

## Packing List

In addition to this guide, the package includes the following items:



PCIe-LM4

## Technical Support

[service@icpdas.com](mailto:service@icpdas.com)

[www.icpdas.com](http://www.icpdas.com)

## Resources

How to search for drivers, manuals and spec information on ICP DAS website.

- For Mobile Web



- For Desktop Web



## Related Information

For more detailed information related to the software manual, hardware manual, PCIe-LM4 Driver & SDK and sample program:

<http://www.icpdas.com/en/download/index.php?model=PCIe-LM4>

# 1 Installing Windows Driver

1) Download or locate the Windows driver.

The PCIe-LM4 **driver** supports 32-/64-bit Windows XP/2003/2008/7/8/10, which can be found in the <http://www.icpdas.com/en/download/show.php?num=2358&model=PCIe-LM4>

2) Click the “**Next>**” button to start the installation.

3) Check your DAQ Card is or not on supported list, then click the “**Next>**” button.

4) Select the installed folder, the default path is **C:\ICPDAS\PCIe-LM4**, confirm and click the “**Next>**” button.

5) Check your DAQ Card on list, then click the “**Next>**” button.

6) Click the “**Next>**” button on the Select Additional Tasks window.

7) Click the “**Next>**” button on the Download Information window.

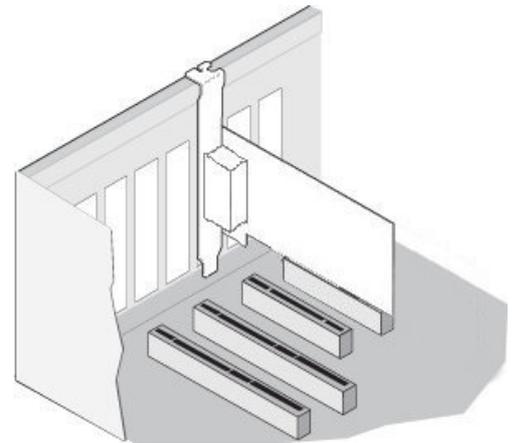
8) Select “**No, I will restart my computer later**” and then click the “**Finish**” button.

## **NOTE:**

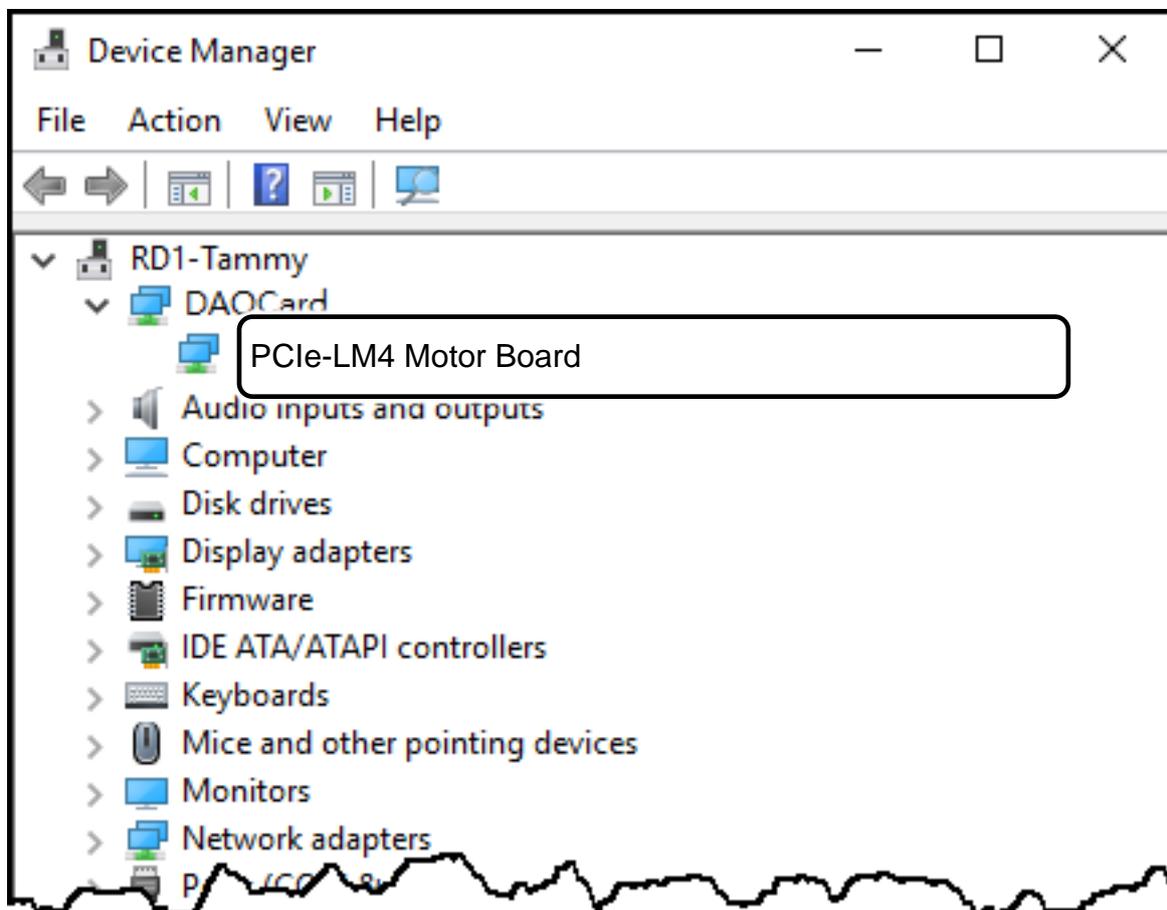
**For more detailed information related to driver installation, refer to Chapter 4 “Starting” in the PCIe-LM4 user manual.**

# 2 Installing Hardware on PC

- 1) Power off the Computer.
- 2) Remove all covers from the Computer.
- 3) Select an unused PCI /PCI Express slot.
- 4) Carefully insert the Card into PCI/PCI Express slot.
- 5) Replace the Computer Covers.
- 6) Power on the Computer.
- 7) The operating system will automatically detect the new hardware and install the necessary drivers after reboot the PC.



- 8) Open the “**Device Manager**” to verify that the PIO-D64 Series Card has been correctly installed and is in the Device Manager, as illustrated on below.



# 3

## Pin Assignments

Pin Assignment	Terminal No.	Pin Assignment
<b>IO</b>		<b>IO</b>
N.C.	01	N.C.
N.C.	02	N.C.
N.C.	03	N.C.
N.C.	04	N.C.
N.C.	05	N.C.
AGND	06	AGND
AGND	07	AGND
AGND	08	AGND
AGND	09	AGND
VO0	10	AGND
AGND	11	AGND
VO1	12	AGND
AGND	13	AGND
AI4+	14	AI4-
AI5+	15	AI5-
AI6+	16	AI6-
AI7+	17	AI7-
AGND	18	AGND
N.C.	19	N.C.
SENSE+	20	SENSE-
EXC+	21	EXC-
AI3+	22	AI3-
N.C.	23	N.C.
SENSE+	24	SENSE-
EXC+	25	EXC-
AI2+	26	AI2-
N.C.	27	N.C.
SENSE+	28	SENSE-
EXC+	29	EXC-
AI1+	30	AI1-
N.C.	31	N.C.
SENSE+	32	SENSE-
EXC+	33	EXC-
AI0+	34	AI0-



CON1

Pin Assignment		Terminal No.	Pin Assignment		
Motion	IO		IO	Motion	
N.C.	DI.COM1	01	35	DI.COM1	N.C.
RDY0	DI0	02	36	DI1	INP0
ALM0	DI2	03	37	DI3	SLD0
ORG0	DI4	04	38	DI5	MEL0
PEL0	DI6	05	39	DI7	E.EMG
N.C.	DI.COM2	06	40	DI.COM2	N.C.
RDY1	DI8	07	41	DI9	INP1
ALM1	DI10	08	42	DI11	SLD1
ORG1	DI12	09	43	DI13	MEL1
PEL1	DI14	10	44	DI15	E.LTC0
N.C.	EXT.PWR1	11	45	EXT.GND1	N.C.
E.SVON0	DO0	12	46	DO1	E.ERC0
ALMRST0	DO2	13	47	DO3	CMP0
E.SVON1	DO4	14	48	DO5	E.ERC1
ALMRST1	DO6	15	49	DO7	CMP1
N.C.	EXT.PWR2	16	50	EXT.GND2	N.C.
N.C.	DO8	17	51	DO9	N.C.
N.C.	DO10	18	52	DO11	N.C.
N.C.	DO12	19	53	DO13	N.C.
N.C.	DO14	20	54	DO15	N.C.
N.C.	N.C.	21	55	N.C.	N.C.
N.C.	N.C.	22	56	N.C.	N.C.
A1+	N.C.	23	57	N.C.	A1-
B1+	N.C.	24	58	N.C.	B1-
Z1+	N.C.	25	59	N.C.	Z1-
A2+	N.C.	26	60	N.C.	A2-
B2+	N.C.	27	61	N.C.	B2-
Z2+	N.C.	28	62	N.C.	Z2-
CW0.P	N.C.	29	63	N.C.	CW0.N
CCW0.P	N.C.	30	64	N.C.	CCW0.N
CW1.P	N.C.	31	65	N.C.	CW1.N
CCW1.P	N.C.	32	66	N.C.	CCW1.N
ITR.5V	ITR.5V	33	67	ITR.5V	ITR.5V
ITR.GND	ITR.GND	34	68	ITR.GND	ITR.GND



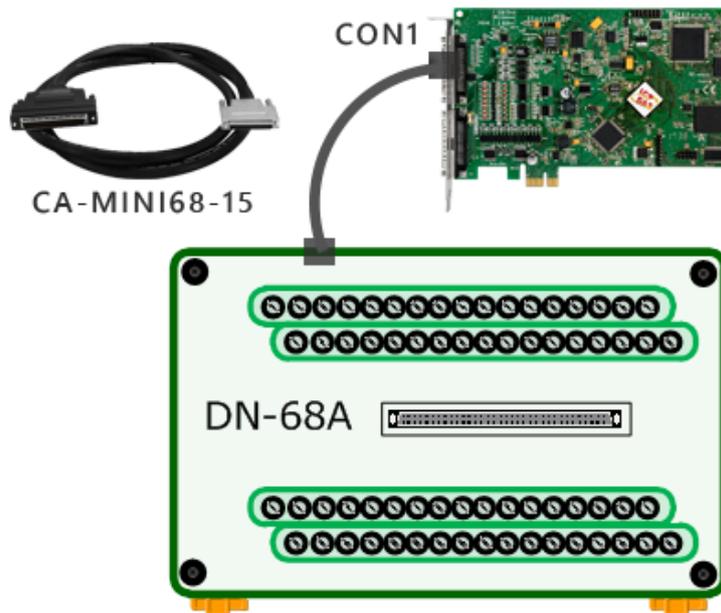
CON2

# 4 Testing Board

## ➤ Prepare for device

- ☑ CA-MINI68-25 (optional) cable
- ☑ DN-68A (optional) daughter board
- ☑ Battery

1) Connect the **CON1** to DN-68A board using the **CA-MINI68A** cable.

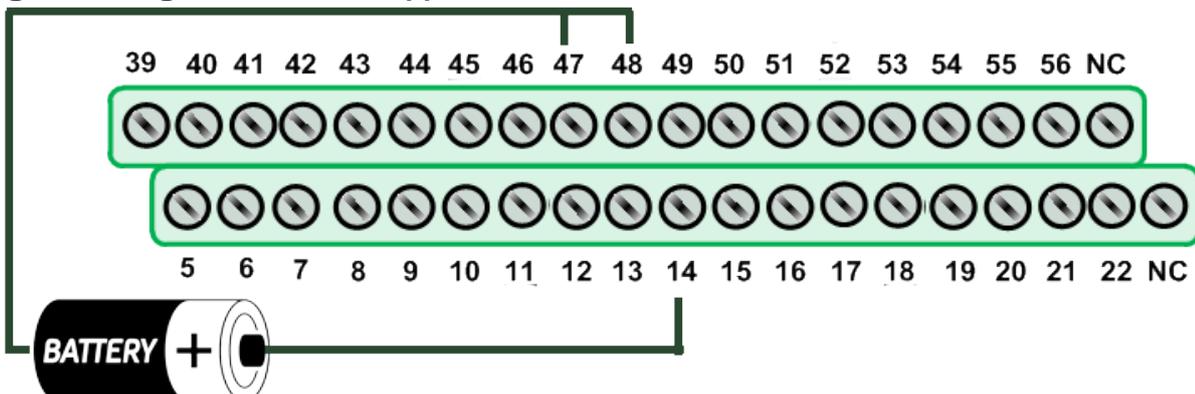


## 2) AI functional test and wiring

Connect the signal source to AI channel 4, and connect the signals as follows.

Connect the **AI4+ pin (Pin14)** on the terminal board to **positive signal terminal (+)**

Connect the **AI4- and AGND pin (Pin48,Pin47)** on the terminal board to **negative signal terminal (-)**

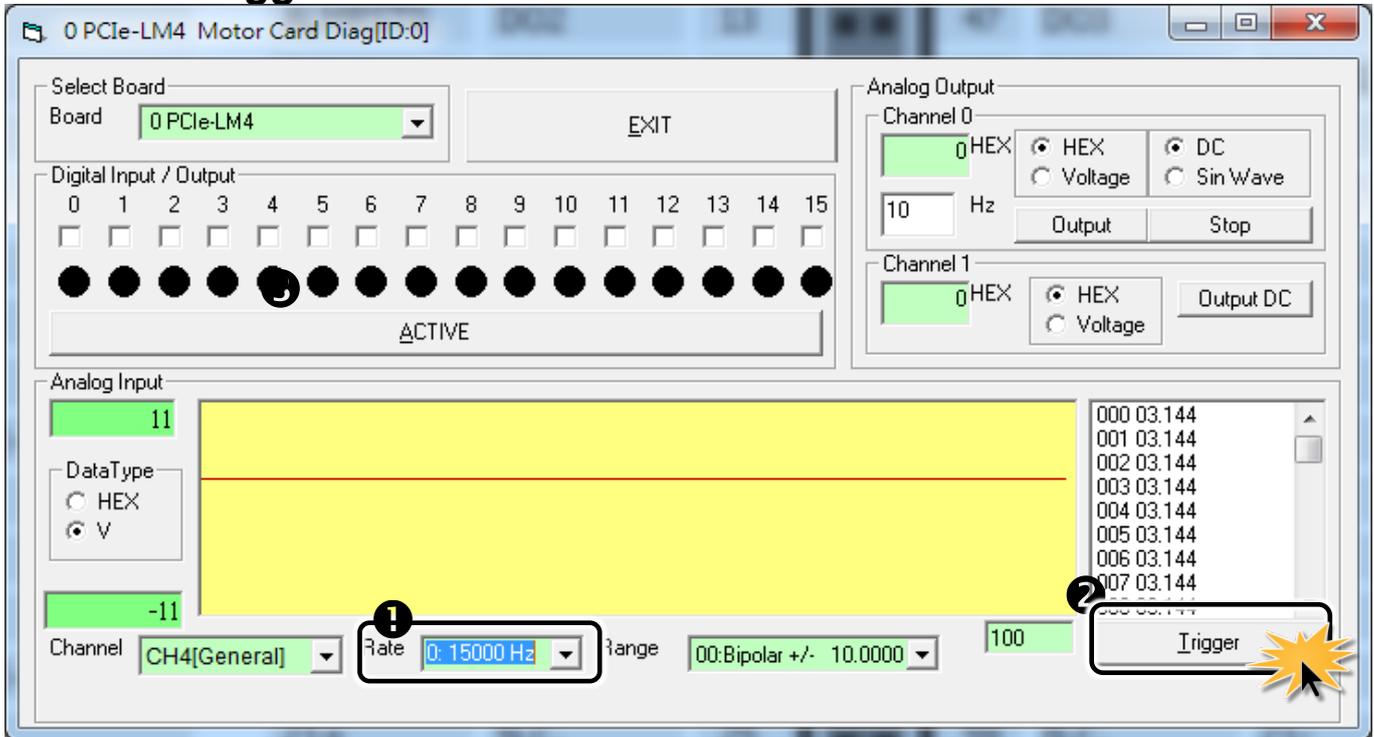


3) Launch the PCIe-LM4\_IO\_DIAG program, it was installed in the default folder, it will be located at “C:\ICPDAS\PCIe-LM4\Driver”.

4) Click the “**T**rigger” button to start the test.

❶ Select the “0:15000Hz” from the “Rate”.

❷ Click “**T**rigger” buttons.



5) Check the results of the Analog Input functions test.

❸ Check the values is or not equal battery.

