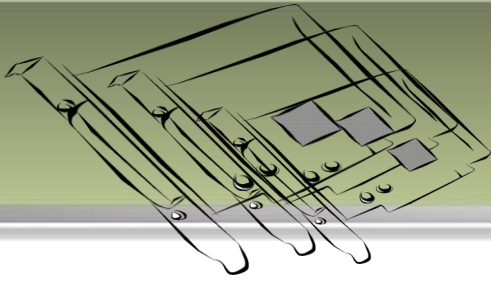


I/O CARD QUICK START GUIDE

For PCIe-8620

English/May 2015/Version 1.0



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/>

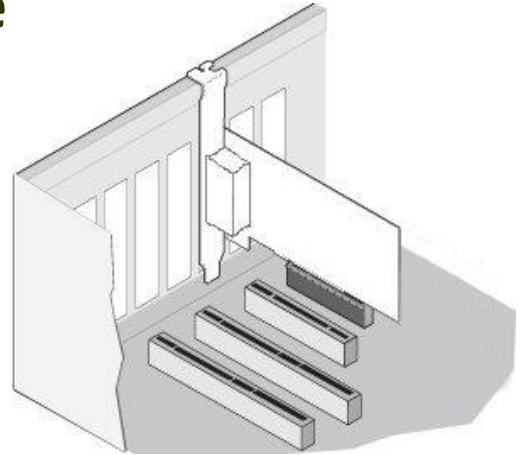
To install the UniDAQ driver, follow the procedure described below.

- 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 “**N**ext>” 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 “**N**ext>” button.
- Step 4:** On the “Select Destination Location” screen, click the “**N**ext>” 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 “**N**ext>” button to continue.
- Step 6:** On the “Select Additional Tasks” screen, click the “**N**ext>” button.
- Step 7:** On the “Download Information” screen, click the “**N**ext>” button
- Step 8:** Once the installation has completed, click “**No, I will restart my computer later**”, and then click the “**F**inish” button.

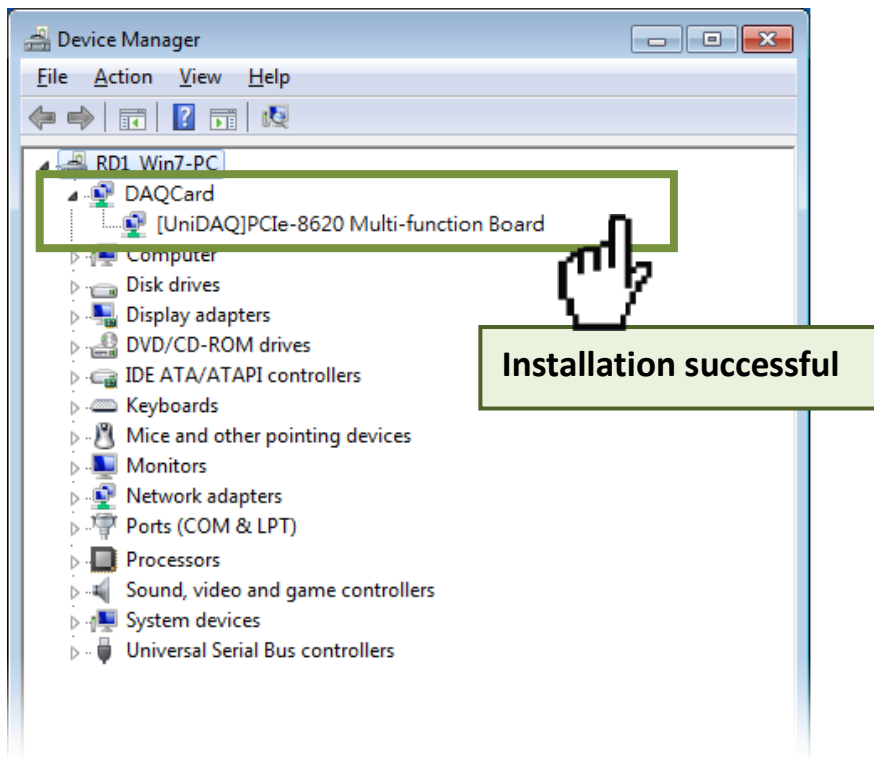
For detailed information about the driver installation, refer to Chapter 2 “Install UniDAQ Driver DLL” of the UniDAQ SDK User Manual.

3 Installing the Hardware

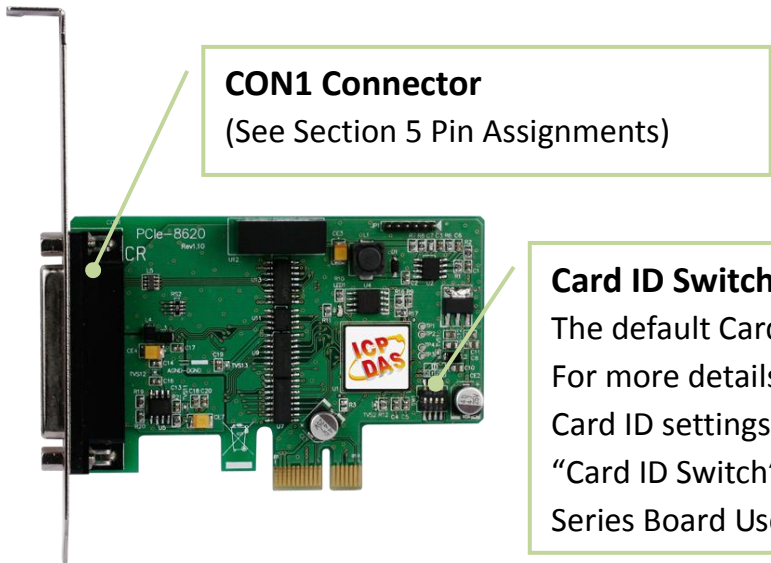
- Step 1:** Shut down and power off the computer.
- Step 2:** Remove all the covers from the computer.
- Step 3:** Select an unused PCI Express slot.
- Step 4:** Carefully insert the PCIe-8620 board into the PCI Express slot and secure the board in place.



- 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.



4 Board Layout



5 Pin Assignments

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

PCIe-8620 (CON1)

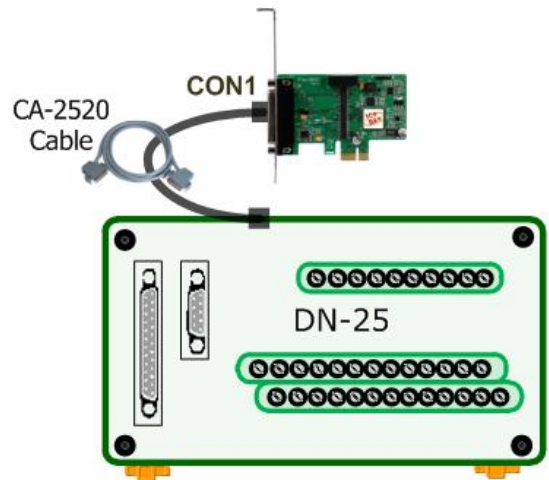
6 Self-Test

➤ Preparation:

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

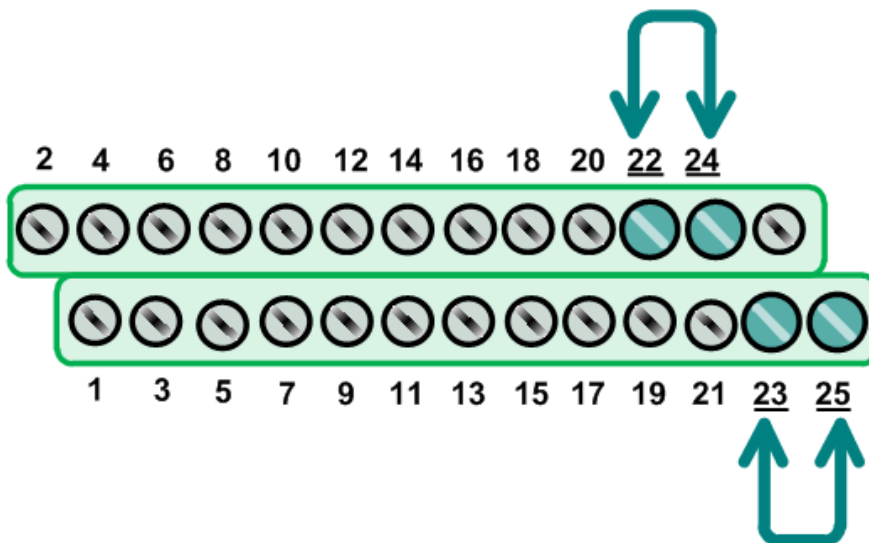
- ☑ A stable signal source. (For example, a dry cell battery)
- ☑ One DN-25 wiring terminal board.
- ☑ One CA-2520 cable.

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:

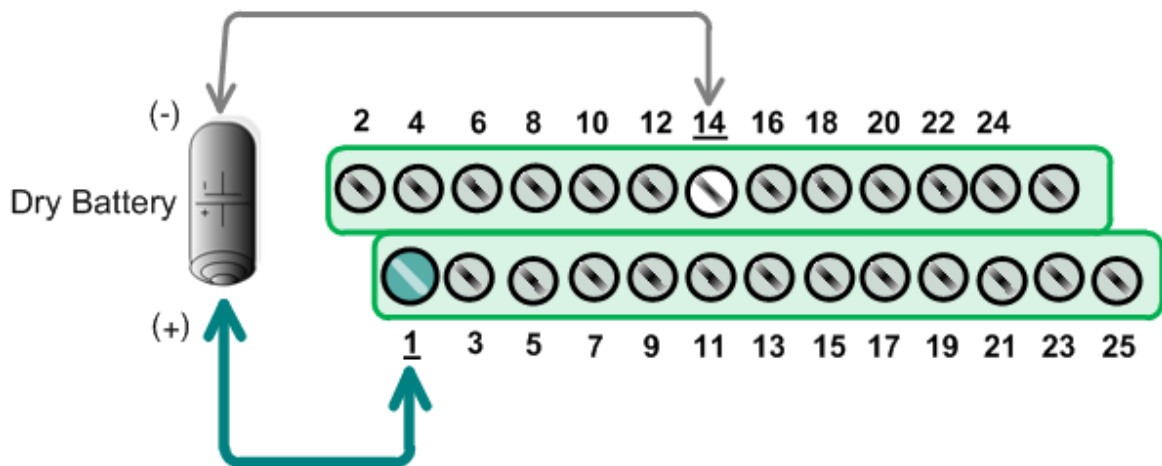
Step 2: Connect the **DI0 pin (Pin22)** on the terminal board to **DO0 pin (Pin24)** and connect the **DI2 pin (Pin23)** on the terminal board to **DO2 pin (Pin25)**.



➤ 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 **AIO 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 (-)**

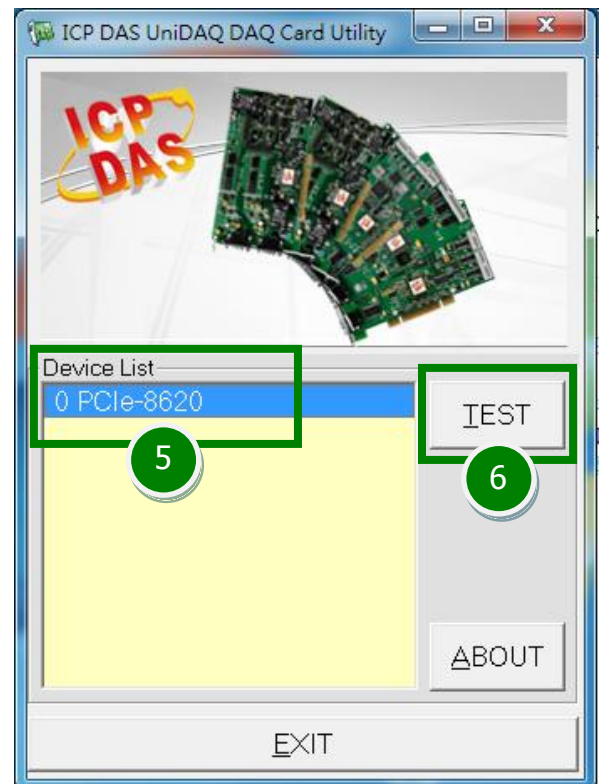


➤ Execute the UniDAQ Utility Program:

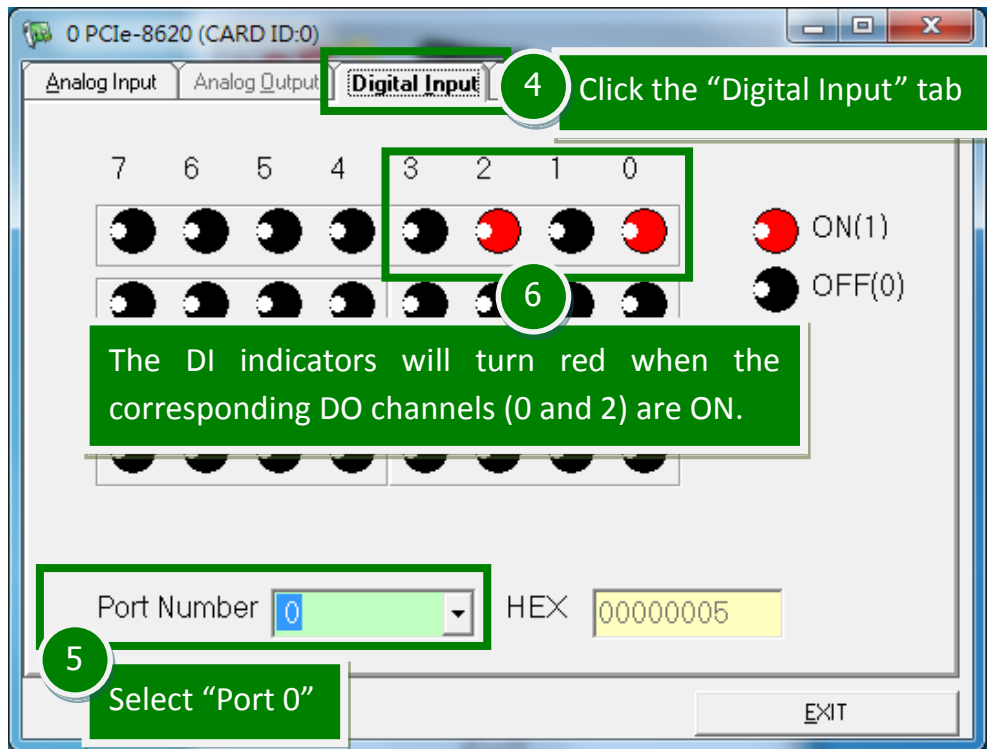
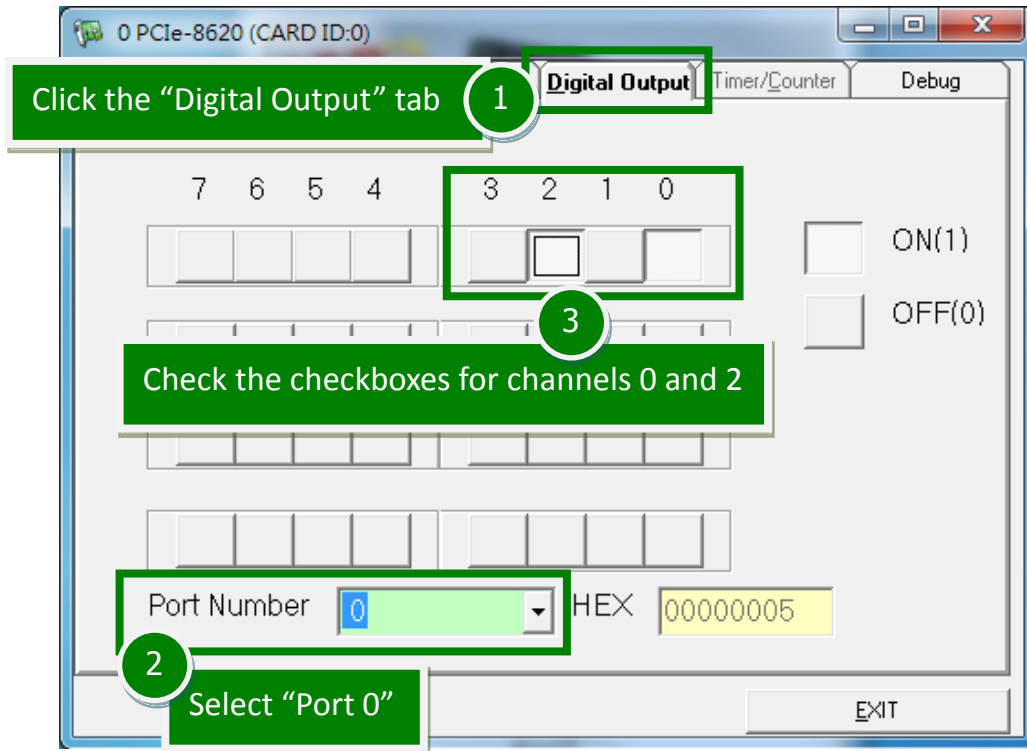
Step 4: In Windows 7, click the “Start” button, point to “All Programs”, and then click the “ICPDAS” folder. Point to “UniDAQ Development Kits” and then click the “UniDAQ Utility” to execute the UniDAQ Utility Program.

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.



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



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

7 Click "Analog Input" tab

Ch	Voltage[V]
0	1.12716
1	2.19174
2	2.18989
3	2.1939
4	2.19143
5	2.19945
6	2.21209
7	2.20284

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

8 Confirm the configuration settings

9 Click the "Start" button to start the test

PASS

Setting
Gain Type 0:Low(JPx=20V) Gain HEX
Range 00:Bipolar +/- 10V Sampling Rate 100 Hz

Start

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/unidag/>