XtendLan

RPPC15-C1G

User manual

Trademarks

Product names used herein are for identification purposes only and may be the trademarks of their respective companies.
Microsoft, Windows XP, Windows Vista, Windows 7, and Windows Sound System are trademarks of Microsoft Corporation.

Intel ®, Intel ® Atom™, Intel ® HD Audio (Azalia) are registered trademark of Intel Corporation.

Sound Blaster, Sound Blaster Pro are trademarks of Creative Technology.

All other brands or product names mentioned in this manual are trademarks or registered trademarks of their respective companies.

Important notices

FCC Compliance Statement

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

FCC Declaration of Conformity

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications (including the antennas) made to this device that are not expressly approved by the manufacturer may void the user's authority to operate the equipment.

FCC RF Radiated Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This device and its antenna must not be co-located or operating conjunction with any other antenna or transmitter. This equipment should be installed and

operated with a minimum distance of 20 centimeters between the radiator and your body.

Regulatory information/Disclaimers

Installation and use of this Wireless LAN device must be in strict accordance with the instructions included in the user documentation provided with the product. Any changes or modifications (including the antennas) made to this device that are not expressly approved by the manufacturer may void the user's authority to operate the equipment. The manufacturer is not responsible for any radio or television interference caused by unauthorized modification of this device, or the substitution of the connecting cables and equipment other than manufacturer specified. It is the responsibility of the user to correct any interference caused by such unauthorized modification, substitution or attachment. Manufacturer and its authorized resellers or distributors will assume no liability for any damage or violation of government regulations arising from failing to comply with these guidelines.

European Notice

For the following equipment: Industrial PC

CE ⊕

Is herewith confirmed to comply with the requirements set out in the Council Directive on the Approximation of the Laws of the Member States relating to Electromagnetic Compatibility Directive (2004/108/EC), Low voltage Directive (2006/95/EC) and the Amendment Directive (93/68/EEC), the procedures given in European Council Directive (1999/5/EC) and (2004/108/EC).

This device complies with the essential requirements of the

R&TTE Directive 1999/5/EC. The test was performed according to

the following European standards:

EN55022: 2006 + A1: 2007

EN61000-3-2: 2006

EN61000-3-3: 1995 + A1: 2001 + A2: 2005

EN55024: 1998 + A1: 2001 + A2: 2003

IEC61000-4-2: 1995 + A1: 1998 + A2: 2000;

IEC61000-4-3: 2006; IEC61000-4-4: 2004;

IEC61000-4-5: 2005; IEC 61000-4-6: 2003 + A1: 2004 + A2:2006;

IEC61000-4-8: 1993 + A1: 2000; IEC6100-4-11: 2004

EN 301 489-1 V1.8.1:2008; EN 301 489-17 V1.3.2: 2007

EN 300 328 V1.7.1 (2006-10)

EN 60950-1: 2001

General Guideline

1. Read all of these instructions.

2. Save these instructions for future use.

3. Follow all warnings and instructions marked in the system.

4. Except as explained elsewhere in this user Guide, do not attempt to service the computer yourself. Opening or removing covers that are marked "Do Not Remove" could expose you to dangerous voltage points or other risks. Refer all servicing of marked components to qualified personnel.

Installation Restrictions

1. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

2. If an extension cord is used with this product, make sure that the total ampere rating of the equipment plugged into the extension cord does not exceed the extension cord ampere rating.

3. Refer your system for servicing to qualified service personal under the following conditions:

    <   When the power cord or plug is damaged or frayed.

< If the product does not operate normally when the operating instructions are followed. Adjust only those controls that are covered by the operating instructions, since improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal condition.

< If the product has been dropped or the cabinet has been damaged.

Safety instructions

1. Please read these safety instructions carefully.

2. Please keep this User Manual for later reference.

3. Please disconnect this equipment from connecter before cleaning. Don't use liquid or prayed detergent for cleaning. User moisture sheet or cloth for cleaning.

4. Make sure the equipment is connected to the power source with the correct voltage, frequency, and ampere.

5. All cautions and warnings on the equipment should be noted.

6. Never pour any liquid into opening: this could cause fire or electrical shock.

7. Never open the equipment. For safety reason, the equipment should only be opened by qualified service personnel.

8. If one of the following situations arises, get the equipment checked by a service personnel:

   a、 Liquid has penetrated into the equipment.

   b、 The equipment has been exposed to moisture.

c、   The equipment has not worked well or you cannot get it work according to user manual.

d、   The equipment has dropped and damaged. e

、   If the equipment has obvious sign of breakage.

The computer has been tested for conformance to international safety regulations. Like any electronic device, however, the computer should be used with care. To protect yourself from possible injury and to minimize the risk of damage to the computer, read and follow all the safety instructions mentioned in this manual.

WARNING: Do not operate the computer with the cover removed.

General Requirements

The requirements listed below are applicable to all countries:

< All power cord sets must be approved by an acceptable accredited agency responsible for evaluation in the country where the power cord set will be used.

< The appliance coupler must meet the mechanical configuration of an EN 60320. / IEC 320 Standard Sheet C13 connector, for mating the appliance inlet on the computer.

Power Cord Set Requirements

< The power cord set (appliance coupler, flexible cord) you received with the computer meets the requirements for use in the country where you purchased the equipment.

<　Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from apparatus.

IMPORTANT：Loss of BIOS settings occurs when the battery is removed. BIOS settings must be reconfigured whenever the battery is replaced.

WARNING：A risk of fire and chemical burn exists if the battery is not handled properly. Do not disassemble, crush, puncture, or short external contacts, or expose the battery to temperatures higher than 60 °C (140 °F). Do not dispose of a used battery in water or fire.

CAUTION：Danger of explosion if battery is incorrectly replaced. Replace only with same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

Table of Contents

Chapter 1

General Information

1.1. *Introduction*

is an Intel® Celeron M 1.0G /512K or Intel® Atom N450 processor based Panel PC with a bright 15" LCD display. The powerful Celeron M CPU with Intel® 915GME/910GMLE + ICH6M chipsets or Atom N450 CPU with ICH8M chipsets bring the most dynamic applications to life without sacrifices to any industrial reliability.

Delivering a variety of connectivity features, built-in USB, Audio, RJ45 port, VGA port, Mini PCI-E socket, and robust capacity of 2.5" SATA HDD, it is ideal for an all-around system performance.

Furthermore, is equipped with fanless and no-ventilation-hole design, featured with dustproof, waterproof, rugged aluminum enclosure and anti-collision function, the durable is suitable for any critical environment.

1.2. *Features*

The is a flexible, multi-functional flat panel PC. With following specifications that can be applied in diverse operational environments and implemented in various applications.

- Rugged Aluminum Enclosure and Fanless Design
- No ventilation Hole
- Five Sides IP65 Dustproof and Waterproof
- Wide Temperature Operating Capability
- Indoor / Semi-outdoor Environment
- Stand/Cabinet/VESA (Optional)
- Anti-vibration (MIL-STD-810G)、
  Anti-shock (MIL-STD-810G IEC 60068-2-27) System Design
- Removable / Anti-vibration HDD Design
- Board Wide Range DC to DC Power
- Design Support 12V~24V Input

1.3. *Specification*

The is a flexible, multi-functional flat panel PC. With following specifications that can be applied in diverse operational environments and implemented in multi-faceted applications.

1.3.1. Technical Specification

- CPU: Embedded Intel® Celeron-M Processor 1.0GHz/512K+

  Chipset: Intel® 915GME/910GMLE (GMCH Integrated GMA 900

  Graphics device) + ICH6M , Memory: 1 x 200pin SO-DIMM DDR2

  400/533 MHz supports up to 2 GB or

  Intel® Atom N450 Processor+ Intel® ICH8M , Memory: 1 x 200pin

  SO-DIMM DDR2 400/533/667 MHz supports up to 2 GB

- BIOS: Award 4Mbits Flash BIOS

- Storage: 1 x Internal 2.5" SATA HDD interface
  SSD, DOM, CF, Wide temperature HDD (Optional items)

- Watchdog Timer: Reset; 1 sec.~255 min. and 1 sec. or 1 min./step

- H/W Status Monitor: Monitoring system temperature, voltage, and cooling fan status.

1.3.2. DISPLAY

- Display Type: 15" Color TFT LCD or LED

- Support Dual Display

- Max Resolution: 1024 x 768 pixels

- Brightness: 300 cd/m^2

- Touch Screen Type: Five-wire Analog Resistive

- Max Colors: 16,194,277 color

- Viewing Angle: 70° (left), 70° (right), 65° (up), 75° (down)

- Lamp Life Time: 50,000 hours

1.3.3. Touch Screen

- Touch Screen type: 5-wire Analog resistive type

- Light Transmission: 80%
- Durability (Touch lifetime): 35 million

1.3.4. I/O Interface

- Serial Port: 2 x Serial port (COM1:RS-232, COM2:RS-232/422/485 select by jumper)
- USB Port: 3 x USB 2.0 ports
- eSATA: 1 x eSATA port
- Lan Port: 1 x RJ45 Connector for 10/100 Base T Ethernet (1 Giga option)
- CF card socket: 1 (internal)
- Audio Interface: 1 (AC97 codec with Amplifier)
- Front LED: PWR / HDD
- MPCIE: 1 Port
- VGA: 1 x DSUB15 Female Connector, support up to 1600 x 1200
- Switch: Power button

1.3.5. Bus Expansion

Mini PCI-E: Mini-PCIE socket.

1.3.6. Power

- Power Input Voltage: Support wide range DC 12V~24V input voltage
- Power Adapter: AC to DC 100-240VAC, DC19V / 3.42A, 65W
- Power consumption: 40W MAX
- Power management: APM / ACPI 2.0

- Power Button: 1 x Power Button
- LED: Power / HDD LEDs

1.3.7. Environment

- Dimensions: 372 x 292 x 60.6 mm
- Temperature: Operating: -10°C ~ 60°C for SSD, DOM, CF, Wide temperature HDD; Operating: 0°C ~ 45°C for Normal HDD / Storage: -20°C ~ 70°C HDD/LCD wide temperature
- Humidity: 5% ~ 95% RH, (IEC 60028-2-3 Test Ca : Damp Heat Steady Test (Non-Operating))
- EMI/EMS: Meet the CE and FCC class B and VCCI regulation.
- Other function: Support USB device boot up (FDD,HDD,CD-ROM)
- IP: IP65 waterproof and dustproof (IEC 60529)
- RoHS: RoHS Compliant
- Vibration (MIL-STD-810G Method 514.6 Procedure I, Category 20, Fig 514.6C-1 (Operating).
- Shock (MIL-STD-810G Method 516.6)

1.3.8. Material

- Front chassis material: Aluminum Front Bezel
- Rear chassis material : Aluminum Enclosure
- Overlay material: PE Film

1.3.9. Software

Software Support: Microsoft Windows XP Professional for Embedded, XP Embedded.

1.3.10. Certifications

- EMI/EMS: Meet the CE and FCC class B and VCCI regulation
- RoHS: RoHS compliant

1.4. *Panel Mounting Instruction*

1.4.1. Physical Dimensions

Your panel PC is equipped with fanless and no-ventilation-hole design and is durable to suit any critical environment. The following drawing shows you detailed information for the dimensions.

Dimensions (units in mm)
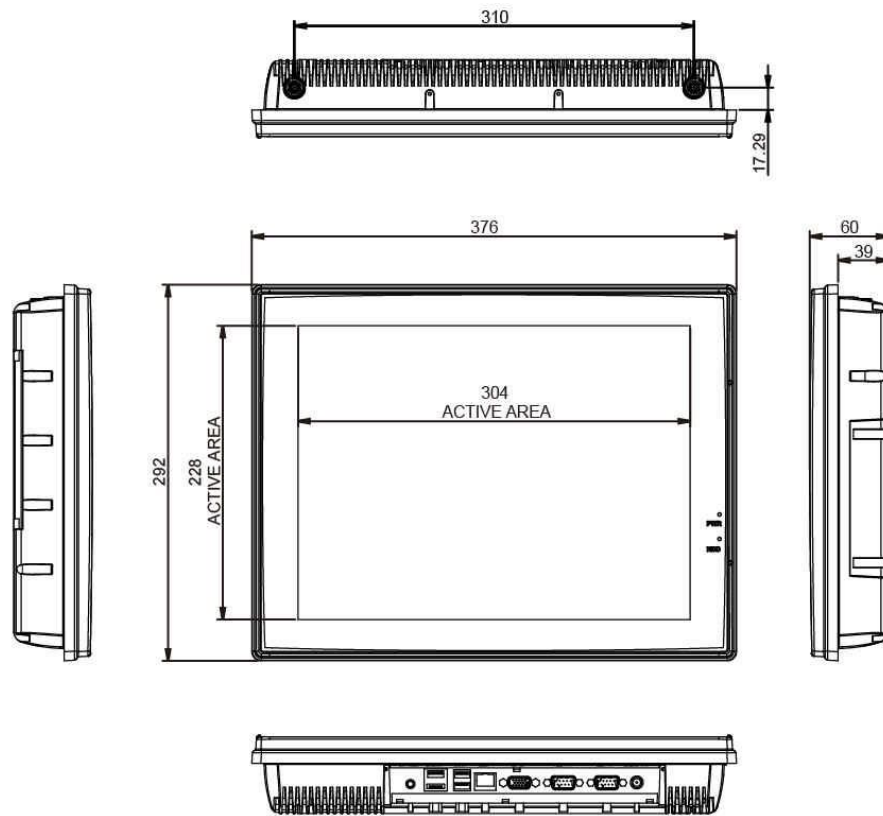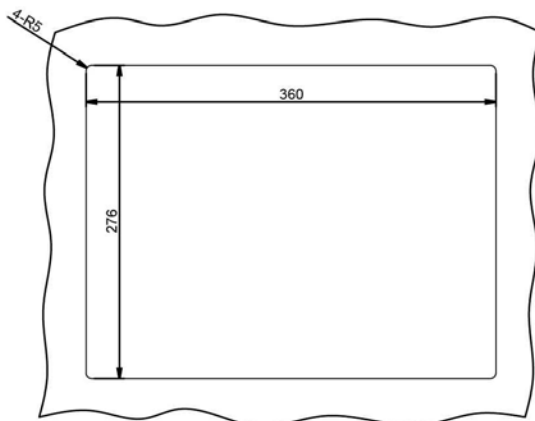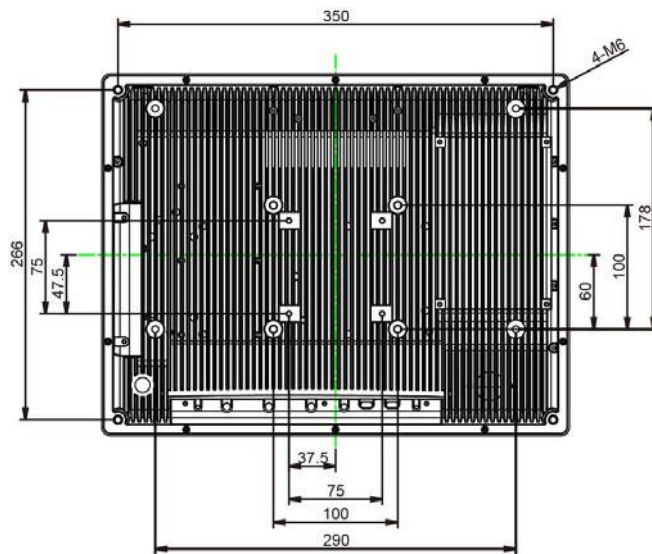
Cabinet Dimension 360mm X 276mm

1.4.2. Assembling the panel PC

The procedure for assembling the panel PC is identified by following drawing. Please follow the instruction below for panel mounting.
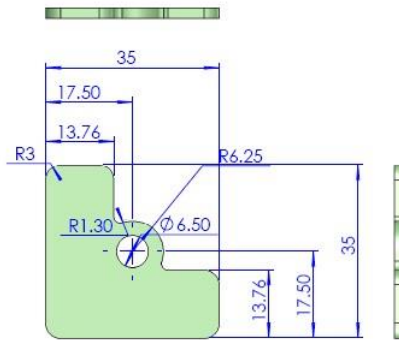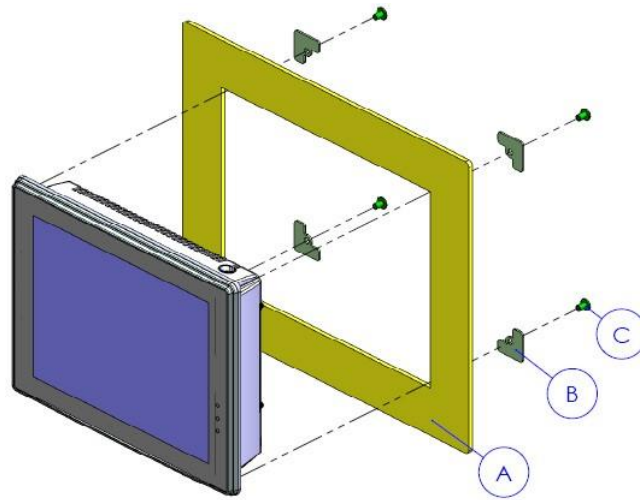
1.4.3. Enclosed Parts

ITEM	A	B	C
PARTS			
QTY	1	4	4
SPEC	370x286X5(mm)		M6*1.0+15 PF-SUS

1.5. *Stand Installing Instruction*

1.5.1. Physical Dimensions

Your panel PC is equipped with stand to fit your flexibility and necessity and let you execute your system comfortably. The following drawing shows you detailed information for the dimensions.

SPECIFICATIONS

Max. wall mount hole pitch	75*75mm
Screw type	M4
Material	Steel/Aluminum
Dimension(W*H*D)	203.1*227.2*167.5 mm
Weight	1.8Kg(4lbs)
Tilt	2°(down)~182°(up)
Support max. weight	13kg(28lbs)

Dimensions (units in mm)
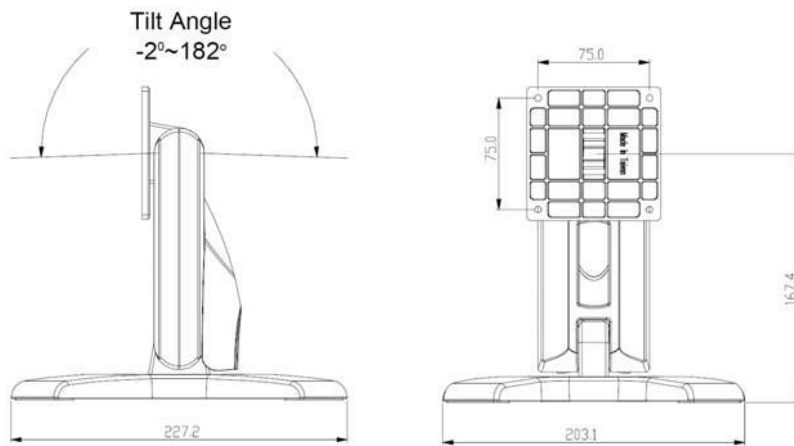
1.5.2. Stand Installation

To install the stand into RPP System:

1. Align the hole on the stand to the hole on the rear side of RPP system.
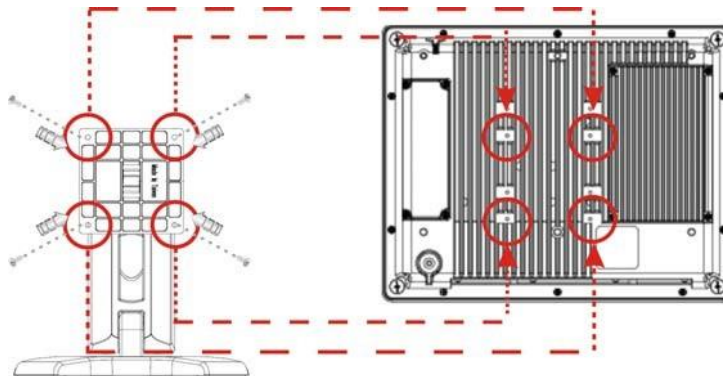
2. Then stick them by rotating and tightening the screws securely and firmly.
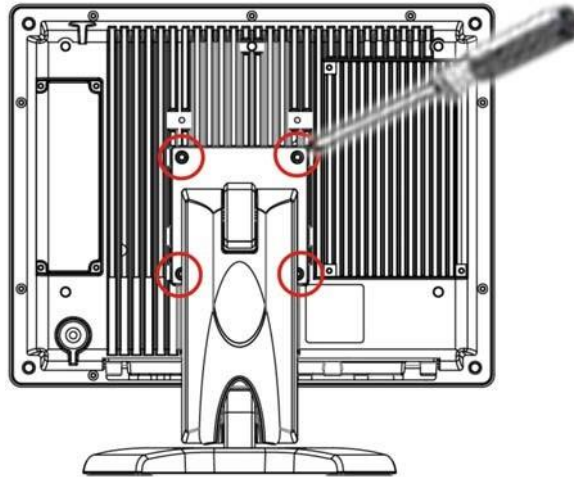
Chapter 2

System Setup

2.1. *Exploring Your Panel PC*

Before starting to set up the panel PC, take familiar with the locations and purposes of controls, drives, connectors and ports, which are illustrated in the figures below. When placed upright on the desktop, the front panel of the panel PC appears as shown in Figure 2.1.

The bottom side of the panel PC is equipped the I/O as described below.
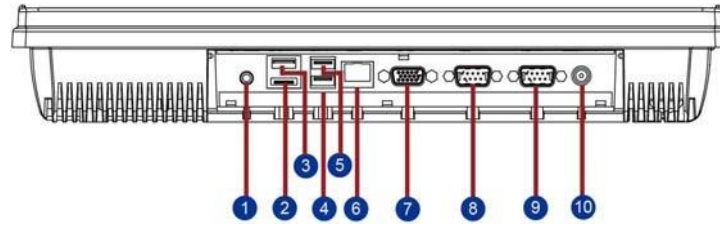
1	Lineout	6	LAN
2	e-SATA	7	VGA
3	USB3	8	COM2
4	USB1	9	COM1
5	USB2	10	DC IN

- Lineout Port
  Lets you plug in a stereo headphone or powered speakers.

- E-SATA Port
  Lets you plug in an e-SATA HDD device.

- USB Ports (x3)
  The Universal Serial Bus (USB) port allows you to connect USB 2.0-compliant devices (for example, printers, scanners and so on) to your Panel PC.

- LAN Port
  An internal 10Base-T/100Base-TX Ethernet LAN module connects your Panel PC to other computers/networks through a local area network (LAN).

- VGA monitor port
  This port enables connection of an analog computer monitor.

- COM1 Port
  Your Panel PC is fitted with a COM port to enable connection of a serial device such as a modem or mouse.

- COM2 Port
  Lets you connect a 9-pin external serial device such as a modem, mouse, or other serial devices.

- DC IN
  Lets you connect the AC power adapter in supplying continuous power to your Panel PC.

2.2. *Preparing for First-time Use*

Before setting up the system, please make sure the following items are available.

- Keyboard

- Mouse (for system software installation)

2.3. *Installation Procedures*

Your Panel PC is designed and pre-configured for easy setup and use. This section describes the installation steps you should follow to get the system running as quickly as possible.

2.3.1. Connecting the power cord

The AC adapter provides external power source to your Panel PC. The AC adapter also has an auto-switching design that can connect to any 100VAC ~ 250VAC with 50 ~ 60 Hz power outlets.

To connect the power cord:

Plug the AC power cord into the power socket of the AC power adapter.

Plug the other end of the AC power cord to a live AC wall outlet.

Lock Screw

Light: Green
Power LED

HDD LED
Access: Red
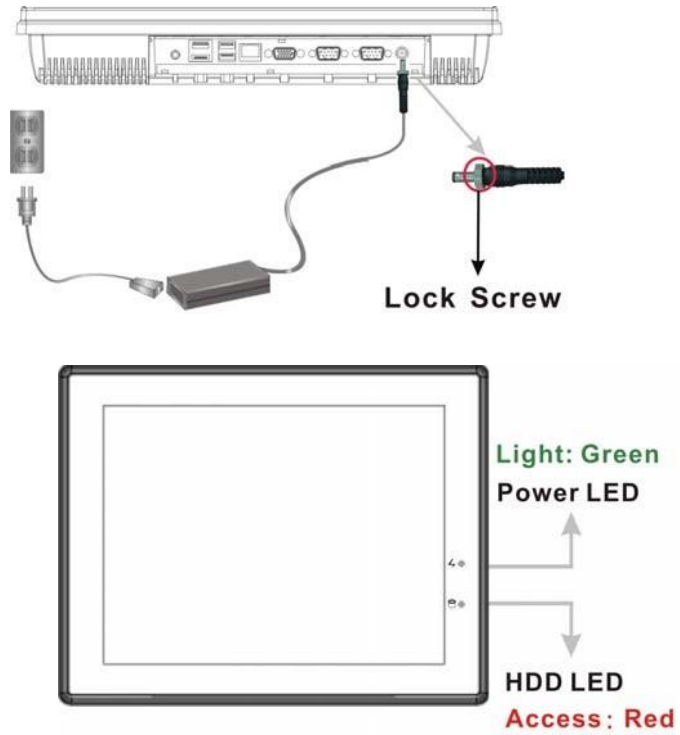
3. Plug the connector of the AC adapter to the DC-IN port found at the bottom side of the Panel PC. Please make sure to rotate the lock screw tightly for firmly attaching to the DC-In socket. At the same time, the Power LED at face panel lights up green.

2.3.2. Connecting the keyboard and mouse

A keyboard is an input device; a mouse is a pointing device. Please connect these two devices as graphics shown below to interact with your panel PC.
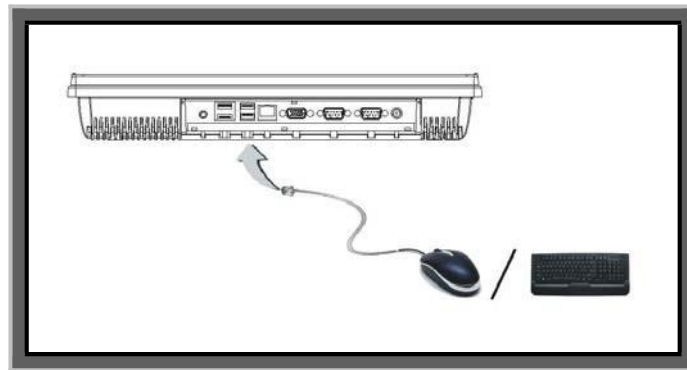
2.3.3. Switching on the power

The Power button is found on the left bottom on the rear side of the Panel PC. Press the Power button to start your panel PC and check that the Power LED lights on to green on the front panel.

Light: Green
Power LED

HDD LED
Access: Red
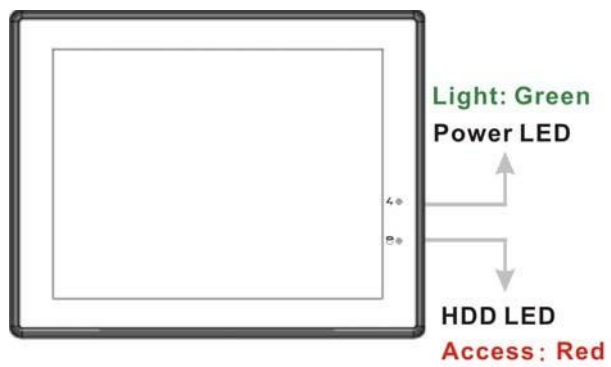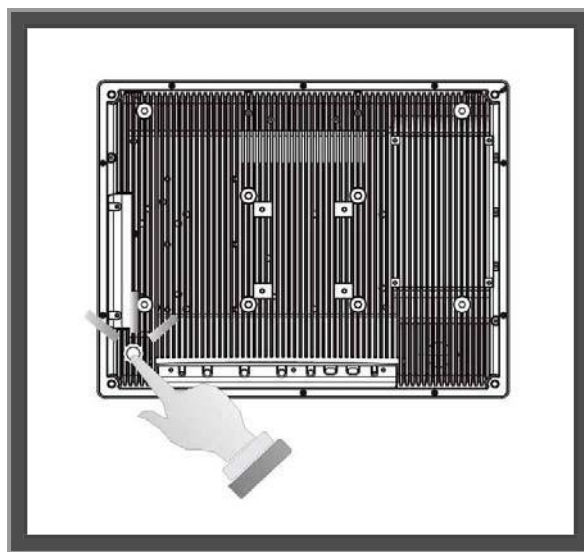
2.4. *Installing System Software*

The operating system is the software foundation for your Panel PC. It is the platform for all your software application programs to run on. The most popular operating system today is Microsoft® Windows®. Your Panel PC comes with an operating system pre-installed and needs only to be setup and configured during initial use.

2.5. *Installing the Drivers*

After installing your operating system to your Panel PC, it is best to install the needed device drivers for using the built-in devices of your system. Before installing the drivers, check with your dealer first if they have already installed all the drivers along with the operating system. If not, you will be able to set up the drivers by the sequence as Chipset, Audio, VGA, LAN, Audio, USB2.0, and Touch Screen functions. All the drivers are stored in a CD-ROM disc entitled "Drivers and Utilities". The CD-ROM can be found in your accessory box. follow the procedures below

> *The drivers and utilities used for the Panel PC are subject to change without notice.*

Chapter 3

Using the Panel PC

Your panel PC is designed and pre-configured for easy setup and use. This chapter describes the installation steps you should follow to get the system up and running as quickly as possible.

3.1. *Introduction*

This chapter describes the basic features and procedures for using the panel PC. It includes the I/O ports connecting and the touch screen operation.

3.2. *Using the USB Mouse and Keyboard*

To install a full-size desktop keyboard and mouse with the panel PC, please follow the instructions below:

1. Turn off the panel PC.

2. Attach the USB keyboard and mouse to the USB ports.

3. Turn on the panel PC.
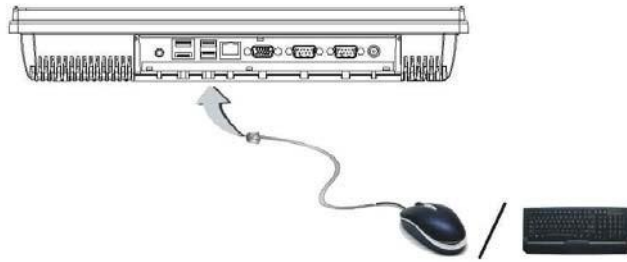
3.3. *Using the Serial Ports (COM)*

There are two serial COM ports on the bottom. It is simple to attach a serial device to the panel PC, like an external modem or mouse. Please follow these instructions below for connecting :

1. Be sure the panel PC and any other peripheral devices that are connected to the panel PC are turned off.

2. Attach the interface cable of the serial device to the panel PC's serial port. If necessary, attach the other end of the interface cable to the serial device. Fasten any retaining screws.

3. Turn on any other peripheral devices which are connected to the panel PC, and then turn on the panel PC.

4. Refer to the manual(s) which accompanied any serial device(s) for instructions on configuring the operating environment to recognize the device(s).

5. Run the BIOS setup program and configure the jumper settings to change the mode of the COM ports.
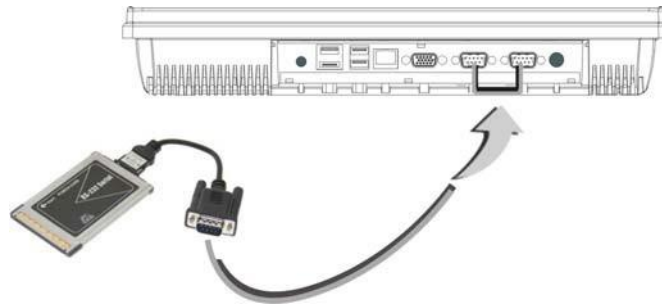
3.4. *Using the VGA Port*

An external VGA-compatible device may be connected to the system through the 15-pin external port located on the bottom of the system unit. The panel PC simultaneously supports an external CRT monitor in addition to the built-in LCD display.

1. Be sure the panel PC is turned off.

2. Connect the external monitor to the system.

3. Turn on the panel PC and the external monitor.
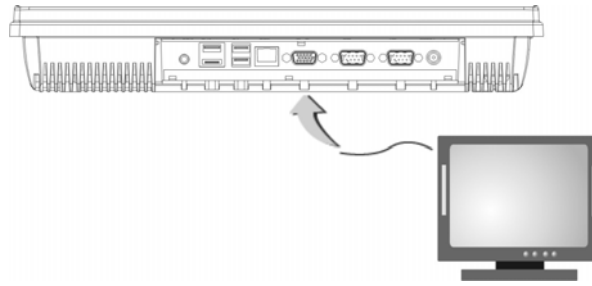
3.5. *Using the USB Ports*

An external USB device may be connected to the system through the 4-pin USB ports located on the bottom side of the system unit.

1. Connect the external device to the system.

2. The USB ports support hot plug-in connections. Install the device driver before using the device.
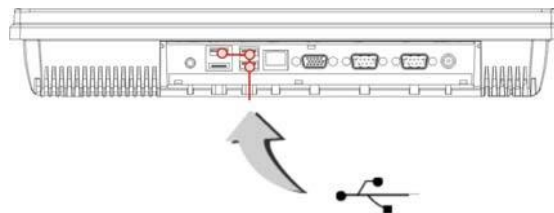
3.6. *Using the External Audio System*

At the bottom side of your system unit, you will find the built-in lineout port. You can plug in a stereo headphone or powered speaker.
To connect to an audio jack:

1. Locate the audio port (Headphone or powered speaker) that you want to use to the target device.

2. Plug the jack into the port at the bottom side of the system.
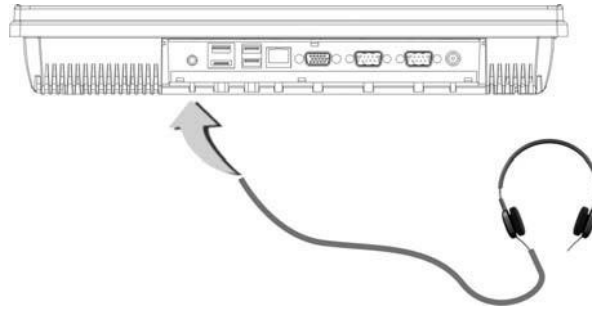
> □ **If you use external speakers and experience the sound distortion or feedback, please lower the volume. Some factors is caused by too close locating the microphone and speakers from each other, moving away the external audio option from the unit may also help.**

3.7. *Using the LAN Port*

This unit comes with an internal 10Base-T/100Base-TX LAN module that connects your panel PC to other computers/networks through a local area network (LAN) and supports data transfer rates at 10Mbps and can be up to 100Mbps. The 10Base-T standard also called Twisted Pair Ethernet is connected with RJ-45 connectors. The 100Base-TX is based on the older Ethernet standard. Because it is 10 times faster than Ethernet, it is often referred to as Fast Ethernet. The built-in LAN module provides a standard RJ-45 connector.

To connect the twisted-pair cable to your LAN port:

1. Connect one end of the cable into the network wall outlet or HUB.

2. Connect the other end of the cable into the Panel PC RJ-45 LAN port.
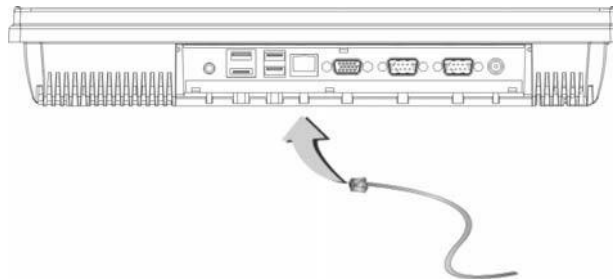
3.8. *Touchscreen*

is designed using Color Active Matrix LCD technology with a high quality touch sensitive surface. The touchscreen is a display that can detect the presence and location of a touch within the display area by a finger, hand or other passive objects, such as a stylus. It enables one to interact with what is displayed directly on the screen, rather than indirectly with a mouse.

With its adjustable, yet rigid backbone, the touch screen responds to fingertip input in place of a mouse and is highly resistant to solvents and chemicals found in industrial environments. It lets one do so without requiring any intermediate device, The display is sealed along the panel surface to prevent liquids from dripping into the unit under normal use.

3.9. *Replacing the Hard Disk*

Your RPP series computer offers one 2.5" format, 9.5mm height hard disk. If the volume does not fit your need or it is crashed, you can upgrade it by replacing with new hard disk. Please do the following steps to change it.

1. Remove the screw and open the cover by lifting its upper side cover.

2. To remove the hard disk from the compartment, please push the Hard disk forward then lift it up.

3. Remove the hard disk holders, and place them aside.
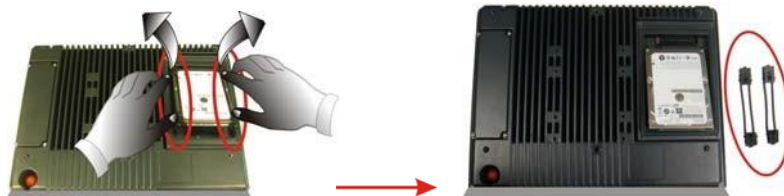
4. Disconnect the cable from the hard disk by finger carefully.

5. Connect the cable to HDD and attach the holder to new hard disk. Make sure the holders are fixed to the HDD securely.

Caution: When fix holder to HDD, please be sure that the long end should be positioned nearly to the HDD cable.

6. Locate the HDD module slightly into the compartment firmly.

7. Cover the lid, then rotate and tighten the screws.

8. Set the boot device as CD-RW Combo drive and Primary Master as Auto on BIOS setup menu. Please refer to Chapter 4 about the setting of BIOS setup menu. Then, boot the system by using WinXP CD-ROM and the system will detect the hard disk automatically and prompt you how to format the new disk.

Chapter 4

The BIOS Setup Program

This system comes with a chip from Award BIOS that contains the ROM Setup information for your system. (This chip serves as an interface between the processor and the rest of the system components.) This section explains the information contained in the Setup program and tells you how to modify the settings according to your system configuration.

4.1. *CMOS Setup Utility*

The Setup utility program allows updates to the system configuration settings. The BIOS setup values will be saved in the CMOS. It is executed when you change the system configuration, you change the system backup battery, or the system detects a configuration error and asks you to run the Setup program. Use the arrow keys to select, and press Enter to run the selected program.

```
                Phoenix - AwardBIOS CMOS Setup Utility

   ▶ Standard CMOS Features          ▶ Frequency/Voltage Control

   ▶ Advanced BIOS Features             Load Fail-Safe Defaults

   ▶ Advanced Chipset Features          Load Optimized Defaults

   ▶ Integrated Peripherals             Set Supervisor Password

   ▶ Power Management Setup             Set User Password

   ▶ PnP/PCI Configurations             Save & Exit Setup

   ▶ PC Health Status                   Exit Without Saving


   ESC : Quit                    ↑ ↓ → ← : Select Item
   F10 : Save & Exit Setup

                  Time, Date, Hard Disk Type…
```

- Standard CMOS Features
  This option lists all the features for standard CMOS configuration.

- Advanced BIOS Features
  This option lists all the features for advanced BIOS configuration.

- Advanced Chipset Features
  This option lists all the features for advanced chipset configuration.

- Integrated Peripherals
  This option lists all onboard peripheral devices.

- Power Management Setup
  This option lists all the power management items.

- PnP/PCI Configurations
  This option lists PnP OS and PCI device configuration.

- PC Health Status
  This option lists the system auto-detect CPU and system
  temperature voltage.

- Frequency/Voltage Control
  This option lists CPU host clock control, frequency ratio and voltage.

- Load Fail-Safe Defaults
  This option allow users to restore all of the BIOS settings to the default Fail-Safe values. The Fail-Safe Defaults are the default values set by the BIOS vendor for stable system performance.

- Load Optimized Defaults
  This option loads optimized values for best system performance configuration.

- Set Supervisor/User Password
  These options let you create, change or disable the passwords.

- Save & Exit Setup
  This option lets you saves all changes to CMOS while running the BIOS setup program and exit from the system setup program.

- Exit Without Saving
  This option allows you to discard all changes made while running the BIOS setup program and exit from the system setup program.

4.2. *Standard CMOS Features*

The Standard CMOS Setup screen is displayed below. Each feature may have one or more option settings. Use the arrow keys to highlight the feature you want to change and then use PgUp/PgDn or +/- keys to select the value you want for that feature.

> *NOTE: The system BIOS automatically detects memory size, thus no changes are necessary.*
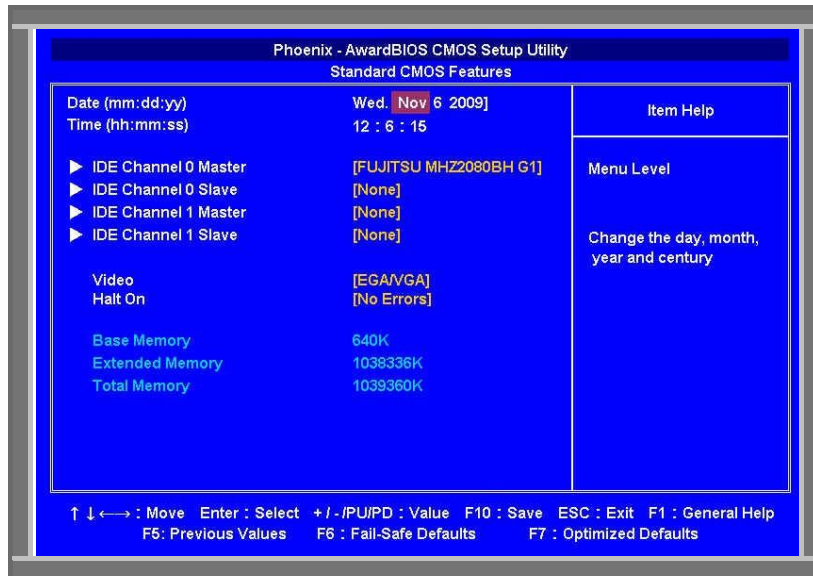
- **Date**
  To set the date, highlight the Date field and then press PgUp/PgDn or +/- keys to set the current date. Follow the week, month, day and year format.

- **Time**
  To set the time, highlight the Time field and then press PgUp/PgDn or +/- keys to set the current time. Follow the hour, minute, and second format.

- **IDE Channel 0/1, Master/Slave**
  This field records the specifications for all non-SCSI hard drives installed in the system. Press "Enter" for automatic device detection.

  Hard Disk Configurations

  IDE HDD Auto-Detection:
  BIOS CMOS Setup Utility will detect and configure had disk

parameter automatically by pressing this item.

IDE Channel 0 Master:
Options are: **None**, **Auto** and **Manual**.

Access Mode:
Options are: **CHS**, **LBA**, **Large** and **Auto**.

Capacity:
The hard disk size. The unit is Bytes.

Cylinder:
The cylinder number of the hard disk.

Head:
The read/write head number of the hard disk.

Precomp:
The cylinder number at which the disk drive changes the write current.

Landing Zone:
The cylinder number on which the disk drive heads (read/write) are seated when the disk drive is parked.

Sector:
The sector number of each track defined on the hard disk.

- **Video**
  This field lets you set the type of video display card installed in the system. Press "Enter" for automatic device detection.

- **Halt On**
  This field determines which types of errors will cause the system to halt.

- **Base Memory**
  This field displays the amount of base (or conventional) memory installed in the system.

- **Extended Memory**
  This field displays the amount of extended memory (above 1 MB in CPU ís memory address map) installed in the system.

- **Total Memory**
  This field displays the total system memory size.

4.3. *Advanced BIOS Features*

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

  ▶ CPU Feature                  [Press Enter]           Item Help
  ▶ Hard Disk Boot Priority      [Press Enter]
    Virus Warning                [Disabled]
    CPU L1 & L2 Cache            [Enabled]        Menu Level    ▶
    Quick Power On Self Test     [Enabled]
    First Boot Device            [USB-FDD]
    Second Boot Device           [CDROM]
    Third Boot Device            [Hard Disk]
    Boot Other Device            [Enabled]
    Boot Up NumLock Status       [On]
    Gate A20 Option              [Fast]
    Typematic Rate Setting       [Disabled]
  ✕ Typematic Rate (Chars/Sec)   6
  ✕ Typematic Delay (Msec)       250
    Security Option              [Setup]
    APIC Mode                    [Enabled]
    Small Logo (EPA) Show        [Disabled]


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

- **CPU Feature**
  This item allows the user to adjust CPU settings.

- **Hard Disk Boot Priority**
  This item will auto detect all hard disks of bootable devices on the

system or allow the user to select the boot sequence for system devices.

- **Virus Warning**
  This item allows you to choose the Virus Warning feature for IDE hard Disk boot sector protection. If this function is enabled and someone attempt to write data into this area, BIOS will show a warning message on screen and alarm beep.

- **CPU L1 & L2 Cache**
  This field lets you activate or close the CPU L1 & L2 Cache function.

- **Quick Power On Self Test**
  This field speeds up the Power-On Self Test (POST) routine by skipping the re-testing procedure for second, third and fourth times. The default setting is enabled.

- **First / Second / Third Boot Device**

  This feature allows you to select the boot device priority.
  The options are: **Hard Disk**, **CDROM**, **USB-FDD**, **USB-CDROM**, and **Disabled**.

Hard Disk	Select boot device priority by Hard Disk.
CDROM	Select boot device priority by CDROM.
USB-FDD	Select boot device priority by USB-FDD.
USB-CDROM	Select boot device priority by USB-CDROM.
Disabled	Disable this boot function.

- **Boot Other Device**
  This feature lets you activate or close the boot priority from other device.

- **Boot Up NumLock Status**
  This item allows the user to activate the Number Lock key at system boot.

- **Gate A20 Option**
  This item allows the user to control the Gate A20 by chipset or keyboard controller with setting the option to **Fast** or **Normal**.

- **Typematic Rate Setting**
  This item allows you to activate or close the "Typematic Rate Setting" function.

- **Typematic Rate (Chars/Sec)**
  This item controls the speed at which the system registers auto repeated keystrokes. The options for settings are: **6, 8, 10, 12, 15, 20, 24** and **30**.

- **Typematic Delay (Msec)**
  This item sets the key press delay time before auto repeat begins. The options for delay rate are: **250, 500, 750** and **1000**.

- **Security Option**
  This field allows you to set the security level of the system. You can specify to enter password every time the system boots or only when you enter the setup utility.

- **APIC Mode**
  This item allows the user to activate or close the "Advanced Programmable Interrupt Controller". APIC is implemented in the motherboard and must be supported by the operating system.

- **Small Logo (EPA) Show**
  This item allows you to activate or close the "Small Logo (EPA) Show" function.

4.4. *Advanced Chipset Feature*

```
              Phoenix - AwardBIOS CMOS Setup Utility
                      Advanced Chipset  Features

      DRAM Timing Selectable        [By SPD]              Item Help
   X  CAS Latency Time              2
   X  DRAM RAS# to CAS# Delay       3
   X  DRAM RAS# Precharge           3             Menu Level    ▶
   X  Precharge delay (tRAS)        9
   X  System Memory Frequency       400MHz
   ▶  PCI Express Root Port Func    [Press Enter]

      ** VGA Setting **
      PEG/Onchip VGA Control        [Auto]
      On-Chip Frame Buffer Size     [8MB]
      Boot Display                  [CRT+LCD]
      Panel Type                    [800 x 600 18 Bit]


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

- **DRAM Timing Selectable**
  This item allows you to set the optimal timings. The system default setting is "By SPD".

- **CAS Latency Time**
  This item allows you to set the timing delay in clock cycles before SDRAM starts a read command.

- **DRAM RAS# to CAS# Delay**
  This item allows you to set the timing for the transition from RAS (row address strobe) to CAS (column address strobe) as both rows and columns are separately addressed shortly after the DRAM is refreshed.

- **DRAM RAS# Precharge**
  This item allows you to set the DRAM RAS# precharge timing.

- **Precharge delay (tRAS)**
  This item allows you to adjust memory precharge time.

- **System Memory Frequency**
  This item allows you to adjust memory frequency to improve performance.

- **PCI Express Root Port Func**

- **PEG/Onchip VGA Control**
  This field lets you select PCI-Express graph card when boot display or let BIOS auto detect it. The options are: **Onchip VGA / PEG Port / Auto**.

- **On-Chip Frame Buffer Size**
  This item allows you to select the memory buffer for on-chip graphics.

- **Boot Display**
  This item allows you to select the display mode in booting.

- **Panel Type**
  This item allows the user to define the panel resolution.

4.5. *Integrated Peripherals*

```
                 Phoenix - AwardBIOS CMOS Setup Utility
                        Integrated Peripherals
 ▶ OnChip IDE Device           [Press Enter]          Item Help
 ▶ Onboard Device              [Press Enter]
 ▶ Super IO Device             [Press Enter]
   Onboard Serial Port 3       [280]              Menu Level  ▶
   Serial Port 3 Use IRQ       [IRQ10]
   Onboard Serial Port 4       [288]
   Serial Port 4 Use IRQ       [IRQ11]
   Onboard Serial Port 5       [2A0]
   Serial Port 5 Use IRQ       [IRQ5]
   Onboard Serial Port 6       [2A8]
   Serial Port 6 Use IRQ       [IRQ7]



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

- **OnChip IDE Device**
  This item enables users to set the OnChip IDE device status, including IDE devices and setting PIO and DMA access modes. Some chipsets support newer SATA devices (Serial-ATA)

- **Onboard Device**
  This item enables users to set the Onboard Device status, including USB AC97, MC97 and LAN devices.

- **Super IO Device**
  This item enables users to set the Super IO device status, including Floppy, COM, LPT, IR and to control GPIO and Power fail status.

- **Onboard Serial Port 3**
  Lets you modify the serial port parameters when the serial port 3

uses the onboard I/O controller. The options are: **Disabled**, **280**, **288**, **2A0** and **2A8.**

- **Serial Port 3 Use IRQ**
  Lets you specify the parameter for Serial Port 3 use IRQ. The options are: IRQ3, IRQ4, IRQ5, IRQ7, IRQ9, IRQ10 and IRQ11**.**

- **Onboard Serial Port 4**
  Lets you modify the serial port parameters when the serial port 4 uses the onboard I/O controller,. The options are: **Disabled**, **280**, **288**, **2A0** and **2A8.**

- **Serial Port 4 Use IRQ**
  Lets you specify the parameter for Serial Port 4 use IRQ. The options are: IRQ3, IRQ4, IRQ5, IRQ7, IRQ9, IRQ10 and IRQ11.

- **Onboard Serial Port 5**
  Lets you modify the serial port parameters when the serial port 5 uses the onboard I/O controller. The options are: **Disabled**, **280**, **288**, **2A0** and **2A8.**

- **Serial Port 5 Use IRQ**
  Lets you specify the parameter for Serial Port 5 use IRQ. The options are: IRQ3, IRQ4, IRQ5, IRQ7, IRQ9, IRQ10 and IRQ11.

- **Onboard Serial Port 6**
  Lets you modify the serial port parameters when the serial port 6 uses the onboard I/O controller. The options are: **Disabled**, **280**, **288**, **2A0** and **2A8.**

- **Serial Port 6 Use IRQ**
  Lets you specify the parameter for Serial Port 6 use IRQ. The options are: IRQ3, IRQ4, IRQ5, IRQ7, IRQ9, IRQ10 and IRQ11**.**

4.5.1. OnChip IDE Device

The Setup utility program allows updates to the system configuration settings. The BIOS setup values will be saved in the CMOS. It is executed when you change the system configuration, you change the

system backup battery, or the system detects a configuration error and asks you to run the Setup program. Use the arrow keys to select, and press Enter to run the selected program.

```
                Phoenix - AwardBIOS CMOS Setup Utility
                        OnChip IDE Device

    IDE HDD Block Mode              [Enabled]              Item Help
    IDE DMA Transfer access         [Enabled]
    On-Chip Primary PCI IDE         [Enabled]
    IDE Primary Master PIO          [Auto]            Menu Level   ▶
    IDE Primary Slave PIO           [Auto]
    IDE Primary Master UDMA         [Auto]        If your IDE hard drive supports
    IDE Primary Slave UDMA          [Auto]        block mode select Enabled for
    On-Chip Secondary PCI IDE       [Enabled]      automatic detection of the
    IDE Secondary Master PIO        [Auto]         optimal number of block read/
    IDE Secondary Slave PIO         [Auto]         writes per sector the drive can
    IDE Secondary Master UDMA       [Auto]         support.
    IDE Secondary Slave UDMA        [Auto]

    *** On-Chip Serial ATA Setting ***
    On-Chip Serial ATA              [Combined Mode]
    PATA IDE Mode                   [Secondary]
    SATA Port                       P0, P2 is Primary



  ↑↓←→ : Move   Enter : Select   +/-/PU/PD : Value   F10 : Save   ESC : Exit   F1 : General Help
        F5: Previous Values      F6 : Fail-Safe Defaults      F7 : Optimized Defaults
```
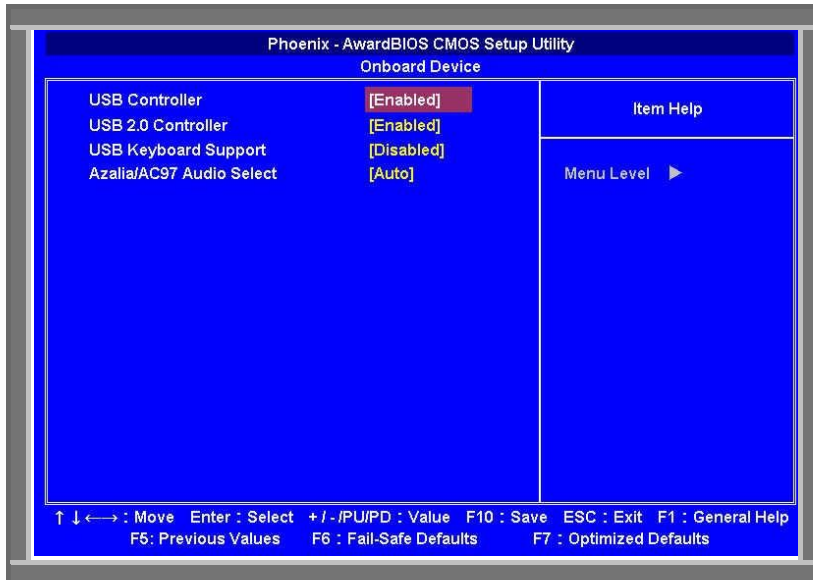
- **IDE HDD Block Mode**
  Lets you activate or close the "IDE HDD Block Mode" function.

- **IDE DMA Transfer access**
  Lets you activate or close the "IDE DMA Transfer access" function.

- **On-Chip Primary PCI IDE**
  Lets you activate or close the "On-Chip Primary PCI IDE" function.

- **IDE Primary Master PIO**
  Lets you specify the parameter to "Auto", "Mode 0", "Mode 1", "Mode 2", "Mode 3" or "Mode 4".

- **IDE Primary Slave PIO**
  Lets you specify the parameter to "Auto", "Mode 0", "Mode 1", "Mode 2", "Mode 3" or "Mode 4".

- **IDE Primary Master UDMA**
  Lets you close this function or allows BIOS to auto detect the parameter. The options are: **"Disabled"** and **"Auto"**.

- **IDE Primary Slave UDMA**
  Lets you close this function or allows BIOS to auto detect the parameter. The options are: **"Disabled"** and **"Auto"**.

- **On-Chip Secondary PCI IDE**
  Lets you activate or close the **"On-Chip Secondary PCI IDE"** function.

- **IDE Secondary Master PIO**
  Lets you specify the parameter to **"Auto"**, **"Mode 0"**, **"Mode 1"**, **"Mode 2"**, **"Mode 3"** or **"Mode 4"**.

- **IDE Secondary Slave PIO**
  Lets you specify the parameter to **"Auto"**, **"Mode 0"**, **"Mode 1"**, **"Mode 2"**, **"Mode 3"** or **"Mode 4"**.

- **IDE Secondary Master UDMA**
  Lets you close this function or allows BIOS to auto detect the parameter. The options are: **"Disabled"** and **"Auto"**.

- **IDE Secondary Slave UDMA**
  Lets you close this function or allows BIOS to auto detect the parameter. The options are: **"Disabled"** and **"Auto"**.

- **On-Chip Serial ATA**
  Lets you specify the mode with the options as **"Disabled"**, **"Auto"**, **"Combined Mode"**, **"Enhanced Mode"** or **"SATA Only"**.

- **PATA IDE Mode**
  Lets you specify the **"Secondary"** mode

- **SATA port**
  Lets you specify the **"P0,P2 is Primary"** mode.

4.5.2. Onboard Device

Phoenix - AwardBIOS CMOS Setup Utility
Onboard Device

USB Controller	[Enabled]	Item Help
USB 2.0 Controller	[Enabled]	
USB Keyboard Support	[Disabled]	Menu Level ▶
Azalia/AC97 Audio Select	[Auto]	

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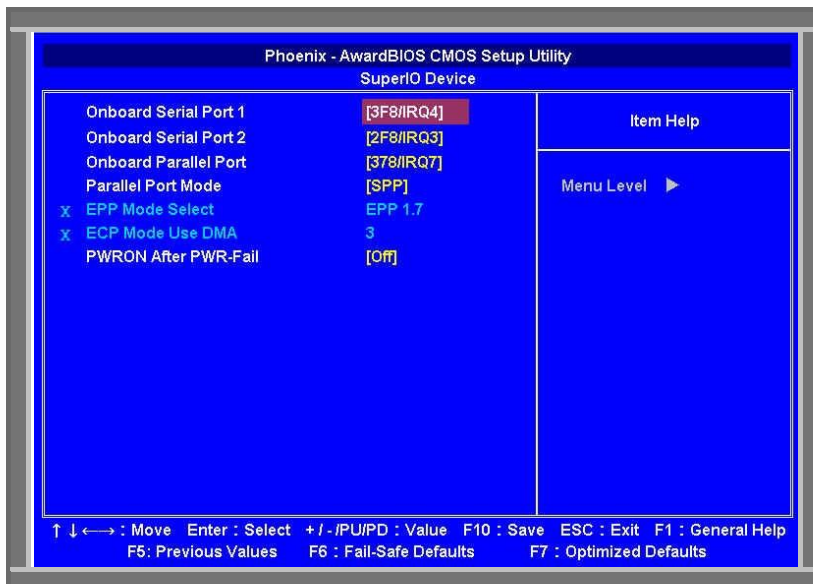F5: Previous Values   F6 : Fail-Safe Defaults   F7 : Optimized Defaults

- **USB Controller**
  This field lets you activate or close the onboard USB 1.0 feature.
  The options are: **"Disabled"** and **"Enabled"**.

- **USB 2.0 Controller**
  This field lets you activate or close the onboard USB 2.0 feature.
  The options are: **"Disabled"** and **"Enabled"**.

- **USB Keyboard Support**
  This field lets you activate or close the USB Keyboard Support. The options are: **"Disabled"** and **"Enabled"**.

- **Azalia/AC97 Audio Select**
  This field lets you activate or close the **Azalia/AC97 Audio**. The options are: **"Auto","Azalia","AC97 Audio only"** and **"All Disabled"**.

4.5.3. SuperIO Device

The Setup utility program allows you to update the system configuration settings. The BIOS setup values will be saved in the CMOS. It is executed when you change the system configuration, you change the system backup battery, or the system detects a configuration error and asks you to run the Setup program. Use the arrow keys to select, and press Enter to run the selected program.

```
                 Phoenix - AwardBIOS CMOS Setup Utility
                             SuperIO Device

    Onboard Serial Port 1           [3F8/IRQ4]              Item Help
    Onboard Serial Port 2           [2F8/IRQ3]
    Onboard Parallel Port           [378/IRQ7]
    Parallel Port Mode              [SPP]              Menu Level    ▶
  x EPP Mode Select                 EPP 1.7
  x ECP Mode Use DMA                3
    PWRON After PWR-Fail            [Off]




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

- **Onboard Serial Port 1**
  This field lets you modify your serial port parameters, when the serial port uses the onboard I/O controller. The options are: **"Disabled", "3F8/IRQ4", "2F8/IRQ3", "3E8/IRQ4"** and **"2E8/IRQ3"**.

- **Onboard Serial Port 2**
  This field lets you modify your serial port parameters, when the serial port uses the onboard I/O controller. The options are: **"Disabled", "3F8/IRQ4", "2F8/IRQ3", "3E8/IRQ4"** and **"2E8/IRQ3"**.

- **Onboard Parallel Port**
  This field lets you modify your parallel port parameters, when the parallel port uses the onboard I/O controller. The options are: **"Disabled", "378/IRQ7", "278/IRQ5"** and **"3BC/IRQ7"**.

- **Parallel Port Mode**
  This field lets you connect with an advanced printer via the port mode it supports. The options are: **"SPP", "EPP", "ECP", "ECP+EPP"** and **"Normal"**.

- **EPP Mode Select**
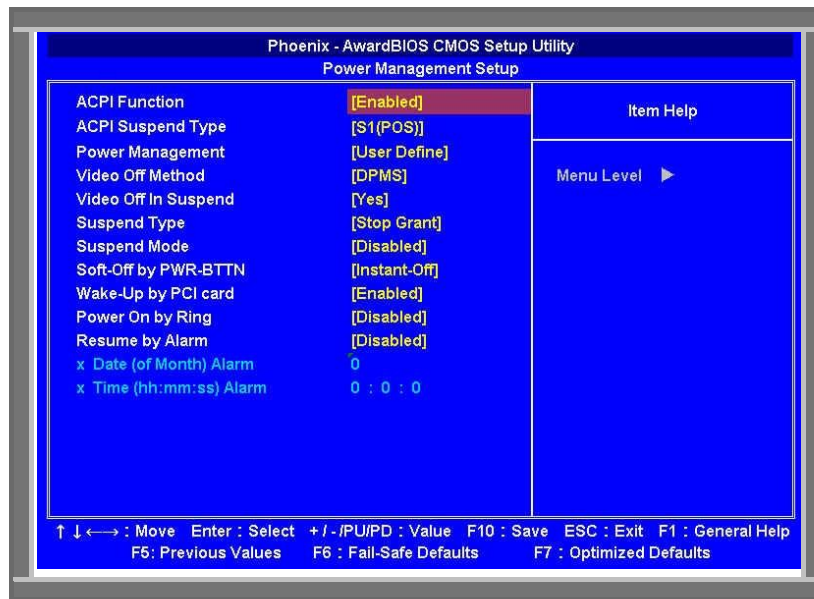 This field lets you choose the following two options as: **"EPP1.7" or "EPP1.9".**

- **ECP Mode Use DMA**
  This feature displays you the Direct Memory Access (DMA) channel.

- **PWRON After PWR-Fail**
  The options are: "Off", "On" and "Former-Sts".

4.6. *Power Management Setup*

```
                Phoenix - AwardBIOS CMOS Setup Utility
                       Power Management Setup
    ACPI Function              [Enabled]              Item Help
    ACPI Suspend Type          [S1(POS)]
    Power Management           [User Define]
    Video Off Method           [DPMS]           Menu Level    ▶
    Video Off In Suspend       [Yes]
    Suspend Type               [Stop Grant]
    Suspend Mode               [Disabled]
    Soft-Off by PWR-BTTN       [Instant-Off]
    Wake-Up by PCI card        [Enabled]
    Power On by Ring           [Disabled]
    Resume by Alarm            [Disabled]
    x  Date (of Month) Alarm    0
    x  Time (hh:mm:ss) Alarm    0 : 0 : 0


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

- **ACPI Function**
  This item defines the ACPI (Advanced Configuration and Power Management) feature that makes hardware status information available to the operating system for communicating PC and system devices in power management improvement.

- **ACPI Suspend Type**
  This item allows you to select the sleep state when the computer is in suspend mode.
  S1 (POS) Suspend mode is used for software power down.
  S3 (STR) The system shuts down and with the exception of a refresh of electrical current to system memory.

- **Power Management**

  This item allows you to select the system power saving mode.

  Min Saving Lets you set the minimum power management to 1 hr. in Suspend Mode.

  Max Saving Lets you set the maximum power management to1 min. in Suspend Mode.

  User Defined Allows you to set each mode individually.

- **Video Off Method**

  This item allows you to set the monitor to be blank.

  V/H SYNC+Blank

  This option will cause the system to turn off vertical and horizontal synchronization ports and write blanks to the videobuffer

  Blank Screen

  This option only writes blanks to the video buffer.

  DPMS

  This option Initialize display power management to signalize.

- **Video Off In Suspend**

  This item allows you to turn off the video when the system enters into suspend mode. The options are: **"No"** and **"Yes"**.

- **Suspend Type**

  This item allows you to determine the suspend type. The options are: **"Stop Grant"** and **"PwrOn Suspend"**.

- **Suspend Mode**

  This item allows you to set the system inactivity time after which all devices except the CPU will be shut down. The options are: **"Disabled"**, **"1 Min"**, **"2 Min"**, **"4 Min"**, **"8 Min"**, **"12 Min"**, **"20 Min"** and **"30 Min"**.

- **Soft-Off by PWR-BTTN**

  This item allows you to define the power button functions.

  Instant-Off

  Press the power button to power off instantly.

  Delay 4 Sec.

  Press and hold the power button for 4 sec to power off

- **Wake-Up by PCI card**
  This item allows you to enable and define how PCI cards wake the system up from suspend mode. The options are: **"Disabled"** and **"Enabled"**.

- **Power On by Ring**
  This item allows you to make the system resumed by activating the modem ring. The options are: **"Disabled"** and **"Enabled"**.

- **Resume by Alarm**
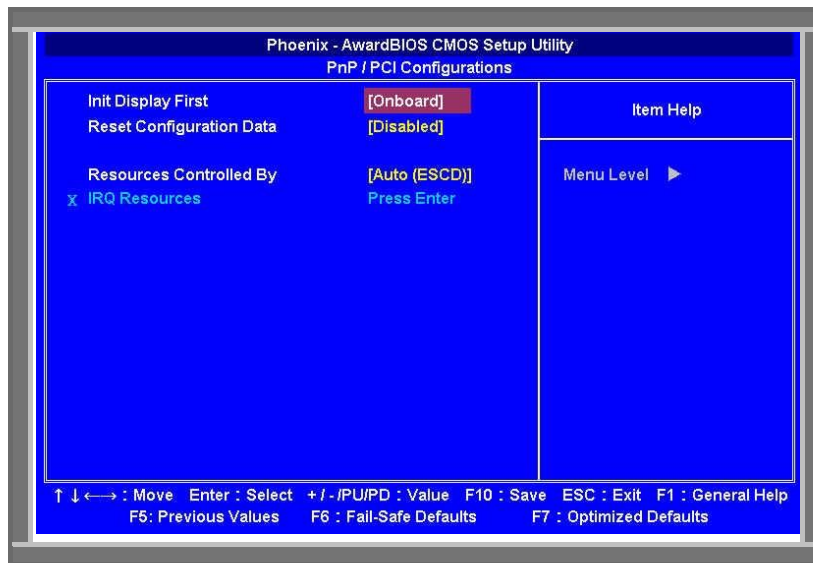 This item allows you to power on the system by the keying date and time.
  Disabled   Disable this function.
  Enabled   Enable alarm function to power on system.
  Day (of Month)   Alarm   1-31
  Time (hh:mm:ss)   Alarm   (0-23) : (0-59) : 0-59)

4.7. PnP/PCI Configurations

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

  Init Display First            [Onboard]              Item Help
  Reset Configuration Data      [Disabled]

  Resources Controlled By       [Auto (ESCD)]       Menu Level   ▶
 x IRQ Resources                Press Enter












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

- **Init Display First**
  This item lets you start up video display from the PCI or onboard device. The options are: **"PCI Slot"** and **"Onboard"**.

- **Reset Configuration Data**
  This item lets you clear any PnP configuration data stored in the BIOS. The options are: **"Disabled"** and **"Enabled"**.

- **Resources Controlled By**
  This item lets you configure all the boot and Plug and Play compatible devices by manually setting or BIOS automatically detection. If you choose Manual, you can select IRQ DMA and memory base address fields; if you choose BIOS, system will automatically assign them.
  The options are: **"Auto (ESCD)"** and **"Manual"**.

IRQ Resources
This item lets you assign an interrupt type to **IRQ-3, 4, 5, 7, 9, 10, 11, 12, 14,** or **15.**
DMA Resources
This item lets you assign an interrupt type to **DMA-0, 1, 2, 3, 4, 5, 6,** or **7**.

4.8. *PC Health Status*

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

   CPU Warning Temperature        [Disabled]                 Item Help
   Current System Temp            45°C/ 113°F
   Current CPU1 Temperature       36°C/  96°F
   Fan1 Speed                     0 RPM              Menu Level   ▶
   Fan2 Speed                     0 RPM
   Vcore                          0.92 V
   +12V                           12.34V
   VCC (V)                        5.45 V
   VBAT (V)                       3.23 V
   5VSB (V)                       5.48 V
   Smart Fan2 Temperature         [50°C/122°F]
   Fan2 Tolerance Value           [ 5]




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

- **CPU Warning Temperature**

  The feature lets you active or close the **CPU Warning Temperature** Information. The options are: Disable and Enable. These information lets you and technicians to monitor data provided by the BIOS on this mainboard. It is not user-configurable.

Current System Temp / Current CPU1 Temperature / Fan1 Speed / Fan2

Speed / Vcore / +12V / VCC (V) / VBAT (V) / 5VSB (V)

- **Smart Fan2 Temperature**
  This item lets you set the parameter to **"Disabled", "40°C/104°F",
  "45°C/113°F"** or **"50°C/122°F"**.

- **Fan2 Tolerance Value**
  This item lets you define the parameter for Fan2 Tolerance Value

4.9. *Frequency/Voltage Control*
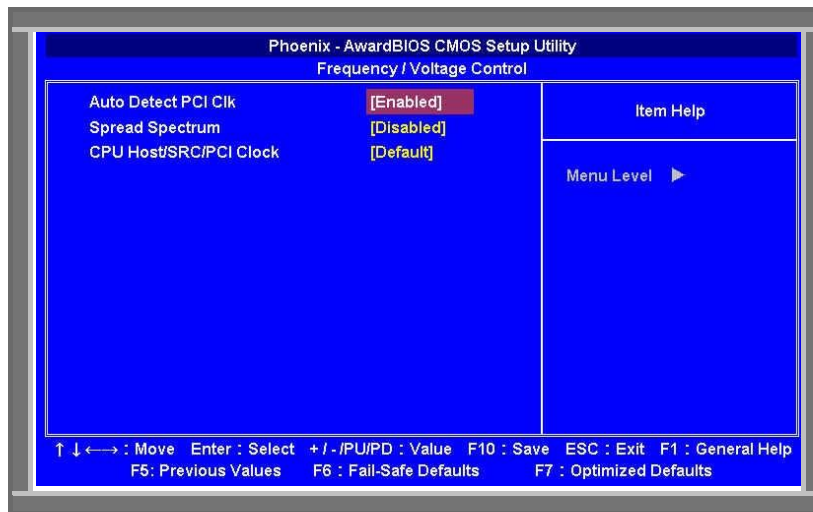
- **Auto Detect PCI Clk**
  This item lets you activate or close the Auto Detect PCI Clk. The
  options are: **Disabled** and **Enabled.**

- **<u>Spread Spectrum</u>**
  This feature allows you to activate or close the spread spectrum function. The options are: **Disabled** and **Enabled.**

- **<u>CPU Host/SRC/PCI Clock</u>**
  This feature allows you to set the parameter for CPU Host/SRC/PCI Clock. The options are: **Default** and **100/100/33MHz.**

4.10. *Load Fail-Safe/Optimized Defaults*

The two options on the main menu allow you to restore all of the BIOS settings to the default Fail-Safe or Optimized values. The Optimized Defaults are the default values set by the mainboard manufacturer, it is specific for optimal mainboard performance. The Fail-Safe Defaults are the default values set by the BIOS vendor for stable system performance. This submenu is selected for default settings with provide the best system performance.

4.11. *Set Supervisor/User Password*

For security issue, please activate the Supervisor/User passwords entering with selecting the item at the Standard CMOS Setup sub-menu. In entering this field, a dialog box will be prompted for you to create the password, type your password up to eight characters and press Enter, then you will be asked to confirm the password, please type the password again and press Enter.

To close the password creation, press Enter twice when you are asked to enter a password when the dialog box is prompted, then a message will appear for you to confirm the password is disabled.

4.12. *Save & Exit Setup*

After you have made changes under Setup Utility, press Esc to return to the main menu. You can move the cursor to **Save and Exit Setup** or press **F10** and then press **Y** to change the CMOS Setup. If you did not change anything, press Esc again or move the cursor to **Exit Without Saving** and press **Y** to retain the Setup settings. The message "SAVE to CMOS and EXIT (Y/N)?" will appear at the screen center for saving data to CMOS and exit the setup utility:

4.13. *Exit Without Saving*

If you select this feature, the following message "Quit Without Saving (Y/N)?" will appear at the screen center, press **Y** to exit the setup utility without saving the CMOS modification.

Chapter 5

Jumpers and Connectors

Jumpers and Connectors Setting

A jumper is a metal bridge used to close an electrical circuit. It consists of two or three 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.

The following jumpers can be found on the motherboard installed in the RPP121. Before the motherboard is installed, the jumpers must be set in accordance with the desired configuration. The jumpers on the motherboard are listed as below.

RS-232 (default)

JP1: (1-2) short   JP2: (1-3) short   JP3: (2-4) short
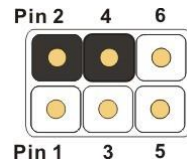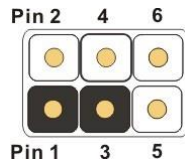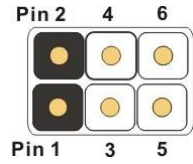
RS-422
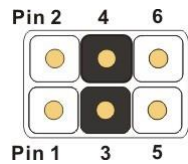
JP1: (3-4) short   JP2: (3-5)short   JP3: (4-6) short
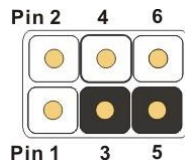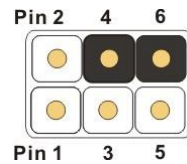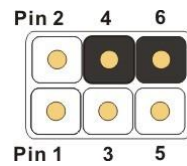

RS-485
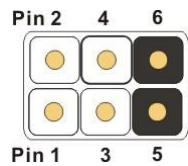
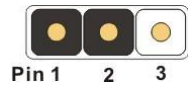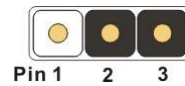JP1: (5-6) short   JP2: (3-5) short   JP3: (4-6) short
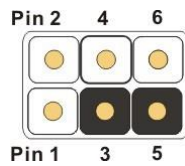
CMOS: CMOS clear connector

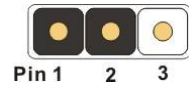Normal: (1-2) short-default   CMOS clear: (2-3) short
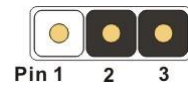
Internal Connector

CF_SEL: CF-Card device select

Master: (1-2) Short-Default   Slave: (2-3) Short

Pin 1   2   3   Pin 1   2   3

MPCIE: PCIE Connector