

4.5.15 On-Chip Frame Buffer Size

The default setting is 32MB. The options available include 1MB, 4MB, 8MB and 16MB.

4.5.16 Boot Display

The default setting is VBIOS Default to allow system to detect the connected display device automatically. The options available include VBIOS-Default, CRT, LVDS, CRT+LVDS.

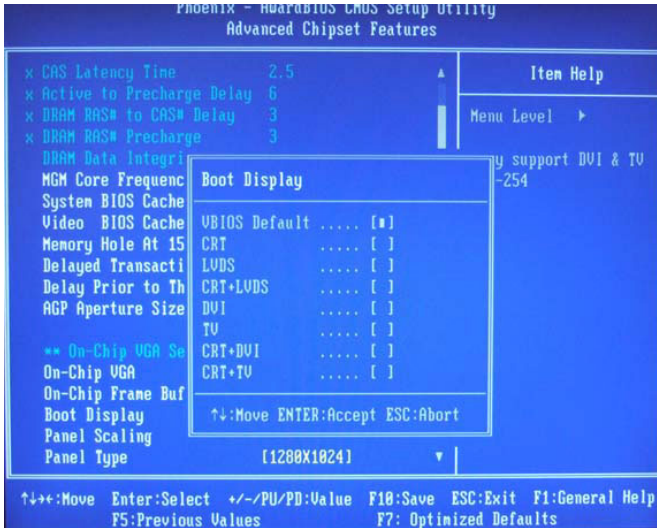


Figure 4.5: Boot Display

4.5.17 Panel Scaling

The default setting is Auto. The options available include On and Off.

4.5.18 Panel Type

These fields allow you to select the resolution of LCD Panel type. The resolution values for these ports are:

640 x 480

800 x 600

1024 x 768

1280 x 1024

1600 x 1200

The default setting is 1280x1024

4.6 Integrated Peripherals

This section sets configurations for your hard disk and other integrated peripherals. The first screen shows three main items for user to select. Once an item selected, a submenu appears, as below.

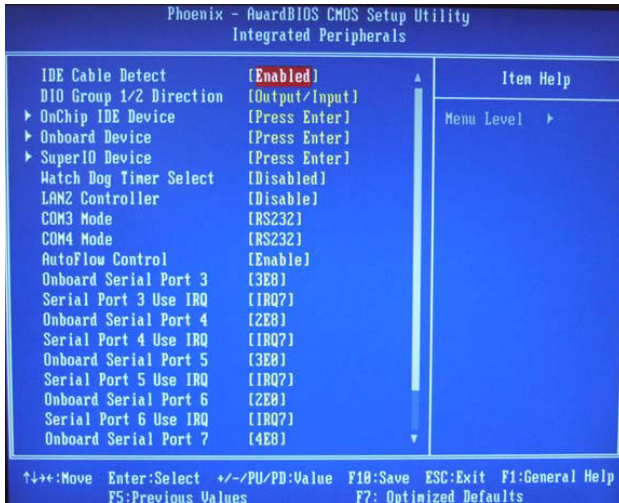


Figure 4.6: Integrated Peripherals

4.6.1 IDE Cable Detect

Some UDMA cables use a hole in the ribbon cable as a cable detect mechanism to determine if a UDMA IDE or standard IDE cable is installed. The default setting is “Enabled”.

4.6.2 On Chip IDE Device

Move the cursor to this field and press <Enter>. The following screen will appear.

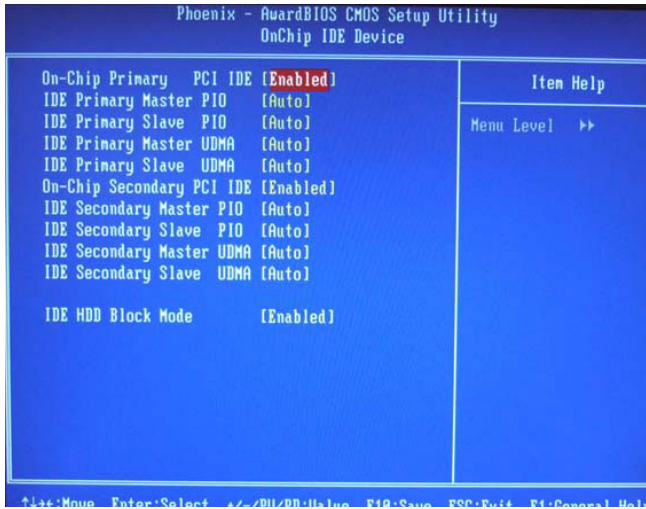


Figure 4.7: OnChip IDE Device

4.6.2.1 On-Chip Primary PCI IDE and On-Chip Secondary PCI IDE

These fields allow you to enable or disable the primary and secondary IDE controller. The default is Enabled. Select Disabled if you want to add a different hard drive controller.

4.6.2.2 IDE Primary Master/Slave PIO and IDE Secondary Master PIO

PIO means Programmed Input/Output. Rather than have the BIOS issue a series of commands to affect a transfer to or from the disk drive, PIO allows the BIOS to tell the controller what it wants and then lets the controller and the CPU perform the complete task by itself. Your system supports five modes, 0 (default) to 4, which primarily differ in timing. When Auto is selected, the BIOS will select the best available mode after checking your drive.

Auto: The BIOS will automatically set the system according to your hard disk drive's timing. Mode 0-4 You can select a mode that matches your hard disk.

Mode 0-4: You can select a mode that matches your hard disk drive's timing. Caution Do not use the wrong setting or you will have drive errors.

4.6.2.3 IDE Primary Master/Slave UDMA and IDE Secondary Master UDMA

These fields allow you to set the Ultra DMA in use. When Auto is selected, the BIOS will select the best available option after checking your hard drive or CD-ROM.

Auto: The BIOS will automatically detect the settings for you.

Disabled: The BIOS will not detect these categories.

4.6.2.4 On-Chip IDE HDD Block Mode

Enabled: The IDE HDD uses the block mode. The system BIOS will check the hard disk drive for the maximum block size the system can transfer. The block size will depend on the type of hard disk drive.

Disabled: The IDE HDD uses the standard mode.

4.6.3 Onboard Device

Move the cursor to this field and press <Enter>. The following screen will appear.

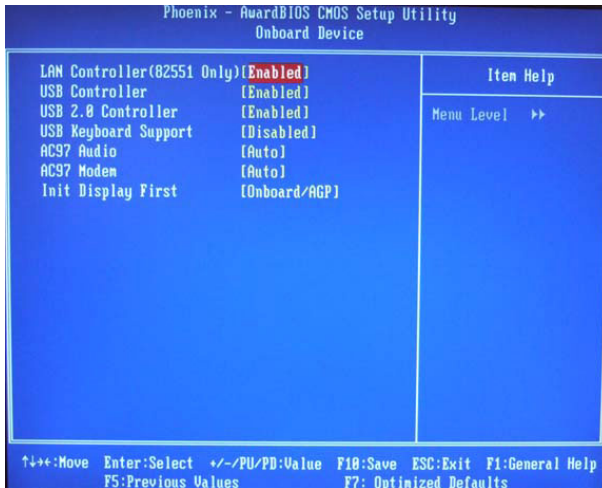


Figure 4.8: On Board Device

4.6.3.1 LAN Controller (82551 Only)

This field is used to enable or disable the Intel 82551 LAN controller.

4.6.3.2 USB Controller

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

4.6.3.3 USB 2.0 Controller

If you are using USB 2.0, this field must be set to *Enabled*.

4.6.3.4 USB Keyboard Support

Select *Enabled* if user plan to use an USB keyboard under DOS. The choices: Enabled, Disable.

4.6.3.5 AC97 Audio

Select *Disable* if you do not want to use AC-97 audio. Option are Auto, Disable.

4.6.3.6 Init Display First

This item allows you to choose which one to activate first, PCI Slot or on-chip VGA. The choices: PCI Slot, Onboard/AGP.

4.6.4 Super IO Device

Move the cursor to this field and press <Enter>. The following screen will appear.

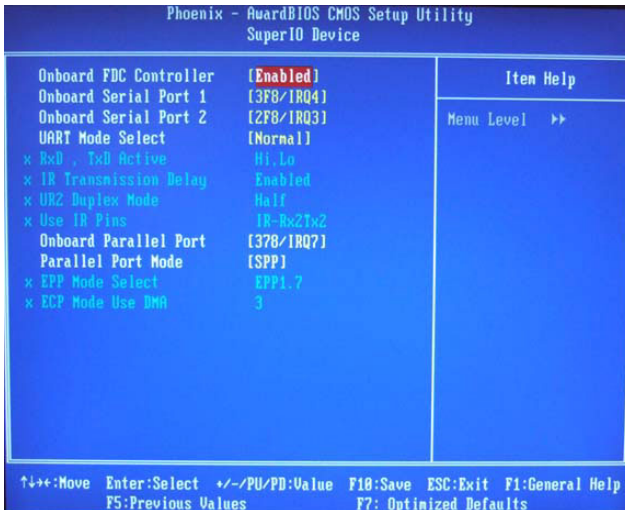


Figure 4.9: Super IO Device

The screen shown above, which list all the fields available in the Super IO Device submenu for ease of reference in this manual. In the actual CMOS setup, you have to use the scroll bar to view the fields. The settings on the screen are for reference only. Your version may not be identical to this one.

4.6.4.1 Onboard FDC Controller

When enabled, this field allows you to connect your floppy disk drives to the onboard floppy disk drive connector instead of a separate controller card. If you want to use a different controller card to connect the floppy disk drives, set this field to Disabled. Note: ARK-3384 series embedded box computer does not support interface connection.

4.6.4.2 Onboard Serial Port 1

You can disable the COM1 serial port by selecting “Disabled”, select the “Auto” to allow the BIOS to arrange a suitable resource value for your COM1 device connection automatically, or you can select the resource of IRQ/IO Address combination for your COM 1 serial port device connection. The setup value options are:

Disabled

3F8/IRQ4

2FB/IRQ3

3E8/IRQ4

2E8/IRQ3

Auto

The default setup value of COM1 (Onboard Serial Port 1) is “3F8/IRQ4”.

4.6.4.3 Onboard Serial Port 2

You can disable the COM2 serial port by selecting “Disabled”, select the “Auto” to allow BIOS arrange a suitable resource value for your COM2 device connection automatically, or you can select the resource of IRQ/IO Address combination for your COM 1 serial port device connection. The setup value options are:

Disabled

3F8/IRQ4

2FB/IRQ3

3E8/IRQ4

2E8/IRQ3

Auto

The default setup value of COM2 (Onboard Serial Port 2) is “2F8/IRQ3”.

4.6.5 Watchdog Timer Select

This field allows you to set the timing duration when any unexpected program cause a halt, the Watch-Dog Timer will automatically reset the CPU or generate an interrupt. The Watch-Dog is designed with hardware only and doesn't need any arithmetical functions of a real-time clock chip, this ensures the reliability in an unmanned or standalone system. The setup options are “Disabled”, “10 Sec”, “20 Sec”, “30 Sec”, “40 Sec”, “1 Min”, “2 Min”, and “4 Min”.

The default setup value is “Disabled”

4.7 Power Management Setup

The power management setup controls the CPU card's “green” features to save power. The following screen shows the manufacturer's defaults:

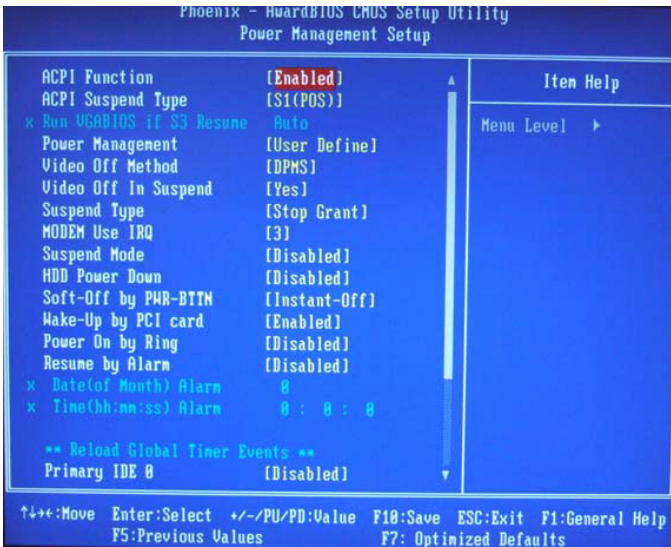


Figure 4.10: Power management setup screen

4.7.1 ACPI function

The choices: Enabled, Disabled.

4.7.2 ACPI Suspend Type

This field is used to select the type of Suspend mode. The setup options are:

S1(POS): Enables the Power On Suspend function.

S3(STR): Enables the Suspend to RAM function.

4.7.3 Run VGABIOS if S3 Resume

When this field is set to Auto, the system will initialize the VGA BIOS when it wakes up from the S3 state. This can be configured only if the “ACPI Suspend Type” field is set to “S3(STR)” or “S1&S3”. The setup options are “Auto”, “Yes”, and “No”. The default setup value is “Auto”.

4.7.4 Power Management

This category allows you to select the type (or degree) of power saving and is directly related to the following modes:

1. HDD Power Down
2. Suspend Mode

There are four selections for Power Management, three of which have fixed mode settings

Min. Power Saving	Minimum power management., Suspend Mode = 1 hr., and HDD Power Down = 15 min.
Max. Power Saving	Maximum power management., Suspend Mode = 1 min., and HDD Power Down = 1 min.
User Defined (Default)	Allows you to set each mode individually. When not disabled, each of the ranges are from 1 min. to 1 hr. except for HDD Power Down which ranges from 1 min. to 15 min. and disable.

4.7.5 Video Off In Suspend

When the system is in suspend, the video will turn off.

4.7.6 Suspend Type

The options are “Stop Grant” and “PwrOn Suspend”.

4.7.7 Modem Use IRQ

This determines the IRQ in which the MODEM can use. The setup options are: “3”, “4”, “5”, “7”, “9”, “10”, “11”, “NA”. The default setup value is “3”

4.7.8 Suspend Mode

When the system enters suspend mode, the CPU and onboard peripherals will be shut off. When enabled, and after the set time of system inactivity, all devices except the CPU will be shut off.

4.7.9 HDD Power Down

You can choose to turn the HDD off after one of the time intervals listed, or when the system is in “suspend” mode. If the HDD is in a power saving mode, any access to it will wake it up.

4.7.10 Soft-Off by PWR-BTTN

If you choose “Instant-Off”, then pushing the ATX soft power switch button once will switch the system to “system off” power mode. You can choose “Delay 4 sec.” If you do, then pushing the button for more than 4 seconds will turn off the system, whereas pushing the button momentarily (for less than 4 seconds) will switch the system to “suspend” mode.

4.7.11 Wake-Up by PCI card

Enabled: This field should be set to Enabled only if your PCI card such as LAN card or modem card uses the PCI PME (Power Management Event) signal to remotely wake up the system. Access to the LAN card or PCI card will cause the system to wake up. Refer to the card’s documentation for more information.

Disabled: The system will not wake up despite access to the PCI card

4.7.12 Power On By Ring

Set this field to Enabled to use the modem ring-on function. This will allow your system to power-on to respond to calls coming from an external modem.

4.7.13 PowerOn By Alarm

When Enabled, you can set the date and time at which the RTC (real time clock) alarm awakens the system from Suspend mode. The choices: Enabled, Disabled.

Enabled: When Enabled, you can set the date and time you would like the Soft Power Down (Soft-Off) PC to power-on in the “Date (of Month) Alarm” and “Time

(hh:mm:ss) Alarm” fields. However, if the system is being accessed by incoming calls or the network (Resume On Ring/LAN) prior to the date and time set in these fields, the system will give priority to the incoming calls or network.

Disabled: Disables the automatic power-on function. (default)

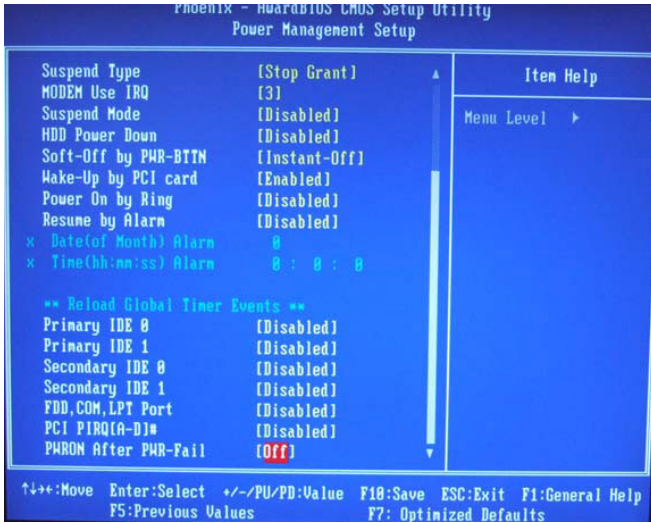


Figure 4.11: Power Management Setup

4.7.14 Date (of Month) Alarm

0 The system will power-on everyday according to the time set in the “Time (hh:mm:ss) Alarm” field.

1-31 Select a date you would like the system to power-on. The system will power-on on the set date, and time set in the “Time (hh:mm:ss) Alarm” field.

4.7.15 Time (hh:mm:ss) Alarm

This is used to set the time you would like the system to power-on. If you want the system to power-on everyday as set in the “Date (of Month) Alarm” field, the time set in this field must be later than the time of the RTC set in the Standard CMOS Features submenu.

4.7.16 Primary IDE 0/ 1 and Secondary IDE 0 / 1

When Enabled, the system will resume from suspend mode if Primary IDE 0 / 1 or Secondary IDE 0 / 1 is active. The choice: Enabled, Disabled.

4.7.17 FDD, COM, LPT PORT

When Enabled, the system will resume from suspend mode if FDD, COM port, or LPT port is active. The choice: Enabled, Disabled.

4.7.18 PCI PIRQ [A-D]#

When Enabled, the system will resume from suspend mode if interrupt occurs. The choice: Enabled, Disabled.

4.7.19 PWRON After PWR-Fail

Off When power returns after an AC power failure, the system's power is off. You must press the Power button to power-on the system.

On When power returns after an AC power failure, the system will automatically power-on

Former-Sts When power returns after an AC power failure, the system will return to the state where you left off before power failure occurs. If the system's power is off when AC power failure occurs, it will remain off when power returns. If the system's power is on when AC power failure occurs, the system will power on when power returns.

4.8 PnP/PCI Configurations

This section shows how to configure the PCI bus system. It covers some very technical items and it is strongly recommended that only experienced users should make any changes to the default settings.

4.8.1 Reset Configuration Data

Default is Disable. Select Enable to reset Extended System Configuration Data (ESCD) if you have installed a new add-on and system configuration has caused such a conflict that OS cannot boot.

Enabled: The BIOS will reset the Extended System Configuration Data (ESCD) once automatically. It will then recreate a new set of configuration data.

Disabled: The BIOS will not reset the configuration data.

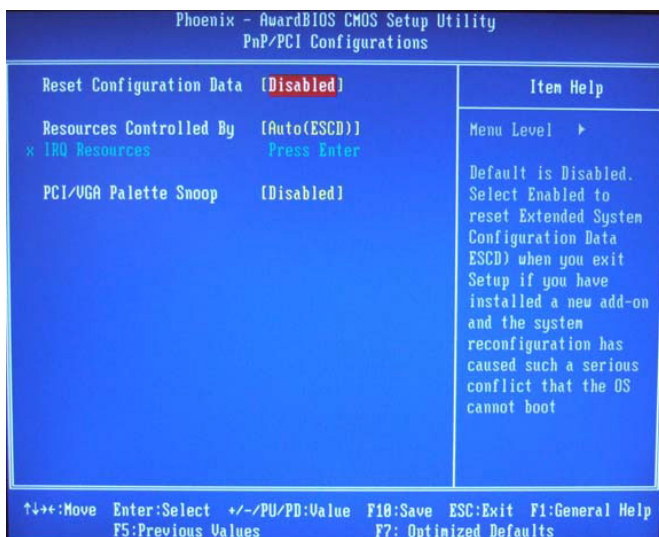


Figure 4.12: PnP/PCI configurations screen

4.8.2 Resources controlled by

The Award Plug and Play BIOS has the capability to automatically configure all of the boot and Plug and Play compatible devices.

Auto (ESCD): The system will automatically detect the settings for you.
Manual: Choose the specific IRQ resources in the “IRQ Resources” field.

4.8.3 IRQ Resources

Move the cursor to this field and press <Enter>. The “IRQ-3” to “IRQ-15” fields will appear. Set each system interrupt to either PCI Device or Reserved.

4.8.4 PCI/VGA Palette Snoop

This field determines whether the MPEG ISA/VESA VGA cards can work with PCI/VGA or not. The default value is Disabled.

EnabledMPEG ISA/VESA VGA cards work with PCI/VGA.

DisabledMPEG ISA/VESA VGA cards does not work with PCI/VGA.

4.9 Frequency/Voltage Control

This section shows the user how to configure the processor frequency.

4.9.1 Auto Detect PCI CLK

This field enables or disables the auto detection of the PCI clock.

4.9.2 Spread Spectrum

This field sets the value of the spread spectrum. The default setting is Disabled. Leave this field in its default setting. Do not alter this setting unless advised by an engineer or technician.

4.9.3 CPU Host/3V66/PCI Clock

Leave this field in its default setting. Do not alter this setting unless advised by an engineer or technician.

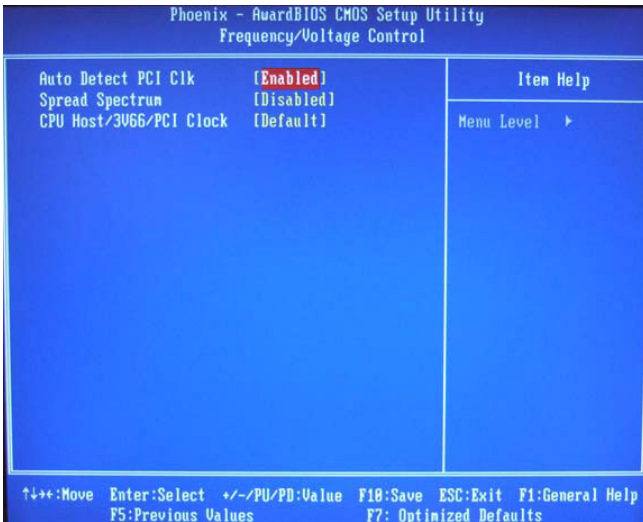


Figure 4.13: Frequency/Voltage Control

4.10 Load Optimized Defaults

This option allows you to load the default values to your system configuration. These default settings are optimal and enable all high performance features.

4.11 Set Password

To change the password:

1. Choose the “Set Password” option from the “Initial Setup Screen” menu and press <Enter>.

The screen will display the following message:

Please Enter Your Password

Press <Enter>.

2. If the CMOS is good or if this option has been used to change the default password, the user is asked for the password stored in the CMOS.

The screen will display the following message:

Please Confirm Your Password

Enter the current password and press <Enter>.

3. After pressing <Enter> (ROM password) or the current password (user-defined), you can change the password stored in the CMOS. The password must be no longer than eight (8) characters.

Remember, to enable the password setting feature, you must first select either “Setup” or “System” from the “Advanced BIOS Features” menu.

4.12 Save & Exit Setup

If you select this and press <Enter>, the values entered in the setup utilities will be recorded in the CMOS memory of the chipset. The microprocessor will check this every time you turn your system on and compare this to what it finds as it checks the system. This record is required for the system to operate.

4.13 Exit Without Saving

Selecting this option and pressing <Enter> lets you exit the setup program without recording any new values or changing old ones.

PCI SVGA/LCD Setup

This chapter details the software configuration information. It shows you how to configure the card to match your application requirements. The AWARD System BIOS is covered in Chapter 4.

Sections include:

- Introduction
- Installation of SVGA drivers for Windows 2000/XP

Chapter 5 PCI SVGA/LCD Setup

5.1 Introduction

The board has an onboard Intel 852GM/855GME chipset for its AGP/SVGA controller. It supports LVDS LCD displays and conventional analog CRT monitors with 64MB frame buffer shared with system memory. The VGA controller can drive CRT displays with resolutions up to 1600 x 1200@85-Hz and 2048 x 1536 @75Hz and support 2 channel LVDS display mode up to UXGA panel resolution with frequency range from 25-MHz to 112-MHz

5.1.1 CMOS setting for Boot Display type

The ARK-3384 system BIOS and custom drivers are located in a 4 Mbit, Flash ROM device, designated U7 of system motherboard of ARK-3384. A single Flash chip holds the system BIOS, VGA BIOS and network Boot ROM image. The display can be configured via CMOS settings, by choice the selection items of “Boot display” of Advanced Chipset Features sections of Award BIOS Setup.

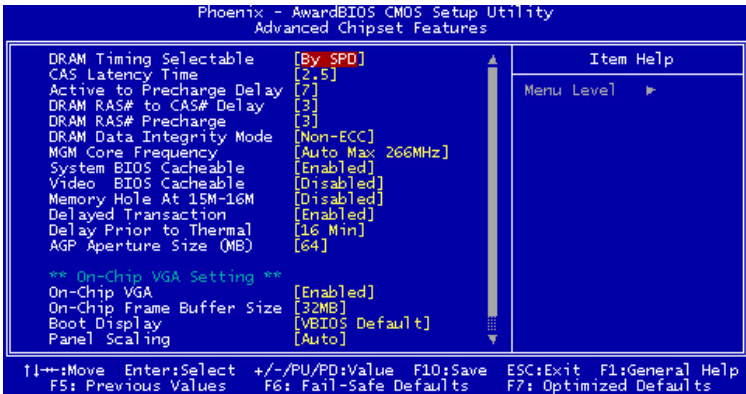


Figure 5.1: Advanced Chipset features screen

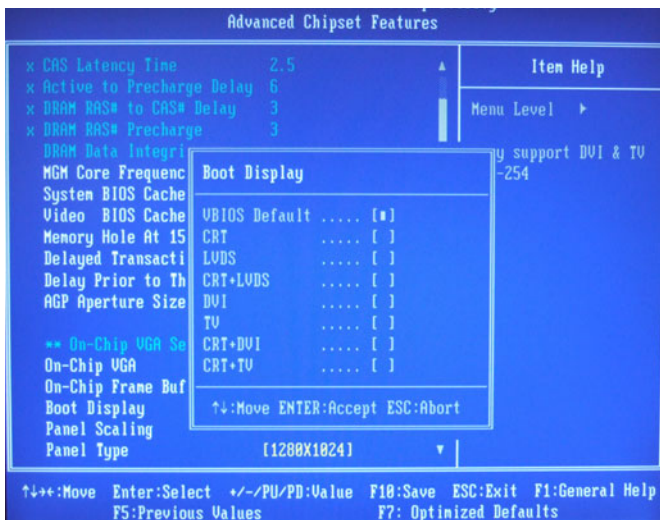


Figure 5.2: Boot Display Selection

The ARK-3384 can be set in one of four configurations: on a CRT, on a LVDS based of flat panel display, or on both CRT+LVDS for simultaneous or dual independent displays. The system is initially set to “VBIOS-Default” to allow system to detect the connected display device automatically.

5.1.2 Dual Independent Display

The ARK-3384 uses an Intel 855GME or Intel 852GM controller that is capable of providing multiple views and simultaneous display with mixed video and graphics on a flat panel and CRT. To set up dual display under2000/XP, please follow these steps:

1. Select “Start”, “Control panel”, “Display”, "Setting", "Advanced", "Graphics Properties", "Device".

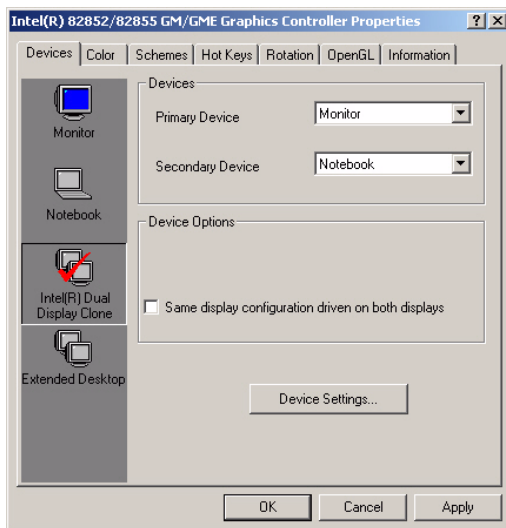


Figure 5.3: Intel® 82852/82855 GM/GME Graphics Controller Properties – Devices

2. Select “1” for current display, or “2” for second display.

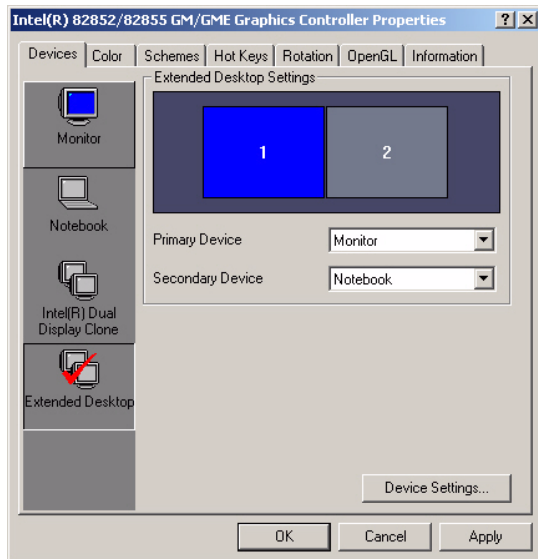


Figure 5.4: Intel® 82852/82855 GM/GME Graphics Controller Properties – Extended Desktop Settings

3. Enable “Extend my Windows desktop onto this monitor”.
4. Click “OK”.

5.2 Installation of the SVGA Driver

Complete the following steps to install the SVGA driver. Follow the procedures in the flow chart that apply to the operating system that you are using within your ARK-3384.

5.2.1 Installation for Windows 2000/XP

To install SVGA driver for Window 2000/XP, please run the setup wizard “Intel Extreme Graphic 2” in CD-ROM. Example of installation is shown as bellow:

1. You can find Win2000/XP VGA driver from the path at the directory of ARK-3384 CD-ROM:

D:\ARK-33384 Series Software Device
Driver\2_VGA\win2k_xp141.exe,

then double click “win2k_xp141” to run “Install Shield Wizard”

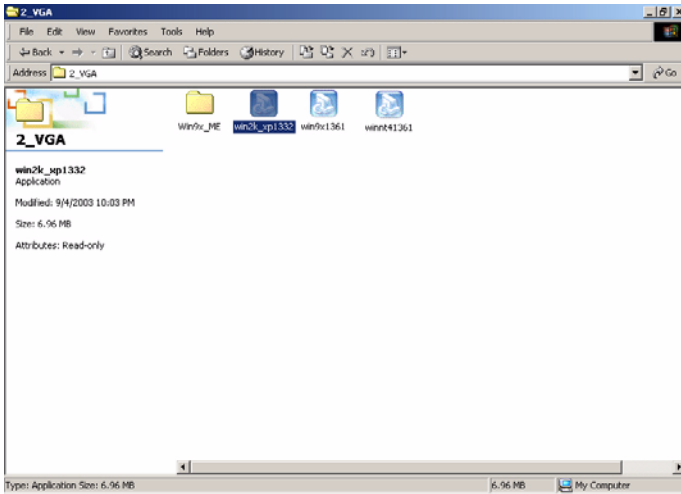


Figure 5.5: CD Directory “2.VGA”

- Notes: The windows illustrations in this chapter are intended as examples only. Please follow the listed steps, and pay attention to the instructions which appear on your screen.
- For convenience, the CD-ROM drive is designated as "D" throughout this chapter.

2. Double click "setup" and "next" into setup wizard.

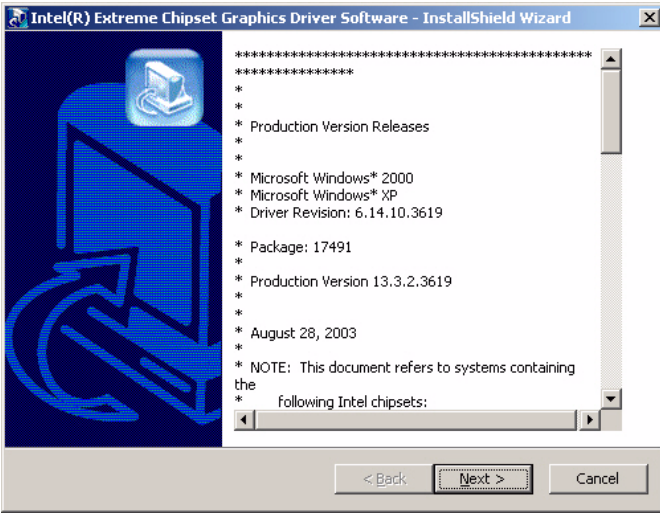


Figure 5.6: Intel® Extreme Chipset Graphics Driver Software Install Wizard

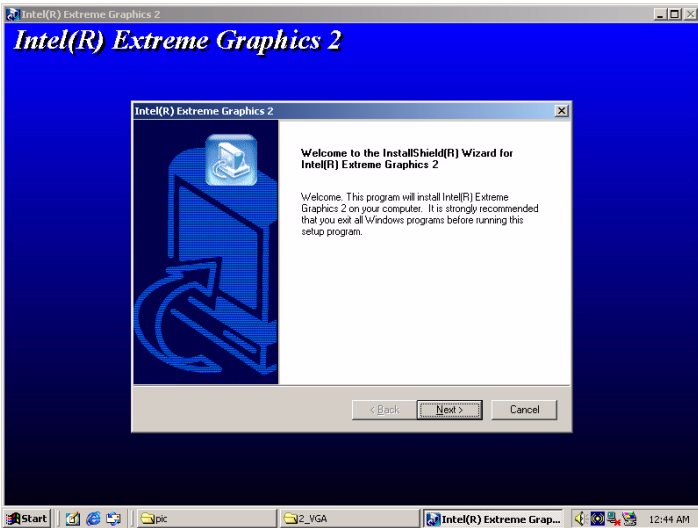


Figure 5.7: Intel® Extreme Graphics Driver Setup

3. Restart computer when installation finished.

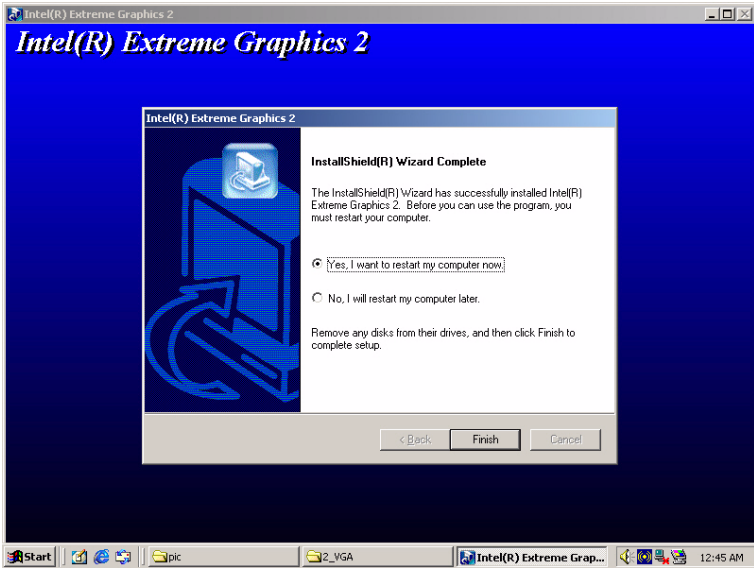


Figure 5.8: InstallShield® Wizard Complete

5.3 Further information

For further information about the AGP/VGA installation in your ARK-3384, including driver updates, troubleshooting guides and FAQ lists, visit the following web resources:

Intel website: www.intel.com

Advantech websites: www.advantech.com, or www.advantech.com.tw

Audio Setup

The ARK-3384 is equipped with an audio interface that records and plays back CD-quality audio. This chapter provides instructions for installing the software drivers included on the audio driver diskettes.

Chapter 6 Audio Setup

6.1 Introduction

The ARK-3384's audio interface provides high-quality stereo sound and FM music synthesis (ESFM) by using the Intel ICH4 audio controller. The audio interface can record, compress, and play back voice, sound, and music with built-in mixer control.

6.2 Driver installation

6.2.1 Before you begin

Please read the instructions in this chapter carefully before you attempt installation. The audio drivers for the ARK-3384 board are located on the audio driver CD. Run the supplied SETUP program to install the drivers; don't copy the files manually.

Note: The files on the software installation diskette are compressed. Do not attempt to install the drivers by copying the files manually. You must use the supplied SETUP program to install the drivers.

6.2.2 Windows 2000/XP drivers

1. Find Win 2000/XP Audio driver folder at the directory "5_Audio" from the Driver & Utility CD-ROM disk, click "setup" to start the installation process.

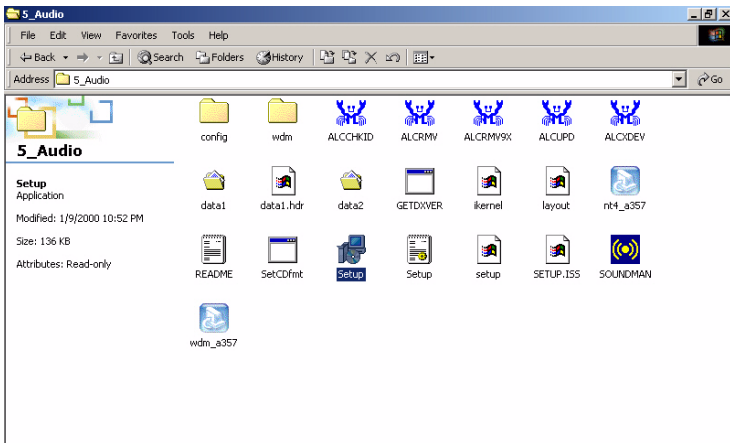


Figure 6.1: Directory of Audio Driver



Figure 6.2: AC97 Audio Driver Installation

2. Click "yes" to reboot your computer.

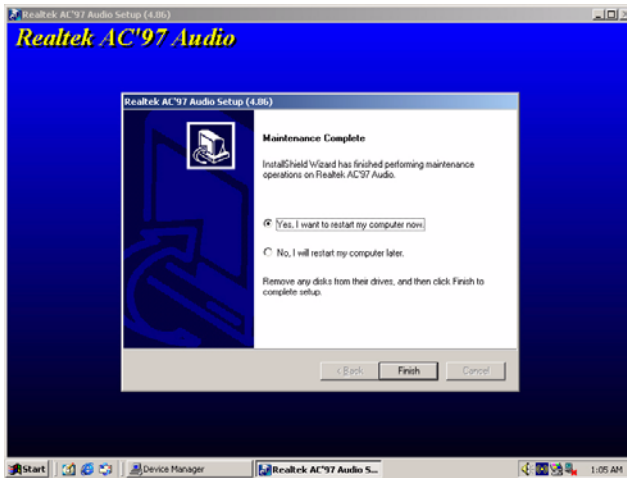


Figure 6.3: Installation Complete of AC97 Audio Driver

Ethernet Setup

This chapter provides information on Ethernet configuration.

Sections include:

- Introduction
- Installation of Ethernet drivers for Windows
- 2000/XP
- Further information

Chapter 7 Ethernet Setup

7.1 Introduction

The ARK-3384 is equipped with a high performance 32-bit Ethernet chipset which is fully compliant with IEEE 802.3 100 Mbps CSMA/CD standards. They are supported by major network operating systems. They are also both 100Base-T and 10Base-T compatible. The network boot feature can be utilized by incorporating the boot ROM image files for the appropriate network operating system. The boot ROM BIOS files are combined with system BIOS, which can be enabled/disabled in the BIOS setup.

7.2 Installation of Ethernet driver

Before installing the Ethernet driver, note the procedures below. You must know which operating system you are using in your ARK-3384 Series, and then refer to the corresponding installation flow chart. Then just follow the steps described in the flow chart. You will quickly and successfully complete the installation, even if you are not familiar with instructions for MS-DOS or Windows.

7.2.1 Installation for Windows 2000/XP

1. Select "Start", "Settings". "Control Panel".

Note: The windows illustrations in this chapter are examples only. Follow the steps and pay attention to the instructions which appear on your screen.

2. Double click "Add/Remove Hardware".



Figure 7.1: Windows Control Panel Screen

3. Click “Next” and prepare to install network function

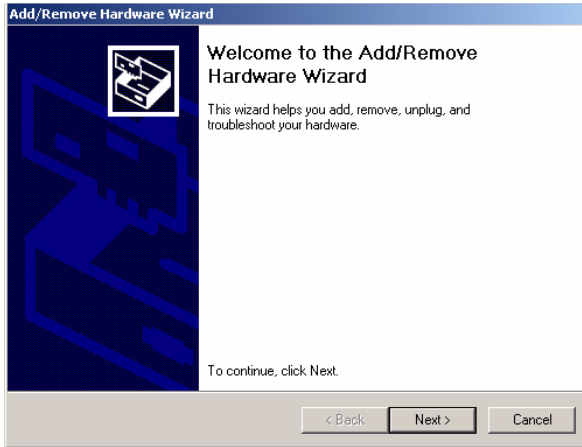


Figure 7.2: Add/Remove Hardware Wizard

4. Choose “Add/Troubleshoot a device” and click “Next”.

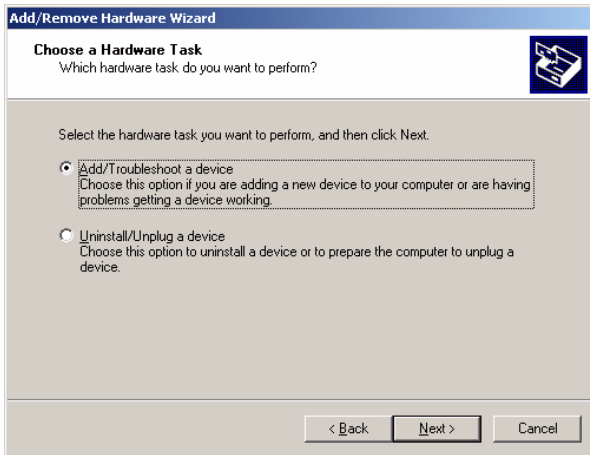


Figure 7.3: Choose a Hardware Task Screen

5. Choose Hardware Device “Ethernet Controller”

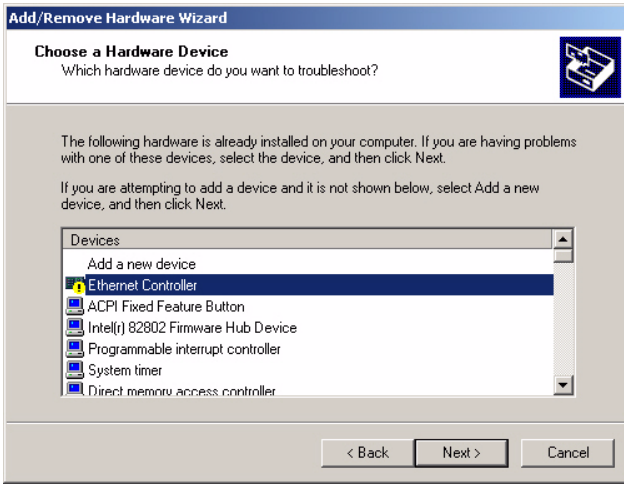


Figure 7.4: Choose a Hardware Device



Figure 7.5: Install Ethernet Controller Screen

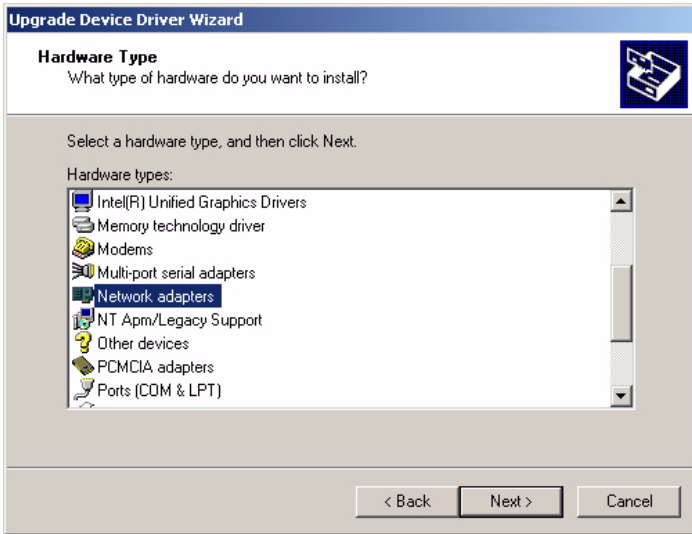


Figure 7.6: Hardware Type Screen

6. Insert the ARK-3384's Driver & Utility CD-ROM Disk into D: drive 6-1. Find the driver of chipset folder "82551QM" at the directory of "D:\ARK-3384 Series Software Device Driver\3_LAN" from ARK-3384's Driver & Utility CD-ROM Disk, click "setup" to start the installation process.
- 6-2. Click "OK".

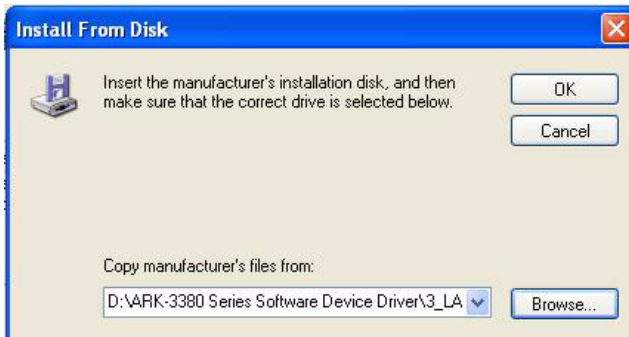


Figure 7.7: Install From Disk Screen

7. Choose the "Intel 8255x-based PCI Ethernet Adapter (10/100)" item
Click "Next"

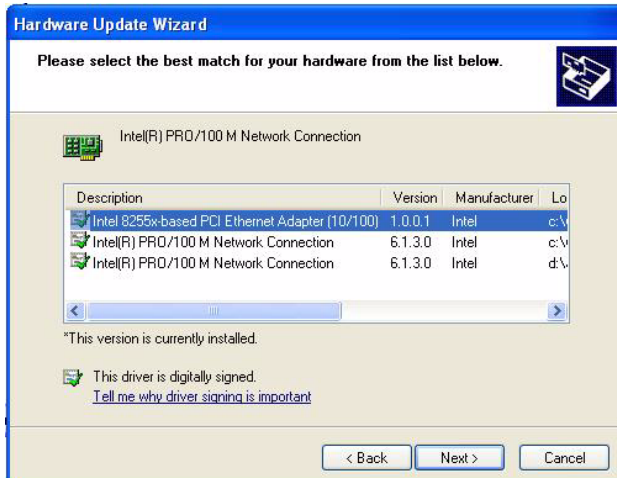


Figure 7.8: Network Adapter Selection Screen

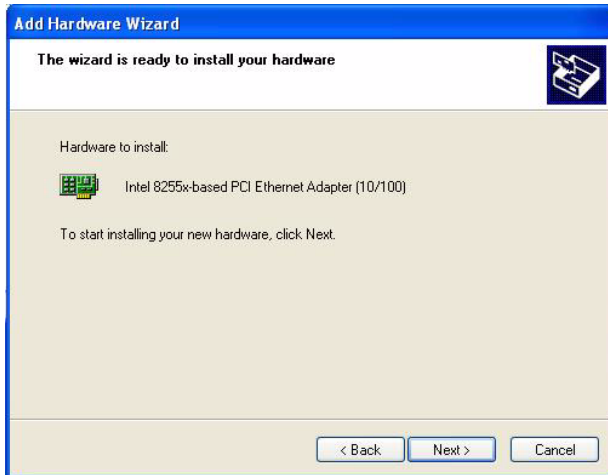


Figure 7.9: Start Device Driver Installation

8. Please wait while the wizard installs the software.

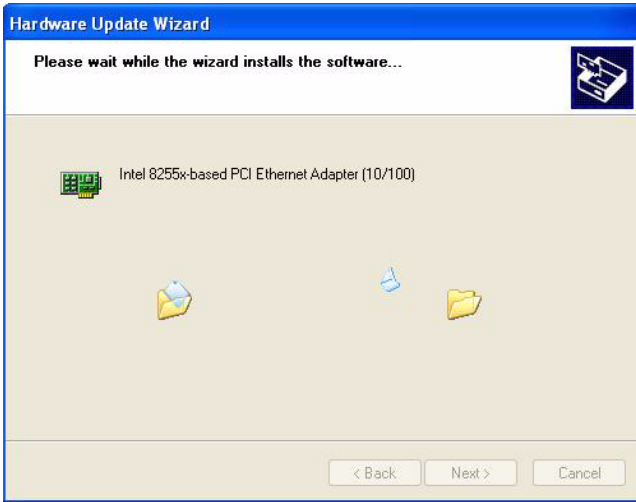


Figure 7.10: Intel Ethernet Adapter driver installation screen
9. Click “OK”



Figure 7.11: Intel Ethernet Adapter Driver Installation Complete Screen

IEEE 802.11b/g Wireless LAN Setup

This chapter provides information on software driver installation of IEEE 802.11b/g Wireless LAN

Sections include:

- Introduction
- Installation of Ethernet drivers for Windows
- 2000/XP
- Further information

Chapter 8 IEEE 802.11b/g Wireless LAN Setup

8.1 Introduction

The ARK-3384 is equipped with Wireless LAN interface that is fully compliant with IEEE 802.11b and 802.11g standard protocol and operates in the 2.4GHz frequency bands with support of data speed up to 54Mbps. It empowers your notebook to access wireless network instantly with maximum 54Mbps throughput. The Wireless LAN interface of ARK-3384 is equipped with the most secure enhancement to save your important information from hacking. It also supports popular operating systems with great compatibility.

8.2 Installation of IEEE 802.11b/g Wireless LAN's driver

8.2.1 Installation for Windows XP

1. Find Windows XP Wireless LAN driver folder at the directory of “Disk Drive Letter:\.....\ARK-3380 Series Software Device Driver\7_WLAN” from the Driver & Utility CD-ROM disk, click “setup” to start the installation process.

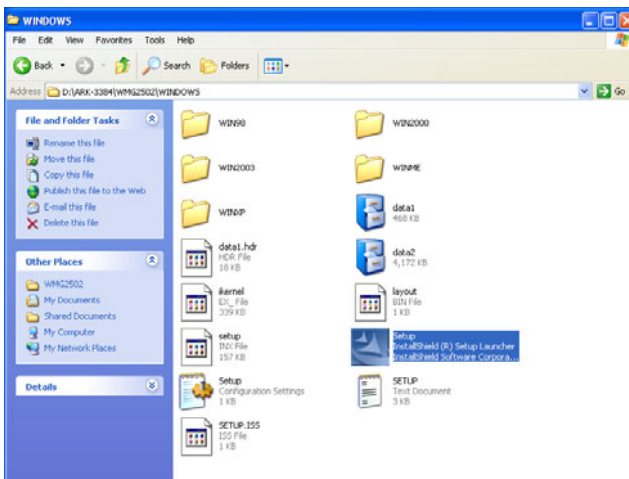


Figure 8.1: Directory folder of Wireless LAN

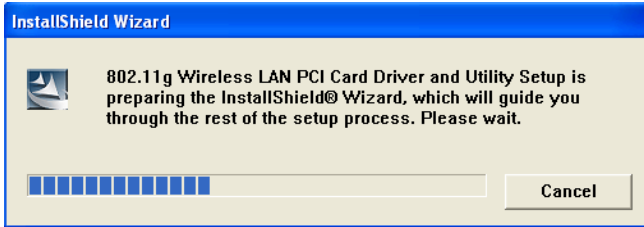


Figure 8.2: Directory folder of Wireless LAN

2. Click “Finish” to complete the driver installshield wizard.

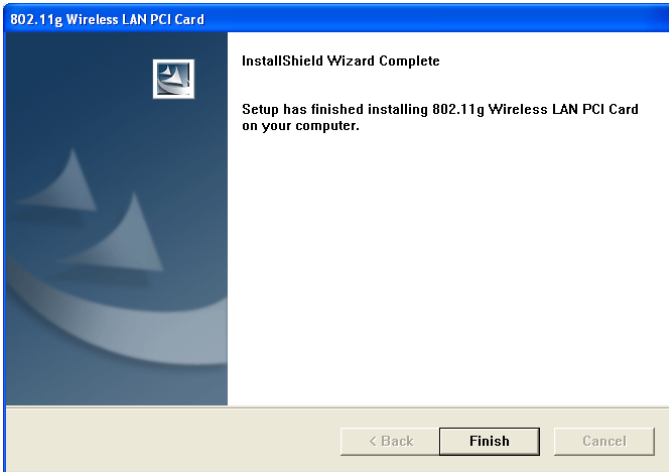


Figure 8.3: Installshield Wizard Complete

3. A Easy Configuration Utility will shows on screen automatically, after complete the driver installshield wizard.

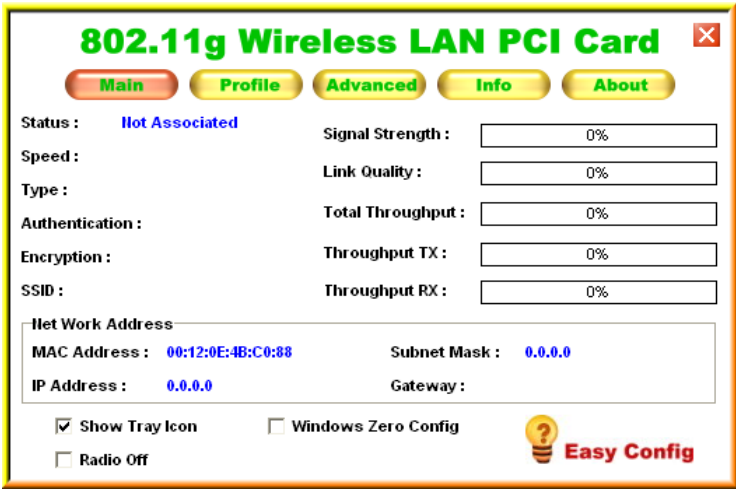


Figure 8.4: “Easy Config” Utility for Wireless LAN

4. Please choose the “Profile” button to scan wireless network

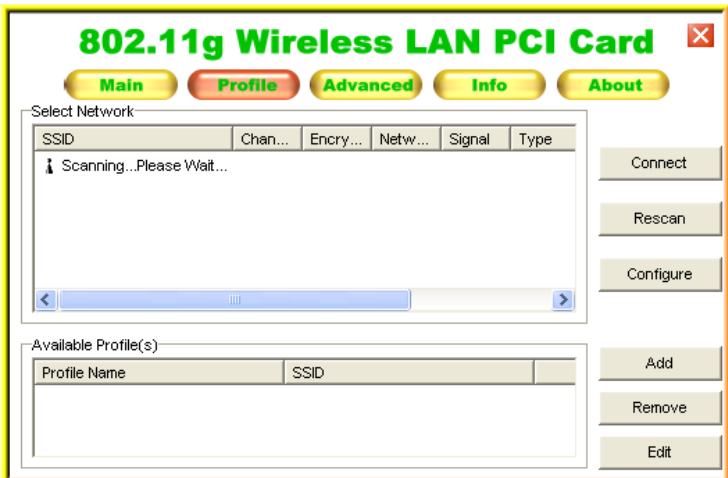


Figure 8.5: “Profile” configuration screen

5. The Configuration utility display the available wireless network list for your selection, please refer to Figure 8.6. User can configure the security data profile that required to connect with the selected wireless network by clicking “configure”.

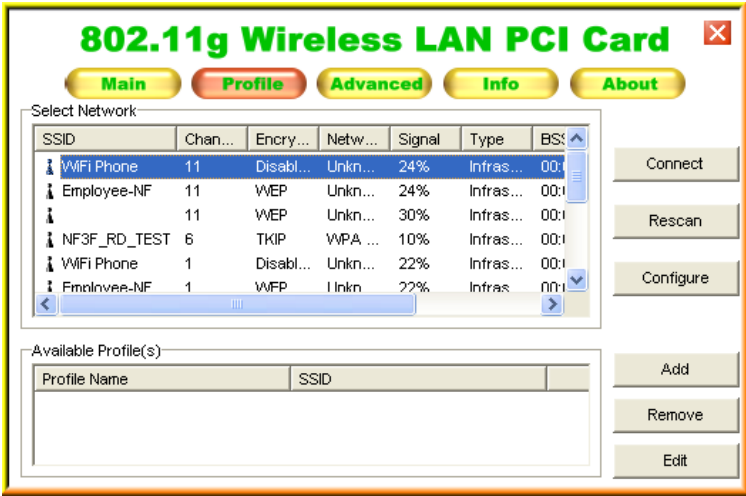


Figure 8.6: “Profile” configuration screen

6. The Wireless Network Properties will show on screen after clicking the “configure” to allow user configuration for the security data profile that required to connect with the selected wireless network.

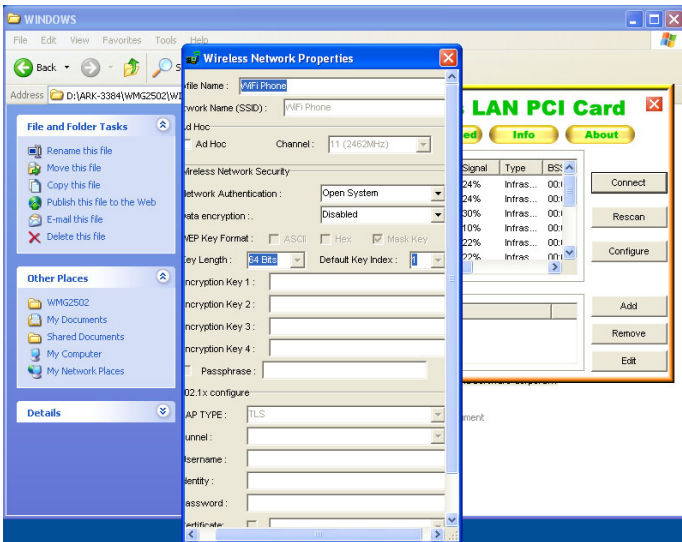


Figure 8.7: “Profile” configuration screen

7. Click “Connect” to connect to the selected wireless network.

Full Disassembly Procedure

This chapter details the system disassembling procedure for setting up the jumpers and for maintenance.

Sections include:

Chapter 9 Full Disassembly Procedure

9.1 Introduction

If you want to completely disassemble the ARK-3384 embedded box computer, follow the step-by-step procedures below. Users should be aware that Advantech Co., Ltd. takes no responsibility whatsoever for any problems or damage caused by the disassembly of the ARK-3384 embedded box computer. Make sure the power cord of the ARK-3384 embedded box computer is unplugged before you start. The following procedures do not include the detailed disassembly procedures for the HDD, Compact Flash Disk and SRAM; all of which can be found in Chapter 3.

1. Unscrew the 6 screws on the bottom side

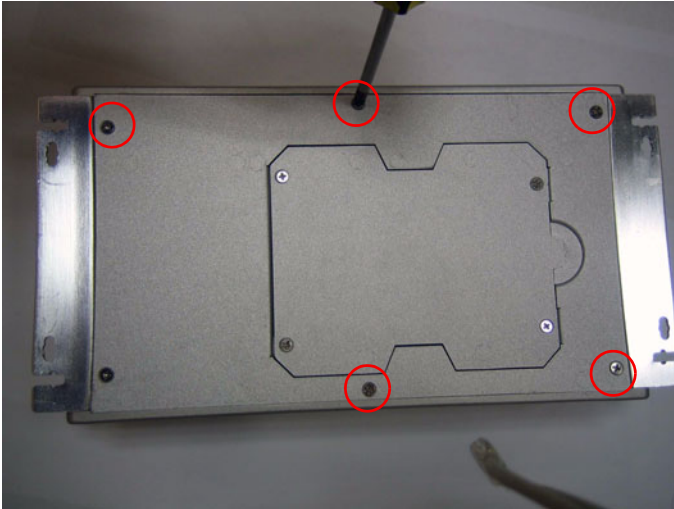


Figure 9.1:

2. Unscrew the screws of the frame bracket on the front side of system



Figure 9.2:

3. Remove the front frame bracket by carefully pulling and lifting the bracket in order to unlock it.

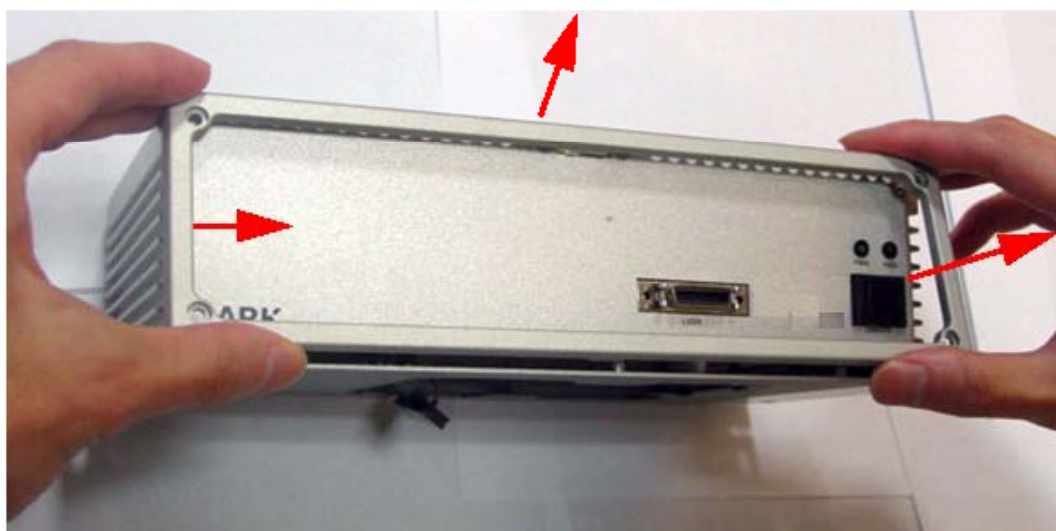


Figure 9.3:

4. The Front Frame Bracket removed



Figure 9.4:

5. Unscrew the 2 screws which are located on the Front Metal Face plate



Figure 9.5:

6. The Front Metal Face Plate removed



Figure 9.6:

Warning: Do not use too much pressure when removing the front metal face plate as the power button cable is still attached and could be damaged.

7. Unscrew the 4 screws of the frame bracket on the rear side of system



Figure 9.7:

8. Remove the rear frame bracket by carefully pulling and lifting the bracket in order to unlock it



Figure 9.8:

9. The rear frame bracket removed.



Figure 9.9:

10. Unscrew the 2 screws which are located on the Rear Metal Face plate



Figure 9.10:

11. Unscrew the 2 screws which fixed the “USB2&USB3 port” on the Rear Metal Face Plate



Figure 9.11:

12. Unscrew the 2 screws which fixed the “COM2 port” on the Rear Metal Face Plate



Figure 9.12:

Warning: Do not use too much pressure when removing the front metal face plate as the COM2 connector cable is still attached and could be damaged.

14. Unscrews the 4 screws which fixed the MIO-6251 Module I/O board to the system board.

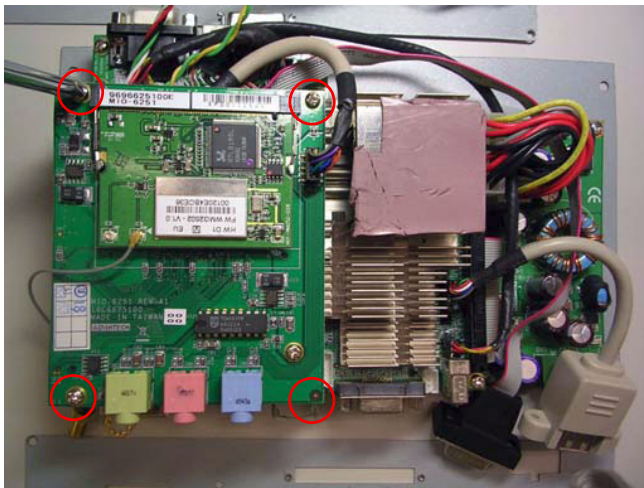


Figure 9.13:

15. Remove MIO-6251 Module I/O board from MIO Socket of system board

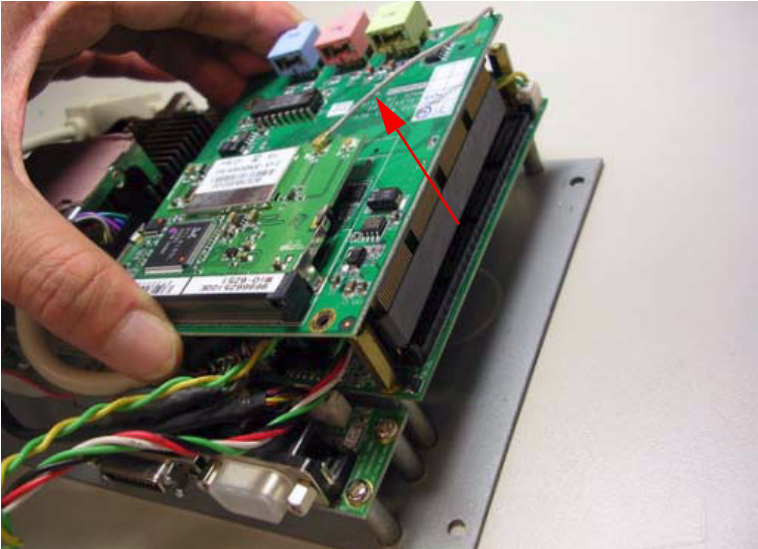


Figure 9.14:

16. The MIO-6251 Module I/O board removed from system.

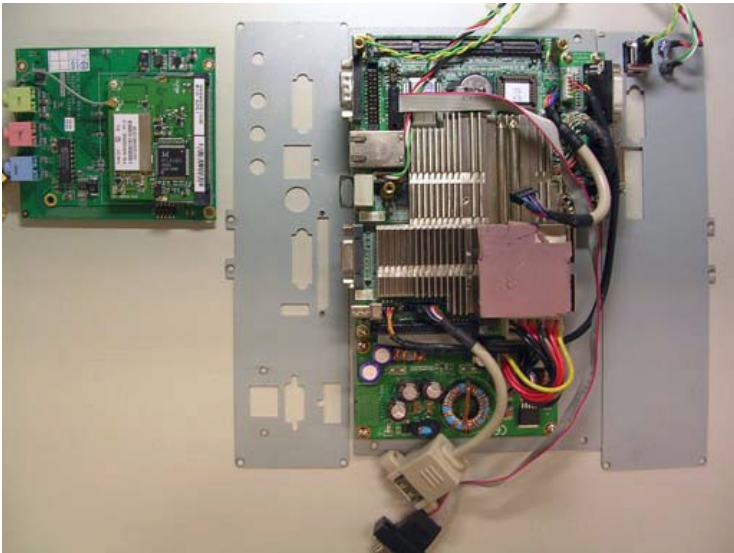


Figure 9.15:

17. Jumper Location on PCM-9380/PCM-9386 Motherboard

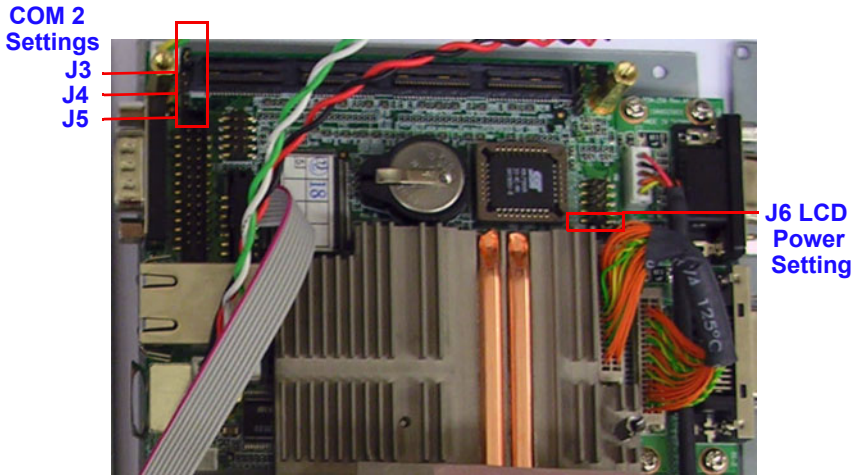


Figure 9.16:

REMARK: □

IEEE 802.11b or 802.11g operation of this product in the U.S.A. is firmware-limited to channels 1 □ through 11. □

□

You are cautioned that changes or modifications not expressly approved by the party responsible □ for compliance could void your authority to operate the equipment. □

□

1. •This transmitter must not be co-located or operating in conjunction with any other antenna or □ transmitter. □

2. •This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled □ environment. This equipment should be installed and operated with a minimum distance of 20 □ centimeters between the radiator and your body. □

□