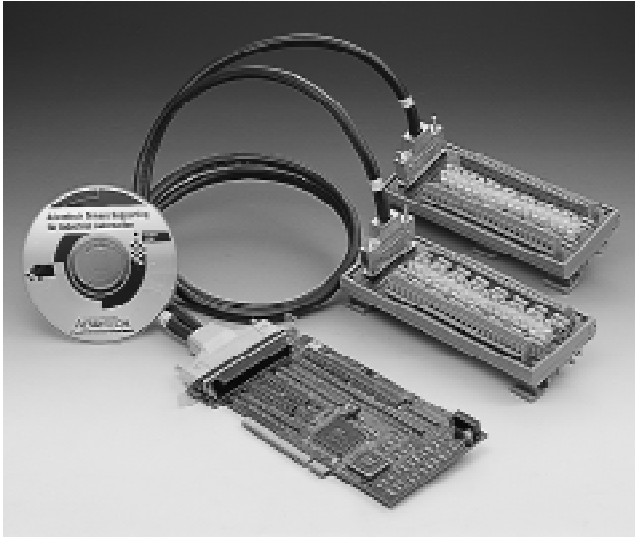# PCI-1752 *64-channel Isolated Digital Output Card*

Features

- 64 isolated digital output channels
- High-voltage isolation on output channels (2,500 V_{DC})
- Wide output range (5 ~ 40 V_{DC})
- High-sink current on isolated output channels (200 mA max./channel)
- Board ID
- Output status read-back
- Keeps digital output values when hot system reset
- Channel-Freeze function
- Provides convenient wiring terminal module with LED indicators for DIN-rail mounting
- High-density 100-pin SCSI connector

Introduction

The PCI-1752 card offers 64 isolated digital output channels with isolation protection up to 2,500 V_{DC}, which makes it ideal for industrial applications where high-voltage protection is required. In addition, all output channels are able to keep their last values after a hot system reset. Furthermore, the PCI-1752 provides Channel-Freeze function that keeps the current output status unchanged for each channel during operating process.

Robust Protection

The PCI-1752 features a robust isolation protection for applications in industrial, lab and machinery automation. It can durably withstand a voltage up to 2,500 V_{DC}, preventing your host system from any incidental harms. The PCI-1752 features a wide output voltage range from 5 to 40 V_{DC}, suitable for most industrial applications with 12 V_{DC}/24 V_{DC} output voltage.

Board ID

The PCI-1752 has a built-in DIP Switch that helps define each card's ID when multiple PCI-1752 cards have been installed on the same PC chassis. The board ID setting function is very useful when users build their system with multiple PCI-1752 cards. With correct Board ID settings, you can easily identify and access each card during hardware configuration and software programming.

Channel-Freeze Function

The PCI-1752 provides Channel-Freeze function, which can be enabled either in dry contact or wet contact mode (selectable by the on-board jumper). When the Channel-Freeze function is enabled, the last status of each digital output channel will be safely kept for emergency use. Moreover, you can enable this function through software, as it is useful in software simulation and testing program.

Reset Protection Fulfills Requirement for Industrial Applications

When the system has undergone a hot reset (i.e. without turning off the system power), the PCI-1752 can either retain outputs values of each channel, or return to its default configuration as open status, depending on its on-board jumper setting. This function protects the system from wrong operations during unexpected system resets.

Applications

- Industrial ON/OFF control
- Switch status sensing
- BCD interfacing
- Digital I/O control
- Industrial and lab automation
- SMT/PCB machinery
- Semi-conductor machinery
- PC-based Industrial Machinery
- Testing & Measurement
- Laboratory & Education

Ordering Information

- ❏ PCI-1752: 64-channel isolated digital output card
- ❏ PCL-10250: 100-pin SCSI to two 50-pin SCSI cable, 1m
- ❏ ADAM-3951: Wiring terminal module with LED indicators for DIN-rail mounting

Automation with PCs
ADVANTECH

64-channel Isolated Digital Output Card

Specifications

Isolated Digital Output

Number of Output Channel	64
Optical Isolation	2500 V_{DC}
Opto-isolator response time	25 µs
Supply Voltage	5 ~ 40 V_{DC}
Sink Current	200 mA max/channel

General

I/O Connector Type	100-pin SCSI-II female	
Dimensions	175 mm x 100 mm (6.9" x 3.9")	
Power Consumption	Typical	+5 V @ 230 mA
	Max.	+5 V @ 500 mA
Temperature	Operation	0 ~ +60° C (32 ~ 140° F) (refer to IEC 68-2-1,2)
	Storage	-20 ~ +70° C (-4 ~ 158° F)
Relative Humidity	5 - 95 % RH non-condensing(refer to IEC 68-2-3)	

Pin Assignments

IDO00 ~ IDO15 :Isolated digital output of Group 0

IDO16 ~ IDO31 :Isolated digital output of Group 1

IDO32 ~ IDO47 :Isolated digital output of Group 2

IDO48 ~ IDO63 :Isolated digital output of Group 3

PCOM0 : External common input of Group 0

PCOM1 : External common input of Group 1

PCOM2 : External common input of Group 2

PCOM3 : External common input of Group 3

IGND : Isolated ground

CH_FRZ_IN :Channel-Freeze input pin

CH_FRZ_COM :Common pin for Channel-Freeze input

IDO00	1	51	IDO01
IDO02	2	52	IDO03
IDO04	3	53	IDO05
IDO06	4	54	IDO07
IDO08	5	55	IDO09
IDO10	6	56	IDO11
IDO12	7	57	IDO13
IDO14	8	58	IDO15
PCOM0	9	59	PCOM0
PCOM0	10	60	PCOM0
IGND	11	61	IGND
IGND	12	62	IGND
IDO16	13	63	IDO17
IDO18	14	64	IDO19
IDO20	15	65	IDO21
IDO22	16	66	IDO23
IDO24	17	67	IDO25
IDO26	18	68	IDO27
IDO28	19	69	IDO29
IDO30	20	70	IDO31
PCOM1	21	71	PCOM1
PCOM1	22	72	PCOM1
IGND	23	73	IGND
IGND	24	74	IGND
CH_FRZ_IN	25	75	CH_FRZ_COM
IDO32	26	76	IDO33
IDO34	27	77	IDO35
IDO36	28	78	IDO37
IDO38	29	79	IDO39
IDO40	30	80	IDO41
IDO42	31	81	IDO43
IDO44	32	82	IDO45
IDO46	33	83	IDO47
PCOM2	34	84	PCOM2
PCOM2	35	85	PCOM2
IGND	36	86	IGND
IGND	37	87	IGND
IDO48	38	88	IDO49
IDO50	39	89	IDO51
IDO52	40	90	IDO53
IDO54	41	91	IDO55
IDO56	42	92	IDO57
IDO58	43	93	IDO59
IDO60	44	94	IDO61
IDO62	45	95	IDO63
PCOM3	46	96	PCOM3
PCOM3	47	97	PCOM3
IGND	48	98	IGND
IGND	49	99	IGND
CH_FRZ_IN	50	100	CH_FRZ_COM

Block Diagram