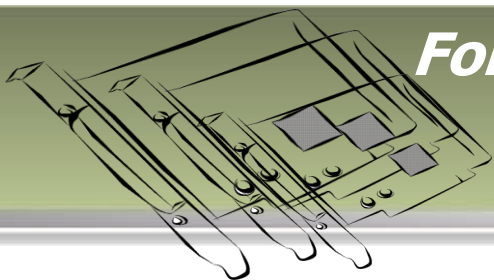


I/O CARD QUICK START GUIDE

For *PIO-D144U/PIO-D144LU*
PEX-D144S/PIO-D168U

English/ Sep. 2014/ Version 1.0



1

What's in the shipping package?

The package includes the following items:

One PIO-D144U/D168U series board as follows:



PIO-D144U, PIO-D144LU



PEX-D144S



PIO-D168U



One Software Utility CD (V5.8 or later)



One Quick Start Guide (This Document)

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/unidaq/dll/driver/>
- The PIO-DIO driver supports Windows 98/NT/2K and 32-bit XP/ 2003/ Vista/7/8. Recommended to install this driver for have been used PIO-DIO series boards of regular user, please refer to :
<http://ftp.icpdas.com/pub/cd/iocard/pci/napdos/pci/pio-dio/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 4 "Software Installation" of the user manual.

3 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.

4 Pin Assignments

PIO-D144(L)U/D168U

Pin Assignment	Terminal No.	Pin Assignment
N.C.	01	20 +5 V
N.C.	02	21 GND
PB_7	03	22 PC_7
PB_6	04	23 PC_6
PB_5	05	24 PC_5
PB_4	06	25 PC_4
PB_3	07	26 PC_3
PB_2	08	27 PC_2
PB_1	09	28 PC_1
PB_0	10	29 PC_0
GND	11	30 PA_7
N.C.	12	31 PA_6
GND	13	32 PA_5
N.C.	14	33 PA_4
GND	15	34 PA_3
N.C.	16	35 PA_2
GND	17	36 PA_1
+5 V	18	37 PA_0
GND	19	




CN1

Pin Assignment	Terminal No.	Pin Assignment
PC_7	01	02 GND
PC_6	03	04 GND
PC_5	05	06 GND
PC_4	07	08 GND
PC_3	09	10 GND
PC_2	11	12 GND
PC_1	13	14 GND
PC_0	15	16 GND
PB_7	17	18 GND
PB_6	19	20 GND
PB_5	21	22 GND
PB_4	23	24 GND
PB_3	25	26 GND
PB_2	27	28 GND
PB_1	29	30 GND
PB_0	31	32 GND
PA_7	33	34 GND
PA_6	35	36 GND
PA_5	37	38 GND
PA_4	39	40 GND
PA_3	41	42 GND
PA_2	43	44 GND
PA_1	45	46 GND
PA_0	47	48 GND
+5 V	49	50 GND

CN2/CN3/CN4/CN5/CN6
CN7 (for PIO-D168U only)


PEX-D144S

Pin Assignment	Terminal No.	Pin Assignment
PA_00	01	51 PA_10
PA_01	02	52 PA_11
PA_02	03	53 PA_12
PA_03	04	54 PA_13
PA_04	05	55 PA_14
PA_05	06	56 PA_15
PA_06	07	57 PA_16
PA_07	08	58 PA_17
PB_00	09	59 PB_10
PB_01	10	60 PB_11
PB_02	11	61 PB_12
PB_03	12	62 PB_13
PB_04	13	63 PB_14
PB_05	14	64 PB_15
PB_06	15	65 PB_16
PB_07	16	66 PB_17
PC_00	17	67 PC_10
PC_01	18	68 PC_11
PC_02	19	69 PC_12
PC_03	20	70 PC_13
PC_04	21	71 PC_14
PC_05	22	72 PC_15
PC_06	23	73 PC_16
PC_07	24	74 PC_17
GND	25	75 GND
PA_20	26	76 PA_30
PA_21	27	77 PA_31
PA_22	28	78 PA_32
PA_23	29	79 PA_33
PA_24	30	80 PA_34
PA_25	31	81 PA_35
PA_26	32	82 PA_36
PA_27	33	83 PA_37
PB_20	34	84 PB_30
PB_21	35	85 PB_31
PB_22	36	86 PB_32
PB_23	37	87 PB_33
PB_24	38	88 PB_34
PB_25	39	89 PB_35
PB_26	40	90 PB_36
PB_27	41	91 PB_37
PC_20	42	92 PC_30
PC_21	43	93 PC_31
PC_22	44	94 PC_32
PC_23	45	95 PC_33
PC_24	46	96 PC_34
PC_25	47	97 PC_35
PC_26	48	98 PC_36
PC_27	49	99 PC_37
+5 V	50	100 +5 V



CON1

Pin Assignment	Terminal No.	Pin Assignment
GND	01	02 +5 V
PA_40	03	04 PA_50
PA_41	05	06 PA_51
PA_42	07	08 PA_52
PA_43	09	10 PA_53
PA_44	11	12 PA_54
PA_45	13	14 PA_55
PA_46	15	16 PA_56
PA_47	17	18 PA_57
PB_40	19	20 PB_50
PB_41	21	22 PB_51
PB_42	23	24 PB_52
PB_43	25	26 PB_53
PB_44	27	28 PB_54
PB_45	29	30 PB_55
PB_46	31	32 PB_56
PB_47	33	34 PB_57
PC_40	35	36 PC_50
PC_41	37	38 PC_51
PC_42	39	40 PC_52
PC_43	41	42 PC_53
PC_44	43	44 PC_54
PC_45	45	46 PC_55
PC_46	47	48 PC_56
PC_47	49	50 PC_57

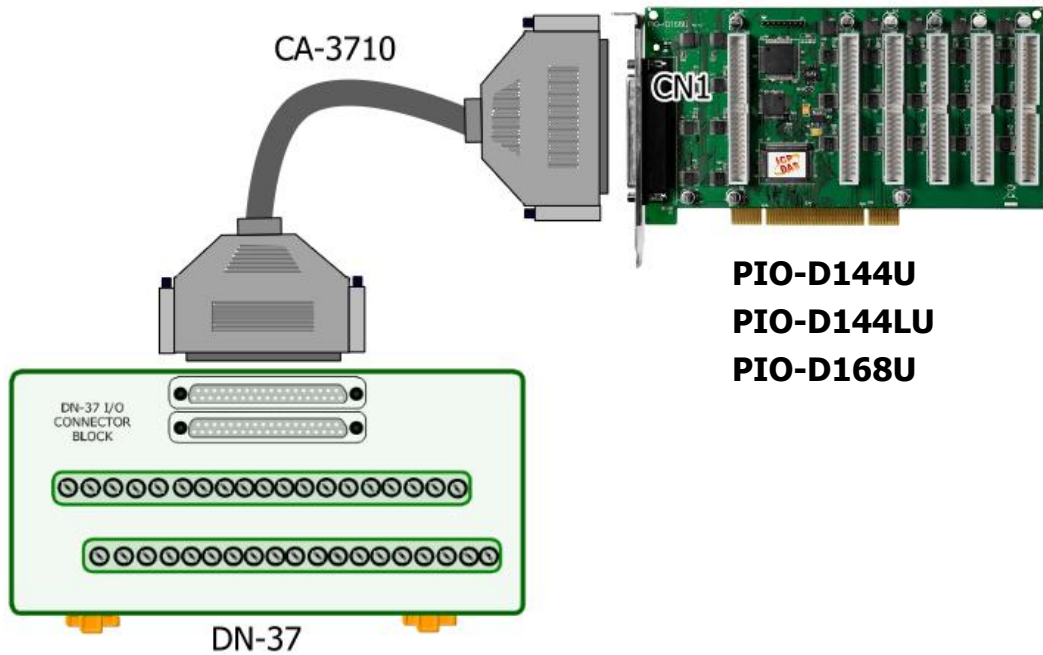


CON2

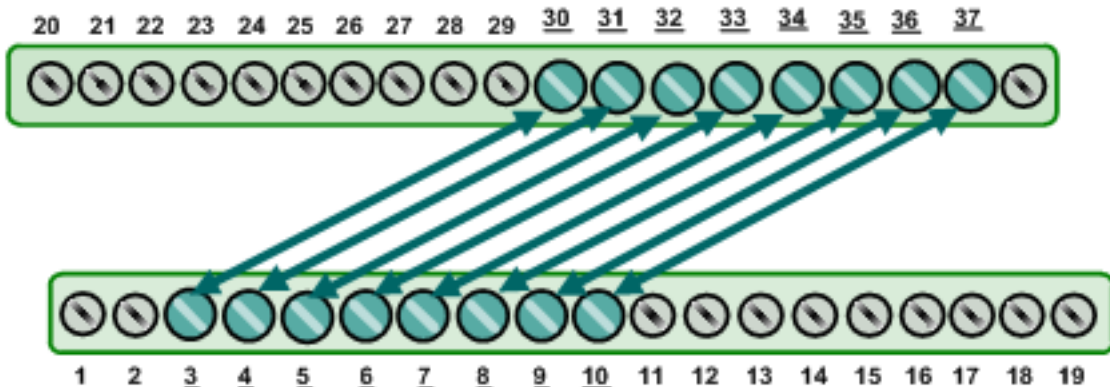
5 Self-Test

- Self-test wiring of the PIO-D144U/D144LU/D168U as follows:

1. Use the DN-37 (optional) to connect the CN1 on the board.

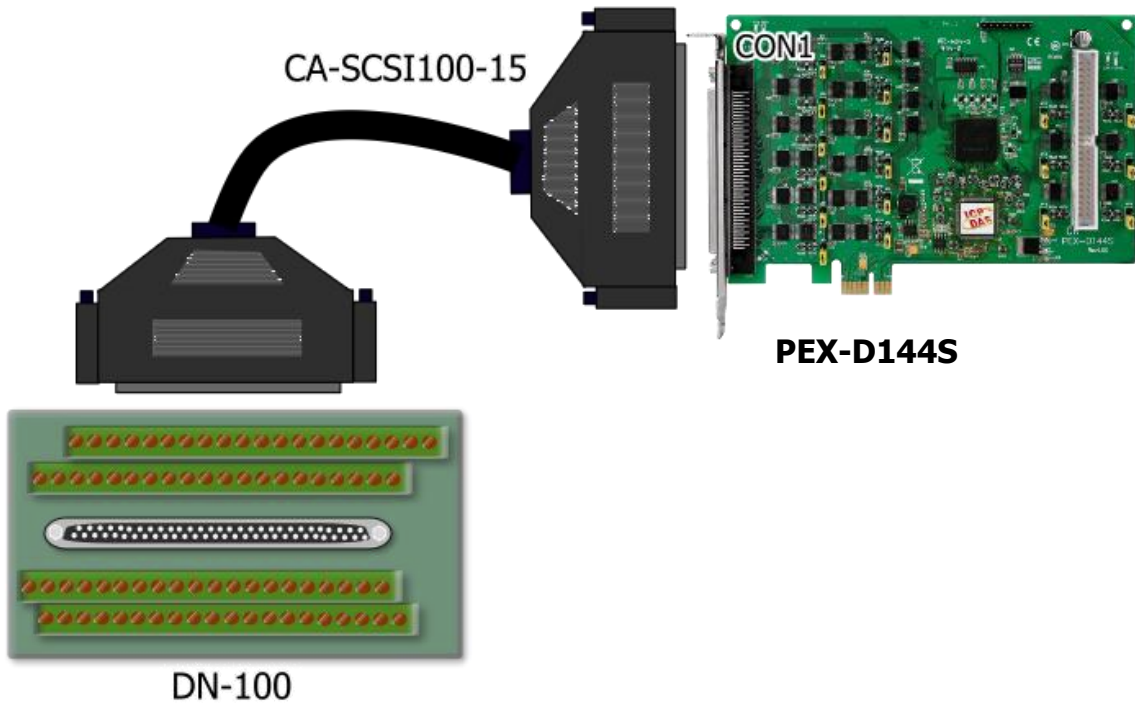


2. Connect the Port0 (PA0~PA7) with Port1 (PB0~PB7).

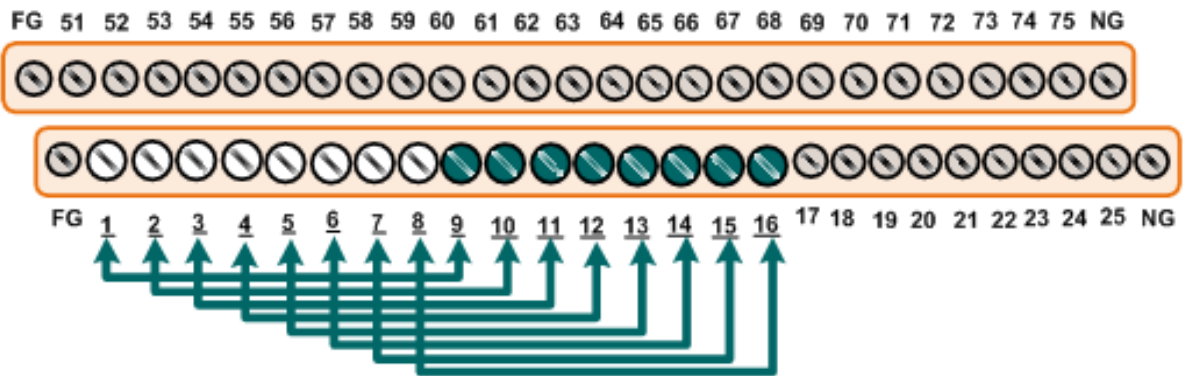


■ **Self-test wiring of the PEX-D144S as follows:**

1. Use the DN-100 (optional) to connect the CON1 on the board.



2. Connect the Port0 (PA00~PA07) with Port1 (PB00~PB07).



3. The UniDAQ Utility.exe is located in:

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

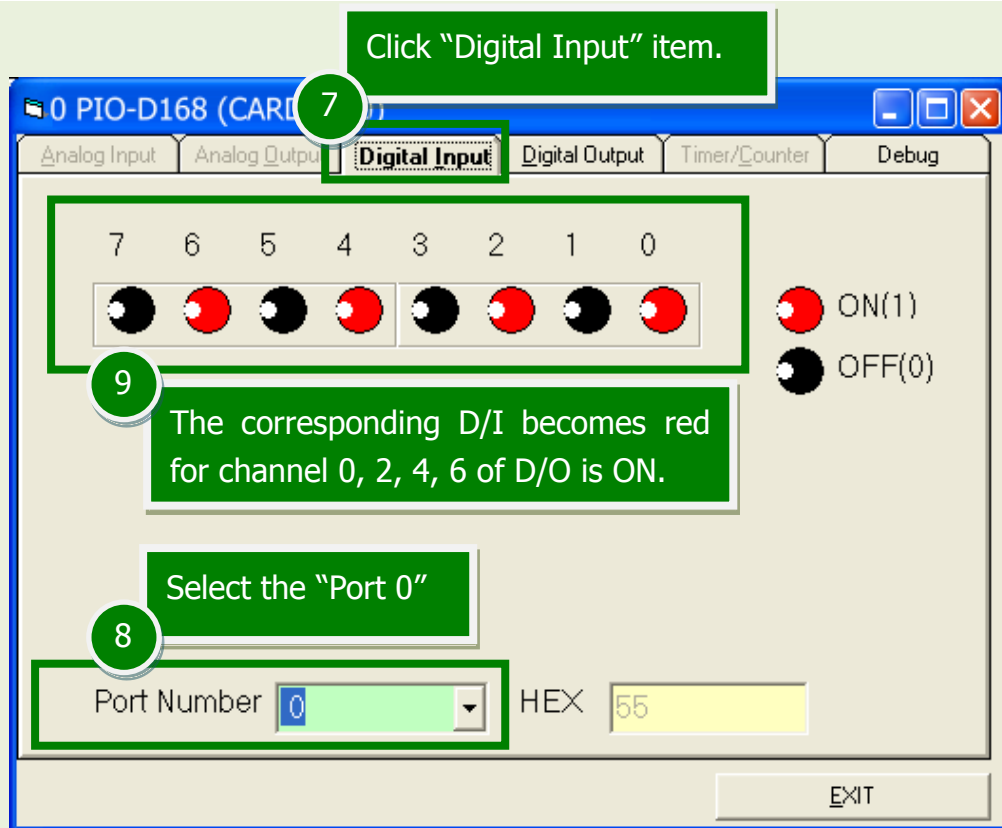
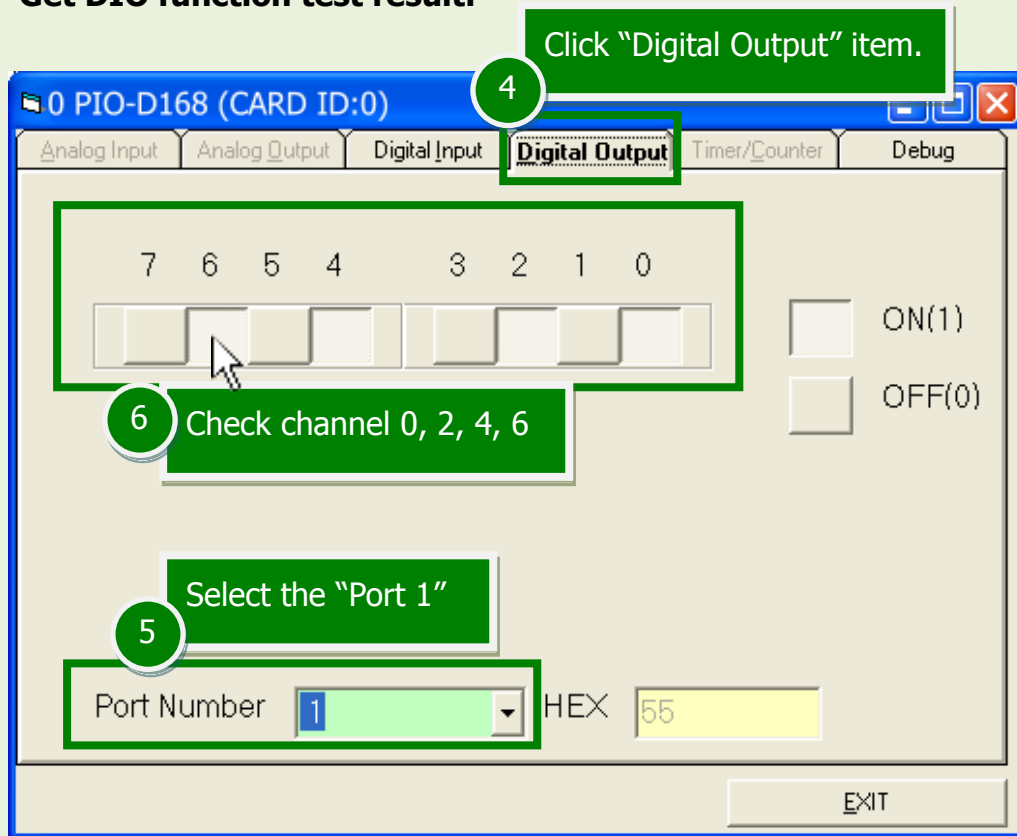
Default Path: C:\ICPDAS\UniDAQ\Driver\
 Double click the "UniDAQUtility.exe"



4. Execute the UniDAQ Utility Program.

The screenshot shows the 'ICP DAS UniDAQ DAQ Card Utility' window. A green callout box labeled '1' with 'Double-Click' and 'UniDAQUtility' points to the desktop icon. A green callout box labeled '2' with 'Confirm the PIO-144U/D168U series card had successfully installed to PC. It starts from 0.' points to the '0 PIO-D168' entry in the 'Information Device' list. A green callout box labeled '3' with 'Click this button to start test.' points to the 'TEST' button. Other buttons visible are 'ABOUT' and 'EXIT'.

5. Get DIO function test result.



-Complete-

6

Related Information

- PIO-D144U/D144LU, PEX-D144S and PIO-D168U Series Card Product Page:

http://www.icpdas.com/root/product/solutions/pc_based_io_board/pci/pio-d144.html

http://www.icpdas.com/root/product/solutions/pc_based_io_board/pci/pio-d168.html

- DN-37 and CA-3710 page (optional):

http://www.icpdas.com/products/DAQ/screw_terminal/dn_37.htm

http://www.icpdas.com/products/Accessories/cable/cable_selection.htm

- Documentation:

CD:\NAPDOS\PCI\PIO-DIO\Manual\

<http://ftp.icpdas.com/pub/cd/iocard/pci/napdos/pci/pio-dio/manual/>

- Software:

CD:\NAPDOS\PCI\UniDAQ\DLL\

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