cPCI-SBC01

User Manual

Version 1.0

DAQ SYSTEM
Measurement & Automation

Contents

1. cPCI-SBC01 Introduction

Introduction

- Low-cost Single Board Computer (SBC) equipped with low-power, low-heat processor
- Provides a solution suitable for the embedded market that wants low power and small size

Features

- Low cost, Low power and fan-less Single Board Computer
- AMD Geode LX800 500MHz Processor
- 256M~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) 1.8 inch IDE HDD
- 1920*1440 VGA output, (option) TFT LCD video output
- AC97 codec sound

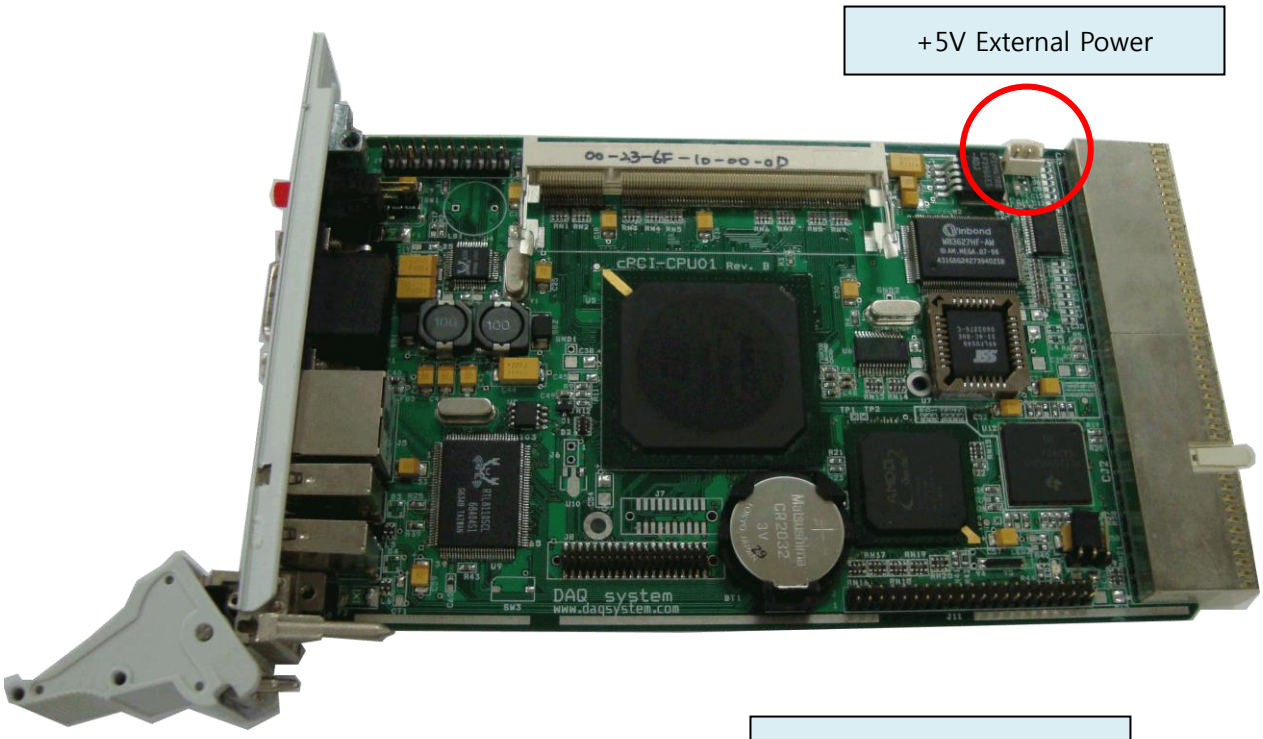
Physical Dimension

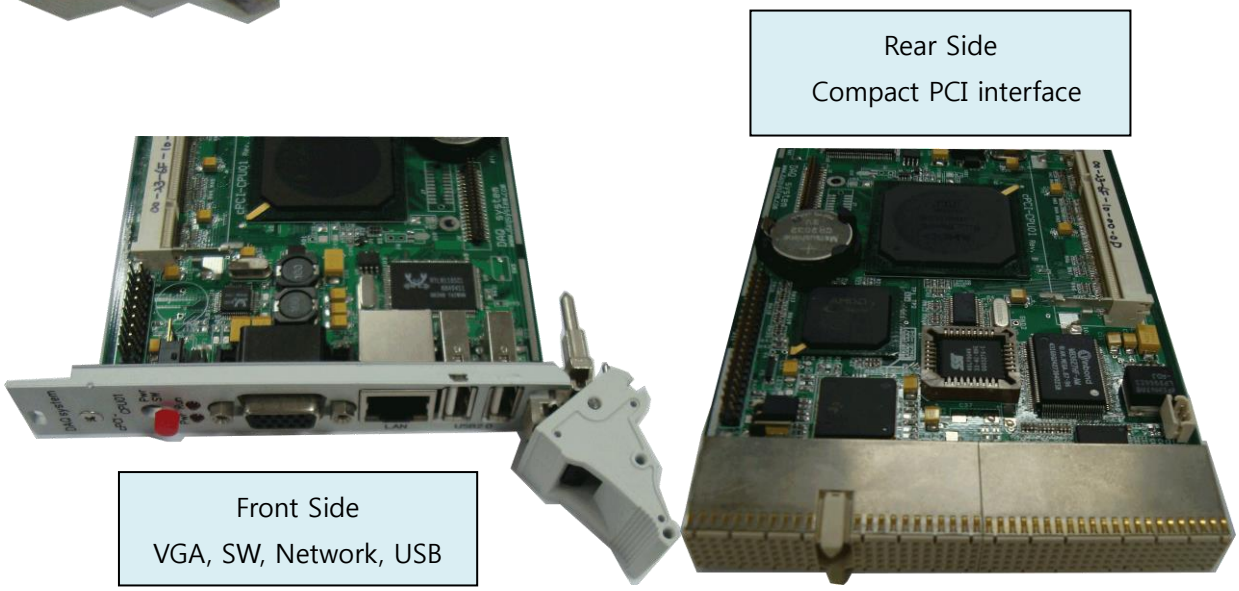
- 160*100 * 30mm
- Front I/O : Power switch, D-sub video connector, 2xUSB, Ethernet, 2xStatus LED, Audio
- Rear (transition) board : 2xUSB, 2xPS2, RS232, 1xFDD, 1xLPT
- On-Board : LCD output, IDE

Application

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

2. cPCI-SBC01 Appearance



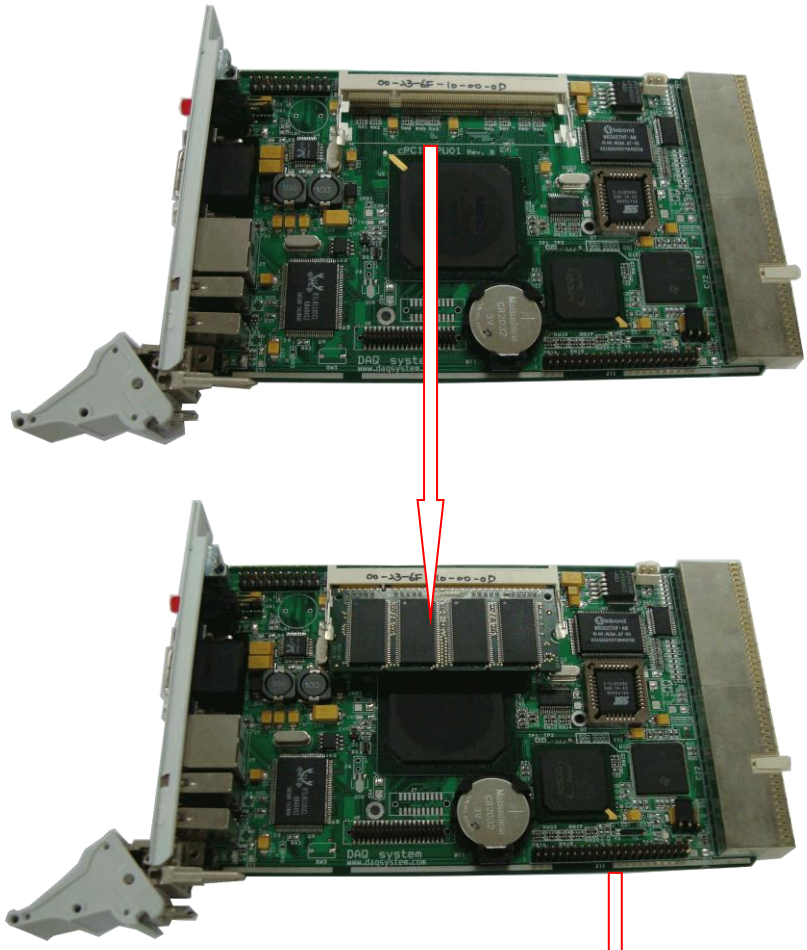


- The front of cPCI-SBC01 has a connector out (VGA, power SWITCH, Ethernet, 2xUSB, power LED, Audio-Jack) that can be used in a general PC. If +5V power is applied, it can be used as a portable PC.

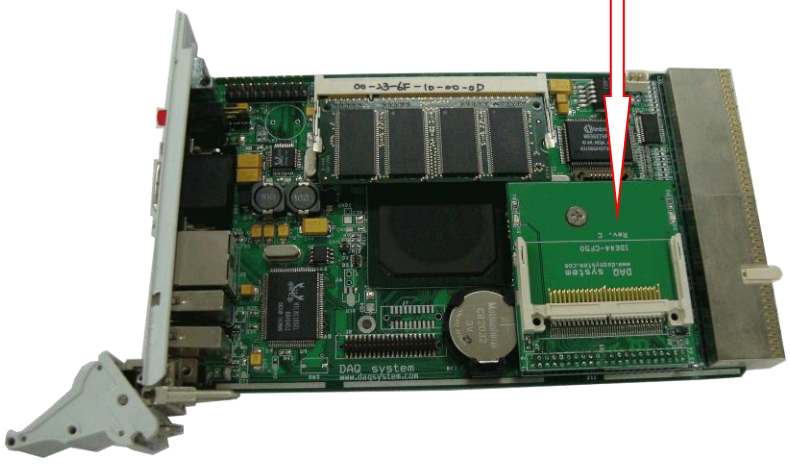
- It is a compact PCI interface from the rear, and it is possible to control other devices by connecting to the Back-Plane.

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

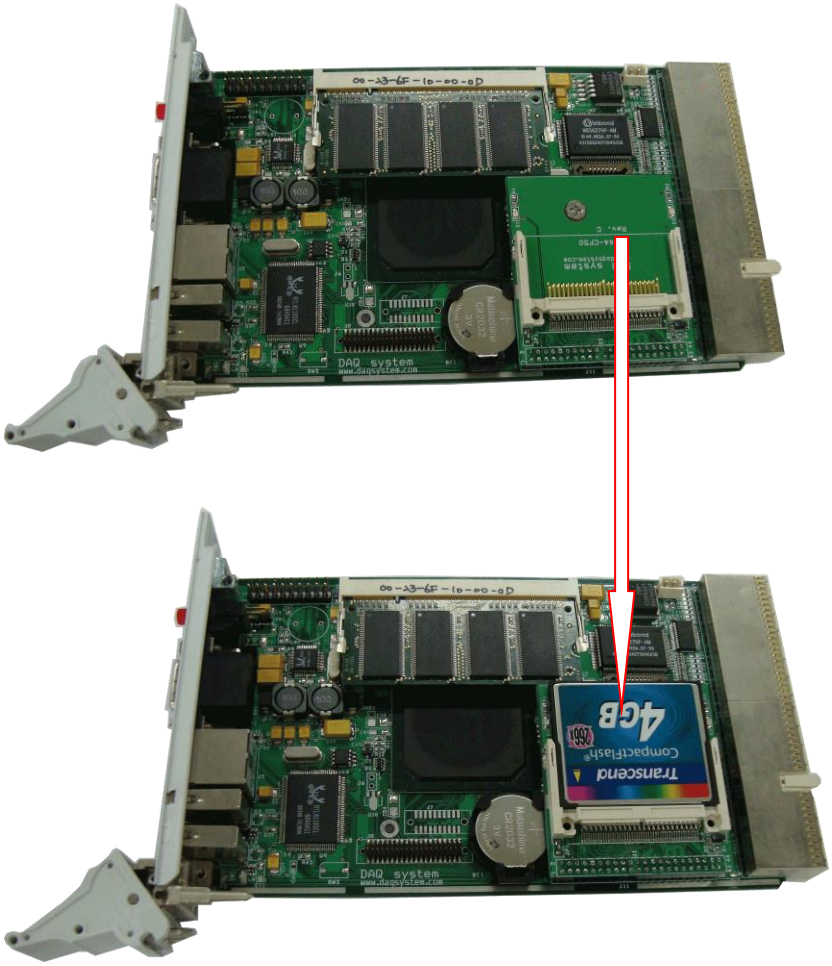
1. Memory (SODIMM – SDRAM) Connection
   - Memory connection with J4 connector (256M ~ 1G)



   - Combination of Hard Disk connection board
     The figure below is the CF card connection board.
     (A board change is required when connecting a 1.8" ard disk.)

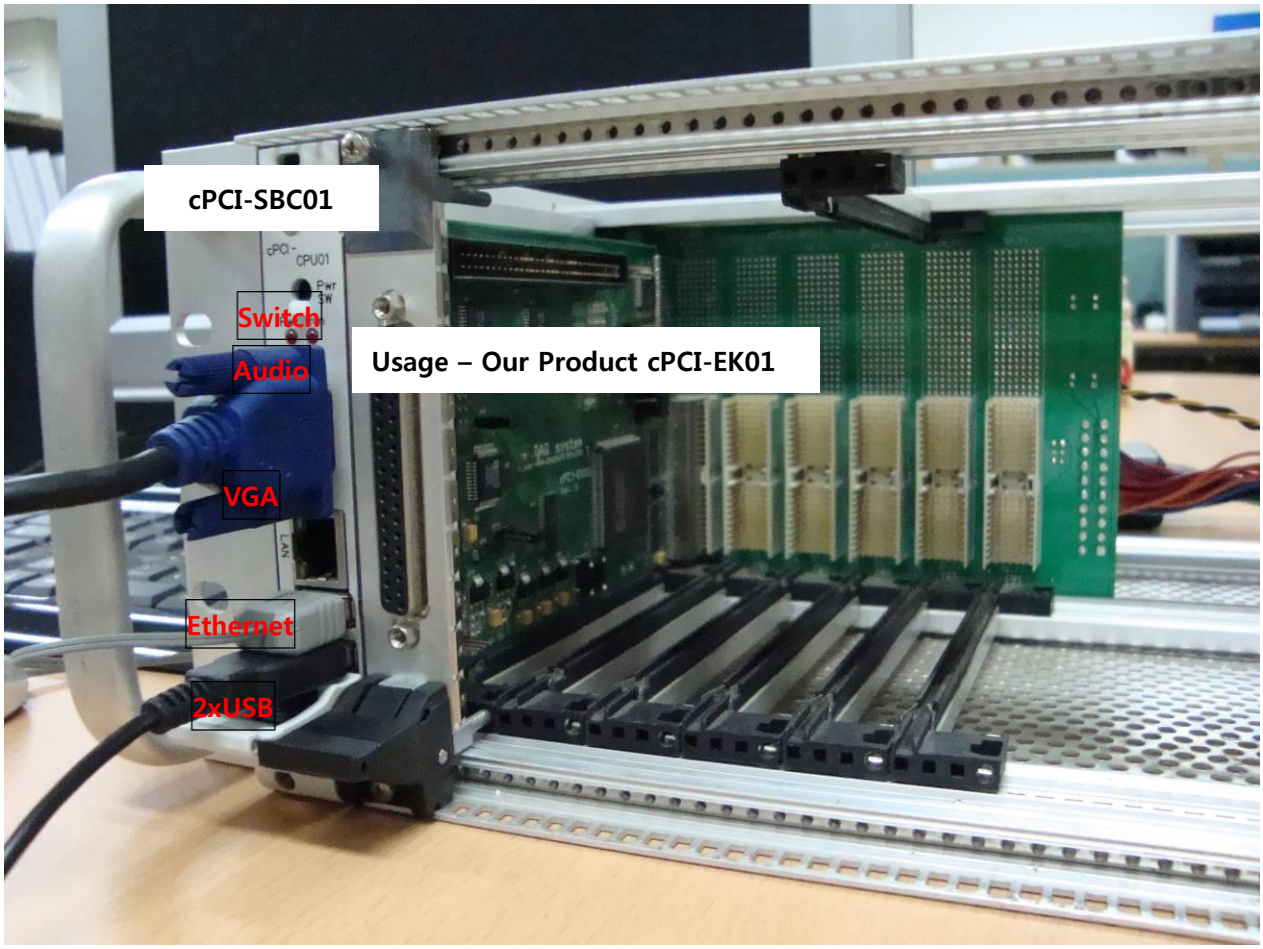


- Hard disk connection (The figure is a CF card connection figure)



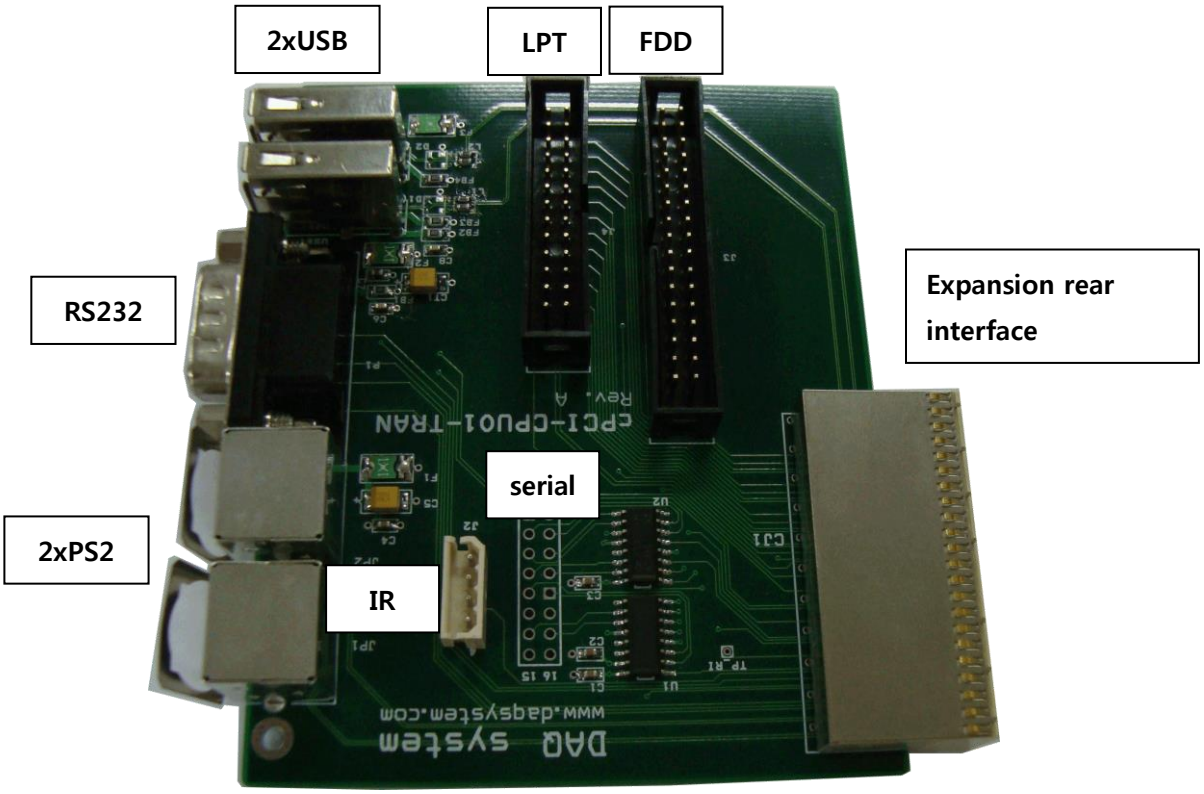
Note) When 1.8" IDE HDD is applied, the connection board is different and may look different from the picture above.

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



As shown in the picture above, you can control and use Compact PCI products by connecting to the Back-Plane.

5. Expansion Port through Transition Board



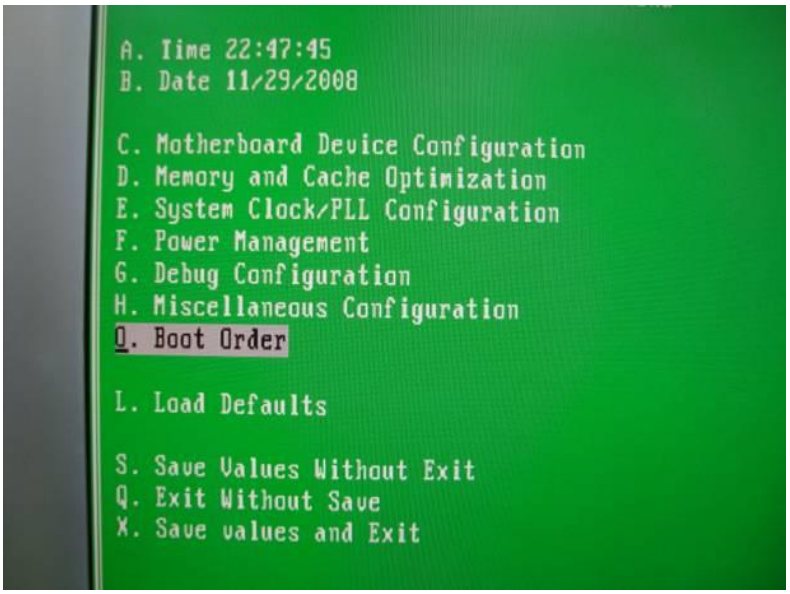
Through Back-Plane, by connecting with cPCI-SBC01, Port extension can be used. (sold separately)

6. WINDOWS Installation

1. Connect KEYBOARD, MOUSE, and USB CD-ROM (WINDOSW CD) to the board using a USB hub. After connecting the monitor to the DSUB 15 PIN VGA PORT, connect the power (5V, 3A) and turn on the S/W.
   Note) No need to supply external power when using Back-Plane.

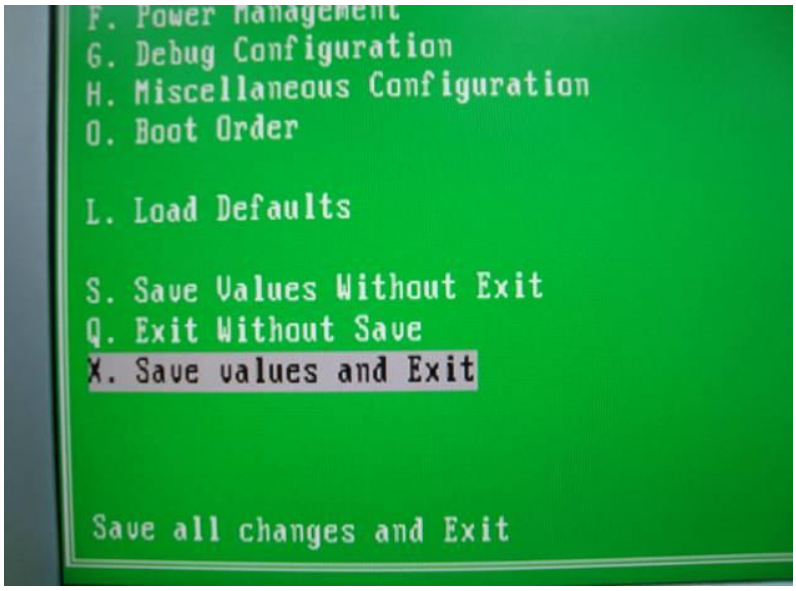
2. Press "F1" of KEYBOARD while booting the computer to enter the BIAS SET-UP screen.

3. Select "Boot Order" and press "Enter".



4. Select "USB CD-ROM Drive <- Conflict 4" in "1" and press Esc to exit.

5. Select "Save values and Exit" (shortcut "X") and exit.

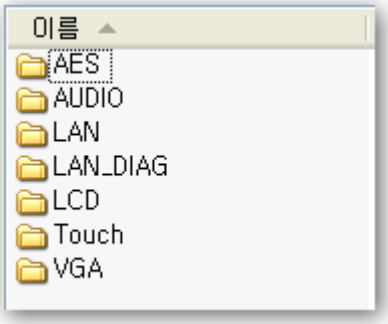


6. Booting from the USB CD-ROM is made, and you can proceed according to the Windows installation order.

7. After Windows installation is complete, install the Board driver.

7. Driver Installation

- There is a driver in the CD ROM enclosed with the 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 VGA Driver Installation

- Execute the SET-UP file in the VGA folder on the CD-ROM and install it.

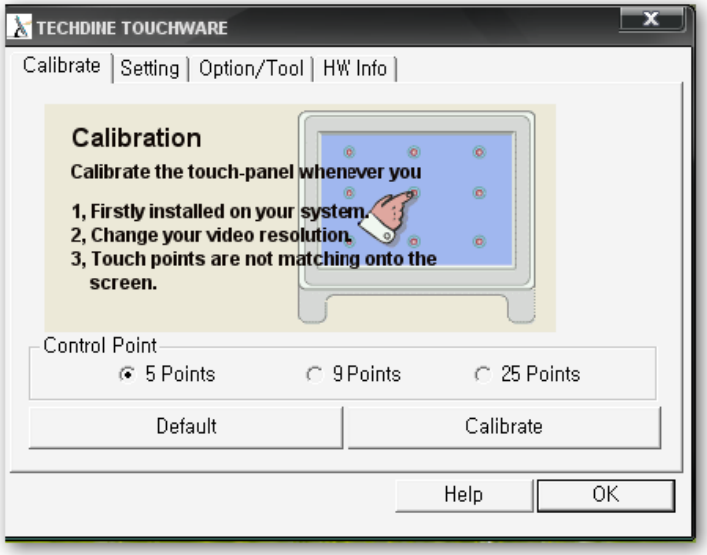
7-4 LCD Driver Installation (Installation when using 7" LCD)

- Execute the SET-UP file in the LCD folder on the CD-ROM and install it.

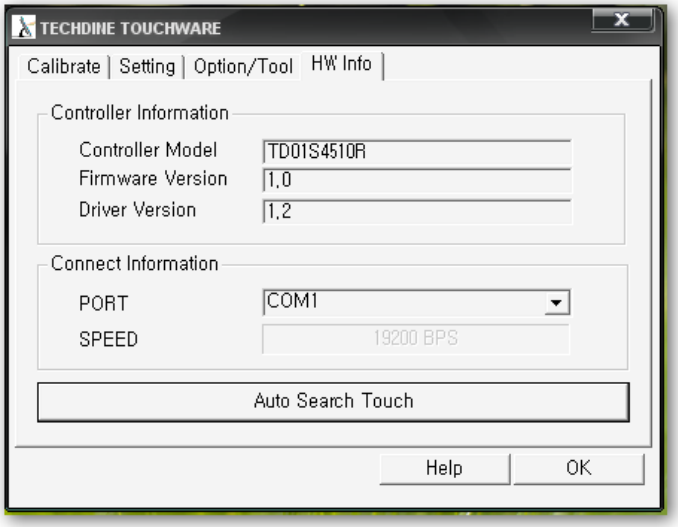
7-5 Touch Driver Installation (Installation when using 7" LCD)

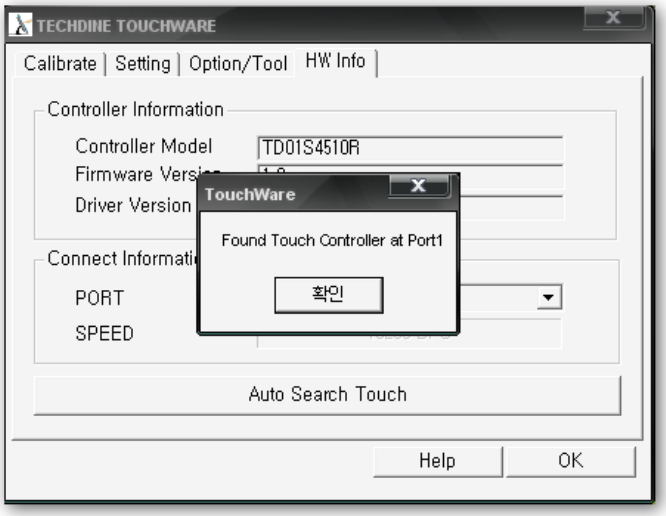
- After executing the Setup file in the Touch folder on the CD-ROM and installing it, the execution screen appears on the desktop.

- If you double-click the execution screen, the following screen appears.
- Click "HW Info" in the picture below.

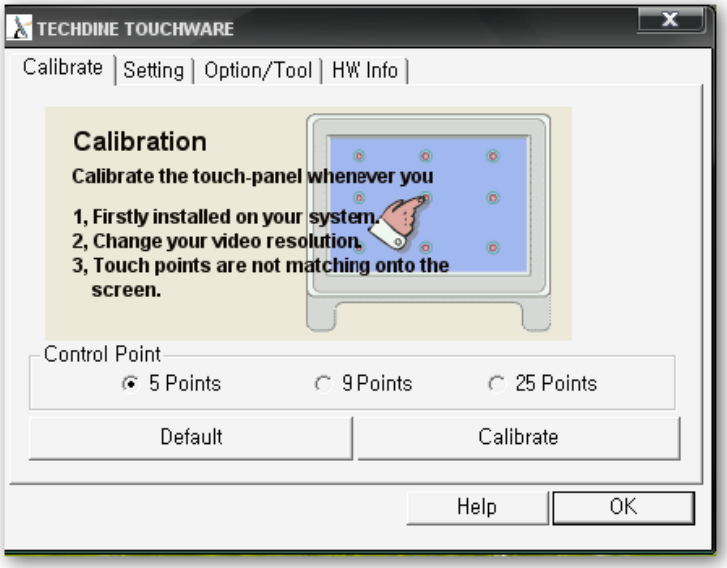


- Click the 'Auto Search Touch' button in "HW Info" to check the connection port.

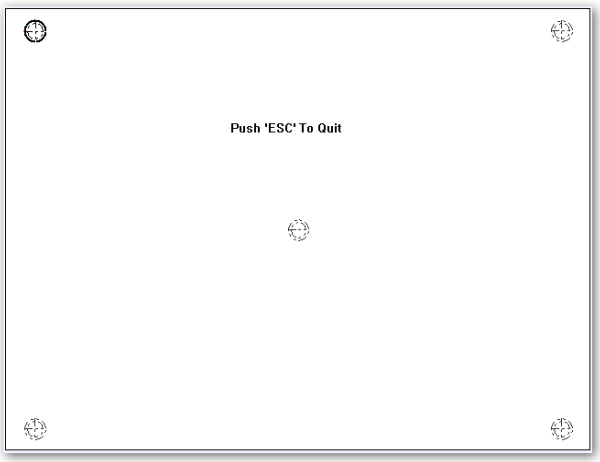


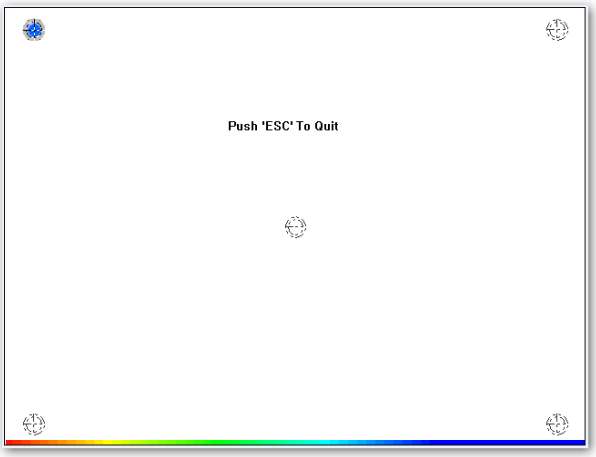


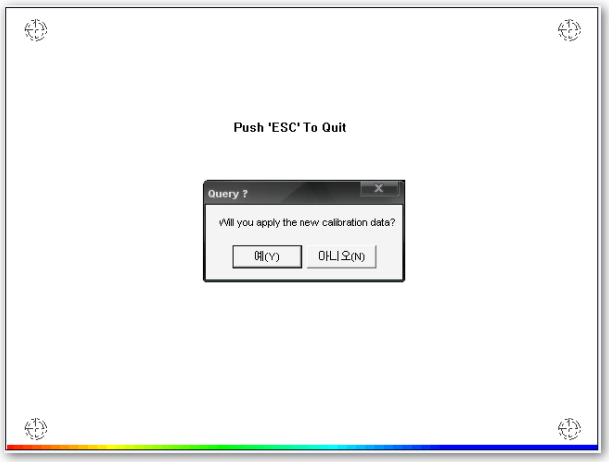
- After finding the port to which the Touch Controller is connected, press the OK button.
- Select "Calibrate" and press the 'Calibrate' button on the screen below.



- When the screen below appears, press and hold the blinking point.
  (Make sure to keep holding down until the progress bar at the bottom completes.)





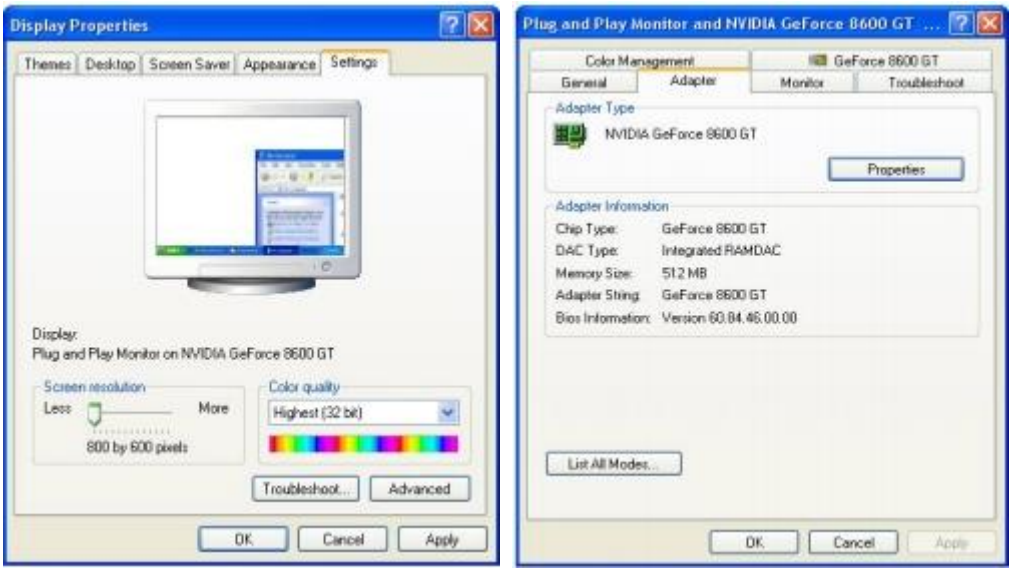


- If you press all the way down in the correct order, the above screen appears. Press "Yes" to exit and it is done.

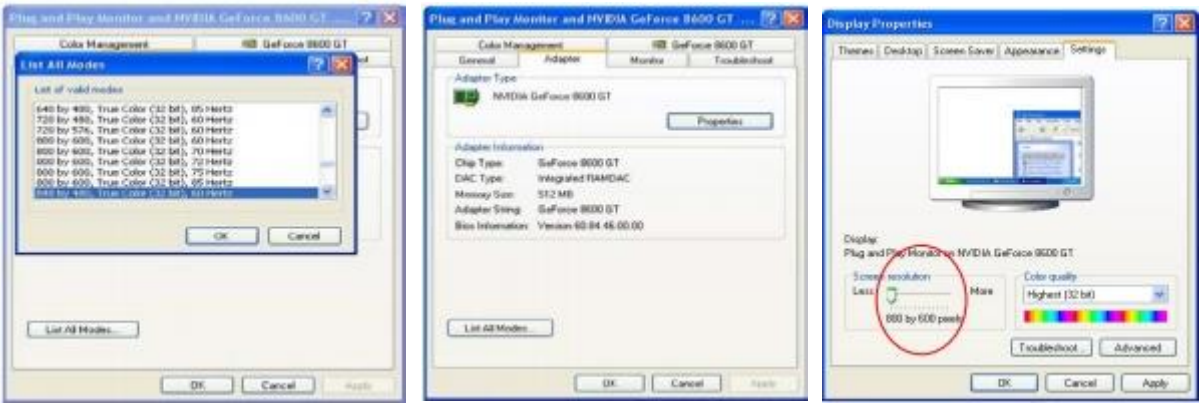
7-6 Optimal Display Settings for LCD

- Since 800 X 480 is optimal for LCD resolution, you need to change the resolution to 800 X 480.
- Right-click on the desktop and select Properties.

- When the display properties screen appears, click the Advanced button in Settings.



- After clicking the "Show All Modes" button in the adapter section, select 800 x 480 true color, click OK, and then click Apply.



- If the red circle is displayed in the display properties, the setting has been applied.

Appendix

A-1 Repair Regulations

Thank you for purchasing DAQ SYSTEM's product. Please refer to the following regarding Customer Service stipulated by DAQ SYSTEM.

(1) Please read the user's manual and follow the instructions before using the DAQ SYSTEM product.

(2) When returning the product to be repaired, please send it to the head office with the symptoms of the malfunction as well.

(3) All DAQSYSTEM products have a one-year warranty.
-. The warranty period is counted from the date the product is shipped from DAQ SYSTEM.
-. Peripherals and third-party products not manufactured by DAQ SYSTEM are covered by the manufacturer's warranty.
-. If repair is required, please contact the contact points below.

(4) Even during the free repair warranty period, paid repairs are made in the following cases.
① Failure or damage caused by not following the user's manual
② Failure or damage caused by customer negligence during product transportation after purchase
③ Natural phenomena such as fire, earthquake, flood, lightning, pollution, etc. or power supply exceeding the recommended range malfunction or damage
④ Failures caused by inappropriate storage environment (eg, high temperature, high humidity, volatile chemicals, etc.) damaged
⑤ Failure or damage due to unreasonable repair or modification
⑥ Products whose serial number has been changed or intentionally removed
⑦ In the event that DAQ SYSTEM determines that it is the customer's negligence for other reasons

(5) The customer must bear the shipping cost of returning the repaired product to DAQ SYSTEM.

(6) The manufacturer is not responsible for any problems caused by incorrect use regardless of our warranty provisions.

MEMO

Contact Point

Web sit : https://www.daqsystem.com

Email : postmaster@daqsystem.com

DAQ SYSTEM
Measurement & Automation