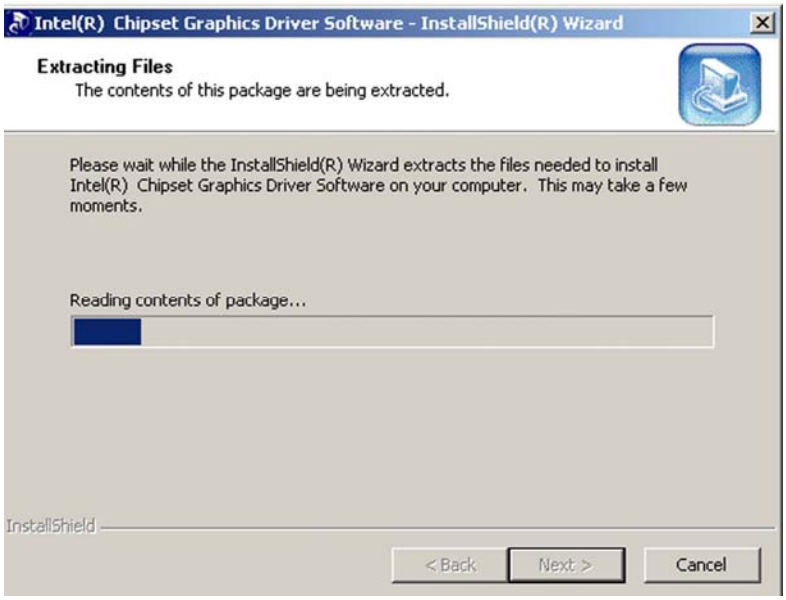


Figure 7-7: GMA Driver File Extraction

Step 4: The welcome screen shown in **Figure 7-8** appears.

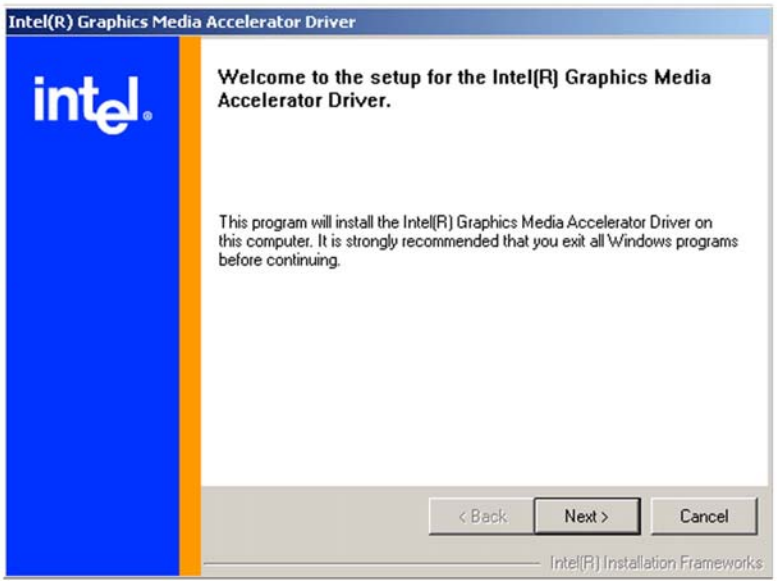


Figure 7-8: GMA Driver Installation Welcome Screen

Step 5: To continue the installation process, click **NEXT**.

Step 6: The license agreement in **Figure 7-9** appears.

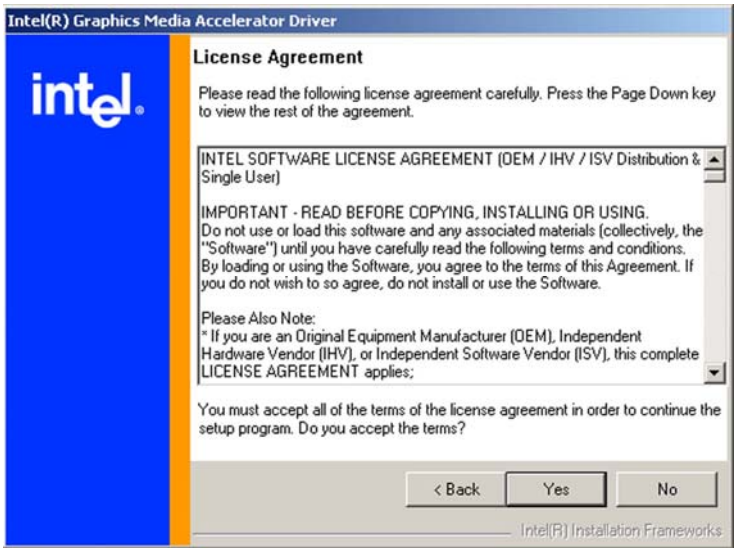


Figure 7-9: GMA Driver License Agreement

Step 7: Click the **YES** in **Figure 7-9** to continue.

Step 8: The installation notice shown in **Figure 7-10** appears.

Figure 7-10: GMA Driver Installing Notice

Step 9: A confirmation screen shown in **Figure 7-11** appears.

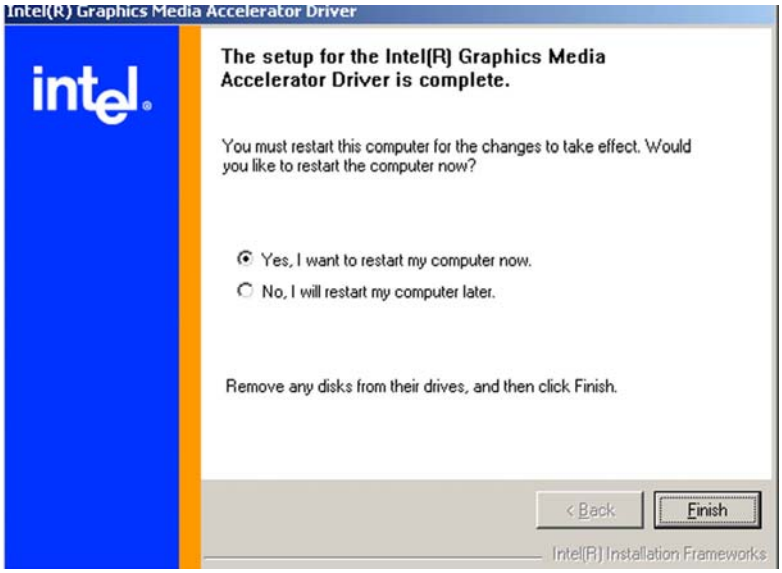


Figure 7-11: GMA Driver Installation Complete

Step 10: After selecting when to restart the computer in **Figure 7-11**, click **FINISH**.

7.4 Realtek RTL8111CP GbE LAN Installation

To install the Realtek RTL8111CP LAN driver, please follow the steps below.

Step 1: Insert the driver CD into the system. Open the **x:\3.LAN\REALTEK RTL8111C\PCIE_Install_5686(installshield 12_1.16)_0219** directory and locate the icon for the **Setup.exe** installation file. Once located, use the mouse to double click the icon.

Step 2: The **InstallShield Wizard** is prepared to guide the user through the rest of the process (**Figure 7-12**).

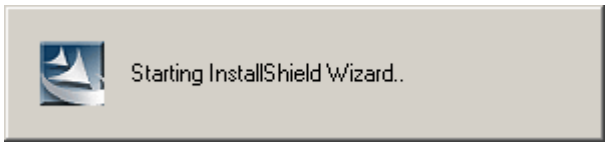


Figure 7-12: RTL8111CP InstallShield Wizard

Step 3: The **InstallShield Wizard** continues (**Figure 7-13**).

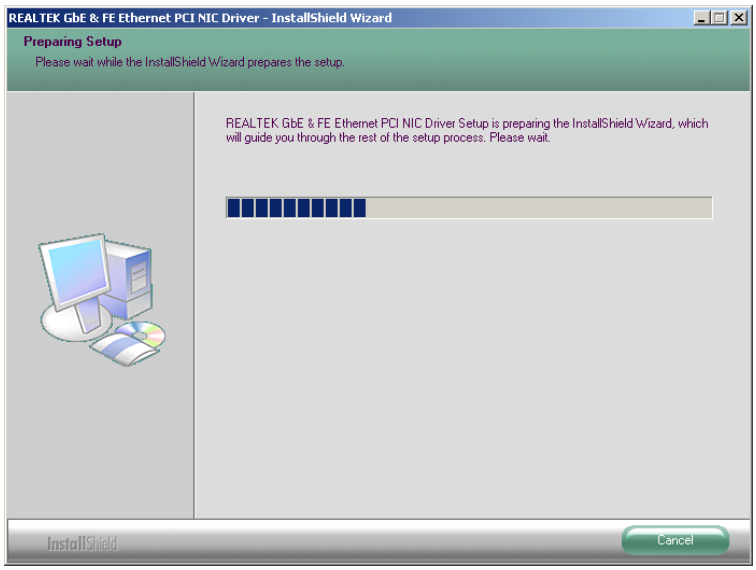


Figure 7-13: RTL8111CP InstallShield Wizard Continues

Step 4: Once initialized, the **InstallShield Wizard** welcome screen appears (**Figure 7-14**).

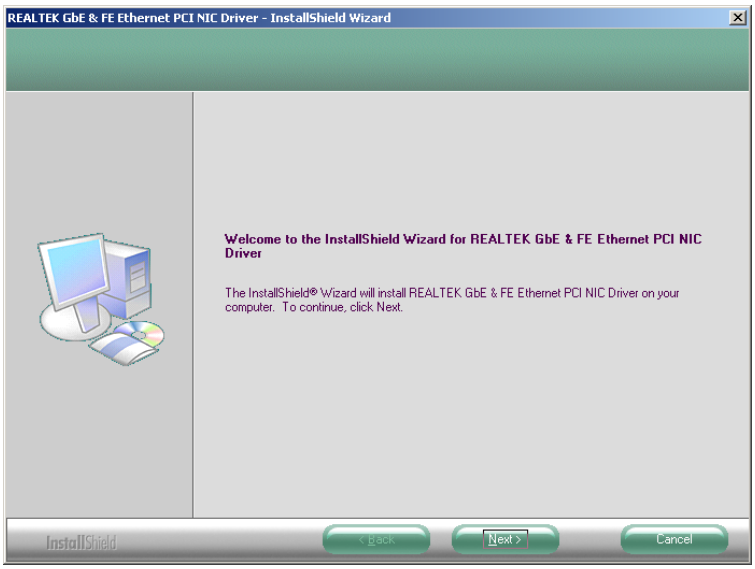


Figure 7-14: RTL8111CP InstallShield Wizard Welcome Screen

Step 5: Click **NEXT** to continue the installation.

Step 6: The **InstallShield Wizard** is ready to install the driver (**Figure 7-15**).

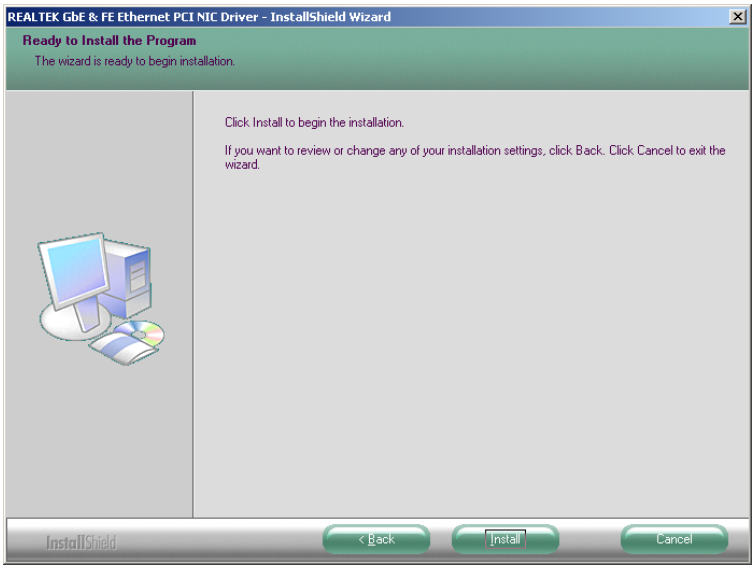


Figure 7-15: RTL8111CP Driver Ready Screen

Step 7: Click **INSTALL** to continue the installation process.

Step 8: InstallShield starts to install the new software (**Figure 7-16**).

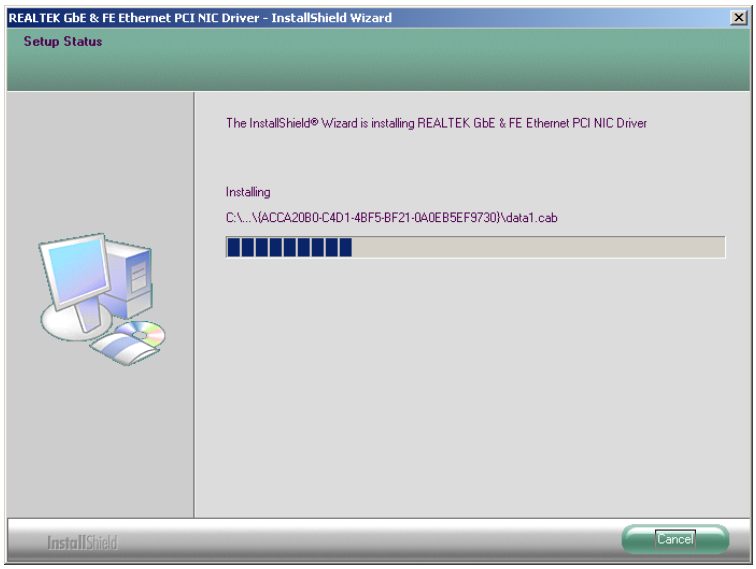


Figure 7-16: RTL8111CP Drivers Installing

Step 9: The **InstallShield Wizard** continues (**Figure 7-17**).

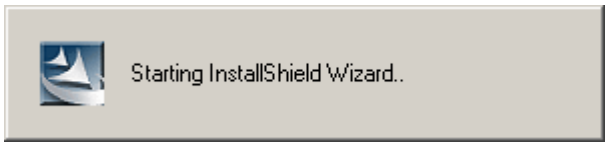


Figure 7-17: RTL8111CP InstallShield Wizard

Step 10: After the driver installation process is complete, a confirmation screen appears (**Figure 7-18**).

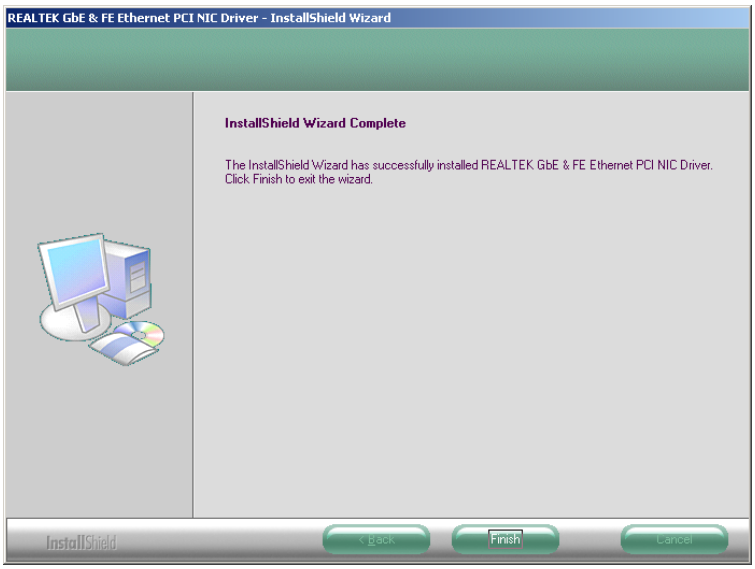


Figure 7-18: RTL8111CP Driver Installation Complete

Step 11: Click **FINISH** to exit the program.

7.5 Realtek HD Audio Driver Installation

To install the Realtek High Definition (HD) Audio driver, please follow the steps below.

7.5.1 BIOS Setup

Step 1: Enter the BIOS setup. To do this, reboot the system and press **DEL** during POST.

Step 2: Go to the Southbridge Configuration menu. Enable the High Definition Audio controller.

Step 3: Press **F10** to save the changes and exit the BIOS setup. The system reboots.

7.5.2 Driver Installation

To install the audio driver please follow the steps below.

Step 1: Insert the driver CD into the system. Open the **x:\Audio\WDM_R204** directory and locate the icon for the **Setup.exe** installation file. Once located, use the mouse to double click the icon.

Step 2: The **InstallShield Wizard** starts (**Figure 7-19**).

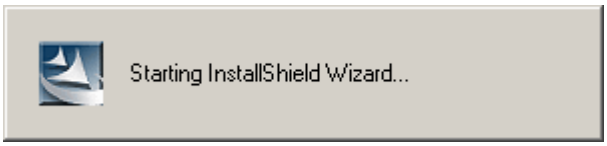


Figure 7-19: The InstallShield Wizard Starts

Step 3: The **InstallShield Wizard** is prepared to guide the user through the rest of the process (**Figure 7-20**).

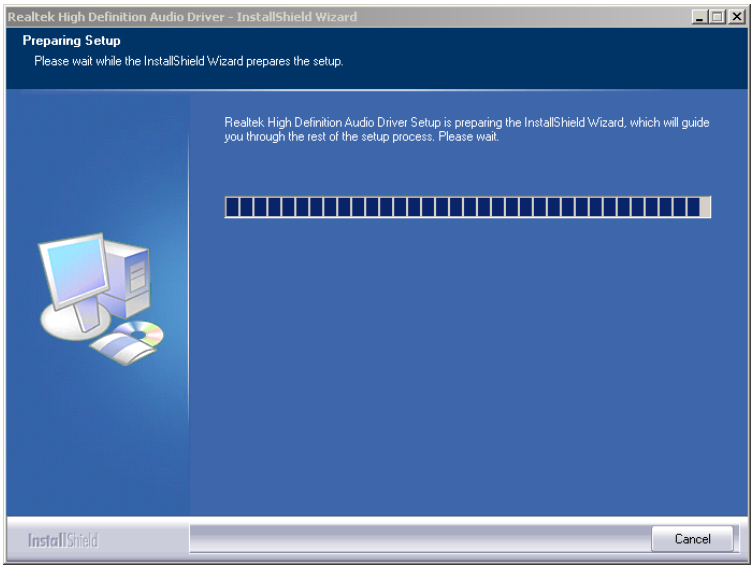


Figure 7-20: Preparing Setup Screen

Step 4: Once initialized, the **InstallShield Wizard** welcome screen appears (**Figure 7-21**).

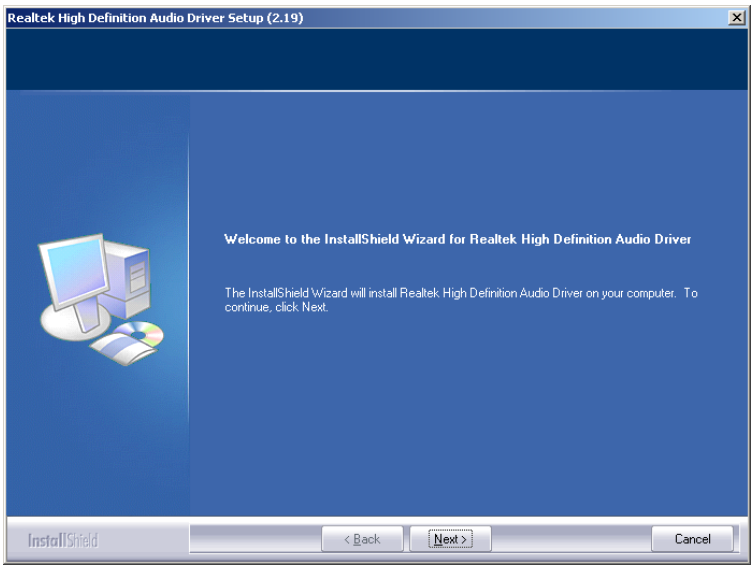


Figure 7-21: InstallShield Wizard Welcome Screen

Step 5: Click **NEXT** to continue the installation.

Step 6: InstallShield starts to install the new software as shown in **Figure 7-22**.

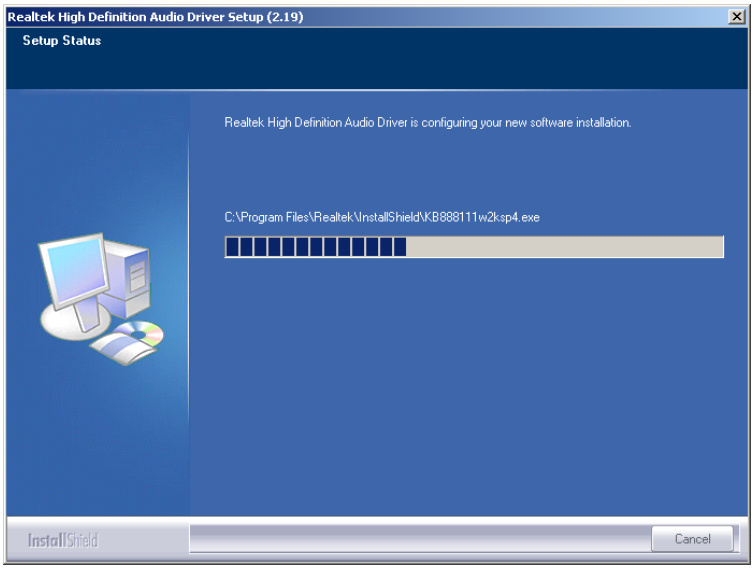


Figure 7-22: Audio Driver Software Configuration

Step 7: The Installation Wizard updates the system as shown in **Figure 7-23**.

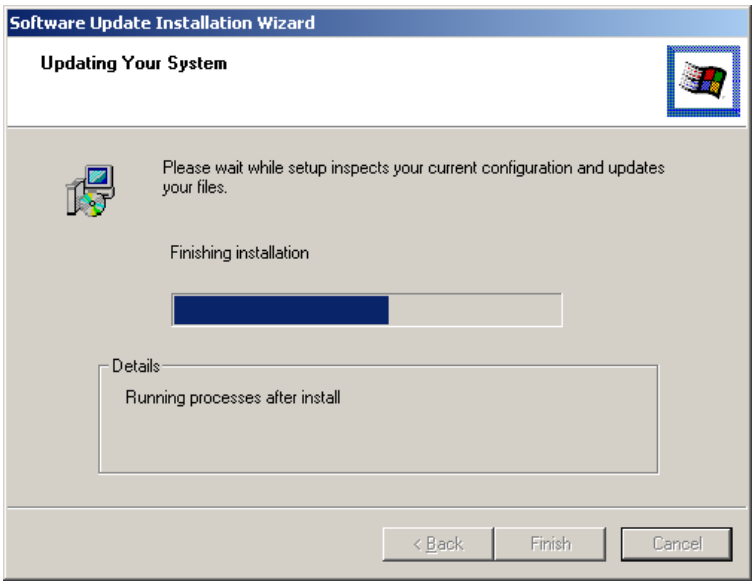


Figure 7-23: Installation Wizard Updates the System

Step 8: After the driver installation process is complete, a confirmation screen appears (**Figure 7-24**).

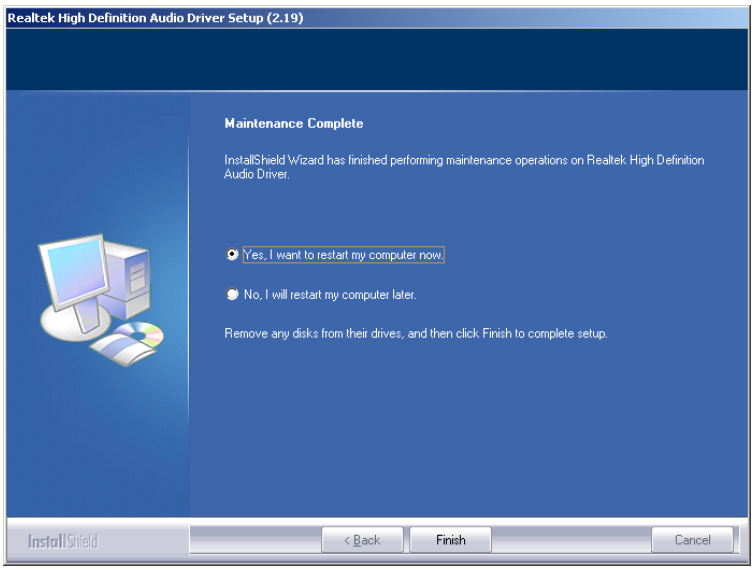


Figure 7-24: Restart the Computer

Step 9: The confirmation screen offers the option of restarting the computer now or later. For the settings to take effect, the computer must be restarted. Click **FINISH** to restart the computer.

7.6 Touch Screen Driver

To install the touch panel software driver, please follow the steps below.

Step 1: Insert the driver CD into the system. Open the **x:\Touch\PenMount Windows Universal Driver V2.1.0.207** directory and locate the icon for the **Setup.exe** installation file. Once located, use the mouse to double click the icon.

Step 2: A welcome screen appears (Figure 7-25). To continue the installation process click **NEXT**.

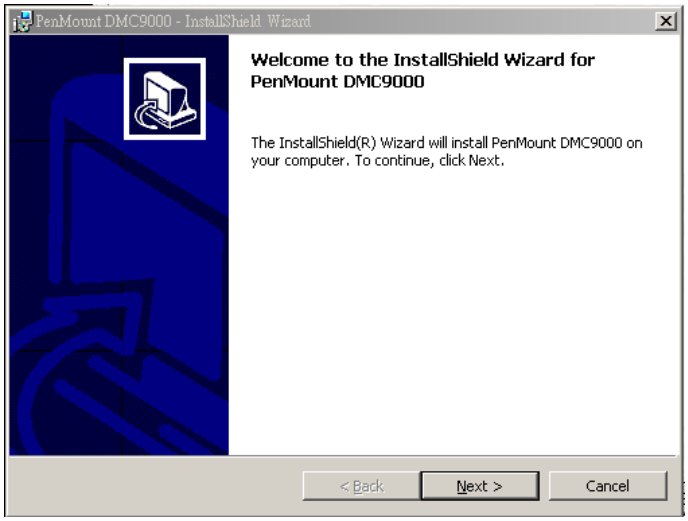


Figure 7-25: Welcome Screen

Step 3: The license agreement shown in Figure 7-26 appears. Agree to the license by selecting “I accept the terms in the license agreement”.

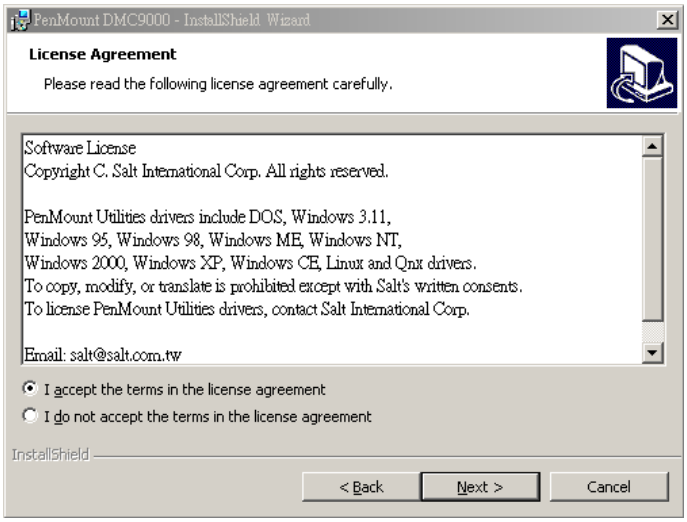


Figure 7-26: License Agreement

Step 4: Click **NEXT** and the Installshield Wizard is ready to install the program (Figure 7-27).

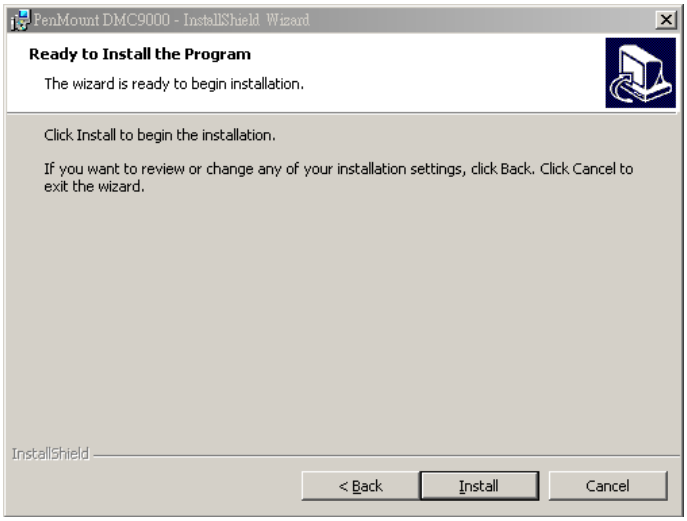


Figure 7-27: Ready to Install the Program

Step 5: Click **INSTALL** to continue. The Installing PenMount DMC9000 screen appears as the program is installed (Figure 7-28).

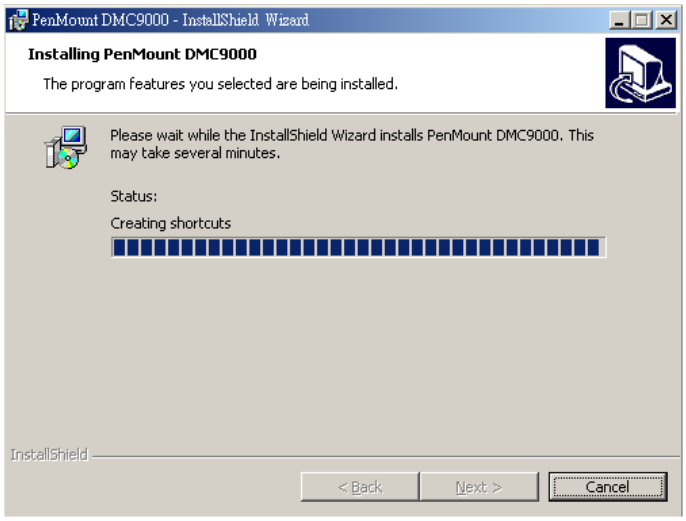


Figure 7-28: Installing PenMount DMC9000

Step 6: The user is then prompted to select to restart the computer now or later (Figure 7-29). For the settings to take effect, the computer must be restarted. Click **Yes** to restart the computer.

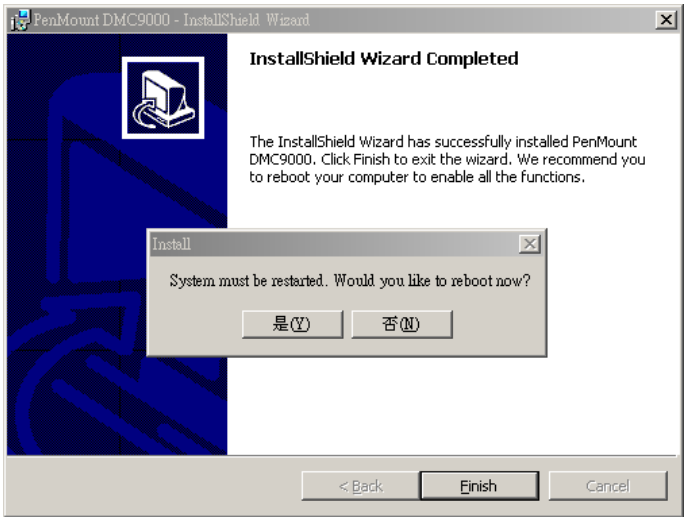


Figure 7-29: Reboot the Computer

7.7 Wireless LAN Driver

To install the wireless LAN controller driver, please follow the steps below.

Step 1: Open **Windows Control Panel (Figure 7-30**).

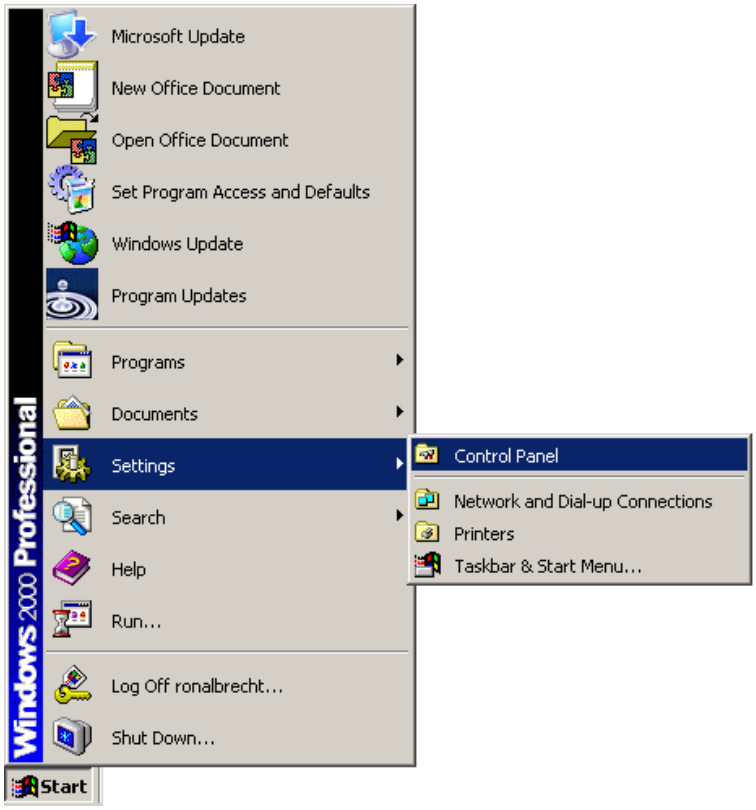


Figure 7-30: Windows Control Panel

Step 2: Double-click the **System** icon (Figure 7-31).

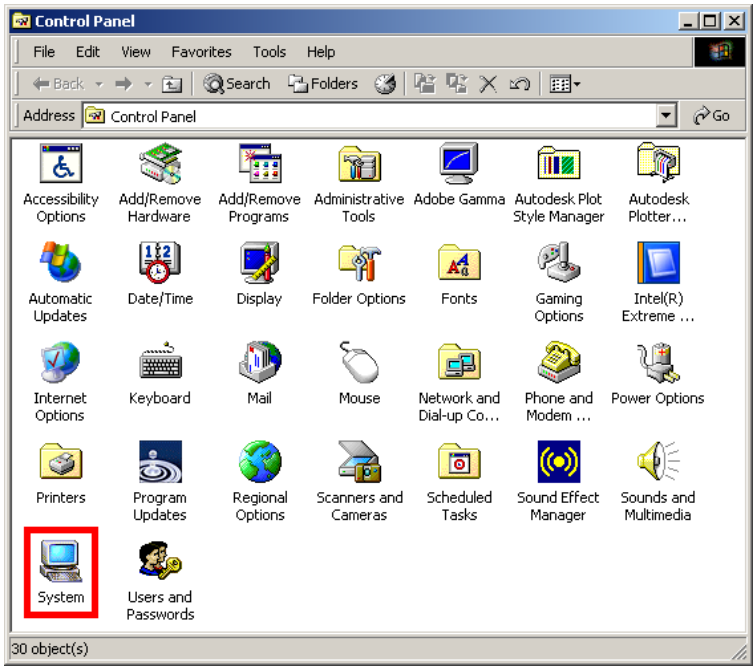


Figure 7-31: System Icon

Step 3: Click the **Device Manager** tab (Figure 7-32).

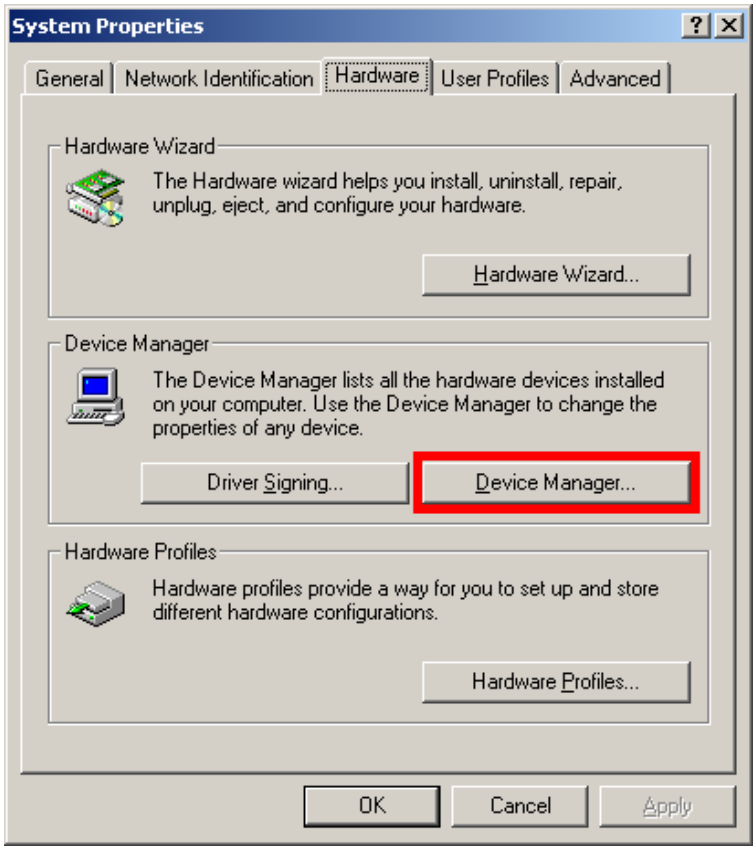


Figure 7-32: Device Manager Tab

Step 4: A list of system hardware devices appears (Figure 7-33).

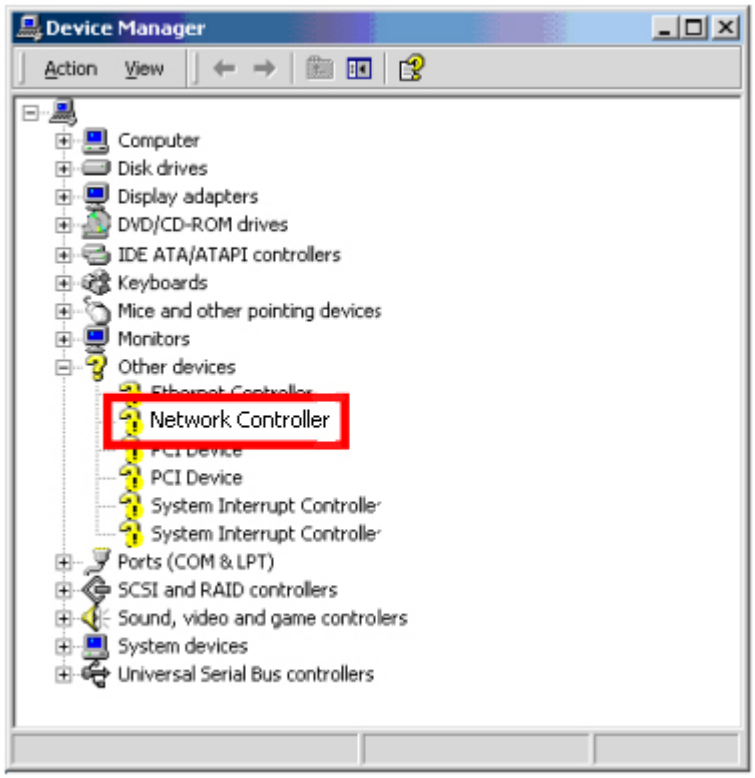


Figure 7-33: Device Manager List

Step 5: Double-click the listed device that has question marks next to it (this means Windows does not recognize the device).

Step 6: The **Device Driver Wizard** appears (Figure 7-34).

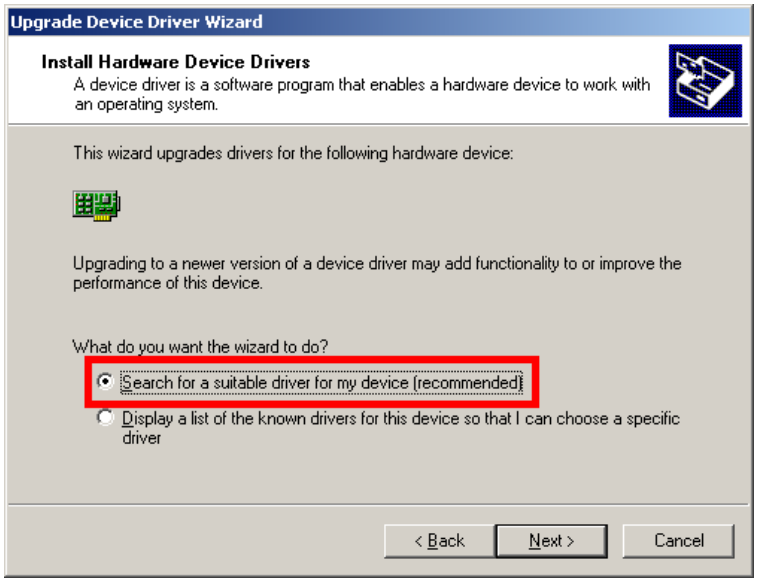


Figure 7-34: Search for Suitable Driver

Step 7: Select "**Search for a suitable driver for my device (recommended)**," and click **NEXT** to continue.

Step 8: Select "**Specify a Location**" in the **Locate Driver Files** window (Figure 7-35).

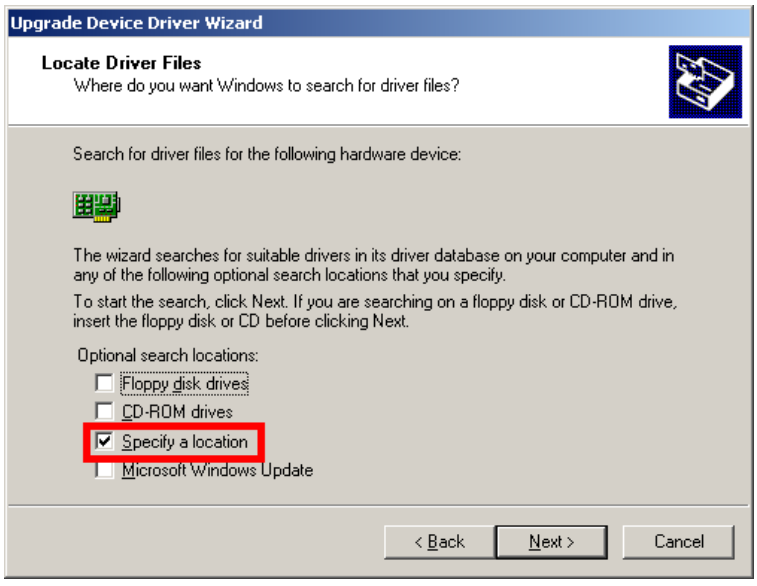


Figure 7-35: Locate Driver Files

Step 9: Click **NEXT** to continue.

Step 10: The **Locate File** window appears (Figure 7-36).

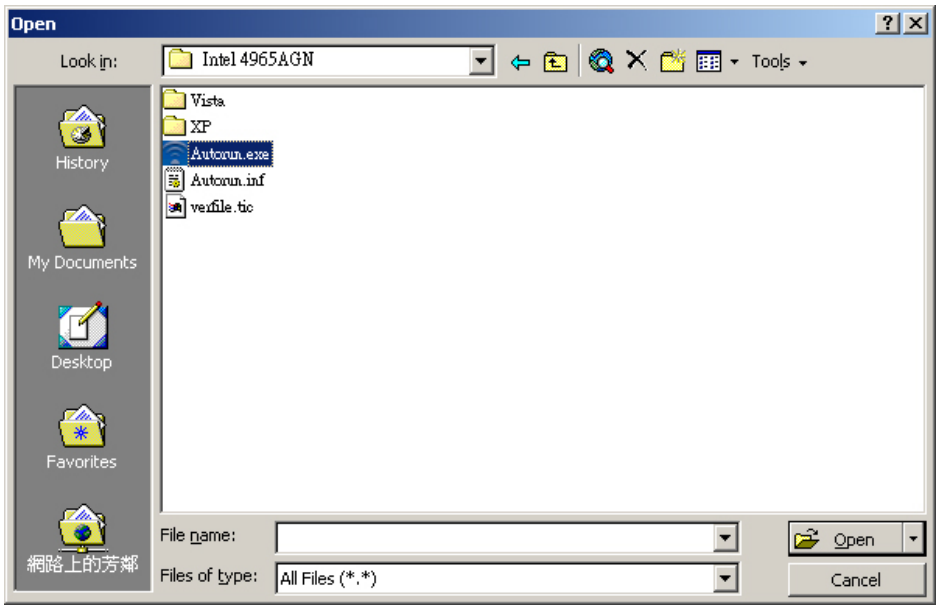


Figure 7-36: Location Browsing Window

Step 11: Select the proper OS folder under the "**X:\LAN\Intel 4965AGN**" directory in the **Locate File** window, where "**X:\"** is the system CD drive.

Step 12: Select a proper operating system folder for wireless LAN driver installation.

Chapter

8

Battery Monitoring and Remote Control

8.1 Introduction

The IEI AUPS Battery Status Monitor application detects the information of the smart battery and monitors the battery status. It is recommended to execute this AUPS application in Windows XP SP2 environment.

8.2 Monitoring DC Power and Smart Battery

8.2.1 Application Installation

Follow the steps below to install the AUPS Battery Status Monitor application.

Step 1: Insert the driver CD into the system. Open the **x:\AUPS_Setup** directory. Double click the **Setup.exe** icon.

Step 2: A welcome screen appears (**Figure 8-1**). To continue the installation process click **NEXT**.

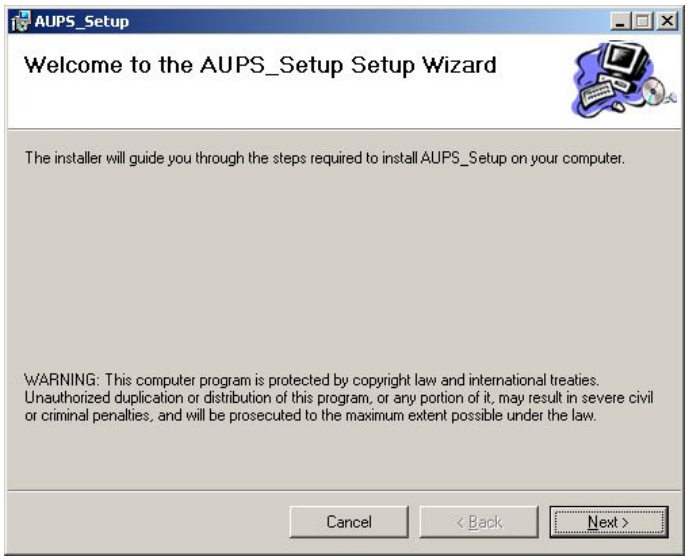


Figure 8-1: Welcome Screen

Step 3: The Select Installation Folder window appears (**Figure 8-2**). Select a folder to install the application.

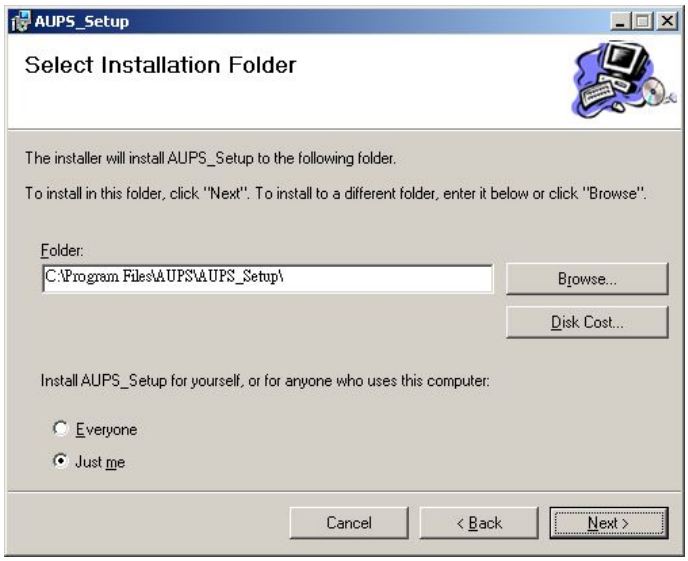


Figure 8-2: Select Installation Folder

Step 4: Click **NEXT** and the Installshield Wizard is ready to install the program (**Figure 8-3**).

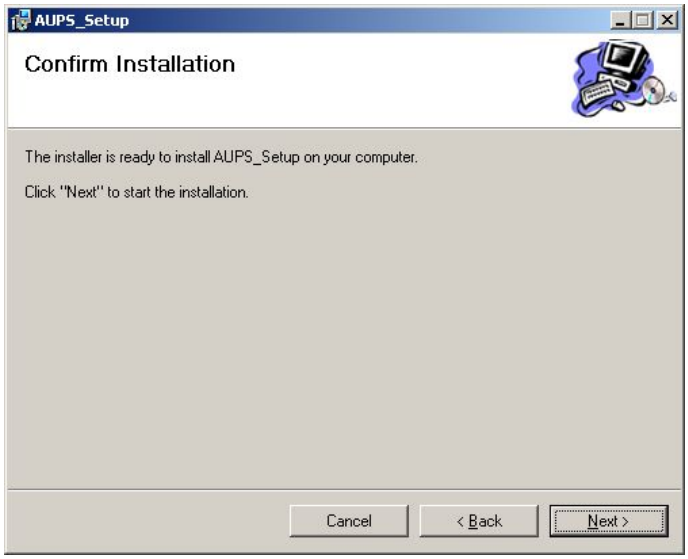


Figure 8-3: Ready to Install the Program

Step 5: Click **NEXT** to continue. The Installing AUPS_Setup screen appears as the program is installed (**Figure 8-4**).

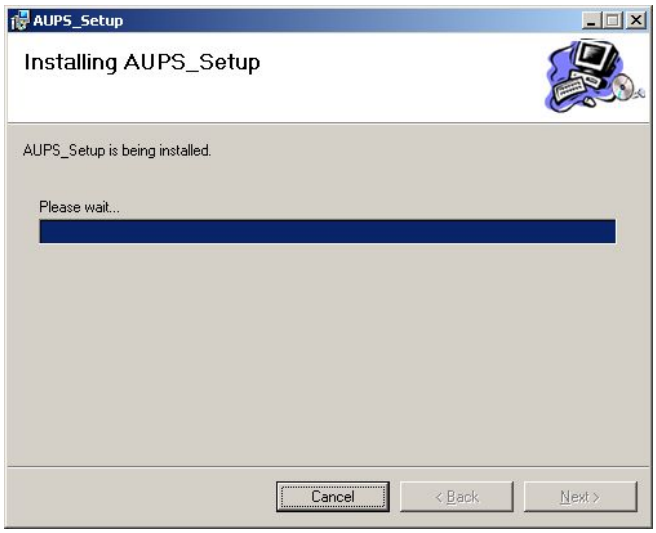


Figure 8-4: Installing AUPS

Step 6: The Installation Complete window appears (**Figure 8-5**). Click **Close** to exit.

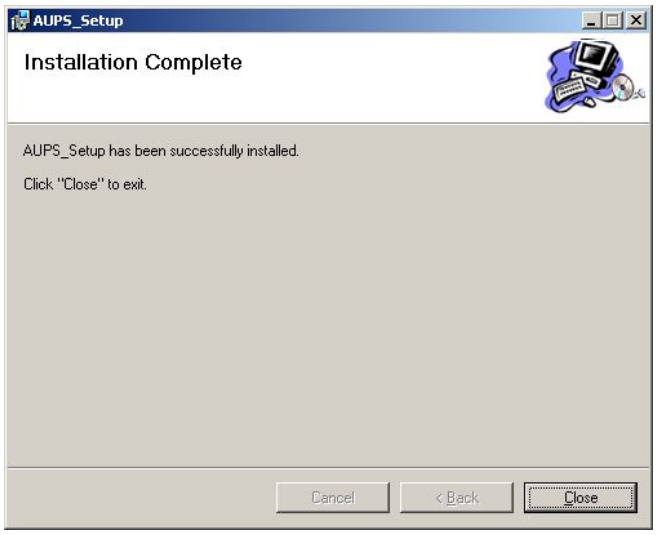


Figure 8-5: Installation Complete

Step 7: To launch the application, double click the shortcut (**Figure 8-6**) on the desktop

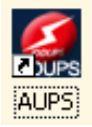


Figure 8-6: AUPS Battery Status Monitor Application

8.2.2 Status Information

The IEI AUPS Battery Status Monitor application shows the DC power status and battery status (**Figure 8-7**). The following sections describe the status information in details.

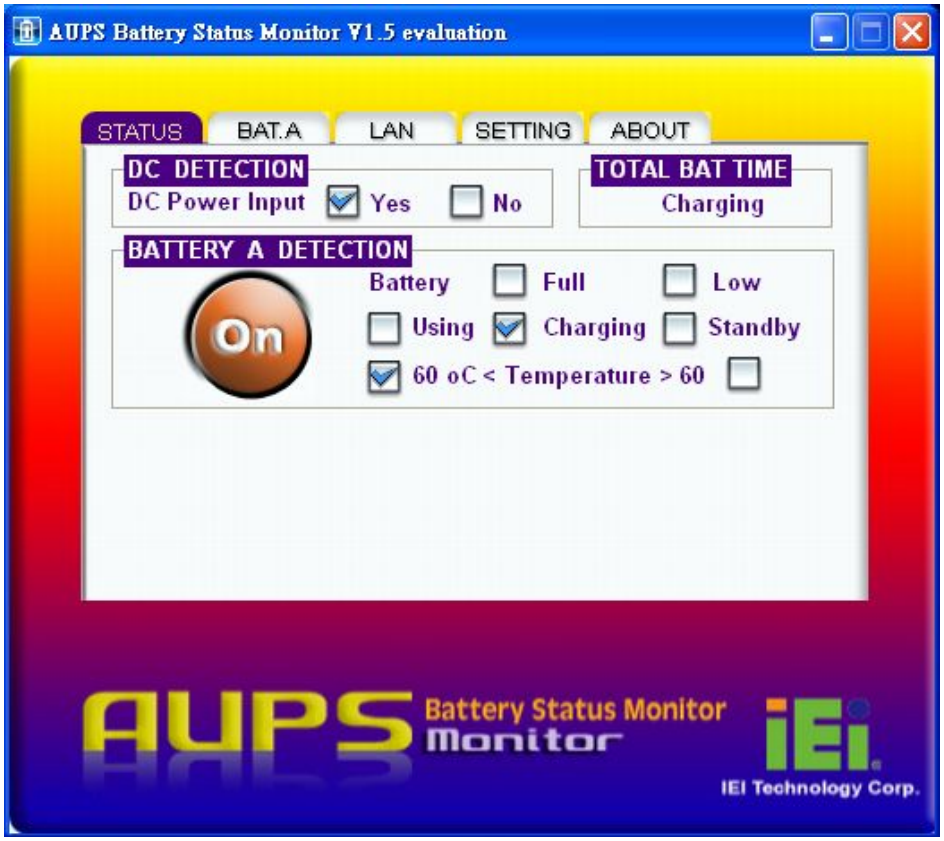


Figure 8-7: Status Information

8.2.2.1 DC Detection

When the DC power is connected to the AUPS series power module, the AUPS Battery Status Monitor detects it and shows in the screen as **Figure 8-8**.

Figure 8-8: DC Detection

8.2.2.2 Battery Detection

When the smart battery is connected to the AUPS series power module, the AUPS Battery Status Monitor detects it and shows in the screen as **Figure 8-9**. Two batteries can be connected to the AUPS series power module at the same time. The second battery information is shown in the **Battery A Detection** section if connected.

Figure 8-9: Battery Detection

	The battery is connected to the AUPS series.
Off	The battery is not connected to the AUPS series.
	
Full	The battery is fully charged.
Low	The battery is low.
	
Using	The battery is being used.
Charging	The battery is being charged.
Standby	The battery is fully charged and ready to be used anytime.
	
>60 C	The battery temperature is above 60°C.
<60 C	The battery temperature is below 60°C.

8.2.2.3 Total Battery Time

The total battery time is shown in the top right corner (**Figure 8-10**) of the status screen to indicate the total battery remaining time.

Figure 8-10: Total Battery Time

8.2.3 Battery Information

Click on the **BAT. A** tab to view the information of battery. The listed information includes battery type, capacity, output voltage, temperature, charging rate, discharging rate and battery status (**Figure 8-11**). The values listed are updated per second.

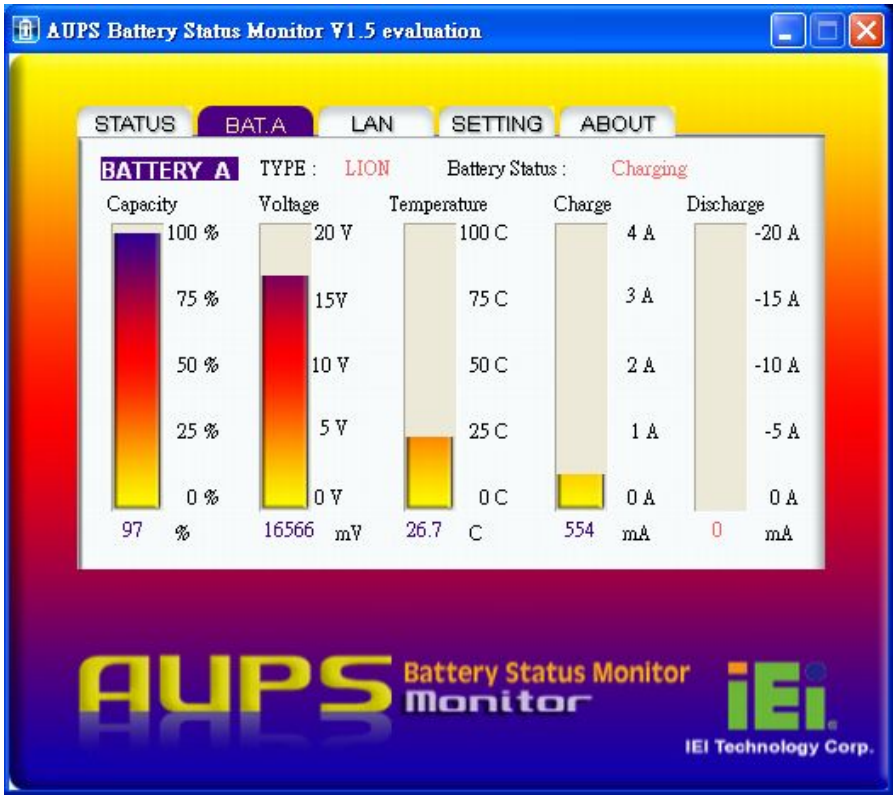


Figure 8-11: Battery Information

8.2.4 LAN Setting

The LAN Setting page is where to configure the Remote LAN settings for power on/off remote control and battery monitoring. To save the modified parameters of this page, click the Save Config button. To load the default settings, click Load Default button.

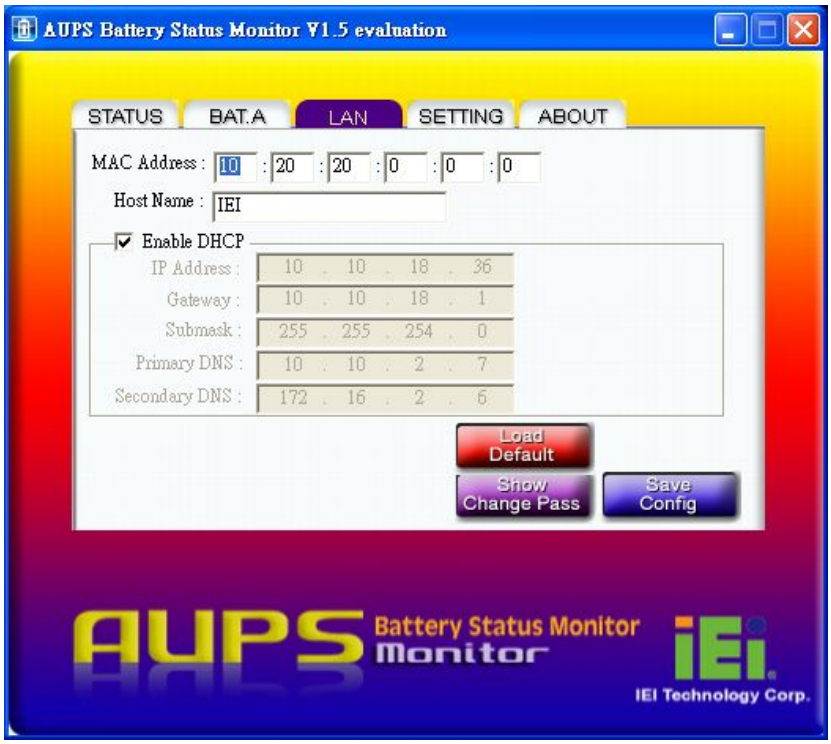


Figure 8-12: LAN Setting

The LAN Setting page can also setup the user name and password for remote monitoring. To change the user name and password, click Hide Change Pass button. Enter the new user name and password (**Figure 8-13**). Click Save Config button to save the settings. The default user name and password for the LAN setting page are:

- User name: admin
- Password: IEI

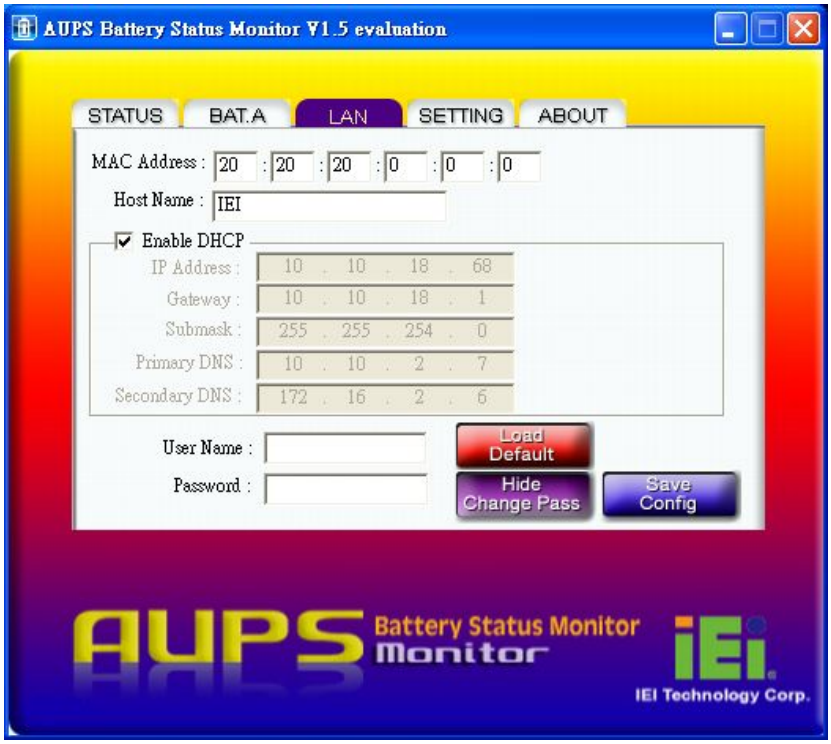


Figure 8-13: LAN Setting – Change Password

8.2.5 Setting

Click on the SETTING tab to select the COM port, enable/disable buzzer, LAN and DC output (**Figure 8-14**).

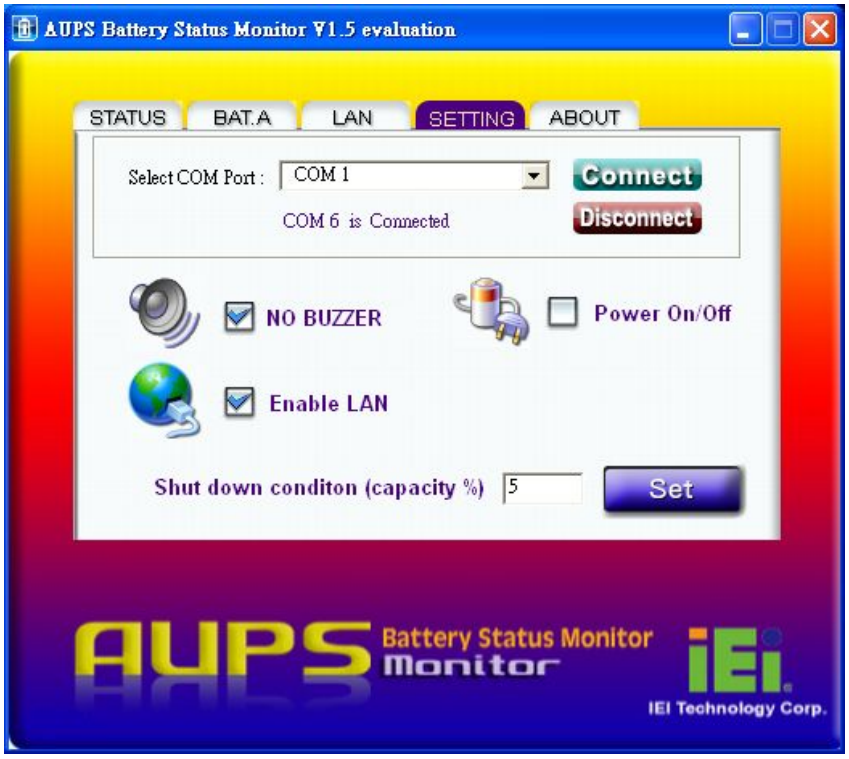
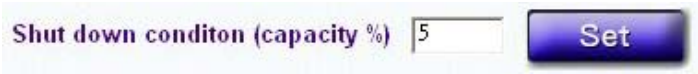


Figure 8-14: Application Setting

When the AUPS Battery Status Monitor application starts up, it automatically scans all COM port (COM1~COM16) and shows the valid COM port. **Figure 8-15** shows the AUPS application is communicating with POC-3174B-A330 through COM 6. To change the serial port to communicate, select a proper port number from the list and click Connect. Before changing, please make sure the selected serial port is not used by other devices.

Figure 8-15: COM Port Status

Other functions can be set in the SETTING tab include

	**Check to disable the buzzer that warns when the system is switching to use battery power.**
	**Check to enable the LAN for remote monitoring function.**
	**Check to enable the remote computer to turn the system power on or off. (This function is not available at this stage)**
	
Set the battery capacity parameter for the system to shut down automatically. In this case, the system will shut down automatically when the battery capacity is below 5%.	

8.3 Remote Control and Monitoring

The POC-3174B-A330 can be controlled (power on/off) and monitored the battery status through a remote computer located in the same subnet with the POC-3174B-A330. To control and monitor the POC-3174B-A330 remotely, follow the steps below.

Step 1: Connect the RJ-45 remote LAN connector on the bottom panel of the POC-3174B-A330 (**Figure 8-16**) to a local area network connector.

Figure 8-16: RJ-45 Remote LAN Connector

Step 2: In a remote computer, install the IEI REMOTE AP. Double click the setup.exe file in the **x:\Other\AUPS REMOTE AP** directory. Follow the steps to install the IEI REMOTE AP. After installation, launch the AP. If there is a problem to launch the tool, execute the dotnetfxRedist20.exe first (located in the same directory of the driver CD).

Step 3: The IEI REMOTE AP tool appears (**Figure 8-17**). All the POC-3174B-A330 panel PCs in the same subnet with this remote computer are shown in the list on the right. Click the function buttons on the left to control the POC-3174B-A330.

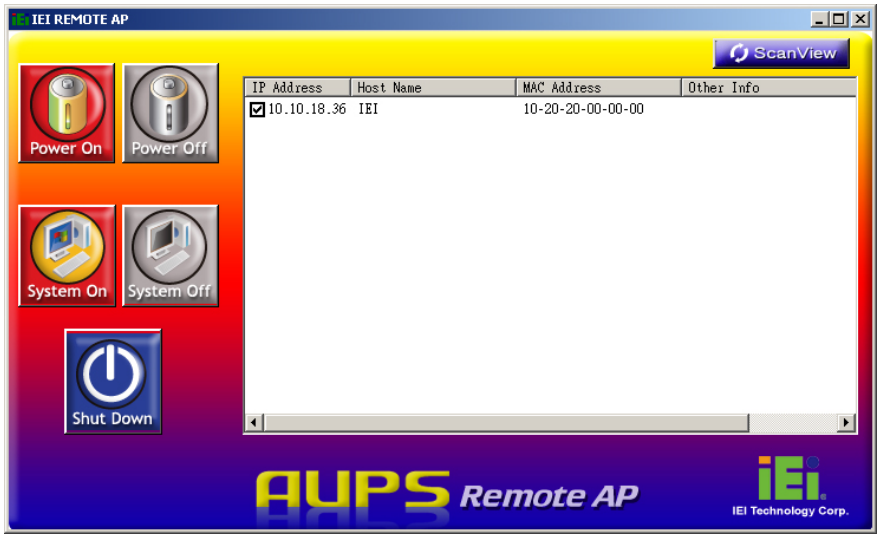


Figure 8-17: IEI REMOTE AP

Step 4: To access the web interface for advanced monitoring and functions, double click the IP address of the connected POC-3174B-A330 (**Figure 8-18**).

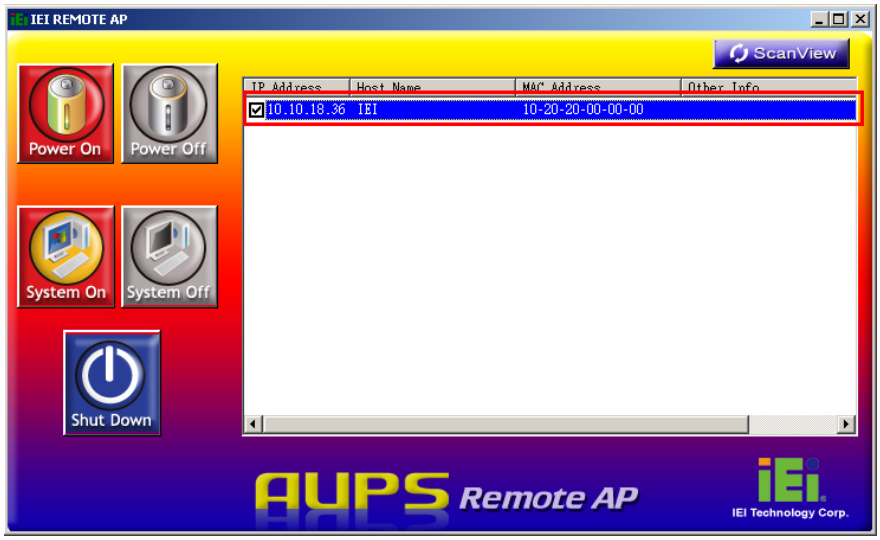


Figure 8-18: IEI REMOTE AP – IP Address

Step 5: **Figure 8-19** shows in a web browser.

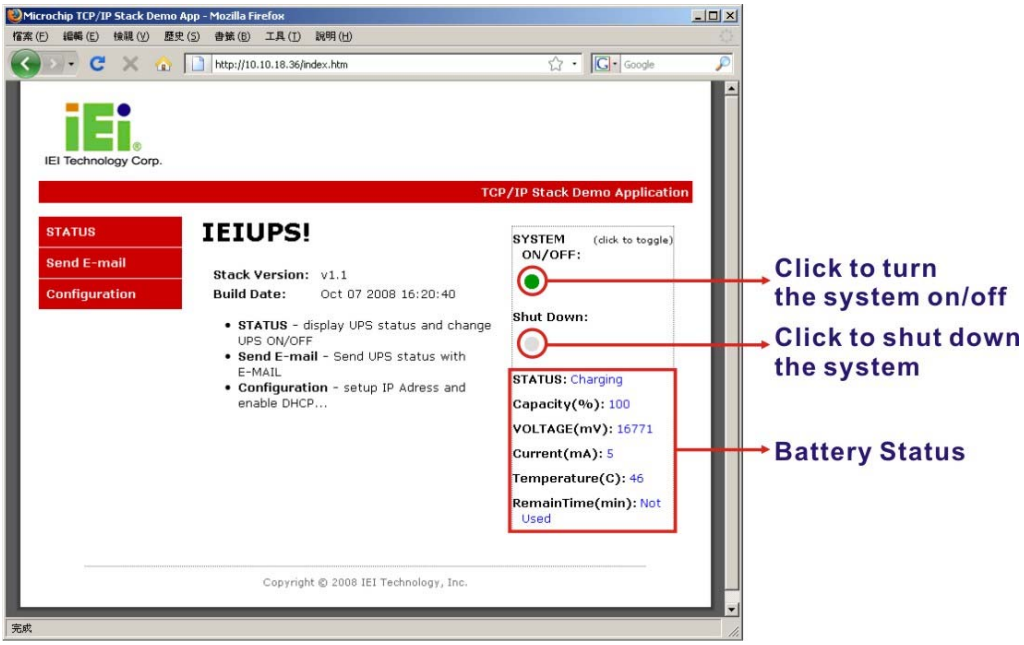


Figure 8-19: Remote Management Web Interface - Status

Step 6: To send an email to an administrator through the SMTP server, click Send E-mail button on the left. Fill out the information as indicated in **Figure 8-20.** Click the **Send Message** button to send the email.

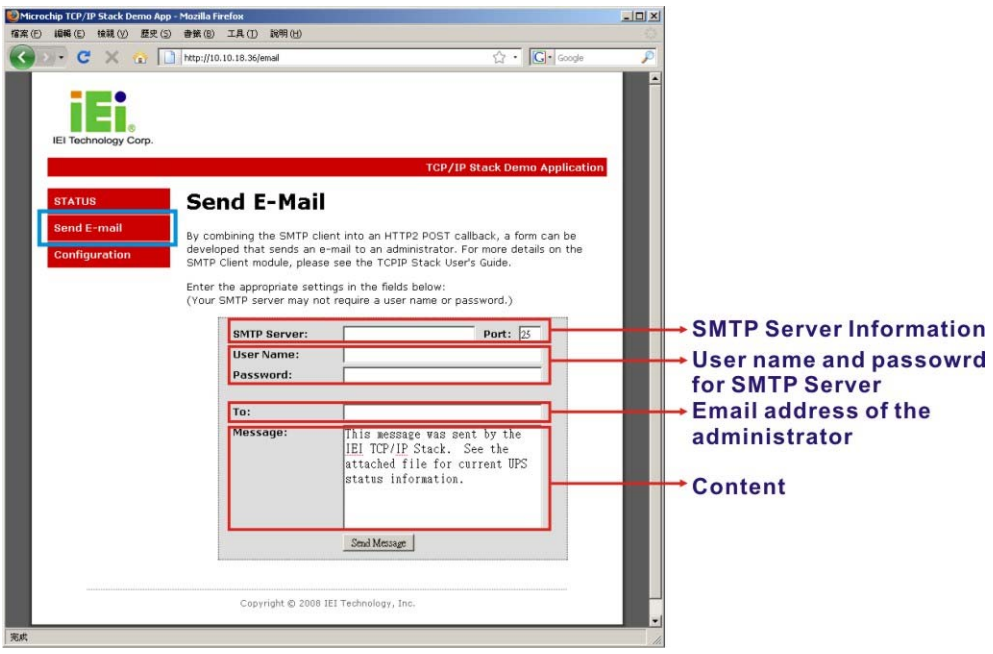


Figure 8-20: Remote Management Web Interface - Send Email

Step 7: To configure the POC-3174B-A330 network setting, click the **Configuration** button on the left.

Step 8: A window prompts for the user name and password. The default user name and password for the LAN setting page are:

- User name: admin
- Password: IEI

If the user name and password has been change as described in **Section 8.2.4**, enter the new user name and password.

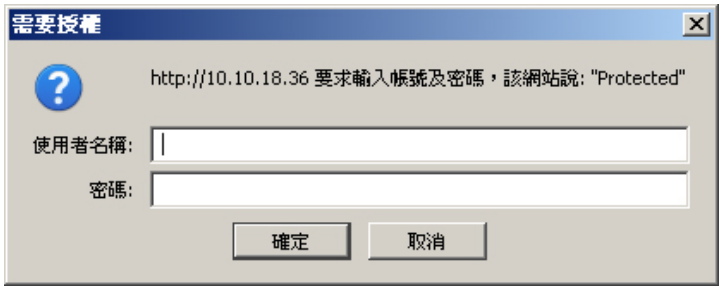


Figure 8-21: Enter User Name and Password

Step 9: The Board Configuration window appears. Configure the network settings and click the **Save Config** button. Incorrect settings may cause the board to lose network connectivity. Recovery options are provided on the next page.

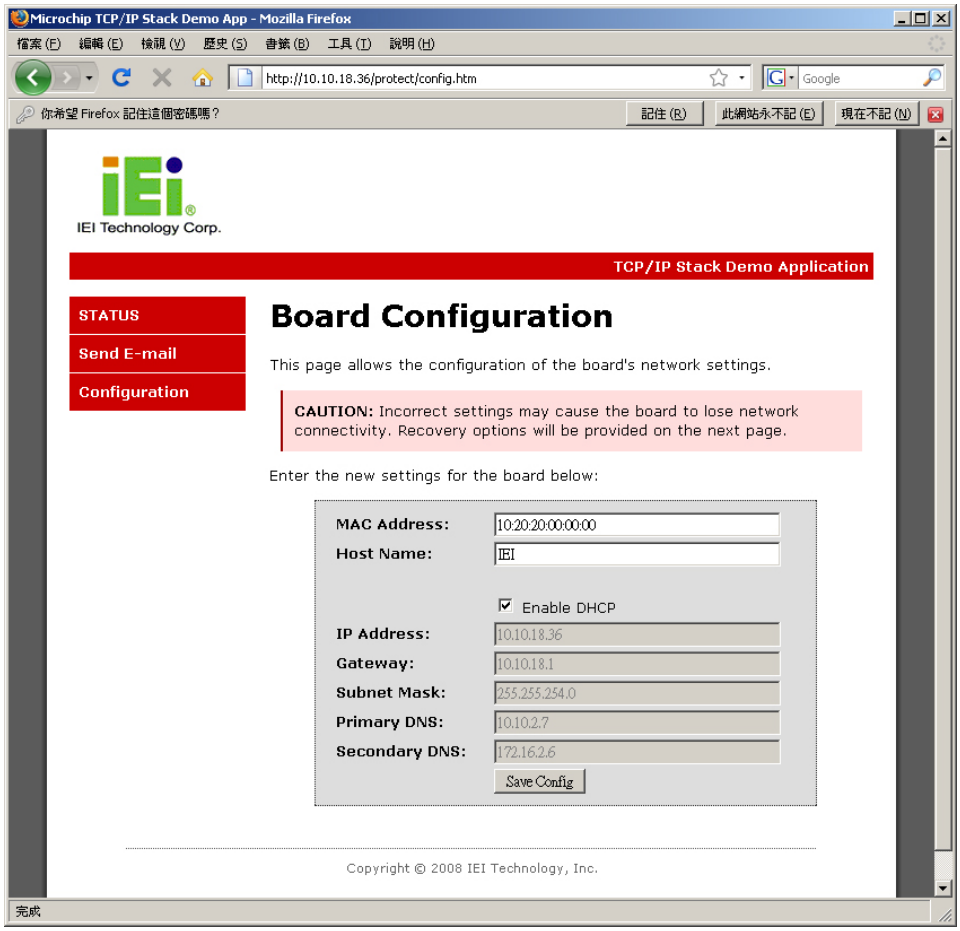


Figure 8-22: Board Configuration

Appendix

A

System Specifications

A.1 Motherboard Specifications

The POC-3174B-A330 comes with an A330 motherboard pre-installed. The technical specifications of the motherboard are listed in **Table 8-1**.

Specification	A330
CPU	2.0 GHz Intel® Pentium® M processor 760
System Chipset	Intel® 915GME + ICH6
BIOS	AMI BIOS Label
System Memory	2 x DDR2 SO-DIMM 400/533 MHz (system max. 2 GB)
Ethernet	Mini PCIe (Wireless LAN Module)
External I/O	2 x RS-232 COM Ports 2 x USB 2.0 2 x Gigabit LAN 1 x Keyboard 1 x Mouse 1 x VGA 2 x Audio jacks 1 x DVI
Super I/O	ITE IT8718
Digital I/O	4 DI / 4 DO from Super IO IT8718
Touch Screen Controller	DMC9000
Audio	Realtek ALC888 High Definition Audio codec
Display	CRT integrated in 915GME -- D-Sub connector Support panel resolution up to QXGA Supports 24-bit LVDS output
Power	+12 V power adapter

Table 8-1: Motherboard Specifications

A.2 Flat Panel Screen Specifications

The POC-3174B-A330 comes with a TFT LCD monitor at the front of the flat panel PC. The specifications for the LCD monitor are shown in **Table 8-2** below.

SPECIFICATION	17 inch
Active Area (H x V) (mm)	337.9 x 270.3
Physical Size (W x H x D) (mm)	358.5 x 296.5 x 15.0
Resolution (Pixel)	1280 x 1024
Brightness	300 (cd/m^2)
Pixel Pitch (mm)	0.264
LCD Color	Native 16.7M Colors (RGB 6-bit driver)
Electrical Interface	Dual-channel LVDS
Contrast Ratio	800:1
Optical Response Time	5 msec
Viewing Angle (H / V) (degrees)	160 / 160
Backlight	4 CCFL
Nominal Input Voltage	5.0 V
Power Consumption	25.8 W

Table 8-2: TFT LCD Monitor Specifications

A.3 Touch Screen Specifications

The POC-3174B-A330 comes with an analog resistive type touch panel. **Table 8-3** lists the touch panel specifications.

SPECIFICATION	17 inch
Control Board	Chipset on the A330 motherboard (DMC9000)
Sensor Model	PANJIT 75200-1171505A-RS, 5-wire Analog Resistive Type Touch Panel.
Glass Dimensional Outline (W x L x T) (mm)	365.0 x 295.08 x 2.9

SPECIFICATION	17 inch
Viewing Area (W x H) (mm)	342.05 x 275.45
Active Area (W x H)	339.0 x 272.40
Total Transmission	78%.
Maximum Voltage	7V.
Connector Type	FPC.
Operating Temperature	-10~50 (℃).
Operating Humidity	20%~90 %RH.
Storage Temperature	-20~70 (℃).
Storage Humidity	20%~90 %RH.

Table 8-3: Touch Panel Specifications

A.4 Power Adapter

The POC-3174B-A330 comes with a MPU-100-105 100 W medical grade switching power adapter. The specifications of the power adapter are listed in **Table 8-4**.

INPUT	Voltage	90 ~ 264 V AC Full Range
	Frequency	47 ~ 63Hz
	Current	Low Line: 1.25 A (Max.) High Line: 0.5 A (Max.)
OUTPUT	Voltage (V)	12 V ~ 13 V DC
	Current (A)	8.33 A ~ 7.70 A
	Ripple and Noise	0.5 % (Full Load, Vin=90 V AC)
Protection	Over Voltage	112% (Min.), 132% (Max.)
	Over Current	110% (Min.), 150% (Max.)
GENERAL	Watt	100 W
	Hold-up time	16 ms minimum
	Efficiency	88% (Max.)
	MTBF	100,000 hrs at 25°C

	Temperature	0~70℃ (Operating) -40~85℃ (Storage)
	Humidity	5~95%
	Dimension	89.5 mm (W) x 45.5 mm (H) x 188.9 mm (D)

Table 8-4: Power Supply Specifications

A.5 Battery Specifications

The POC-3174B-A330 series come with a Lithium-ion battery. Some of the Lithium-ion battery specifications are listed in **Table 8-5**.

Model Name	BAT-LI-4S2P3800
Battery Type	Li-ion 4S2P 14.8V
Battery Capacity	14.8 V, 3800 mAH
Maximum Charge Voltage	16.8 V
The End of Discharging Voltage	11.2 V
Suggestive Charging Current (Max.)	2 A
System Continuous Discharging Current (Max)	7.6 A
The End of Charge Condition	200 mA/1Min
Discharge Protection	UVP/OCP
Charge Protection	OVP/OCP
Ambient Temp.	0℃~40℃
Storage Tem.	-20℃~60℃
Self-discharge Rate	340 mA~440 uA
Dimensions	164.99 mm (D) X 75.99 mm (W) X 25.4 mm (H)
Weight	446 g
Life cycles	300 times charge/discharge
Safety class	CE, UL, TUV

Table 8-5: BAT-LI-4S2P3800 Specifications

A.6 Wireless LAN Module

The IEEE 802.11a/b/g/n compliant Intel® wireless Wi-Fi Link 4965AGN module is pre-installed in the system and provides wireless connectivity at up to 300 Mbps. The wireless module is interfaced to the system chipset through the PCIe Mini slot.

Figure 8-23: Wireless LAN Module

Some of the features of the wireless module are listed below.

- Compliant with IEEE 802.11a, 802.11b, 802.11g and 802.11n standards
- MIMO, diversity and three-antenna support
- Advanced wireless security via 802.11i is supported by WPA2 AES
- Business-Class Wireless Suite v2 allows Access Points and clients to change settings based on network conditions.
- 40 MHz channels in the 5.0 GHz spectrum

Appendix

B

Safety Precautions

WARNING:

The precautions outlined in this chapter should be strictly followed. Failure to follow these precautions may result in permanent damage to the POC-3174B-A330.

B.1 Safety Precautions

Please follow the safety precautions outlined in the sections that follow:

B.1.1 General Safety Precautions

Please ensure the following safety precautions are adhered to at all times.

- ***Follow the electrostatic precautions*** outlined below whenever the POC-3174B-A330 is opened.
- ***Make sure the power is turned off and the power cord is disconnected*** whenever the POC-3174B-A330 is being installed, moved or modified.
- ***Do not apply voltage levels that exceed the specified voltage range***. Doing so may cause fire and/or an electrical shock.
- ***Electric shocks can occur*** if the POC-3174B-A330 chassis is opened when the POC-3174B-A330 is running.
- ***Do not drop or insert any objects*** into the ventilation openings of the POC-3174B-A330.
- ***If considerable amounts of dust, water, or fluids enter the POC-3174B-A330***, turn off the power supply immediately, unplug the power cord, and contact the POC-3174B-A330 vendor.
- Grounding reliability can only be achieved when the equipment is connected to an equivalent receptacle marked “Hospital Only” or “Hospital Grade”.
- The signal input parts or signal output parts (SIP/SOP) need to be connected properly and any unused SIP/SOP shall not be accessible to unqualified personnel after the LCD is integrated into a medical system.
- The unit is for exclusive interconnection with IEC 60XXX certified equipment

outside of patient environment and IEC 60601-1 certified equipment inside the patient environment.

- This device complies with EN60601-1-2. To minimize the interference from other equipment, a minimum 0.5 m distance shall be kept from other potential electromagnetic sources, such as cell phones, etc.
- Equipment connected to the analog or digital interfaces must comply with the respective IEC standards (e.g. IEC 60950 for data processing equipment and IEC 60601-1 for medical equipment).
- **DO NOT**:
  - Drop the POC-3174B-A330 against a hard surface.
  - Strike or exert excessive force onto the LCD panel.
  - Touch any of the LCD panels with a sharp object
  - In a site where the ambient temperature exceeds the rated temperature

B.1.2 Explanation of Graphical Symbols

This symbol warns the user that uninsulated voltage within the unit may have sufficient magnitude to cause electric shock. Therefore, it is dangerous to make any kind of contact with any part inside this unit.

This symbol alerts the user that important information concerning the operation and maintenance of this unit has been included. Therefore, the information should be read carefully in order to avoid any problems.

Stand-by

Direct Current

B.1.3 Classification

- Power by Class I power Adapter.
- No Applied Part.
- No protection against the ingress of water: IPX0
- Mode of operation: Continuous Operation
- The equipment not suitable for use in the presence of a flammable anesthetic mixture with air or with oxygen or nitrous oxide: Not AP or APG Category.

B.1.4 Anti-static Precautions

WARNING:

Failure to take ESD precautions during the installation of the POC-3174B-A330 may result in permanent damage to the POC-3174B-A330 and severe injury to the user.

Electrostatic discharge (ESD) can cause serious damage to electronic components, including the POC-3174B-A330. Dry climates are especially susceptible to ESD. It is therefore critical that whenever the POC-3174B-A330 is opened and any of the electrical components are handled, the following anti-static precautions are strictly adhered to.

- ***Wear an anti-static wristband***: Wearing a simple anti-static wristband can help to prevent ESD from damaging any electrical component.
- ***Self-grounding***: Before handling any electrical component, touch any grounded conducting material. During the time the electrical component is handled, frequently touch any conducting materials that are connected to the ground.
- ***Use an anti-static pad***: When configuring or working with an electrical component, place it on an antic-static pad. This reduces the possibility of ESD damage.
- ***Only handle the edges of the electrical component***: When handling the electrical component, hold the electrical component by its edges.

B.1.5 Product Disposal

- Outside the European Union - If you wish to dispose of used electrical and electronic products outside the European Union, please contact your local authority so as to comply with the correct disposal method.
- Within the European Union:

EU-wide legislation, as implemented in each Member State, requires that waste electrical and electronic products carrying the mark (left) must be disposed of separately from normal household waste. This includes monitors and electrical accessories, such as signal cables or power cords. When you need to dispose of your display products, please follow the guidance of your local authority, or ask the shop where you purchased the product. The mark on electrical and electronic products only applies to the current European Union Member States.

Please follow the national guidelines for electrical and electronic product disposal.

B.2 Maintenance and Cleaning Precautions

When maintaining or cleaning the POC-3174B-A330, please follow the guidelines below.

B.2.1 Maintenance and Cleaning

Prior to cleaning any part or component of the POC-3174B-A330, please read the details below.

- During normal use of the POC-3174B-A330 may become soiled and should, therefore, be cleaned regularly every month.
- Except for the LCD panel, never spray or squirt liquids directly onto any other components. To clean the LCD panel, gently wipe it with a piece of soft dry cloth or a slightly moistened cloth.
- The interior of the POC-3174B-A330 does not require cleaning. Keep fluids away from the POC-3174B-A330 interior.
- Be cautious of all small removable components when vacuuming the POC-3174B-A330.
- Turn the POC-3174B-A330 off before cleaning the POC-3174B-A330.
- Never drop any objects or liquids through the openings of the POC-3174B-A330.
- Avoid eating, drinking and smoking within vicinity of the POC-3174B-A330.

B.2.2 Cleaning Tools

Some components in the POC-3174B-A330 may only be cleaned using a product specifically designed for the purpose. In such case, the product will be explicitly mentioned in the cleaning tips. Below is a list of items to use when cleaning the POC-3174B-A330.

- ***Cloth*** – Although paper towels or tissues can be used, a soft, clean piece of cloth is recommended when cleaning the POC-3174B-A330.
- ***Vacuum cleaner*** – Using a vacuum specifically designed for computers is one of the best methods of cleaning the POC-3174B-A330. Dust and dirt can restrict the airflow in the POC-3174B-A330 and cause its circuitry to corrode.

Appendix

C

BIOS Configuration Options

C.1 BIOS Configuration Options

Below is a list of BIOS configuration options described in **Chapter 6**.

Appendix

D

Watchdog Timer

NOTE:

The following discussion applies to DOS environment. IEI support is contacted or the IEI website visited for specific drivers for more sophisticated operating systems, e.g., Windows and Linux.

The Watchdog Timer is provided to ensure that standalone systems can always recover from catastrophic conditions that cause the CPU to crash. This condition may have occurred by external EMI or a software bug. When the CPU stops working correctly, Watchdog Timer either performs a hardware reset (cold boot) or a Non-Maskable Interrupt (NMI) to bring the system back to a known state.

A BIOS function call (INT 15H) is used to control the Watchdog Timer:

INT 15H:

AH – 6FH Sub-function:	
AL – 2:	Sets the Watchdog Timer's period.
BL:	Time-out value (Its unit-second is dependent on the item "Watchdog Timer unit select" in CMOS setup).

Table D-1: AH-6FH Sub-function

Call sub-function 2 to set the time-out period of Watchdog Timer first. If the time-out value is not zero, the Watchdog Timer starts counting down. While the timer value reaches zero, the system resets. To ensure that this reset condition does not occur, calling sub-function 2 must periodically refresh the Watchdog Timer. However, the Watchdog timer is disabled if the time-out value is set to zero.

A tolerance of at least 10% must be maintained to avoid unknown routines within the operating system (DOS), such as disk I/O that can be very time-consuming.

NOTE:

When exiting a program it is necessary to disable the Watchdog Timer, otherwise the system resets.

Example program:

```
; INITIAL TIMER PERIOD COUNTER
;
W_LOOP:

        MOV     AX, 6F02H       ;setting the time-out value
        MOV     BX, 05          ;time-out value is 5 seconds
        INT      15H
 ;
; ADD THE APPLICATION PROGRAM HERE
;
        CMP      EXIT_AP, 1     ;is the application over?
        JNE      W_LOOP         ;No, restart the application

        MOV     AX, 6F02H       ;disable Watchdog Timer
        MOV     BX, 0           ;
        INT      15H
;
; EXIT ;
```

Appendix

E

Hazardous Materials Disclosure

E.1 Hazardous Material Disclosure Table for IPB Products Certified as RoHS Compliant Under 2002/95/EC Without Mercury

The details provided in this appendix are to ensure that the product is compliant with the Peoples Republic of China (China) RoHS standards. The table below acknowledges the presences of small quantities of certain materials in the product, and is applicable to China RoHS only.

A label will be placed on each product to indicate the estimated “Environmentally Friendly Use Period” (EFUP). This is an estimate of the number of years that these substances would “not leak out or undergo abrupt change.” This product may contain replaceable sub-assemblies/components which have a shorter EFUP such as batteries and lamps. These components will be separately marked.

Please refer to the table on the next page.

Part Name	Toxic or Hazardous Substances and Elements					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (CR(VI))	Polybrominated Biphenyls (PBB)	Polybrominated Diphenyl Ethers (PBDE)
Housing	x	O	O	O	O	x
Display	X	O	O	O	O	X
Printed Circuit Board	X	O	O	O	O	X
Metal Fasteners	X	O	O	O	O	O
Cable Assembly	X	O	O	O	O	X
Fan Assembly	X	O	O	O	O	X
Power Supply Assemblies	X	O	O	O	O	X
Battery	O	O	O	O	O	O

O: This toxic or hazardous substance is contained in all of the homogeneous materials for the part is below the limit requirement in SJ/T11363-2006

X: This toxic or hazardous substance is contained in at least one of the homogeneous materials for this part is above the limit requirement in SJ/T11363-2006

此附件旨在确保本产品符合中国 RoHS 标准。以下表格标示此产品中某有毒物质的含量符合中国 RoHS 标准规定的限量要求。

本产品上会附有"环境友好使用期限"的标签，此期限是估算这些物质"不会有泄漏或突变"的年限。本产品可能包含有较短的环境友好使用期限的可替换元件，像是电池或灯管，这些元件将会单独标示出来。

部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (CR(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
壳体	X	O	O	O	O	X
显示	X	O	O	O	O	X
印刷电路板	X	O	O	O	O	X
金属螺帽	X	O	O	O	O	O
电缆组装	X	O	O	O	O	X
风扇组装	X	O	O	O	O	X
电力供应组装	X	O	O	O	O	X
电池	O	O	O	O	O	O

O: 表示该有毒有害物质在该部件所有物质材料中的含量均在 SJ/T11363-2006 标准规定的限量要求以下。

X: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 SJ/T11363-2006 标准规定的限量要求。

Appendix

F

International Standards Compliance

F.1 UL 60601-1 AND CAN/CSA C22.2 NO. 601.1

MEDICAL EQUIPMENT
WITH RESPECT TO ELECTRIC SHOCK,
FIRE AND MECHANICAL HAZARDS ONLY
IN ACCORDANCE WITH UL 60601-1,
IEC/EN 60601-1, CAN/CSA C22.2 No. 601.1

Authentication sign of Standard Inspection Bureau for U.S.A. Complies with UL 60601-1 AND CAN/CSA C22.2 NO. 601.1.

F.2 EN 60601-1

EN60601-1

TUV Rheinland Product Safety safety mark for compliance with EN 60601-1.

F.3 EN 60601-1, EN 60601-2

The LCD monitor complies with the EN 60601-1 and EN 60601-2 of related European standards.

F.4 FCC

We hereby declare that the equipment specified above conforms to the technical standards as specified in the FCC Rules.

F.5 Standard Inspection Bureau for China

Authentication sign of the Standard Inspection Bureau for China.

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