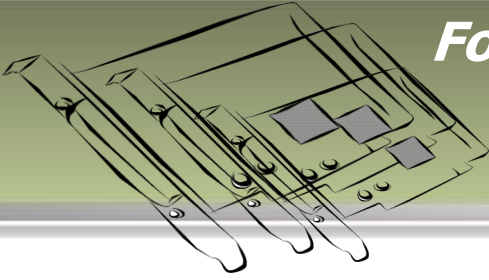


I/O CARD QUICK START GUIDE





*For PEX-1202 Series
PCI-1202/1602/180x Series*

English/ Oct. 2013/ Version 1.2



1 What's in the shipping package?

The package includes the following items:

	One PCI-1202/1602/180x series board as follows: PEX-1202L/1202H, PCI-1202LU/1202HU PCI-1602U/1602FU PCI-1800LU/1800HU, PCI-1802LU/1802HU
	One Software Utility CD (V5.2 or later)
	One Quick Start Guide (This Document)
	One CA-4002 D-Sub connector

2 Installing Windows Driver

Step 1: Setup the Windows driver. The driver is located at:

- The UniDAQ driver supports 32-/64-bit Windows 2K/XP/2003/Vista/7/8; it is recommended to install this driver for new user:
CD: \NAPDOS\PCI\UniDAQ\DLL\Driver
<http://ftp.icpdas.com/pub/cd/iocard/pci/napdos/pci/unidag/dll/driver/>

- The PCI-1202/1602/180x series classic driver supports Windows 98/NT/2K and 32-bit XP/ 2003/ Vista/7/8. Recommended to install this driver for have been used PCI-1202/1602/180x series boards of regular user, please refer to :

<http://ftp.icpdas.com/pub/cd/iocard/pci/napdos/pci/pci-180x/manual/quickstart/classic/>

Step 2: Click the "**Next>**" button to start the installation.

Step 3: Check your DAQ Card is or not on supported list, then click the "**Next>**" button.

Step 4: Select the installed folder, the default path is C:\ICPDAS\UniDAQ , confirm and click the "**Next>**" button.

Step 5: Check your DAQ Card on list, then click the "**Next>**" button.

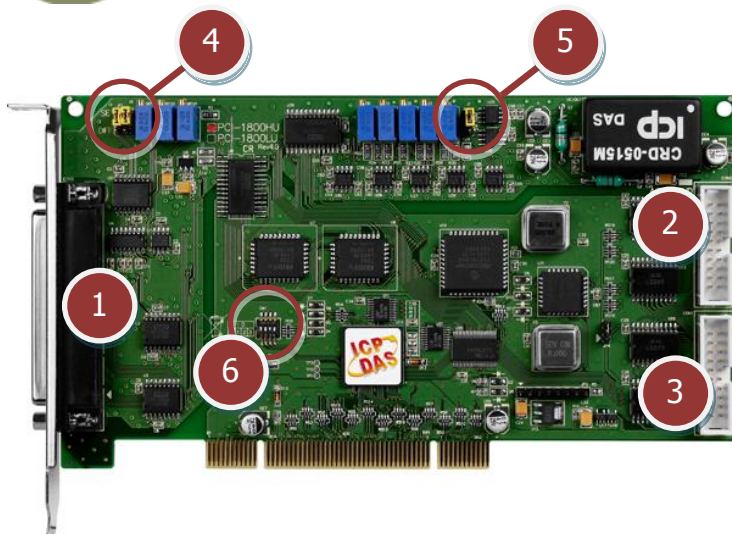
Step 6: Click the "**Next>**" button on the **Select Additional Tasks** window.

Step 7: Click the "**Next>**" button on the **Download Information** window.

Step 8: Select "**No, I will restart my computer later**" and then click the "**Finish**" button.

For detailed information about the driver installation, please refer to Chapter 2.1 "Getting the UniDAQ Driver DLL Installer package" of the UniDAQ SDK user manual.

3 Jumper Setting



- CON3:** Analog Input/Output
- CON2:** Digital Input
- CON1:** Digital Output
- JP1:** A/D Input Type Selection
- J1:** D/A Reference Voltage Selection
- SW1:** Card ID Setting

Please make sure JP1 jumper and SW1 is kept in default setting before self-test, as follows:

Jumper		JP1: Analog Input Type Selection																																										
		<input checked="" type="checkbox"/> Single-Ended Inputs (Default)	Differential Inputs																																									
Switch		SW1: Card ID Setting																																										
<p>(*) Default setting</p>	<table border="1"> <thead> <tr> <th>Card ID</th> <th>1 ID0</th> <th>2 ID1</th> <th>3 ID2</th> <th>4 ID3</th> </tr> </thead> <tbody> <tr> <td>(*) 0</td> <td>ON</td> <td>ON</td> <td>ON</td> <td>ON</td> </tr> <tr> <td>1</td> <td>OFF</td> <td>ON</td> <td>ON</td> <td>ON</td> </tr> <tr> <td>2</td> <td>ON</td> <td>OFF</td> <td>ON</td> <td>ON</td> </tr> <tr> <td>:</td> <td>:</td> <td>:</td> <td>:</td> <td>:</td> </tr> <tr> <td>0xD</td> <td>OFF</td> <td>ON</td> <td>OFF</td> <td>OFF</td> </tr> <tr> <td>0xE</td> <td>ON</td> <td>OFF</td> <td>OFF</td> <td>OFF</td> </tr> <tr> <td>0xF</td> <td>OFF</td> <td>OFF</td> <td>OFF</td> <td>OFF</td> </tr> </tbody> </table>				Card ID	1 ID0	2 ID1	3 ID2	4 ID3	(*) 0	ON	ON	ON	ON	1	OFF	ON	ON	ON	2	ON	OFF	ON	ON	:	:	:	:	:	0xD	OFF	ON	OFF	OFF	0xE	ON	OFF	OFF	OFF	0xF	OFF	OFF	OFF	OFF
Card ID	1 ID0	2 ID1	3 ID2	4 ID3																																								
(*) 0	ON	ON	ON	ON																																								
1	OFF	ON	ON	ON																																								
2	ON	OFF	ON	ON																																								
:	:	:	:	:																																								
0xD	OFF	ON	OFF	OFF																																								
0xE	ON	OFF	OFF	OFF																																								
0xF	OFF	OFF	OFF	OFF																																								

4 Installing Hardware on PC

- Step 1: Shut down and power off your computer.**
- Step 2: Remove the cover from the computer.**
- Step 3: Select an unused PCI/PCI Express slot.**
- Step 4: Carefully insert your I/O card into the PCI/PCI Express slot.**
- Step 5: Replace the PC cover.**
- Step 6: Power on the computer.**

After powering-on the computer, please finish the Plug&Play steps according to the prompted messages.

5

Pin Assignments

PEX-1202(L/H), PCI-1602(U/FU), PCI-1202/1800/1802(LU/HU)					
Pin Assignment	Terminal No.		Pin Assignment	Terminal No.	Pin Assignment
DO 0	01	○ ○	02 DO 1	01	○ ○
DO 2	03	○ ○	04 DO 3	03	○ ○
DO 4	05	○ ○	06 DO 5	05	○ ○
DO 6	07	○ ○	08 DO 7	07	○ ○
DO 8	09	○ ○	10 DO 9	09	○ ○
DO 10	10	○ ○	12 DO 11	11	○ ○
DO 12	12	○ ○	14 DO 13	13	○ ○
DO 14	14	○ ○	16 DO 15	15	○ ○
GND	16	○ ○	18 GND	17	○ ○
+5V	18	○ ○	20 +12V	19	○ ○

CON1 CON2

PEX-1202(L/H) PCI-1202/1802(LU/HU) PCI-1602(U/FU)		
Pin Assignment	Terminal No.	Pin Assignment
AI_0	01	20 AI_16
AI_1	02	21 AI_17
AI_2	03	22 AI_18
AI_3	04	23 AI_19
AI_4	05	24 AI_20
AI_5	06	25 AI_21
AI_6	07	26 AI_22
AI_7	08	27 AI_23
AI_8	09	28 AI_24
AI_9	10	29 AI_25
AI_10	11	30 AI_26
AI_11	12	31 AI_27
AI_12	13	32 AI_28
AI_13	14	33 AI_29
AI_14	15	34 AI_30
AI_15	16	35 AI_31
A.GND	17	36 Da2 out
Da1 out	18	37 D.GND
Ext_Trig	19	

CON3

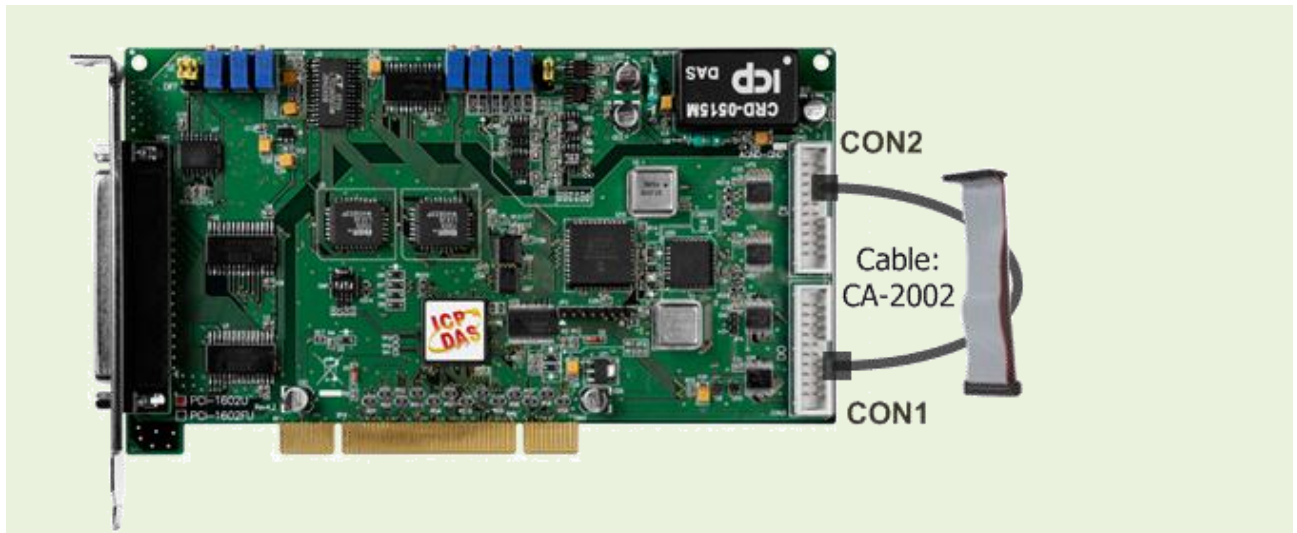
PCI-1800(LU/HU)		
Pin Assignment	Terminal No.	Pin Assignment
AI_0	01	20 AI_8
AI_1	02	21 AI_9
AI_2	03	22 AI_10
AI_3	04	23 AI_11
AI_4	05	24 AI_12
AI_5	06	25 AI_13
AI_6	07	26 AI_14
AI_7	08	27 AI_15
A.GND	09	28 A.GND
A.GND	10	29 A.GND
N.C.	11	30 D/A out0
N.C.	12	31 N.C.
+12V out	13	32 D/A out1
A.GND	14	33 N.C.
D.GND	15	34 N.C.
N.C.	16	35 N.C.
Ext_Trig	17	36 N.C.
Da1 out	18	37 N.C.
+5V out	19	

CON3

6 Self-Test

■ DIO Test Wiring:

1. Use CA-2002 (optional) to connect the CON1 with CON2.

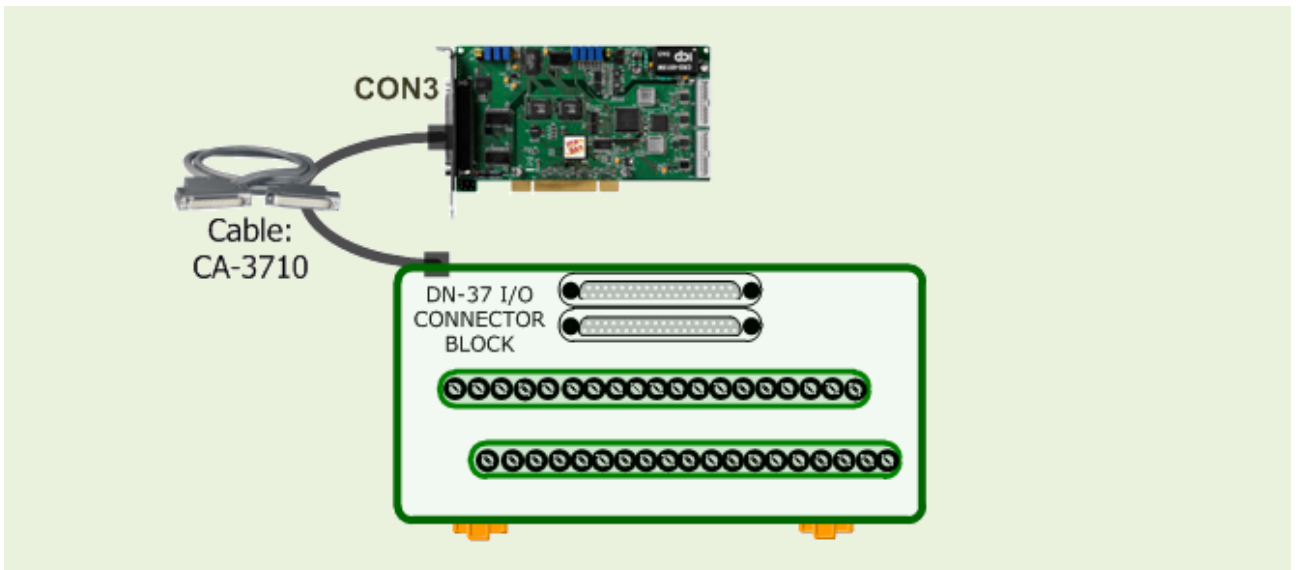


■ Analog Input Test Wiring:

2. Prepare for device:

- DN-37 (optional) Wiring terminal board.
- Provide a stable signal source. (For example, dry battery)

3. Connect a DN-37 to the CON3.

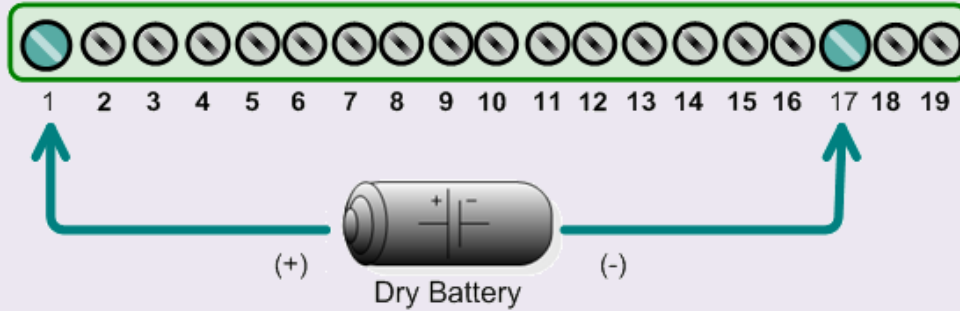


4. Wire the signal source to channel 0, and then keep set the JP1 jumper to Single-Ended (page 3), and wire the signals as follows:

■ **The PEX-1202 and PCI-1202/1602/1802 Series:**

Connect the AI 0 (Pin01) to signal positive (+)

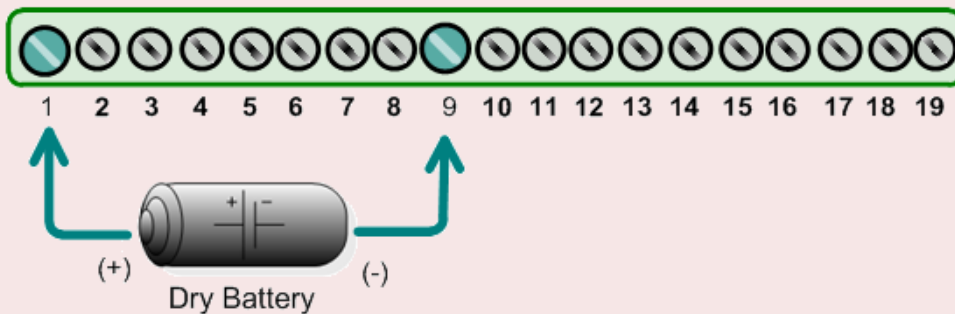
Connect the A.GND (Pin17) to signal negative (-)



■ **The PCI-1800 Series:**

Connect the AI 0 (Pin01) to signal positive (+)

Connect the A.GND (Pin09) to signal negative (-)



5. Execute the UniDAQ Utility Program.

This program (UniDAQ Utility) will be placed in the default path after completing installation.

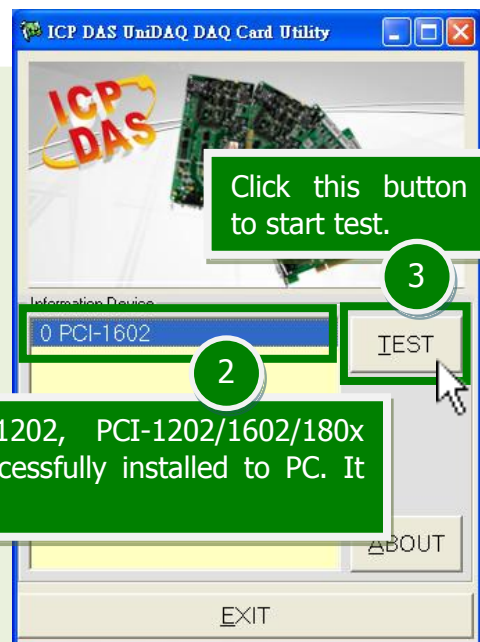
The UniDAQ Utility.exe is located in (Default path):

C:\ICPDAS\UniDAQ\Driver\

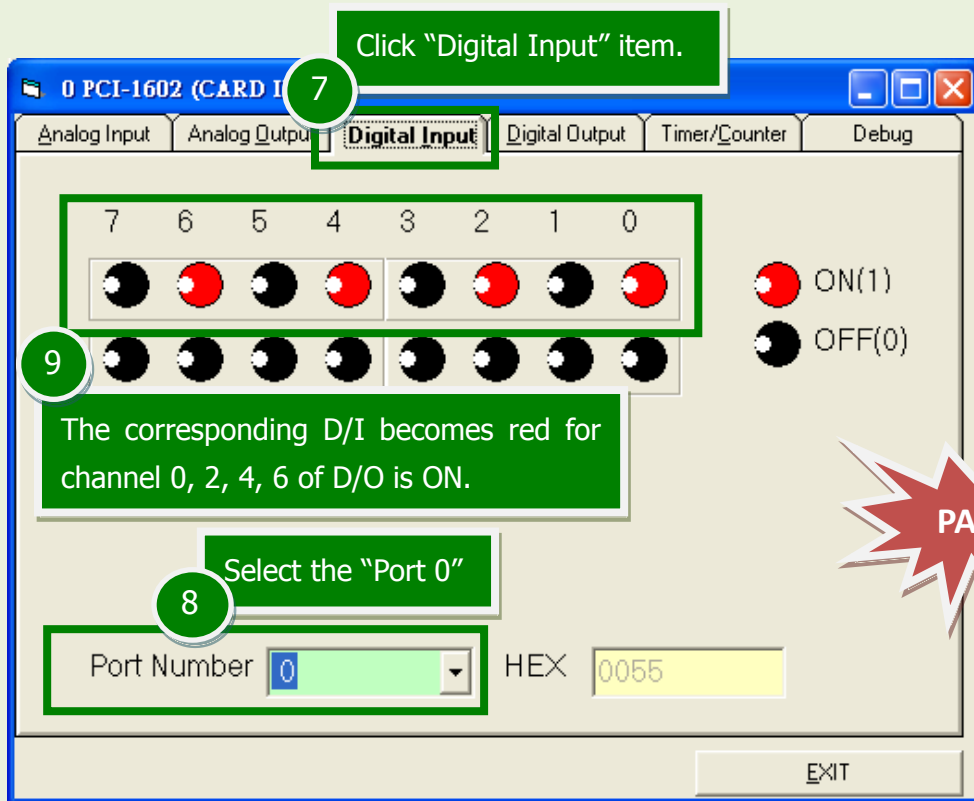
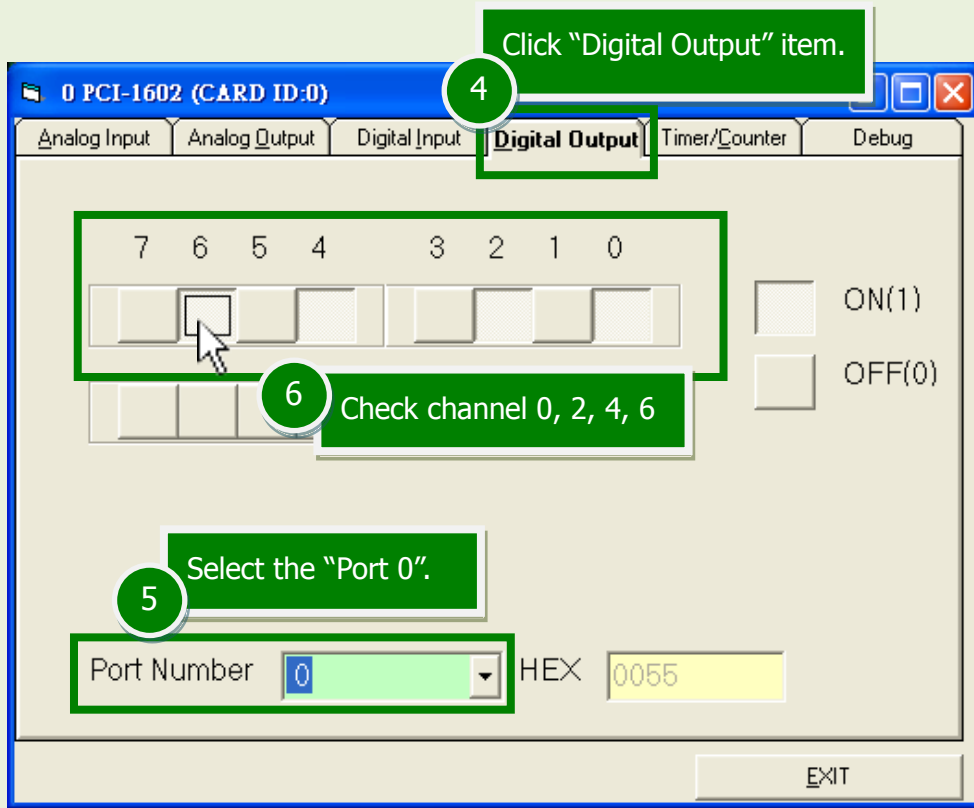
Double-Click **1**



Confirm the PEX-1202, PCI-1202/1602/180x series card had successfully installed to PC. It starts from 0.



6. Get DIO function test result.



7. Get A/D function test result.

Click "Analog Input" item.

10

Check analog input on Channel 0 textbox. The other channels value for floating number.

13

Ch	Voltage(V)	Ch	Voltage(V)	Ch	Voltage(V)	Ch	Voltage(V)
0	5.04334	8	1.83746	16	1.00159	24	0.16724
1	4.54437	9	1.66931	17	0.86853	25	0.1004
2	3.99811	10	1.50696	18	0.73547	26	0.06989
3	3.62274	11	1.35559	19	0.60852	27	0.01556
4	3.35053	12	1.17004	20	0.4718	28	-0.02777
5	3.08258	13		21		29	
6	2.83905	14		22		30	
7	2.58514	15		23		31	

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

Stop

EXIT

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

Start

11

Confirm the configuration setting.

12

Click this button to start test.

PASS

Related Information

- PEX-1202 and PCI-1202/1602/180x Series Card Product Page:
http://www.icpdas.com/root/product/solutions/pc_based_io_board/pci/pci-1202.html
http://www.icpdas.com/root/product/solutions/pc_based_io_board/pci/pci-1602.html
http://www.icpdas.com/root/product/solutions/pc_based_io_board/pci/pci-1800.html
- DN-37, CA-3710 and CA-2002 page (optional):
http://www.icpdas.com/products/DAQ/screw_terminal/dn_37.htm
http://www.icpdas.com/products/Accessories/cable/cable_selection.htm
- Documentation and Software:
 CD:\NAPDOS\PCI\UniDAQ\
<http://ftp.icpdas.com/pub/cd/iocard/pci/napdos/pci/unidaq/>