cPCI-SBC01

(EMB-CPU01)

User's Manual

Contents

1 . cPCI-SBC01 Introduction

Introduction
- It is the low cost Single Board Computer(SBC) which equipped a low power and low heat processor.
- It provides solution to be suitable for Embedded market wanting low power and small size.

Features
- Low cost, Low power and fan-less Single Board Computer
- AMD Geode LX800 500MHz processor
- 256Mb ~ 1Gb memory
- IDE Hard disk interface, (option)CF card
- VGA, (option) TFT LCD video output
- 2xUSB, 1xAudio (Transition board – 2xUSB, 2xPS2, RS232, 1xFDD, 1xLPT)
- Ethernet 10/100/1000M
- Embedded model available
- Operating Systems - Windows 2000/XP

Specifications

H/W

- AMD Geode LX800 500MHz processor
- 256MB, up to 1GB DDR SODIMM SDRAM
- Compact Flash card (2G/4G/8G) (option) 1.8inch IDE HDD
- 1920*1440 VGA output, (option) TFT LCD video output
- AC'97 codec sound

Physical Dimension

- 160 x 100 x 30 mm
- Front I/O : Power switch, D-sub video connector, 2xUSB, Ethernet, 2xStatus LED, Audio
- Rear (transition) board : 2xUSB, 2xPS2, RS232, 1xFDD, 1xLPT
- On-Board : LCD output, IDE

Application
- Factory Automation
- Data acquisition
- Medical and Robotics
- Auto PC
- UMPC(Ultra Mobile PC)
- Instrument control PC

2 . cPCI-SBC01 Appearance

+ 5V External Power

Front side

SW,VGA,Network,USB

Rear side

Compact PCI interface
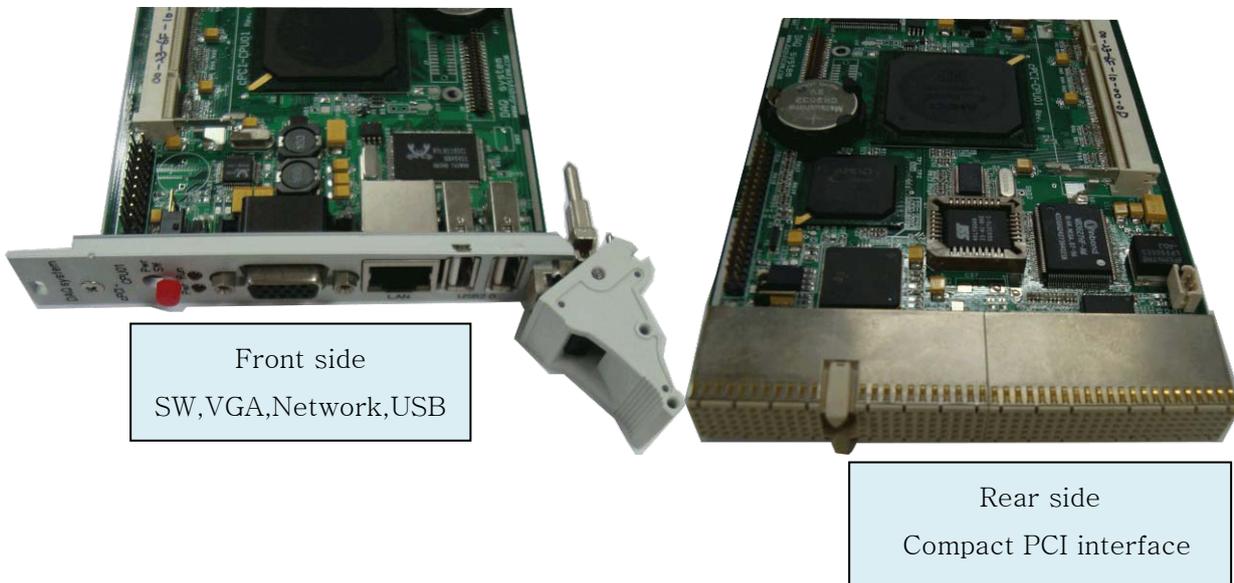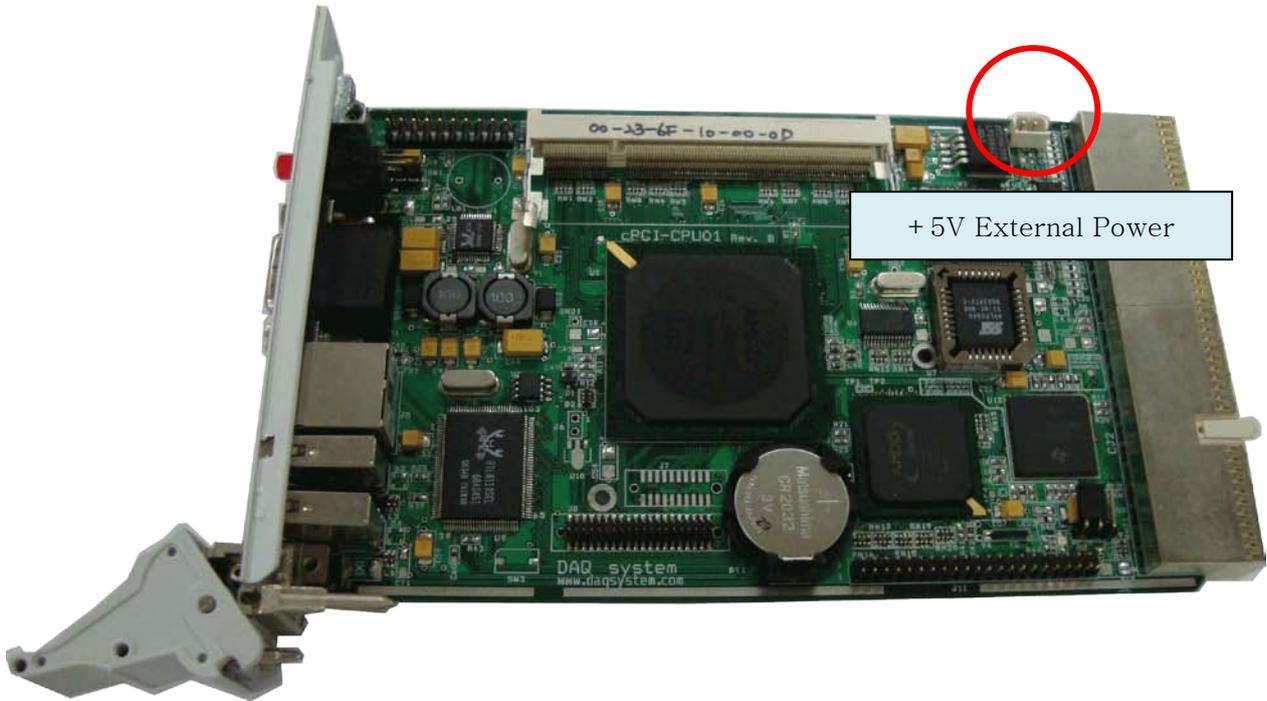
– The cPCI-SBC01 board can use to personal PC with the external Power +5V. In front
  side of the cPCI-SBC01 have the Connector Out (VGA, Power S/W, Ethernet, 2xUSB,
  Power LED, Audio-Jack).

 - The cPCI-SBC01 board connects the Back-Plane at rear side. It can control the other
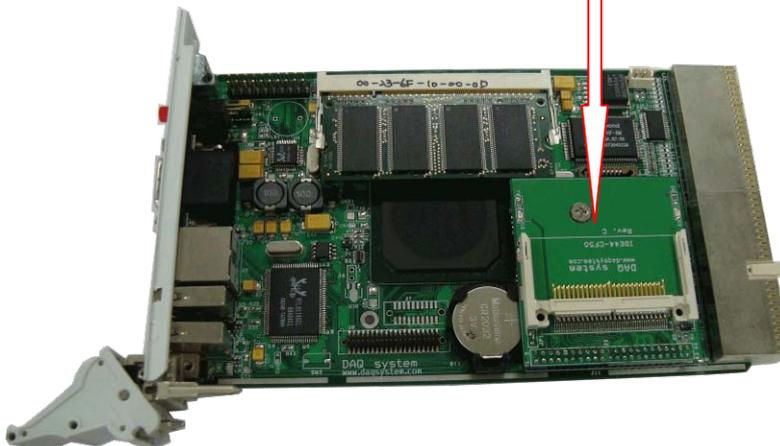   devices through compact PCI interface.

3 . cPCI-SBC01 Assembly(Memory, Hard Disk)

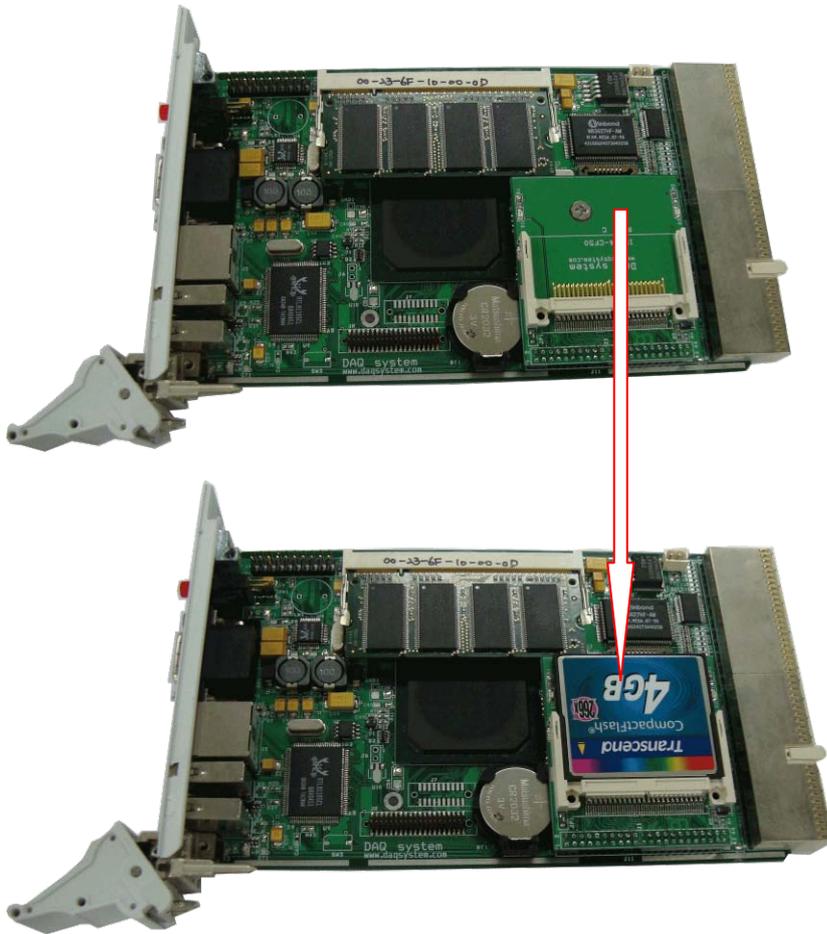1. Memory(SODIMM – SDRAM) Connection
   - Memory Connection with J4 connector(256M ~ 1G)
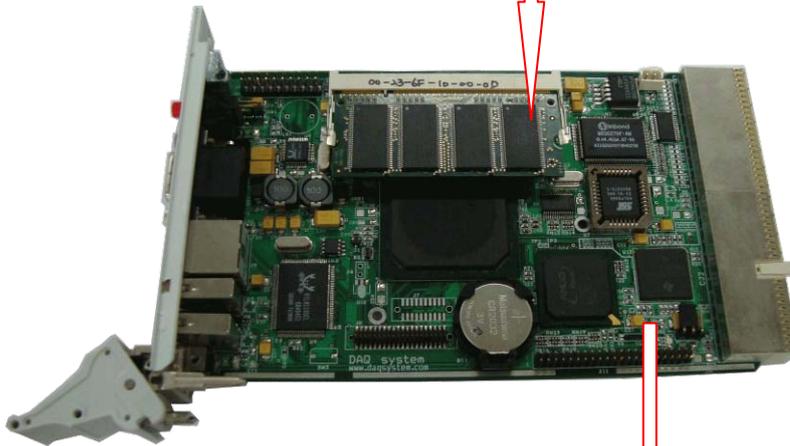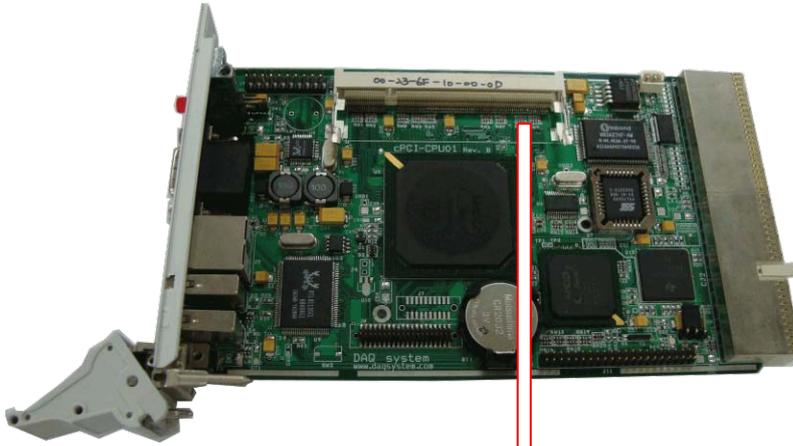
   - CF card connector board
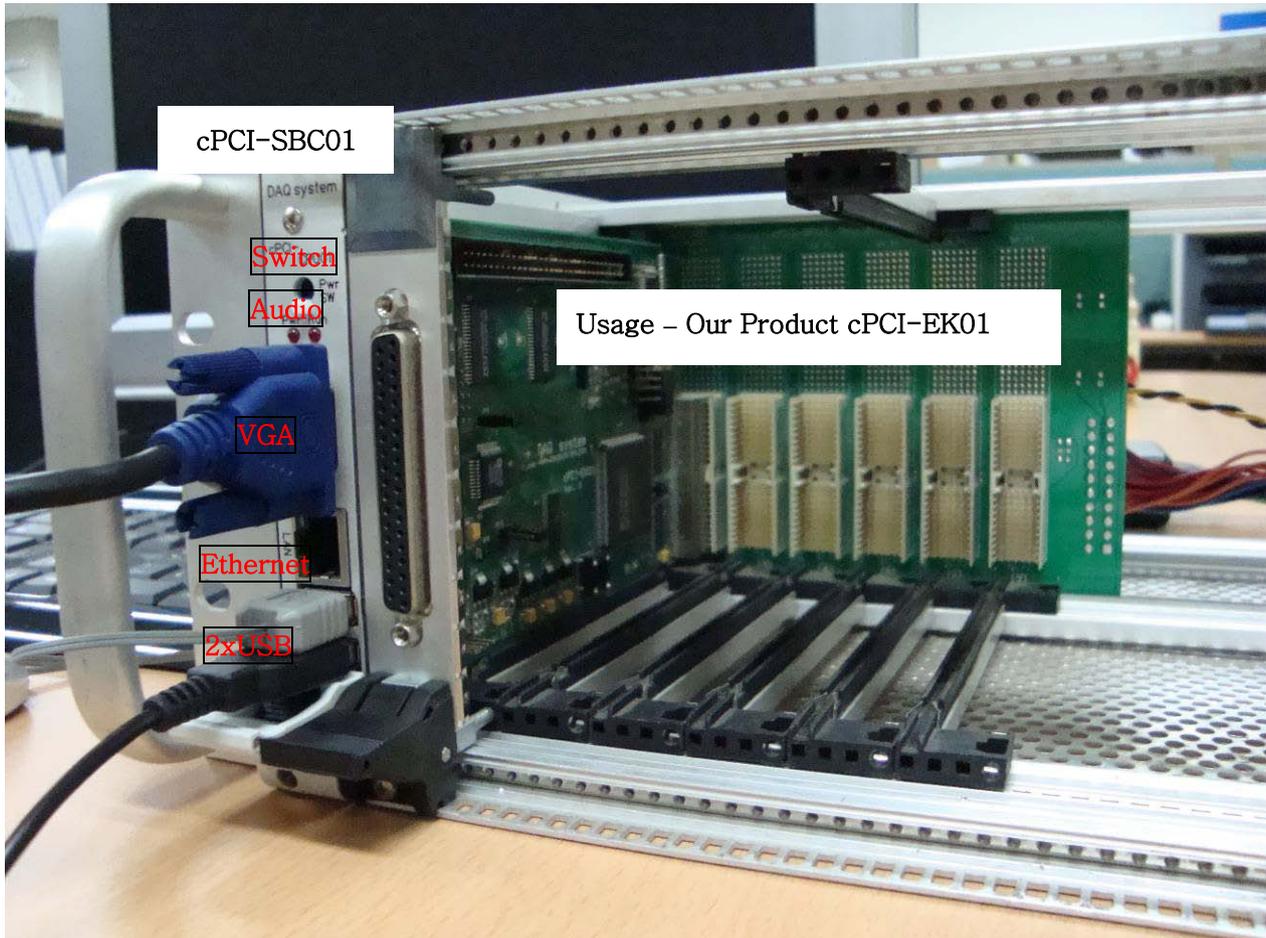   (It is necessary to change the board if it connects 1.8" hard.)

− Hard Disk Connection (This picture is CF card connection.)

Notice) It is necessary to change the board if it connects 1.8" hard. The picture shows differently above picture

4 .Peripheral Device Control through Compact PCI Interface(Back-Plane)

The cPCI-SBC01 can control the other Compact PCI products as to connect Back-Plane like above picture.

5 . Expansion Port through Transition Board
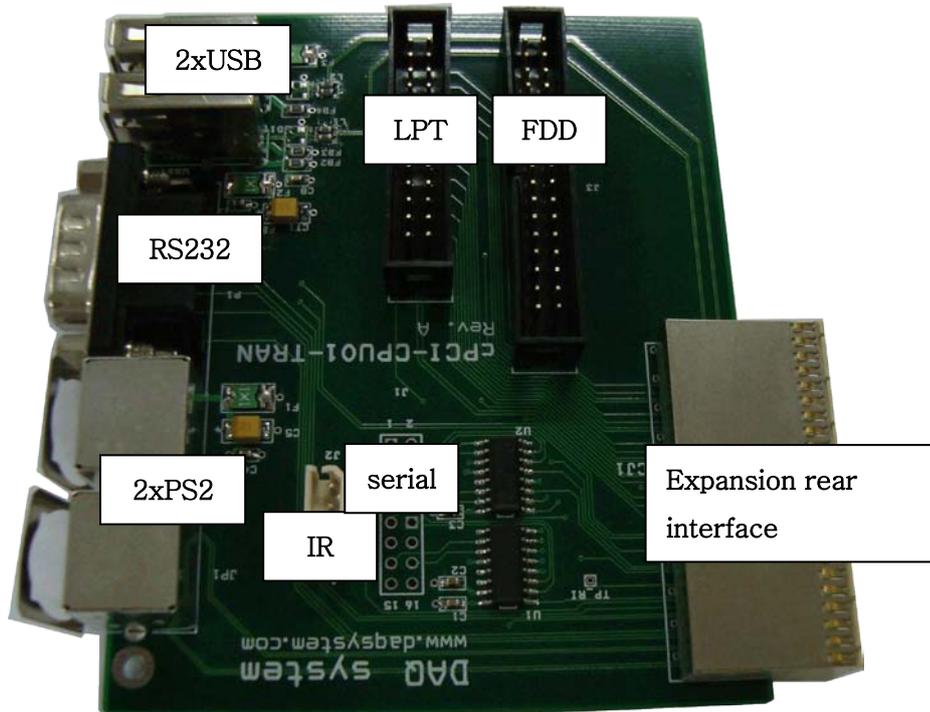
The transition board can use through the Back-Plane. And It is possible to use the expansion ports with connect the cPCI-SBC01. (Special Purchase)

## 6 . WINDOWS & Driver Installation

1. To connect a USB KEYBOARD and USB MOUSE and USB CD-ROM(WINDOWs CD) at Board. And, connect the power(5V, 3A) after connection to a DSUB 15 PIN VGA PORT and light up the switch.

   Notice) There isn't an external power supply need in case of Back-Plane use.
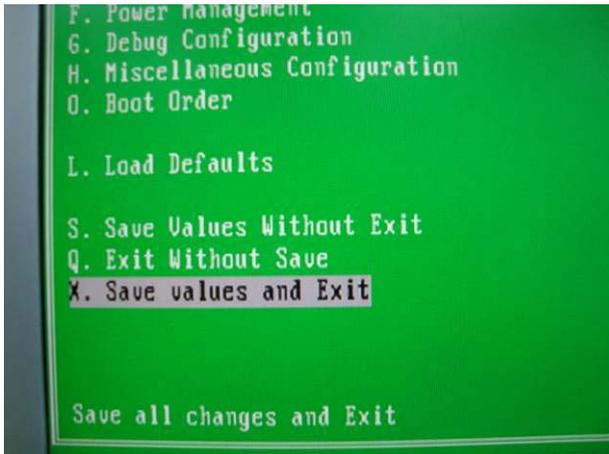
2. When the computer boots, press the "F1" at the keyboard. And display the BIAS SET_UP.

3. After choose the "Boot Order", Press "Enter".
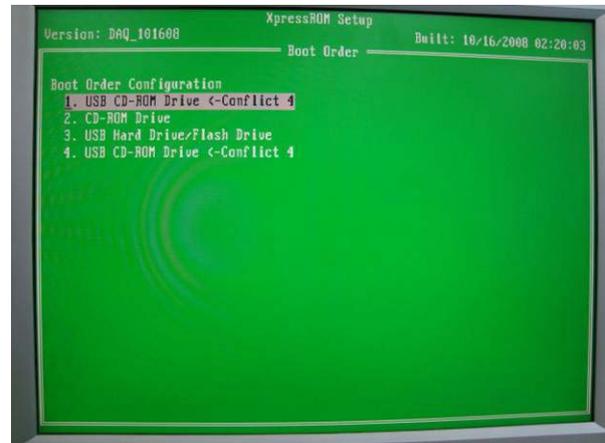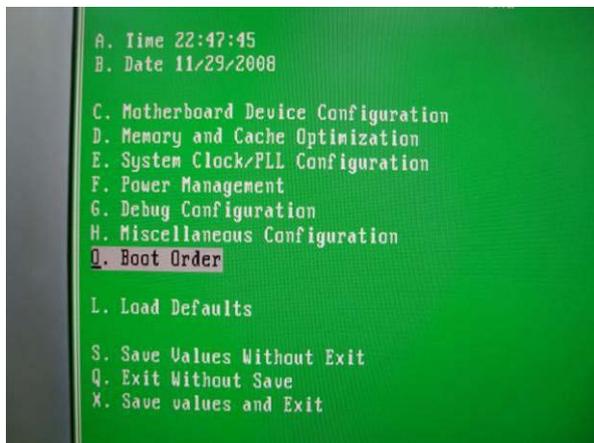
4. After choose the "USB CD-ROM Drive <- Conflict 4" at 1 line, and press down the "Esc".

5. After choose the "Save values and Exit", and escape the display.
6. Booting is performed with a USB CD-ROM, you are able to progress a windows install guide.
7. After finished the Windows installation, you have to install the last Board driver.
   - There is Driver to CD-ROM enclosed like product.

    7.1 AUDIO Driver Installation
   - MyComputer => Property => Hardware => Device Manager
   - Choose "Audio device".
   - Click the right mouse, select the "driver update".
   - Starting Hardware Update Wizard
   - Choose the Driver in AUDIO folder in CD ROM.

    7.2 LAN Driver Installation
   - Execute SET-UP file in LAN folder in CD-ROM.

    7.3 LCD Driver Installation(DISPLAY)
   - Choose the DRIVER in LCD folder in CD ROM.

    7.4 VGA Driver Installation
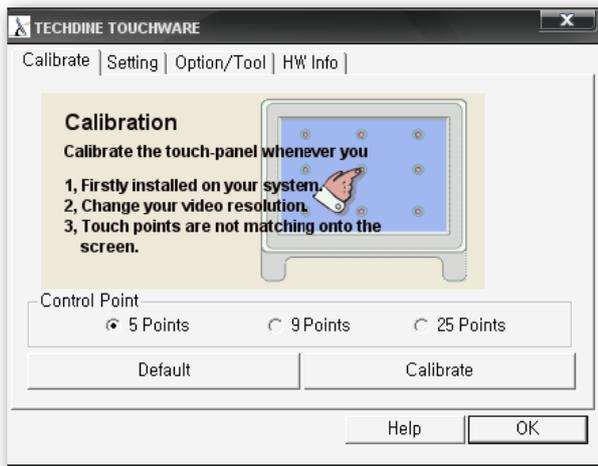   - Choose the DRIVER in VGA folder only used VGA.

    7.5 Touch Installation(When 7" LCD want to use.)
   - After execute the Setup file in Touch folder in CD-ROM, display the icon of
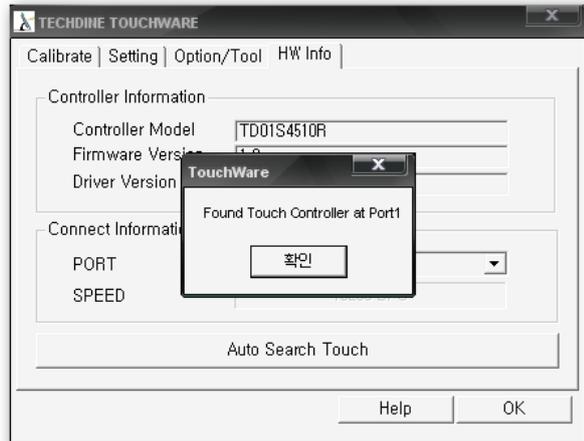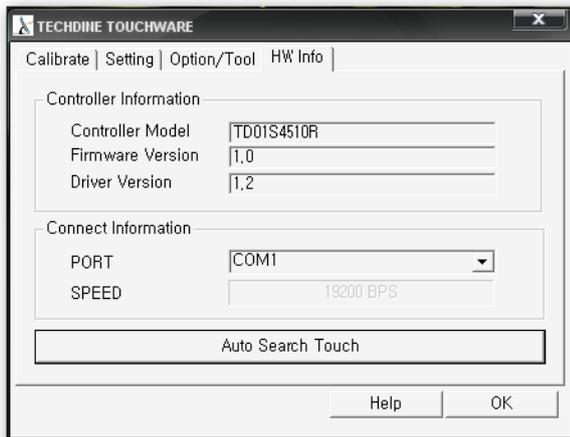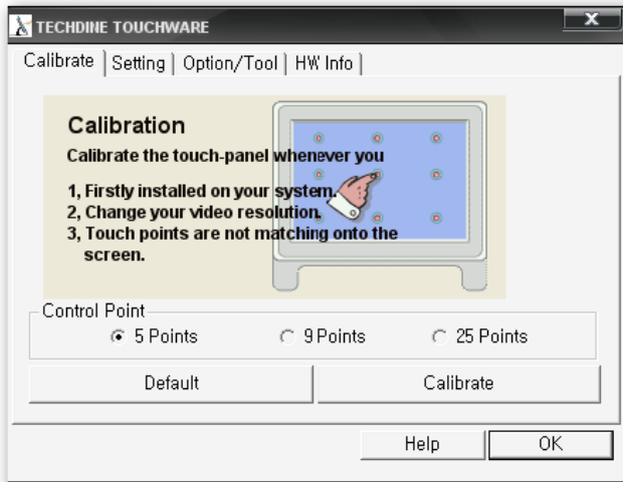
TouchWare at the wallpaper.

- Double click the TouchWare.
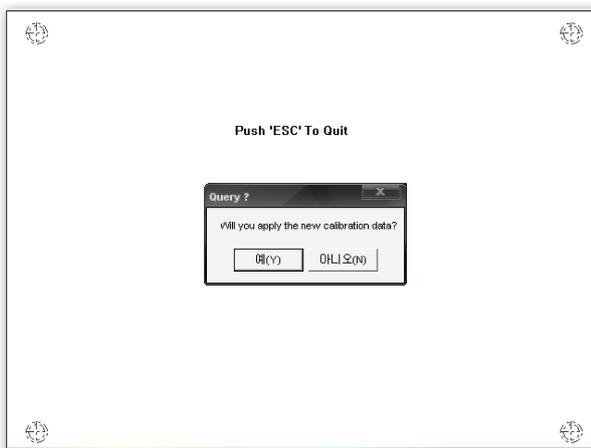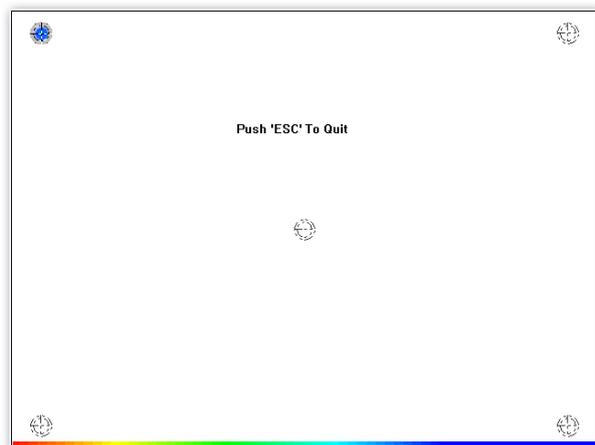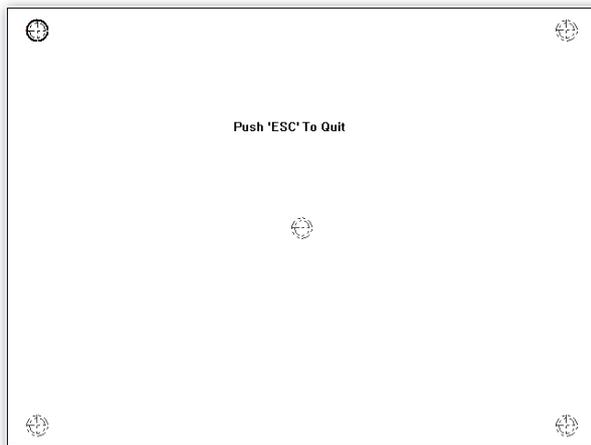- Click the "HW Info".

- Click the "Auto Search Touch" button, check the connection port.

- After finding the port at Touch Controller, press "OK".
- Choose the "Calibrate" button.

- When show the below display, press the lighting point.
  (You should continuously press until completed progress bar.)

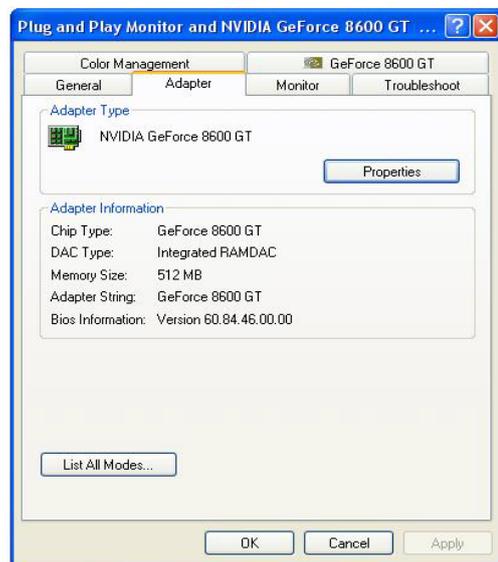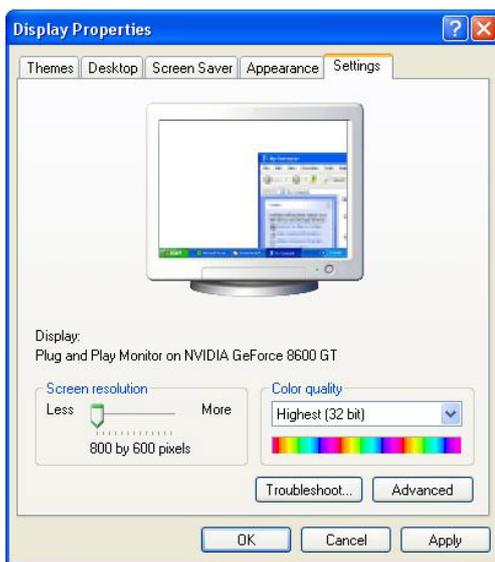- Press "Yes", and then finished the install.

7.6 The optimum display set for the LCD.
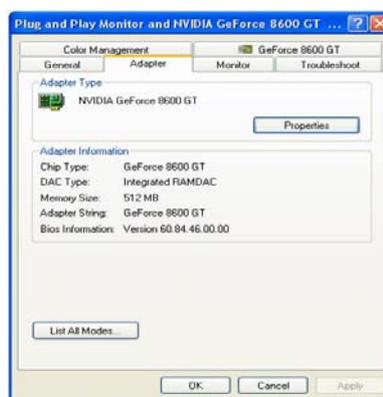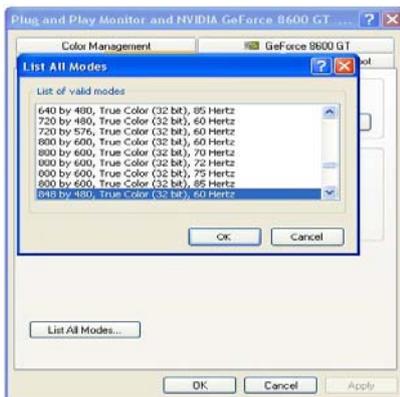 - Change the resolution 800x400 because LCD resolution is optimum 800x480.

– Choose the "Property" in wallpaper.

– Click the "Advancd" in "Setting" in "Display Registration Information" display.

– Click the "List All Modes" in "Adaptor"
– Choose the "800 x 480 true color".
– Press "OK" and hit "Execute".

– If you see the red circle in the "Display Registration Information". All progress succeed.