BPC-3610

10.4" Industrial Panel PC

• 10.4" TFT Panel •
• Touch Screen •
• 3.5" MainBoard •
• VIA Eden CPU or ULV Intel® Celeron® processor •
• 2.5" 20G HDD •
• 70W AC or 80W DC Power Supply •

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Table of Contents

Safety Instructions

The safety recommendations outlined in this section are to be read, understood and followed before operating the product. Keep this information in a safe place for future reference. Failure to comply with any of the following safety procedures could result in serious hazard.

➢ Do not operate product for any purposes other than its intended use.

➢ This product is intended for indoor use only.

➢ Do not operate product if power cord is damaged in anyway.

➢ Do not insert objects into openings.

➢ Do not immerse product in water or permit liquids to spill inside.

➢ Turn off power when unattended or not in use. Unplug product before moving it or when it is not in use for an extended period of time. The socket-outlet shall be installed near the equipment and shall be easily accessible.

➢ Do not alter or extend electric plug. Plug is configured for appropriate electrical supply.

➢ Do not overload electrical outlets beyond their capacity as this can result in a fire.

Life Expectancy of Constituent Parts

This section describes the life expectancy of constituent parts (backlight, power supply, internal cooling fan and touch screen), which make up to BPC-3610 series.

- **TFT Display Backlight**

Display brightness decreases over time with use. The expected operating lifetime of the backlight time to reach 50% initial brightness) is 30,000 hours (assuming continuous lit state at 25 degrees C). Actual lifetime before replacement is about 30,000 hours, although this depends on operating conditions.

- **Power Supply**

Assuming continuous use at 25 degrees C, the expected life of the power supply is approximately 50,000 hours. This may be lower given use at higher temperatures.

- **Touch Screen**

The operating lifetime of the touch screen is approximately 1 million operations (as tested by mechanical manipulation under 100g of force at a rate of two presses per second).

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Chapter 1

Introduction

The BPC-3610 series is an industrial Panel PC. The rear design of BPC-3610 series enhanced the disassembly process when required. It also supports various mounting solution like wall mount, panel mount or desktop for different application.

The BPC-3610 series has a 10.4" display and an optional touch screen that operate under all types of working environment.

This model can accommodate BOSER's 3.5" mainboard. The BPC-3610 series provides CF adapter, PCMCIA adapter, TV-Out, DOC, COM, and USB port. It is fully compatible with Intel-base systems with operating systems including Windows 95/98/NT/ME/2000/XP, Linux and other OS.

- The BPC-3610 series is IBM PC/AT compatible and can draw from a large body of hardware and software resources worldwide.

- 70W power supply with FCC, UL, CSA, VED

- The user can select the operating system he wants to use just like an ordinary personal computer. An operating system such an MS-DOS, Windows can be selected to suit the application.

- The BPC-3610 series features an all-in-one flat display.

- Keyboard less operations are possible through the use of a touch screen. In addition to a watchdog timer indispensable in FA applications.

You can select from a broad range of variations to arrive at the optimum configuration for your application and budget.

1.1   Major Features

The BPC-3610 series comes with the following features:
➢ Aluminum chassis
➢ 10.4" high brightness TFT color panel display
➢ Built-in touch screen, mainboard, VIA Eden 667MHz/1GHz CPU or ULV Intel® Celeron® processor 400/650MHz, 64MB SO-DIMM, 2.5" 20GB HDD, 70W or 80W DC P/S
➢ Onboard graphics controller (by mainboard)
➢ Onboard Ethernet controller (by mainboard)
➢ Onboard 3D audio controller (by mainboard)
➢ CompactFlash card adapter, PCMCIA adapter, TV-Out, DOC, COM, USB port (by mainboard)
➢ Open frame type (optional)

1.2   Specifications

BPC-3610C

- **CPU:** VIA Eden 667MHz low power embedded CPU
- **Memory:** One SO-DIMM socket supporting up to 256MB
- **Touch Screen:** 10.4" resistive touch screen
- **CompactFlash:** One, Type II IDE interface adapter
- **VGA:** Onboard graphics controller
- **TV-Out:** Supports PAL or NTSC TV systems
- **Ethernet:** Onboard 10/100 Based LAN
- **Audio:** Onboard 3D audio controller
- **HDD/FDD/CD-ROM:** One 2.5" 20GB HDD
- **Serial Port:** One RS-232/422/485 and two RS-232
- **USB:** Two USB ports
- **Keyboard/Mouse:** PS/2 6-pin Mini DIN
- **DiskOnChip:** DiskOnChip socket supporting memory sizes of up to 288MB
- **BIOS:** AMI PnP Flash BIOS
- **Watchdog Timer:** Sets 1/2/10/20/110/220 seconds activity trigger with Reset or NMI
- **Power In:** 70W or 80W DC power supply
- **Temperature:** 0~+45°C (operating); -20~+70°C (storage)
- **Dimensions:** 28.5(L) x 22.5(W) x 6.8(H) cm

BPC-3610D

- **CPU:** VIA Eden 1GHz embedded CPU/ULV Intel® Celeron® processor 400/650MHz
- **Memory:** One SO-DDR socket supporting up to 512MB
- **Touch Screen:** 10.4" resistive touch screen
- **CompactFlash:** One, Type II IDE interface adapter
- **PCMCIA:** Two, Type II IDE interface adapter
- **VGA:** Onboard graphics controller
- **TV-Out:** Supports PAL or NTSC TV systems
- **Ethernet:** Onboard 10/100 Based LAN
- **Audio:** Onboard 3D audio controller
- **HDD/FDD/CD-ROM:** One 2.5" 20GB HDD
- **Serial Port:** Three RS-232
- **USB:** Two USB2.0 ports
- **Keyboard/Mouse:** PS/2 6-pin Mini DIN
- **BIOS:** Award PnP Flash BIOS

- **Watchdog Timer:** Software programmable time-out intervals from 1~256 sec.
- **Power In:** 70W or 80W DC power supply
- **Temperature:** 0~+45°C (operating); -20~+70°C (storage)
- **Dimensions:** 28.5(L) x 22.5(W) x 6.8(H) cm

BBS-2004E

- **CPU:** VIA Eden 1GHz embedded CPU
- **Memory:** One SO-DDR socket supporting up to 512MB
- **Touch Screen:** 10.4" resistive touch screen
- **CompactFlash:** One, Type II IDE interface adapter
- **VGA:** Onboard graphics controller
- **TV-Out:** Supports PAL or NTSC TV systems
- **Ethernet:** Onboard dual 10/100 Based LAN
- **Audio:** Onboard 3D audio controller
- **HDD/FDD/CD-ROM:** One 2.5" 20GB HDD
- **Serial Port:** Two RS-232
- **USB:** Two USB2.0 ports
- **Keyboard/Mouse:** PS/2 6-pin Mini DIN
- **BIOS:** Award PnP Flash BIOS
- **Watchdog Timer:** Software programmable time-out intervals from 1~256 sec.
- **Power In:** 70W or 80W DC power supply
- **Temperature:** 0~+45°C (operating); -20~+70°C (storage)
- **Dimensions:** 28.5(L) x 22.5(W) x 6.8(H) cm

BBS-2004F

- **CPU:** ULV Intel® Celeron® processor 400/650MHz
- **Memory:** One SO-DIMM socket supporting up to 512MB
- **Touch Screen:** 10.4" resistive touch screen
- **CompactFlash:** One, Type II IDE interface adapter
- **VGA:** Onboard graphics controller
- **Ethernet:** Onboard dual 10/100 Based LAN
- **Audio:** Onboard 3D audio controller
- **HDD/FDD/CD-ROM:** One 2.5" 20GB HDD
- **Serial Port:** One RS-232/422/485 and two RS-232
- **USB:** Two USB ports
- **Keyboard/Mouse:** PS/2 6-pin Mini DIN
- **DiskOnChip:** DiskOnChip socket supporting memory sizes of up to 288MB
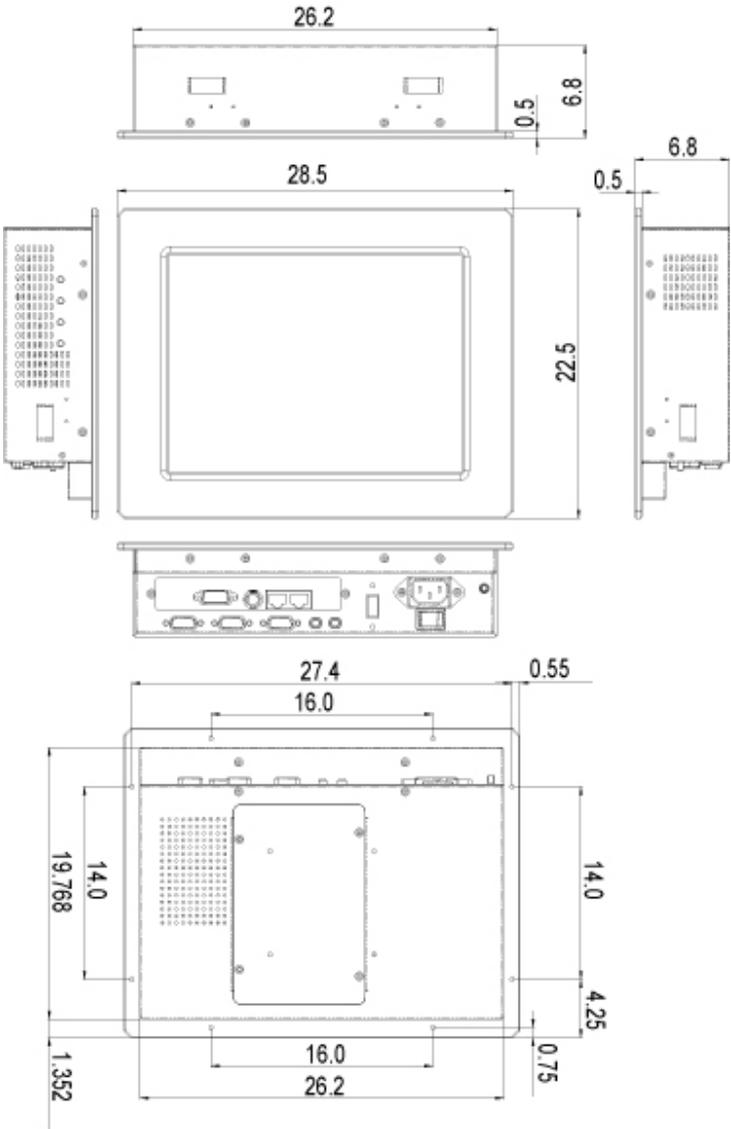- **BIOS:** AMI PnP Flash BIOS

4

- **Watchdog Timer:** Sets 1/2/10/20/110/220 seconds activity trigger with Reset or NMI
- **Power In:** 70W or 80W DC power supply
- **Temperature:** 0~+45°C (operating); -20~+70°C (storage)
- **Dimensions:** 28.5(L) x 22.5(W) x 6.8(H) cm

NOTE: *For more detailed information on the system engine board used in your Bare Bone, refer to the system board User's Manual that came with the system packaging*

1.3 Panel Specifications

- **Screen Size:** 10.4 inches
- **Display Format:** 800 x 600 pixels
- **Pixel Pitch:** 0.264(H) x 0.264(V) m/m
- **Brightness:** 250cd/m^2
- **MTBF:** 15,000 hrs.

1.4 Dimensions

Chapter 2

Unpacking

2.1 Opening the Delivery Package

The BPC-3610 series is packed in an anti-static bag. The board has components that are easily damaged by static electricity. Do not remove the anti-static wrapping until proper precautions have been taken. Safety Instructions in front of this manual describe anti-static precautions and procedures.

2.2 Inspection

After unpacking the Panel PC, place it on a raised surface and carefully inspect the board for any damage that might have occurred during shipment. Ground the board and exercise extreme care to prevent damage to the board from static electricity.

Integrated circuits will sometimes come out of their sockets during shipment. Examine all integrated circuits, particularly the BIOS, processor, memory modules, ROM-Disk, and keyboard controller chip to ensure that they are firmly seated. The BPC-3610 series delivery package contains the following items:

- BPC-3610 Panel PC x 1
- Wallmount kit x 4
- Power cable x 1
- Touch Screen Drive diskette x 1
- Driver CD Disk x 1
- BPC-3610 User's Manual x 1
- MainBoard Manual x 1

It is recommended that you keep all the parts of the delivery package intact and store them in a safe/dry place for any unforeseen event requiring the return shipment of the product. In case you discover any missing and/or damaged items from the list of items, please contact your dealer immediately.
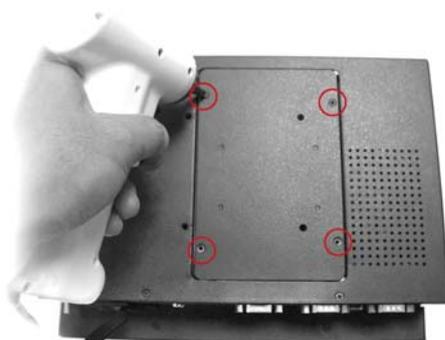
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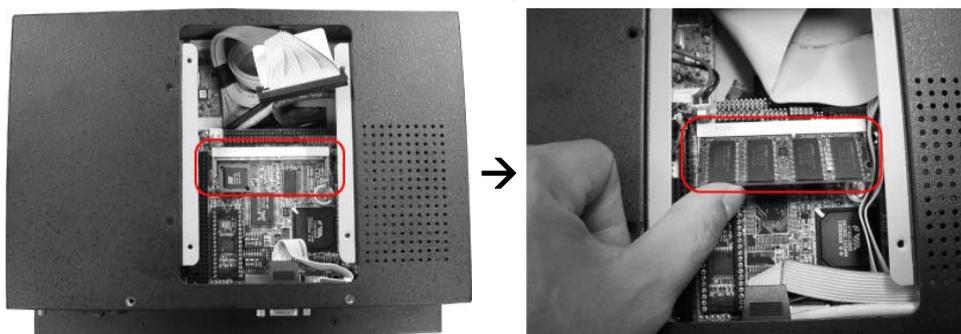# *Chapter 3*

Hardware Installation

This chapter tells how to install components into the Panel PC system.
External Interface please refers to SBC's manual.
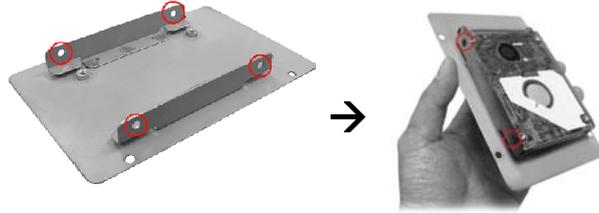
3.1   DRAM & HDD Installation

1.   Ensure that all power supplies to the system are switched off.

2.   Please loose screws and open the back cover.

3.   Install the SO-DIMM module so that its gold pins point down into
the SO-DIMM socket at a 45 degrees angle.

4. Secure the HDD with four screws (6#-32) on HDD tray.

5. Connect one end of the 44-pin IDE cable to the IDE connector on the drive. Match the red stripe on the cable with Pin-1 on the IDE interface.

6. Reinstall the back cover and HDD to the chassis. Secure the back cover with the screws you earlier removed.

Chapter 4

Touch Screen Driver Installation

This chapter contains the detailed information of Touch Screen driver installation procedures. The utility disk that came with the delivery package contains an auto-run program that invokes the installation programs for the Touch Screen driver. The following sections describe the installation procedures of driver based on Win 2000 operating systems. It is recommended that you install the drivers matching the sections listed in this chapter.

4.1 Touch Screen Driver Installation

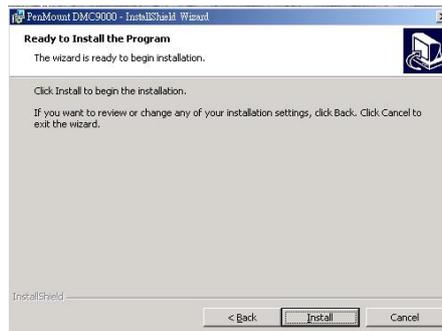### 4.1.1 Installing Touch Screen Driver in Win 95 and 98

1. Insert Utility CD Disk to your CD ROM drive. The main menu will pop up as shown below.
2. The screen displays copying "installation wizard" and "PenMount Utilities Installation" screen plus "welcome" message appear, click "Next".

3. The next screen is "Software License Agreement", select "I accept" and click "Next".

4. The next screen is "Ready to Install the Program", click "Install".

5. Once the Install Shield Wizard finishes updating your system, it will prompt you to restart the computer. Click "Finish" to exit the wizard.

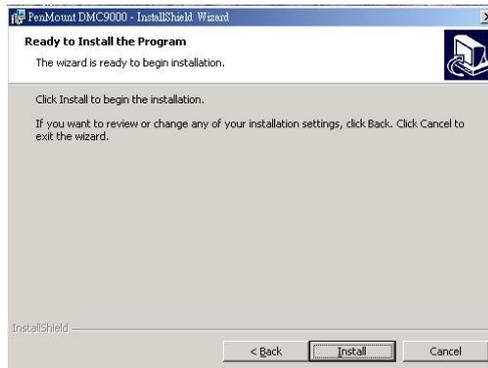### 4.1.2 Installing Touch Screen Driver in Win 2000

1. Insert Utility CD Disk to your CD ROM drive. The main menu will pop up as shown below.

2. The screen displays copying "installation wizard" and "PenMount Utilities Installation" screen plus "welcome" message appear, click "Next".

3. The next screen is "Software License Agreement", select "I accept" and click "Next".

4. The next screen is "Ready to Install the Program", click "Install".

5. Once the Install Shield Wizard finishes updating your system, it will prompt you to restart the computer. Click "Finish" to exit the wizard.
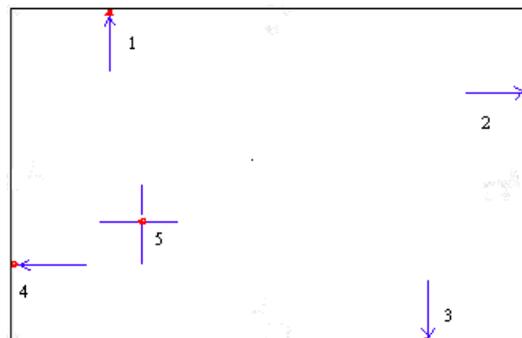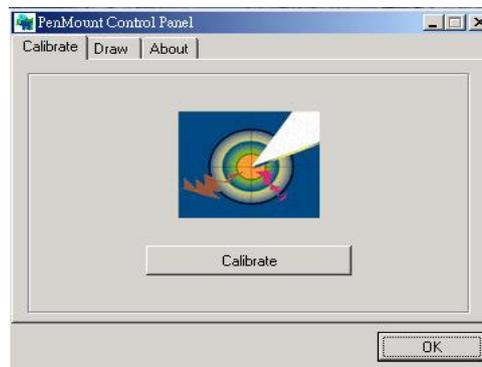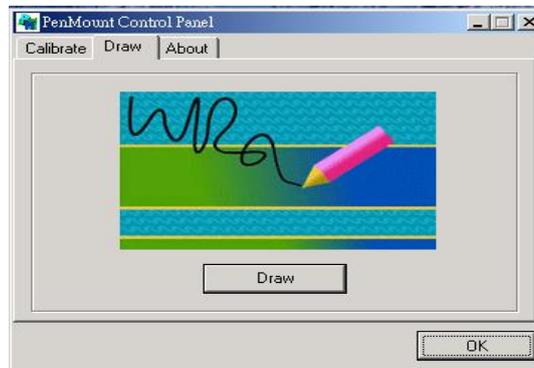
4.2 Driver Functions

4.2.1 PenMount Control Panel

● **Calibrate**

To adjust the display with touch screen, click "Calibration" and follow the calibrate point to do calibration, there are five points on screen for calibration.

● **Draw**

Test or demonstrate PenMount touch screen operation, also the touch location is shown on the display, touch "DRAW" to start.

● **About**

It shows information about PenMount controller and this driver.

4.2.2 PenMount Monitor

The PenMount monitor icon is shown in the menu bar of Windows 2000 system when turn on PenMount monitor from PenMount Utilities.

There are several functions on PenMount monitor:

● **Right Click Button**

When select this function, there is a mouse icon shown in the right-button place of screen. It shows 'left button' being as default for normal use, touch this mouse icon to change the next touch to be 'Right Button' function. After one touch, the mouse icon will change to 'Left Button' automatically. If user needs to use right button again, user has to touch the mouse icon again for changing the button function.

● **Beep**

Turn on or off beep sound.

● **Exit**

Close the PenMount Monitor function.

16