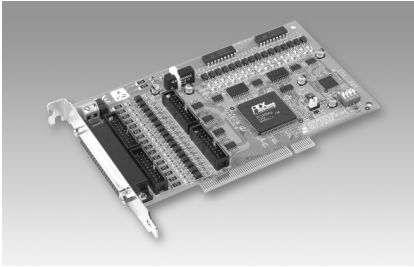


PCI-1730
PCI-1733
PCI-1734

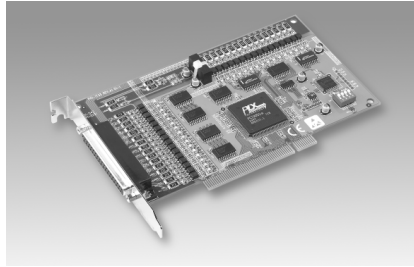
32-channel Isolated Digital I/O Card
32-channel Isolated Digital Input Card
32-channel Isolated Digital Output Card



PCI-1730
32-channel Isolated Digital I/O Card

Features

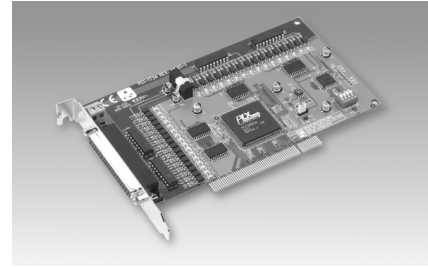
- 32 isolated DIO channels (16 inputs and 16 outputs)
- 32 TTL-level DIO channels (16 inputs and 16 outputs)
- High output driving capacity
- High-voltage isolation on isolated I/O channels (2,500 V_{DC})
- Interrupt capability
- Two 20-pin connectors for isolated digital I/O channels and two for TTL digital I/O channels
- D-type connector for isolated input and output channels



PCI-1733
32-channel Isolated Digital Input Card

Features

- 32 isolated, bidirectional digital input channels
- High-voltage isolation (2,500 V_{DC})
- Interrupt capability
- D-type connectors for isolated input channels
- Reverse voltage protection for isolated input channels (up to 24 V_{DC})



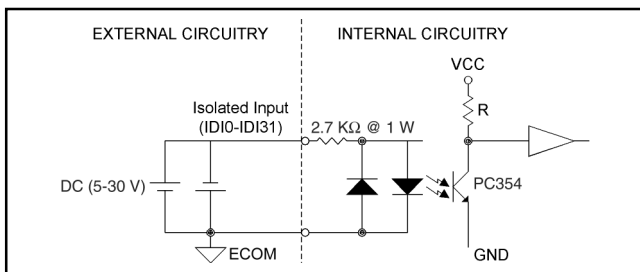
PCI-1734
32-channel Isolated Digital Output Card

Features

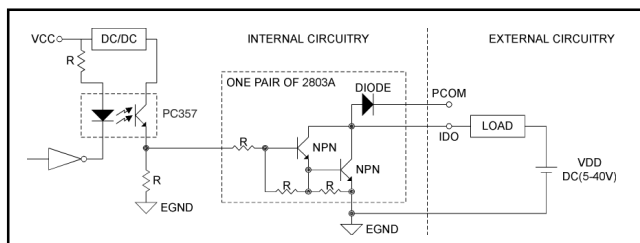
- 32 isolated digital output channels
- High output driving capacity
- High-voltage isolation on output channels (2,500 V_{DC})
- High sink current on isolated output channels (200 mA/channel)
- Integral suppression diodes for inductive loads
- Wide output range (5 ~ 40 V_{DC})
- D-type connectors for isolated output channels

Introduction

The PCI-1730/1733/1734 cards offer isolated digital input channels as well as isolated digital output channels with isolation protection up to 2,500 V_{DC}, which makes it ideal for industrial applications where high-voltage isolation is required. In addition, all output channels are provided with high-voltage protection.



Isolated Input Circuit Diagram



Isolated Output Circuit Diagram

Applications

- Industrial on/off control
- Contact closure monitoring
- Switch status sensing
- BCD interfacing
- Digital input control
- Industrial and lab automation

Ordering Information

- **PCI-1730:** 32-channel Isolated digital I/O card, user's manual and driver CD-ROM (cable not included)
- **PCI-1733:** 32-channel isolated digital input card, user's manual and driver CD-ROM (cable not included)
- **PCI-1734:** 32-channel Isolated digital output card, user's manual and driver CD-ROM (cable not included)
- **PCL-10120-1:** 20-pin flat cable, 1 m (for PCI-1730 only)
- **PCL-10120-2:** 20-pin flat cable, 2 m (for PCI-1730 only)
- **PCL-10137-1/2/3:** DB-37 cable assembly, 1, 2 and 3 m
- **PCLD-782:** 16-channel opto-isolated D/I board (for PCI-1730 only)
- **PCLD-785:** 16-channel relay output board (for PCI-1730 only)
- **PCLD-786:** 8-channel SSR I/O module carrier board (for PCI-1730 only)
- **PCLD-885:** 16-channel power relay (form A) output board (for PCI-1730 only)
- **PCLD-780/880:** Universal Screw terminal board
- **ADAM-3920:** 20-pin flat cable wiring terminal for DIN-rail mounting (for PCI-1730 only)
- **ADAM-3937:** DB-37 wiring terminal for DIN-rail mounting

32-channel Isolated Digital I/O Card

32-channel Isolated Digital Input Card

32-channel Isolated Digital Output Card

Specifications

Isolated Digital Input

	PCI-1730	PCI-1733
Number of Input Channel	16 (16-ch/group)	32 (16-ch/group)
Interrupt Inputs	4 (IDIO, IDI1, DIO, DI1)	4 (IDIO, IDI1, IDI16, IDI17)
Interrupt Level	2 ~ 7	2, 3, 5, 7, 10, 11, 12, 15
Input Voltage	5 ~ 30 V _{DC}	
Input Resistance	2.7 KΩ @ 1 W	
Optical Isolation	2,500 V _{DC}	
Throughput	10 KHz max.	

Isolated Digital Output

	PCI-1730	PCI-1734
Number of Output Channel	16 (16-ch/group)	32 (16-ch/group)
Optical Isolation	2,500 V _{DC}	
Throughput	10 KHz	
Supply Voltage	5 ~ 40 V _{DC}	
Sink Current	200 mA max./channel	

General

		PCI-1730	PCI-1733	PCI-1734
I/O Connector Type		37-pin D-type female		
Dimensions		185 mm x 100 mm (7.3" x 3.9")		
Power Consumption	Typical	+5 V @ 330 mA	+5 V @ 320 mA	+5 V @ 330 mA
	Max.	+5 V @ 500 mA		
Temperature	Operation	0° ~ 60°C (32° ~ 140°F)		
	Storage	-20° ~ 70°C (-4° ~ 158°F)		
Relative Humidity		5% ~ 95% RH non-condensing (refer to IEC 68-2-3)		

Note: The PCI-1730 also provides 16-ch TTL Digital Input and 16-ch TTL Digital Output. Please refer to the PCI-1730 User's Manual for the detail information.

Pin Assignments

CN1 of PCI-1730

IDO 0	1	2	IDO 1
IDO 2	3	4	IDO 3
IDO 4	5	6	IDO 5
IDO 6	7	8	IDO 7
IDO 8	9	10	IDO 9
IDO 10	11	12	IDO 11
IDO 12	13	14	IDO 13
IDO 14	15	16	IDO 15
EGND	17	18	EGND
PCOM0/EGND	19	20	PCOM1

CN2 of PCI-1730

IDI 0	1	2	IDI 1
IDI 2	3	4	IDI 3
IDI 4	5	6	IDI 5
IDI 6	7	8	IDI 7
IDI 8	9	10	IDI 9
IDI 10	11	12	IDI 11
IDI 12	13	14	IDI 13
IDI 14	15	16	IDI 15
ECOM0	17	18	ECOM1
ECOM0	19	20	ECOM1

CN3 of PCI-1730

DO 0	1	2	DO 1
DO 2	3	4	DO 3
DO 4	5	6	DO 5
DO 6	7	8	DO 7
DO 8	9	10	DO 9
DO 10	11	12	DO 11
DO 12	13	14	DO 13
DO 14	15	16	DO 15
GND	17	18	GND
+5V	19	20	+12V

CN4 of PCI-1730

DI 0	1	2	DI 1
DI 2	3	4	DI 3
DI 4	5	6	DI 5
DI 6	7	8	DI 7
DI 8	9	10	DI 9
DI 10	11	12	DI 11
DI 12	13	14	DI 13
DI 14	15	16	DI 15
GND	17	18	GND
+5V	19	20	+12V

CN6 of PCI-1730

IDIO	1	20	IDI1
IDI2	2	21	IDI3
IDI4	3	22	IDI5
IDI6	4	23	IDI7
IDI8	5	24	IDI9
IDI10	6	25	IDI11
IDI12	7	26	IDI13
IDI14	8	27	IDI15
ECOM0	9	28	ECOM1/EGND
PCOM0/EGND	10	29	EGND
IDO 0	11	30	IDO 1
IDO 2	12	31	IDO 3
IDO 4	13	32	IDO 5
IDO 6	14	31	IDO 7
IDO 8	15	34	IDO 9
IDO 10	16	35	IDO 11
IDO 12	17	36	IDO 13
IDO 14	18	36	IDO 15
PCOM1	19	37	

DO Digital output
DI Digital input
IDO Isolated digital output
IDI Isolated digital input
EGND External ground for isolated output
ECOM External common for isolated input
GND Digital ground
PCOM Free wheeling common diode

CN1 of PCI-1733

IDIO	1	20	IDI1
IDI2	2	21	IDI3
IDI4	3	22	IDI5
IDI6	4	23	IDI7
ECOM0	5	24	IDI8
IDI9	6	25	IDI10
IDI11	7	26	IDI12
IDI13	8	27	IDI14
IDI15	9	28	ECOM1
IDI16	10	29	IDI17
IDI18	11	30	IDI19
IDI20	12	31	IDI21
IDI22	13	32	IDI23
ECOM2	14	33	IDI24
IDI25	15	34	IDI26
IDI27	16	35	IDI28
IDI29	17	36	IDI30
IDI31	18	36	IDI30
EGND	19	37	ECOM3

CN1 of PCI-1734

IDO0	1	20	IDO1
IDO2	2	21	IDO3
IDO4	3	22	IDO5
IDO6	4	23	IDO7
PCOM0	5	24	IDO8
IDO9	6	25	IDO10
IDO11	7	26	IDO12
IDO13	8	27	IDO14
IDO15	9	28	PCOM1
IDO16	10	29	IDO17
IDO18	11	30	IDO19
IDO20	12	31	IDO21
IDO22	13	32	IDO23
PCOM2	14	33	IDO24
IDO25	15	34	IDO26
IDO27	16	35	IDO28
IDO29	17	36	IDO30
IDO31	18	36	IDO30
EGND	19	37	PCOM3