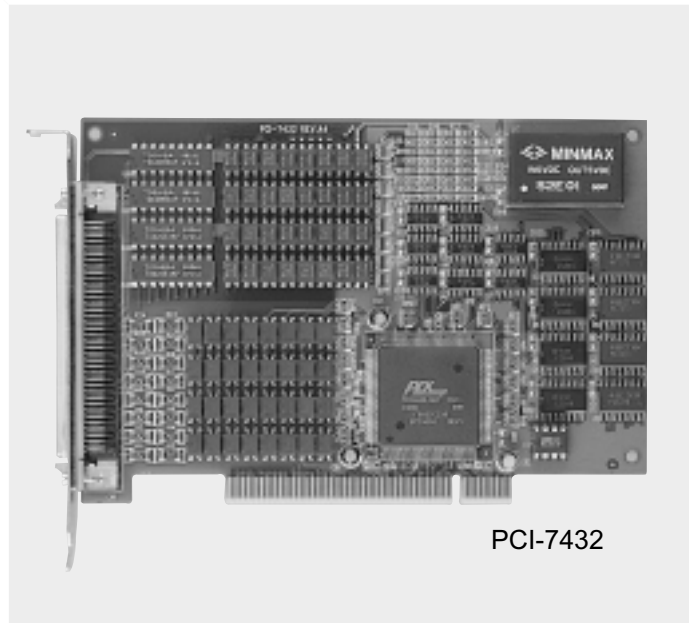


PCI-7432/7433/7434

Isolated 64-CH DI and/or DO Cards

Features

- 32-bit PCI Bus, Plug and Play
- High Density Isolation DIO card
- Isolated 32 DI & 32 DO Channels for PCI-7432
- Isolated 64 DI Channels for PCI-7433
- Isolated 64 DO Channels for PCI-7434
- 2500Vrms high isolation voltage
- Max 500mA high driving sink current on isolated output channels
- Up to 24V voltage input for isolated input
- Two external interrupt sources and dual interrupt system for PCI-7432/33
- Rugged 100-pin SCSI-type connector
- Compact size suitable for any size of chassis
- The software driver is forward compatible to the Compact PCI version



PCI-7432 In stock and ready to ship - Now on sale!

<http://www.circuitspecialists.com/pci-7432.html>

Introduction

The PCI-7432/33/34 series products are the highest density digital I/O cards for the PCI bus. To use the plug & play PCI bus to replace the old ISA architecture is now a trend. All the I/O ports are accessed by 32-bits I/O instruction, therefore increasing the data throughput rate.

The PCI-74xx series cards contain 64 isolated DIO channels using the rugged 100-pin SCSI-II connector. The photo-isolators are used to isolate the signals between host and the I/O device, the 2500V rms high isolation voltage protect the host computer. They are very suitable for harsh industrial applications.

The isolated DO channels are driven by Darlington transistors with maximum 500 mA current sink capability, the DO channels are very suitable to drive the relay or high power lamps directly.

The maximum input voltage for the isolated DI channels is up to 24 volts. These DI channels are protected by on board 2.4KΩ resistors.

The full line software support for Windows 95/98 and Windows NT OS allows users to develop the application easily. The software development for PCI-7432 series products will be forward compatible to their CompactPCI version.

Specifications

Optical Isolated Input Channels

- Numbers of channel
 - 32 for PCI-7432
 - 64 for PCI-7433
- Input voltage: 0-24VDC (or -24VDC)
 - Logic H: 4~24V (-4 ~ -24V)
 - Logic L: 0~2.4V (0 ~ -2.4V)
- Input resistance: 2.4K

channels

Optical Isolated Output channels

- Numbers of Channel
 - 32 for PCI-7432
 - 64 for PCI-7434
- Output type: Open collector Darlington NPN transistors
- Device: TD62083 or compatible
- Sink current
 - Max. 500mA for only one of the TD62083 transistor is ON
 - 347mA/ch for all of the TD62083 transistors are ON @ 10% duty
- Power Dissipation: 1.47W per TD62083 device (8 DO channels)
- Output Voltage: open collector
 - Minimum 5V
 - Maximum up to 35V .
- Isolated voltage: > 2500 V rms
- Throughput: 10KHz (0.1ms)

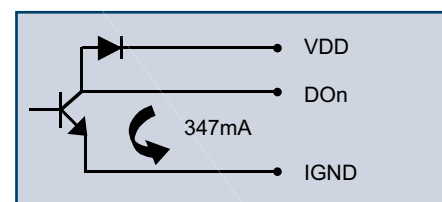
General Specifications

- Operating temperature: 0~ 60°C
- Storage temperature: -20
- Humidity: 5 ~95% non-condensing
- Connector: 100 pins SCSI-type female

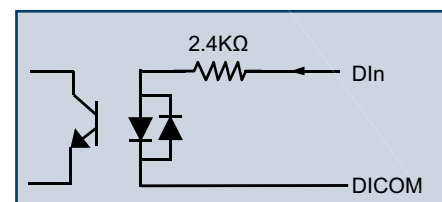
connector
Power requirement
5V @ 50mA

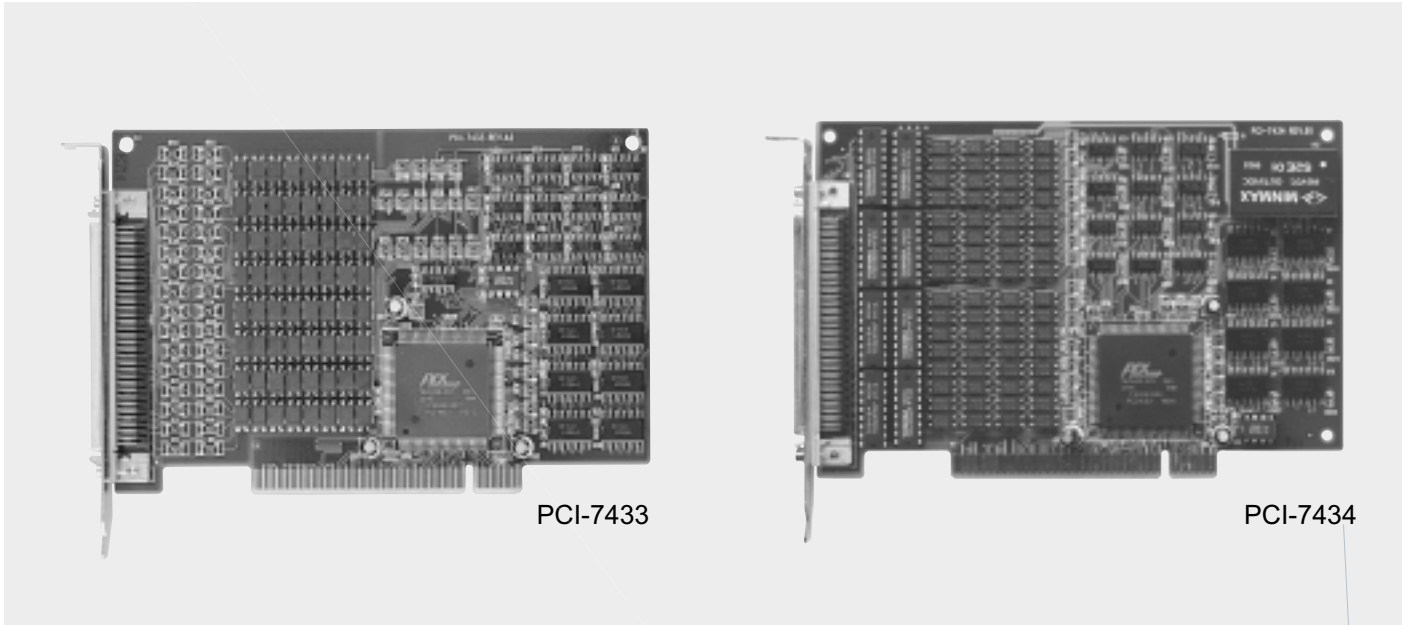
- Isolated voltage: > 2500Vrms
- Throughput: 10KHz (0.1ms)
- Interrupt sources: Channel 0, 1 of DI
- 500mA @5VDC (Typical) PCI-7432
- 560mA @5VDC (Typical) PCI-7434
- Dimension: 173 mm x 98 mm

Digital Output Driving Circuits



Digital Input Circuits





PCI-7433

PCI-7434

PCI-DIO Cards

Termination Boards

- DIN-100S
- DIN-502S

Ordering Information

PCI-7432
Isolated 32 Digital Inputs & 32 Digital Outputs

PCI-7433
Isolation 64 Digital Inputs

PCI-7434
Isolation 64 Digital Outputs

The importance of isolation!

The isolation means the power and signal lines on the host computer have no connection with the external signals. The electronics digital signals are transmitted to/from the external devices by the photo-couplers. The isolation voltage of the photo-couplers on the PCI-743X series cards is 2500 V rms. Therefore, even the external devices are destroyed by electrical shock, the host computer is under fully protected.

Pin Assignments of 100-pin connector on PCI-7432 / 7433 / 7434

DI_1	1	51	DI_8	1	51	DI_8	1	51	DO_0	1	51	DO_8
DI_2	2	52	DI_9	2	52	DI_9	2	52	DO_1	2	52	DO_9
DI_3	3	53	DI_10	3	53	DI_10	3	53	DO_2	3	53	DO_10
DI_4	4	54	DI_11	4	54	DI_11	4	54	DO_3	4	54	DO_11
DI_5	5	55	DI_12	5	55	DI_12	5	55	DO_4	5	55	DO_12
DI_6	6	56	DI_13	6	56	DI_13	6	56	DO_5	6	56	DO_13
DI_7	7	57	DI_14	7	57	DI_14	7	57	DO_6	7	57	DO_14
DI_8	8	58	DI_15	8	58	DI_15	8	58	DO_7	8	58	DO_15
COM1	9	59	COM2	9	59	COM2	9	59	VDD1	9	59	VDD2
COM1	10	60	COM2	10	60	COM2	10	60	IGND	10	60	IGND
COM1	11	61	COM2	11	61	COM2	11	61	IGND	11	61	IGND
COM1	12	62	COM2	12	62	COM2	12	62	IGND	12	62	IGND
DI_16	13	63	DI_24	13	63	DI_24	13	63	DO_16	13	63	DO_24
DI_17	14	64	DI_25	14	64	DI_25	14	64	DO_17	14	64	DO_25
DI_18	15	65	DI_26	15	65	DI_26	15	65	DO_18	15	65	DO_26
DI_19	16	66	DI_27	16	66	DI_27	16	66	DO_19	16	66	DO_27
DI_20	17	67	DI_28	17	67	DI_28	17	67	DO_20	17	67	DO_28
DI_21	18	68	DI_29	18	68	DI_29	18	68	DO_21	18	68	DO_29
DI_22	19	69	DI_30	19	69	DI_30	19	69	DO_22	19	69	DO_30
DI_23	20	70	DI_31	20	70	DI_31	20	70	DO_23	20	70	DO_31
COM3	21	71	COM4	21	71	COM4	21	71	VDD3	21	71	VDD4
COM3	22	72	COM4	22	72	COM4	22	72	IGND	22	72	IGND
COM3	23	73	COM4	23	73	COM4	23	73	IGND	23	73	IGND
COM3	24	74	COM4	24	74	COM4	24	74	IGND	24	74	IGND
N/C	25	75	N/C	25	75	N/C	25	75	N/C	25	75	N/C
DO_0	26	76	DO_8	26	76	DO_8	26	76	DI_40	26	76	DI_48
DO_1	27	77	DO_9	27	77	DO_9	27	77	DI_41	27	77	DI_49
DO_2	28	78	DO_10	28	78	DO_10	28	78	DI_42	28	78	DI_50
DO_3	29	79	DO_11	29	79	DO_11	29	79	DI_43	29	79	DI_51
DO_4	30	80	DO_12	30	80	DO_12	30	80	DI_44	30	80	DI_52
DO_5	31	81	DO_13	31	81	DO_13	31	81	DI_45	31	81	DI_53
DO_6	32	82	DO_14	32	82	DO_14	32	82	DI_46	32	82	DI_54
DO_7	33	83	DO_15	33	83	DO_15	33	83	DI_47	33	83	DI_55
VDD1	34	84	VDD2	34	84	VDD2	34	84	COM6	34	84	COM6
IGND	35	85	IGND	35	85	IGND	35	85	COM6	35	85	COM6
IGND	36	86	IGND	36	86	IGND	36	86	COM6	36	86	COM6
IGND	37	87	IGND	37	87	IGND	37	87	COM6	37	87	COM6
DO_16	38	88	DO_24	38	88	DO_24	38	88	DI_56	38	88	DI_64
DO_17	39	89	DO_25	39	89	DO_25	39	89	DI_57	39	89	DI_65
DO_18	40	90	DO_26	40	90	DO_26	40	90	DI_58	40	90	DI_66
DO_19	41	91	DO_27	41	91	DO_27	41	91	DI_59	41	91	DI_67
DO_20	42	92	DO_28	42	92	DO_28	42	92	DI_60	42	92	DI_68
DO_21	43	93	DO_29	43	93	DO_29	43	93	DI_61	43	93	DI_69
DO_22	44	94	DO_30	44	94	DO_30	44	94	DI_62	44	94	DI_70
DO_23	45	95	DO_31	45	95	DO_31	45	95	DI_63	45	95	DI_71
VDD3	46	96	VDD4	46	96	VDD4	46	96	COM8	46	96	COM8
IGND	47	97	IGND	47	97	IGND	47	97	COM8	47	97	COM8
IGND	48	98	IGND	48	98	IGND	48	98	COM8	48	98	COM8
IGND	49	99	IGND	49	99	IGND	49	99	COM8	49	99	COM8
VSV	50	100	VSV	50	100	VSV	50	100	N/C	50	100	VSV

PCI-7432

PCI-7433

PCI-7434