I/O CARD QUICK START GUIDE

For PCIe-8620

English/May 2015/Version 1.0

PCI Express Multifunction Boards
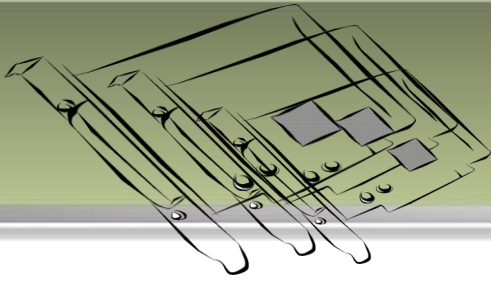
1 Check the Supplied Items

The shipping package includes the following items:

	One PCIe-8620 Series Board
	One Software Utility CD (V6.2 or later)
	One Quick Start Guide (This Document)
	One CA-PC25M D-Sub Connector
	One Low-profile Bracket

2 Installing the Windows Driver

The UniDAQ driver supports Windows 2000 and 32/64-bit versions of Windows XP/2003/2008/7/8. The driver installation package for PCIe-8620 board can be found on the companion CD-ROM, or can be obtained from the ICP DAS FTP web site. The driver is located at:

CD: \NAPDOS\PCI\UniDAQ\DLL\Driver

http://ftp.icpdas.com/pub/cd/iocard/pci/napdos/pci/unidaq/dll/driver/

To install the UniDAQ driver, follow the procedure described below.

Step 1: Double-click the **UniDAQ_Win_Setupxxx.exe** icon to begin the installation process.

Step 2: When the "Welcome to the ICP DAS UniDAQ Driver Setup Wizard" screen is displayed, click the **"Next>"** button to start the installation.

Step 3: On the "Information" screen, verify that the DAQ card is included in the list of supported devices, then click the **"Next>"** button.

Step 4: On the "Select Destination Location" screen, click the **"Next>"** button to install the software in the default folder, **C:\ICPDAS\UniDAQ**.

Step 5: On the "Select Components" screen, verify that the DAQ Card is in the list of device, and then click the **"Next>"** button to continue.

**Step 6:** On the "Select Additional Tasks" screen, click the **"Next>"** button.

Step 7: On the "Download Information" screen, click the **"Next>"** button

Step 8: Once the installation has completed, click **"No, I will restart my computer later"**, and then click the **"Finish"** button.
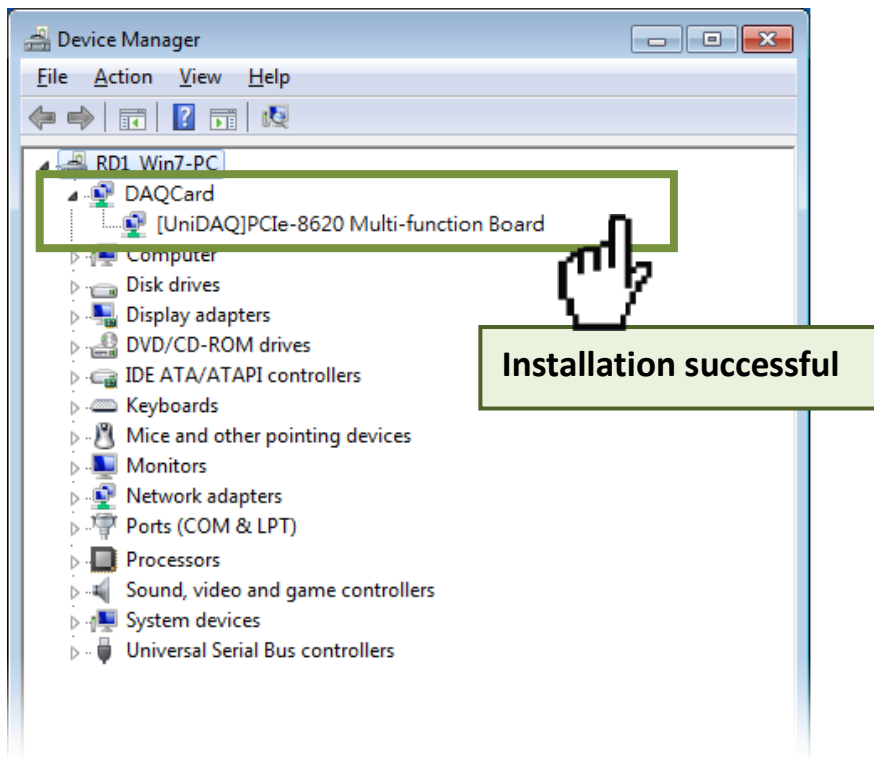
For detailed information about the driver installation, refer to Chapter 2 "Install UniDAQ Driver DLL" **of the UniDAQ SDK User Manual.**
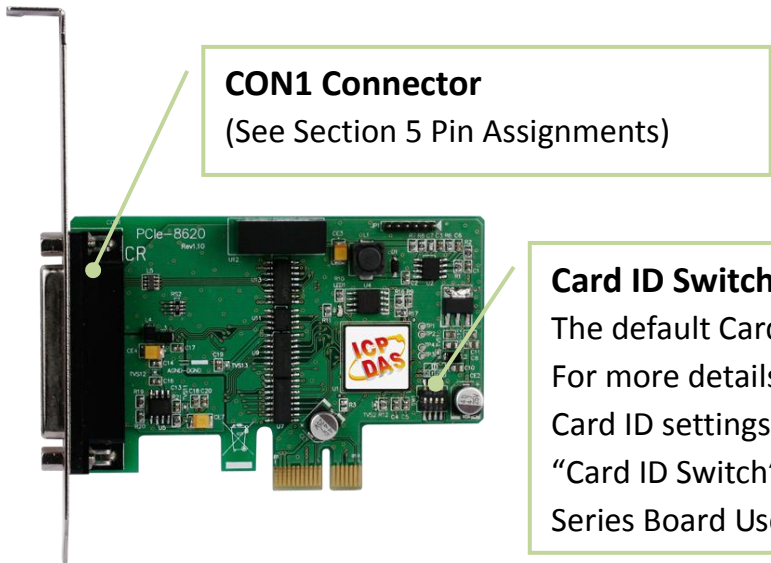
3 Installing the Hardware

Step 1: Shut down and power off the computer.

Step 2: Remove all the covers from the computer.

Step 3: Select an unused PCI Express slot.

Step 4: Carefully insert the PCIe-8620 board into the PCI Express slot and secure the board in place.
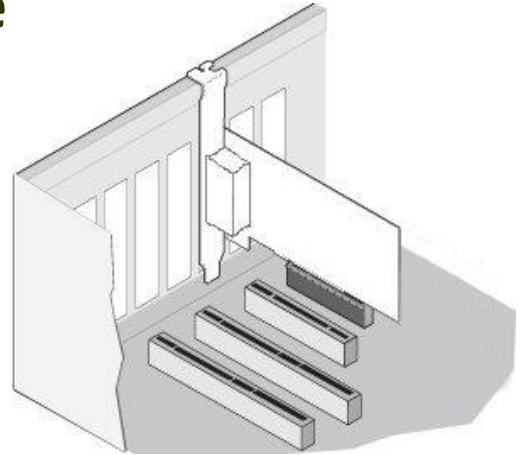
Step 5: Replace the covers on the computer.

Step 6: Reconnect the power supply and power on the computer.

Step 7: Once the computer reboots, follow any messages that may be displayed to complete the Plug and Play installation procedure.

Step 8: Open the **"Device Manager"** in the Control Panel and verify that the PCIe-8620 board is listed correctly, as illustrated below.

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4 Board Layout

CON1 Connector
(See Section 5 Pin Assignments)

Card ID Switch (SW1)
The default Card ID is 0x0.
For more details regarding the SW1
Card ID settings, refer to Section 2.2
"Card ID Switch" of the PCIe-862x
Series Board User Manual.

5 Pin Assignments

| Pin Assignment	Terminal No.	Terminal No.	Pin Assignment
AI0	01		
AI1	02	14	A_GND
AI2	03	15	A_GND
AI3	04	16	A_GND
AI4	05	17	A_GND
AI5	06	18	A_GND
AI6	07	19	A_GND
AI7	08	20	A_GND
DGND	09	21	D_GND
DI1	10	22	DI0
DI3	11	23	DI2
DO1	12	24	DO0
DO3	13	25	DO2

PCIe-8620 (CON1)

6 Self-Test

> ## Preparation:

Before beginning the "Self-Test" procedure, ensure that the following items are available:

- ☑ A stable signal source. (For example, a dry cell battery)
- ☑ One DN-25 wiring terminal board.
- ☑ One CA-2520 cable.

Step 1: Connect the **DN-25 terminal board** to the **CON1** connector on the **PCIe-8620** board using the **CA-2520** cable.
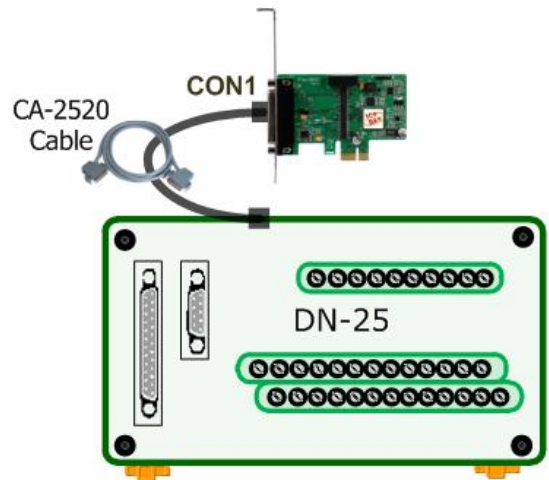
> ## Wiring for the Digital Input/Output Test:

Step 2: Connect the **DI0 pin (Pin22)** on the terminal board to **DO0 pin (Pin24)** and connect the **DI2 pin (Pin23)** on the terminal board to **DO2 pin (Pin25).**

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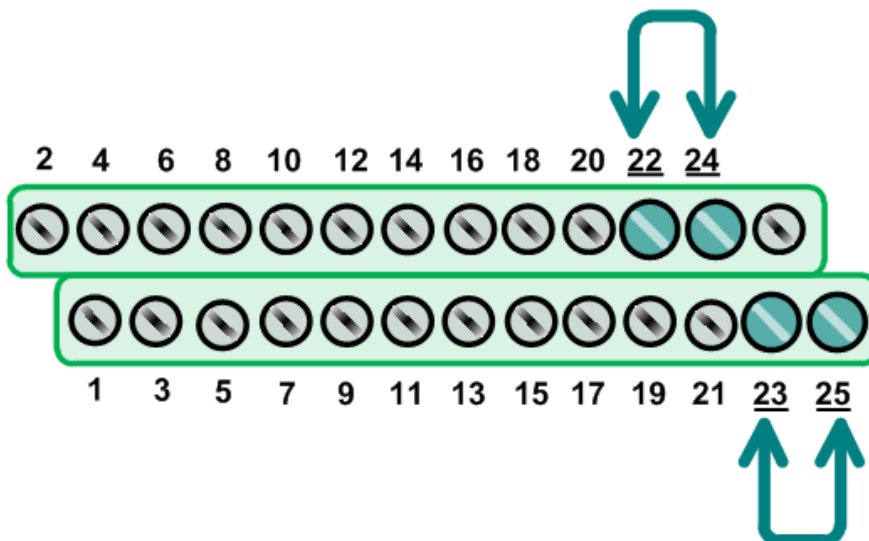
➢ **Wiring for the Analog Input Test:**

Step 3: Connect the signal source to AI channel 0, and connect the signals as follows.

1. Connect the **AI0 pin (Pin01)** on the terminal board to the **positive signal terminal (+)**

2. Connect the **A_GND pin (Pin14)** on the terminal board to the **negative signal terminal (-)**
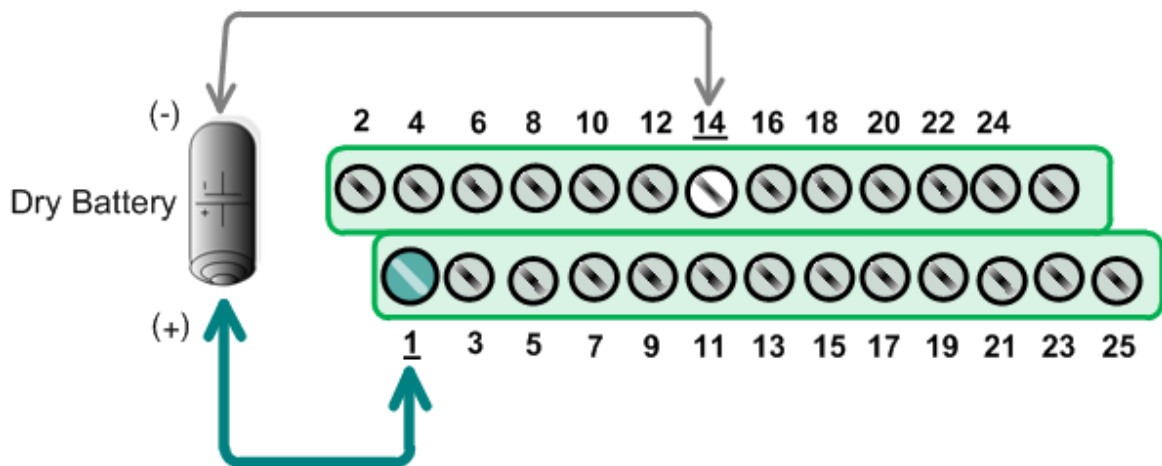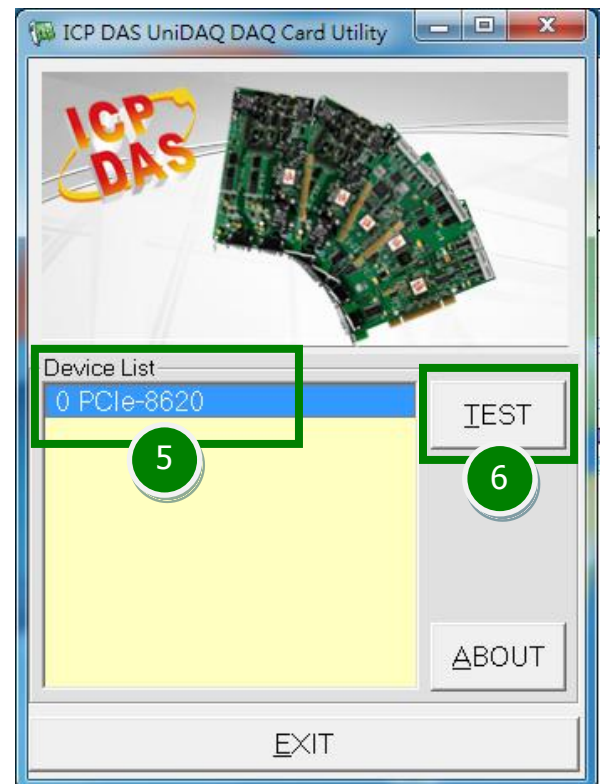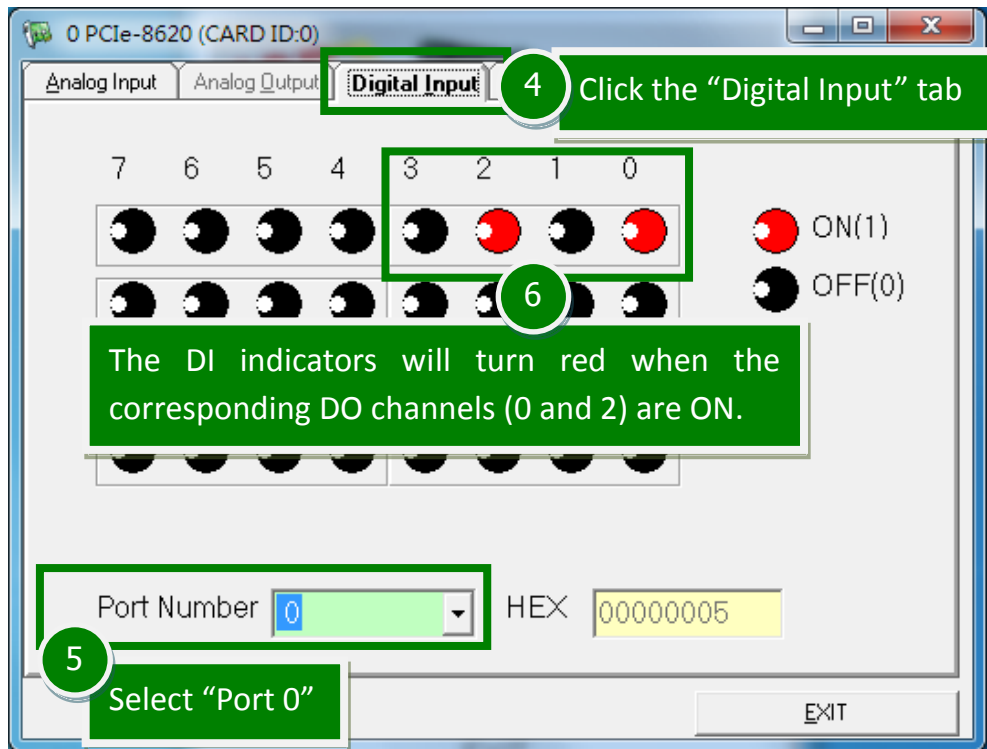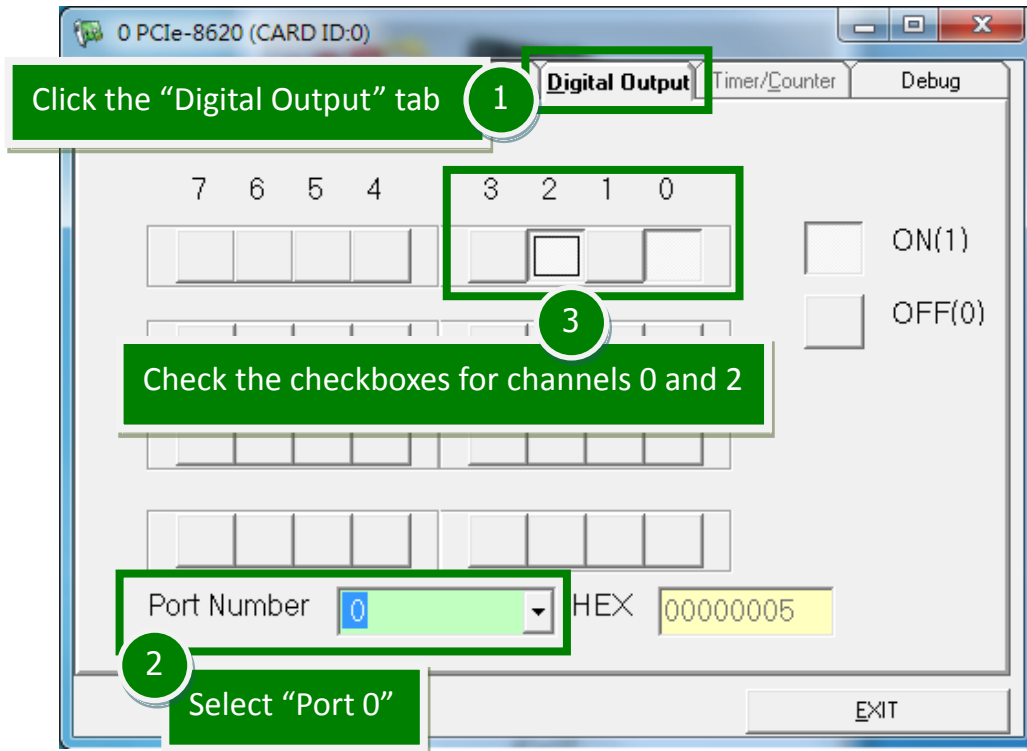

➢ **Execute the UniDAQ Utility Program:**

Step 4: In Windows 7, click the "**Start**" button, point to **"All Programs"**, and then click the **"ICPDAS"** folder. Point to **"UniDAQ Development Kits"** and then click the **"UniDAQ Utility**" to execute the UniDAQ Utility Program.

Step 5: Confirm that the PCIe-8620 board has been successfully installed in the Host system. Note that the device numbers start from 0.

Step 6: Click the **"TEST"** button to start the test.

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Step 7: Check the results of the **Digital Input/Output** functions test.

Click the "Digital Output" tab — 1

Check the checkboxes for channels 0 and 2 — 3

Select "Port 0" — 2

Click the "Digital Input" tab — 4

The DI indicators will turn red when the corresponding DO channels (0 and 2) are ON. — 6

Select "Port 0" — 5

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Step 8: Check the results of the **Analog Input** functions test.

7 Click "Analog Input" tab

10 Check the Analog Input value for Channel 0. The values for other channels will be a floating number.

PASS

8 Confirm the configuration settings

9 Click the "Start" button to start the test

7 Related Information

- PCIe-8620 Series Board Product Page:
  http://www.icpdas.com/root/product/solutions/pc_based_io_board/pci/pcie-862x.html

- DN-25 and CA-2520 Product Pages (optional):
  http://www.icpdas.com/products/DAQ/screw_terminal/dn_25.htm
  http://www.icpdas.com/products/Accessories/cable/cable_selection.htm

- UniDAQ Documentation and Software:
  CD:\NAPDOS\PCI\UniDAQ\
  http://ftp.icpdas.com/pub/cd/iocard/pci/napdos/pci/unidaq/