PCI-1734

32-channel Isolated Digital Output Card

Packing List

Before installation, please make sure that you have received the following:

• PCI-1734 card

• Driver CD

• Quick Start User Manual

If anything is missing or damaged, contact your distributor or sales representative immediately.

User Manual

For more detailed information on this product, please refer to the PCI-1730_1733_1734 User Manual on the CD-ROM (PDF format).

CD:\Documents\Hardware Manuals\PCI\PCI-1730U_1733_1734

Declaration of Conformity

FCC Class A

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause interference in which case the user is required to correct interference at his own expense.

CE

This product has passed the CE test for environmental specifications when shielded cables are used for external wiring. We recommend the use of shielded cables. This kind of cable is available from Advantech. Please contact your local supplier for ordering information.

Overview

The Advantech PCI-1734 is a 32-channel isolated digital output card for the PCI bus. For easy monitoring, each isolated digital input channel is equipped with one red LED, and each isolated digital output channel is equipped with one green LED to show its ON/OFF status. The PCI-1734 provides specific functions for different user requirements.

Notes

For more information on this and other Advantech products, please visit our websites at:

http://www.advantech.com/eAutomation

For technical support and service:

http://www.advantech.com/support/
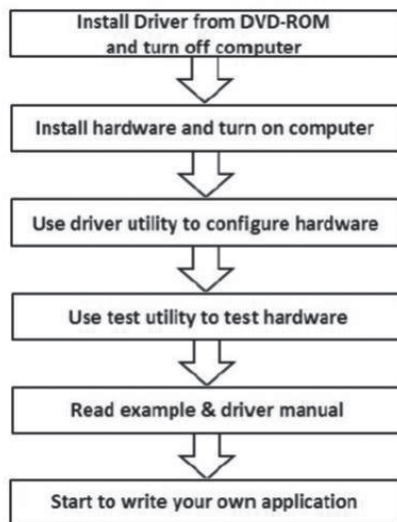
This startup manual is for PCI-1734

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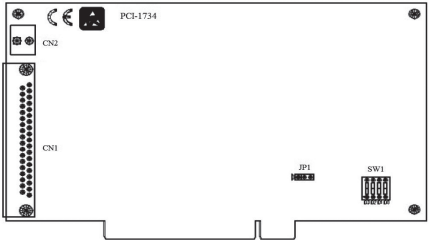### Software Installation

Hardware Installation

1. 1. Turn off your computer and unplug the power cord and cables. TURN OFF your computer before installing or removing any components on the computer.

2. Remove the cover of your computer.

3. Remove the slot cover on the back panel of your computer.

4. Touch the metal part on the surface of your computer to neutralize the static electricity that might be on your body.

5. Insert the PCI-1734 card into a PCI slot. Hold the card only by its edges and carefully align it with the slot. Insert the card firmly into place. Use of excessive force must be avoided; otherwise, the card might be damaged.

6. Fasten the bracket of the PCI card on the back panel rail of the computer with screws.

7. Connect appropriate accessories (37-pin cable, wiring terminals, etc. if necessary) to the PCI card.

8. Replace the cover of your computer chassis. Reconnect the cables you removed in step 2.

9. Plug in the power cord and turn on the computer.

Pin Assignments

IDO 0	1		
IDO 2	2	20	IDO 1
IDO 4	3	21	IDO 3
IDO 6	4	22	IDO 5
PCOM 0	5	23	IDO 7
IDO 9	6	24	IDO 8
IDO 11	7	25	IDO 10
IDO 13	8	26	IDO 12
IDO 15	9	27	IDO 14
IDO 16	10	28	PCOM 1
IDO 18	11	29	IDO 17
IDO 20	12	30	IDO 19
IDO 22	13	31	IDO 21
PCOM 2	14	32	IDO 23
IDO 25	15	33	IDO 24
IDO 27	16	34	IDO 26
IDO 29	17	35	IDO 28
IDO 31	18	36	IDO 30
EGND	19	37	PCOM 3

Switch and Jumper Settings

The PCI-1734 card has one jumper setting.

	Keep last status after hot reset.
	Default configuration.

Setting the time to reset digital outputs

Some users will want the capability of clearing each digital output when the system (or PC) issues a reset signal on the PCI bus. Some users will want to clear their digital outputs only as part of system power-on. The PCI-1734 satisfies both these needs by providing jumper JP1. Depending on the application, this capability may allow digital outputs to be "OFF" without requiring a complete shutdown of processes controlled by the card.

Complete loss of power to the chip clears the chip memory. Thus, no matter how JP1 is set, if the power to the PCI-1734 is disconnected, the digital output channel's initial power-on state will be "OFF".

Board ID setting(SW1)

ID3	ID2	ID1	ID0	Board ID
1	1	1	1	0
1	1	1	0	1
1	1	0	1	2
1	1	0	0	3
1	0	1	1	4
1	0	1	0	5
1	0	0	1	6
1	0	0	0	7
0	1	1	1	8
0	1	1	0	9
0	1	0	1	10
0	1	0	0	11
0	0	1	1	12
0	0	1	0	13
0	0	0	1	14
0	0	0	0	15

Note: On: 1, Off: 0

Isolated Digital Output Connections

Each of the 32 isolated digital output channels comes equipped with a darlington transistor. Every eight output channels share common emitters and integral suppression diodes for inductive load, activated by connecting PCOM to VDD. (Channels 0 ~ 7 use PCOM0. Channels 8 ~ 15 use PCOM1. Channels 16 ~ 23 use PCOM2. If the external voltage source (5~40 V) is connected to each isolated output channel (IDO) and its isolated digital output turns on (200 mA max./ch), the card's current will sink from the external voltage source. The current through EGND should not exceed 4.8 A. If the current for all channels combined exceeds 2 A, CN2 must be connected to the external ground to share the extra current. The following figure shows how to connect an external output load to the card's isolated outputs.