

I/O CARD QUICK START GUIDE

For PIO-D96U/PIO-D96SU/PEX-D96S

English/ Oct. 2014/ Version 1.0

1

What's in the shipping package?

The package includes the following items:



One PIO-D96U series board as follows:

PIO-D96U



PEX-D96S



PIO-D96SU



One Software Utility CD (V6.1 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/clinic/>

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.

For detailed information about the driver installation, please refer to Chapter 3 "Hardware Installation" of the user manual.

4 Pin Assignments

PIO-D96SU/PEX-D96S:

PA00-07: Port0; PB00-07: Port1; PC00-07: Port2
 PA10-17: Port3; PB10-17: Port4; PC10-17: Port5
 PA20-27: Port6; PB20-27: Port7; PC20-27: Port8
 PA30-37: Port9; PB30-37: Port10; PC30-37: Port11

PIO-D96U:

CON1: PA0-7(Port0); PB0-7(Port1); PC0-7(Port2)
 CN1: PA0-7(Port3); PB0-7(Port4); PC0-7(Port5)
 CN2: PA0-7(Port6); PB0-7(Port7); PC0-7(Port8)
 CN3: PA0-7(Port9); PB0-7(Port10); PC0-7(Port11)

Pin Assignment	Terminal No.	Pin Assignment
PA_00	01	PA_10
PA_01	02	PA_11
PA_02	03	PA_12
PA_03	04	PA_13
PA_04	05	PA_14
PA_05	06	PA_15
PA_06	07	PA_16
PA_07	08	PA_17
PB_00	09	PB_10
PB_01	10	PB_11
PB_02	11	PB_12
PB_03	12	PB_13
PB_04	13	PB_14
PB_05	14	PB_15
PB_06	15	PB_16
PB_07	16	PB_17
PC_00	17	PC_10
PC_01	18	PC_11
PC_02	19	PC_12
PC_03	20	PC_13
PC_04	21	PC_14
PC_05	22	PC_15
PC_06	23	PC_16
PC_07	24	PC_17
GND	25	GND
PA_20	26	PA_30
PA_21	27	PA_31
PA_22	28	PA_32
PA_23	29	PA_33
PA_24	30	PA_34
PA_25	31	PA_35
PA_26	32	PA_36
PA_27	33	PA_37
PB_20	34	PB_30
PB_21	35	PB_31
PB_22	36	PB_32
PB_23	37	PB_33
PB_24	38	PB_34
PB_25	39	PB_35
PB_26	40	PB_36
PB_27	41	PB_37
PC_20	42	PC_30
PC_21	43	PC_31
PC_22	44	PC_32
PC_23	45	PC_33
PC_24	46	PC_34
PC_25	47	PC_35
PC_26	48	PC_36
PC_27	49	PC_37
+5V	50	+5V

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

Female DB37 (CON1)

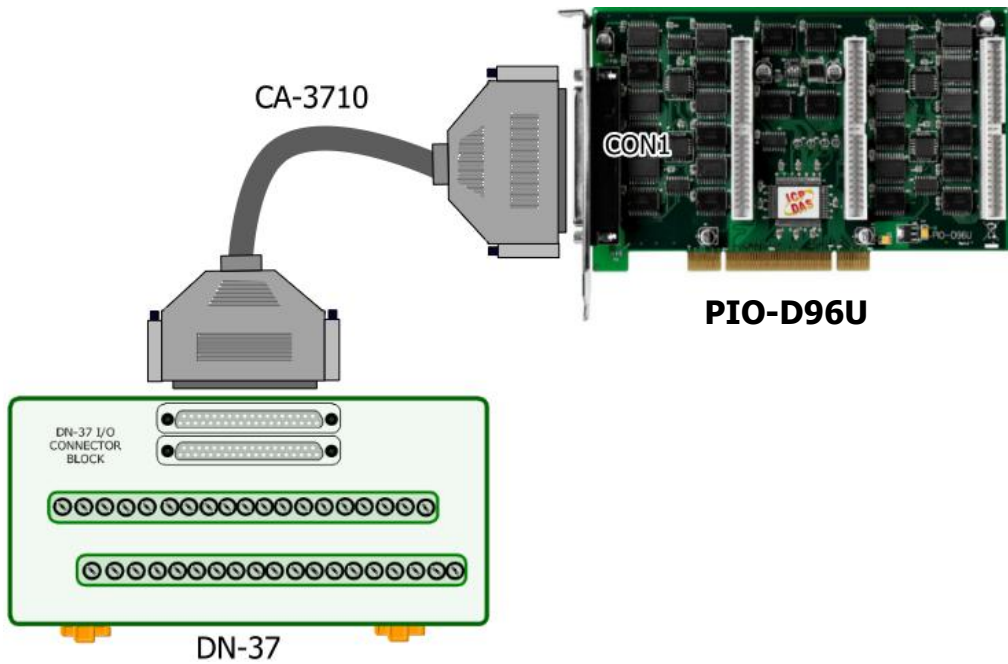
Pin Assignment	Terminal No.	Pin Assignment
PC_7	01	GND
PC_6	03	GND
PC_5	05	GND
PC_4	07	GND
PC_3	09	GND
PC_2	11	GND
PC_1	13	GND
PC_0	15	GND
PB_7	17	GND
PB_6	19	GND
PB_5	21	GND
PB_4	23	GND
PB_3	25	GND
PB_2	27	GND
PB_1	29	GND
PB_0	31	GND
PA_7	33	GND
PA_6	35	GND
PA_5	37	GND
PA_4	39	GND
PA_3	41	GND
PA_2	43	GND
PA_1	45	GND
PA_0	47	GND
+5V	49	GND

50-pin box header (CN1/CN2/CN3)

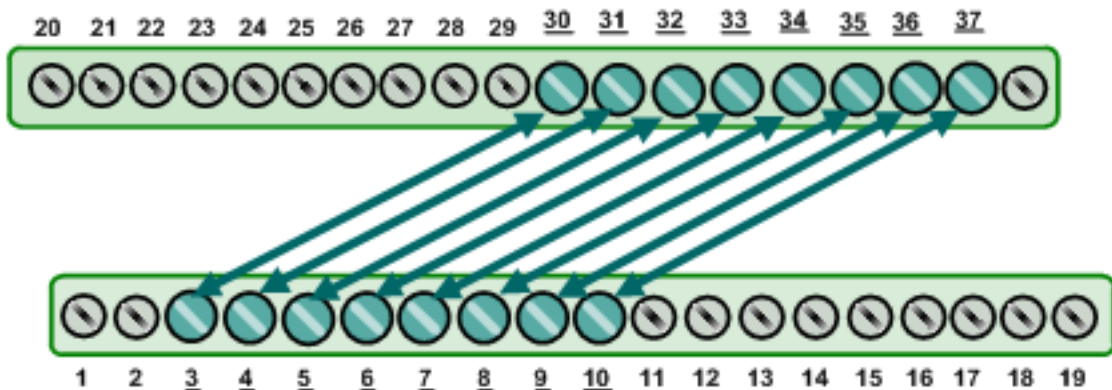
5 Self-Test

■ Self-test wiring of the PIO-D96U as follows:

1. Use the DN-37 (optional) to connect the CON1 on the board.

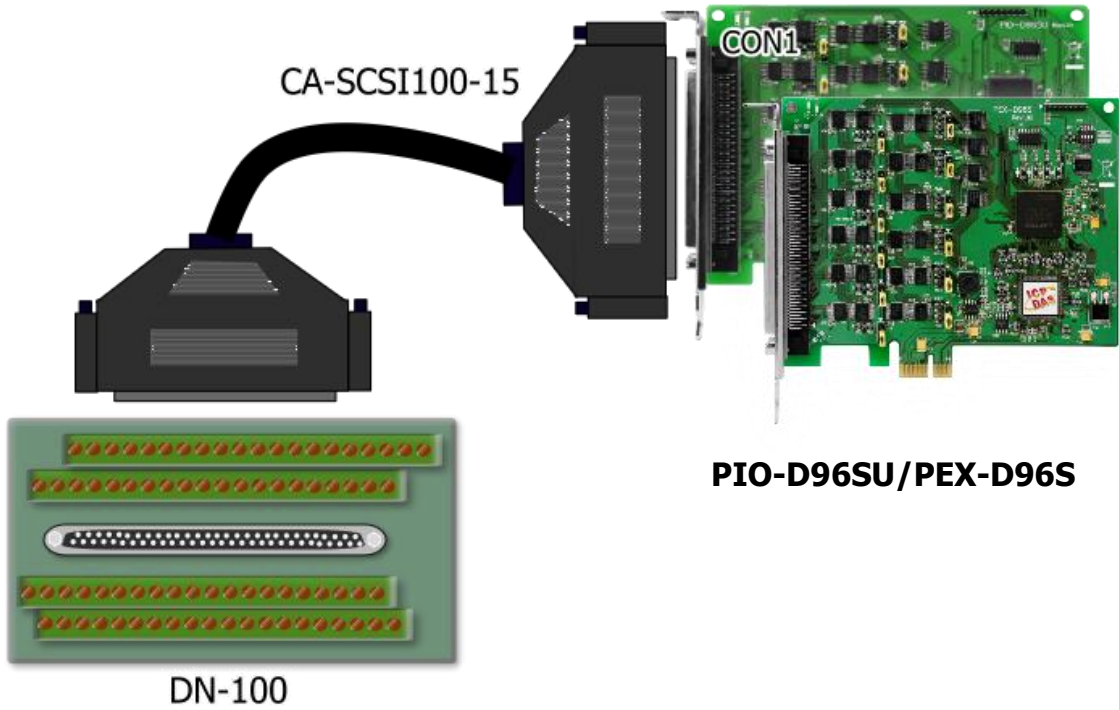


2. Connect the Port0 (PA0~PA7) with Port1 (PB0~PB7).

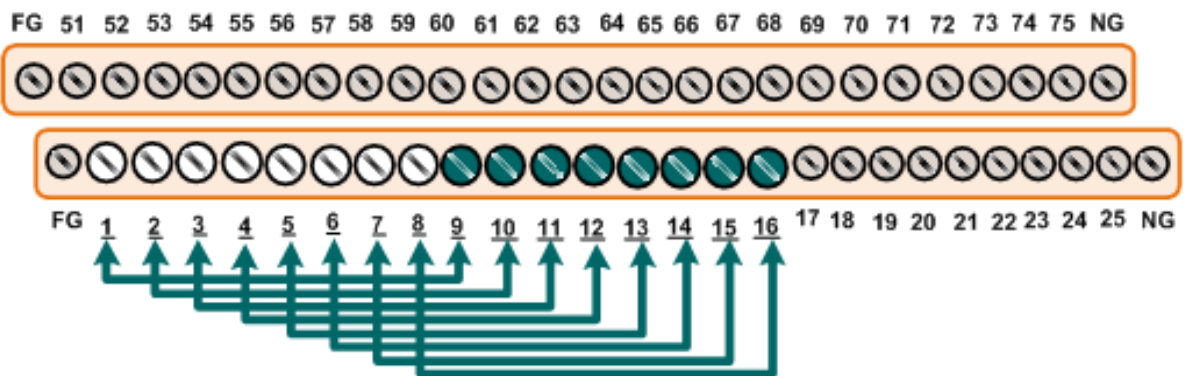


■ **Self-test wiring of the PIO-D96SU/PEX-D96S as follows:**

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



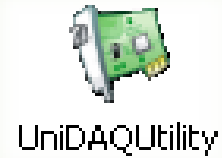
2. Connect the Port0 (PA00~PA07) with Port1(PB00~PB07).



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.

1 Double-Click
 UniDAQUtility

2 Confirm the PIO-D96 series card had successfully installed to PC. It starts from 0.

3 Click this button to start test.

ICP DAS UniDAQ DAQ Card Utility

Information Device
 0 PIO-D96

TEST

ABOUT

EXIT

5. Get DIO function test result.

Click "Digital Output" item.

4

6 Check channel 0, 2, 4, 6

5 Select the "Port 1"

Port Number 1 HEX 55

EXIT

Click "Digital Input" item.

7

9 The corresponding D/I becomes red for channel 0, 2, 4, 6 of D/O is ON.

8 Select the "Port 0"

Port Number 0 HEX 55

EXIT

-Complete-

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Related Information

- PIO-D96U/PIO-D96SU/PEX-D96S Series Card Product Page:
http://www.icpdas.com.tw/product/solutions/pc_based_io_board/pci/pio-d96.html
- DN-37, DN-100, CA-3710 and CA-SCSI100-15 page (optional):
http://www.icpdas.com/products/DAQ/screw_terminal/dn_37.htm
http://www.icpdas.com/products/DAQ/screw_terminal/dn_100.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/>