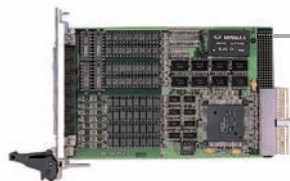


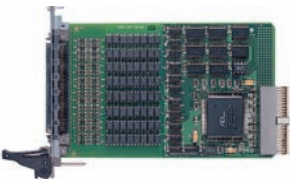
PCI-7432/7433/7434, cPCI-7432/7433/7434

64-CH Isolated Digital I/O Cards

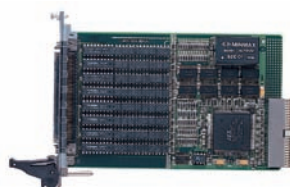
PCI CompactPCI



cPCI-7432



cPCI-7433



cPCI-7434

Introduction

ADLINK's cPCI/PCI-743X series cards are 64-CH highdensity digital input and/or output cards that provide a robust 2,500 V isolation protection is suitable for most industrial applications. The wide input range of the cPCI/PCI-7432 and cPCI/PCI-7433 makes it easy to sense the status of external devices. There are several options for PCI-743X series, such as normal version with input range from 0 to 24 V, as well as HIR version with high input range from 0 to 50 V. The PCI-7433ALC is specifically designed for AC power test system.

The cPCI/PCI-7432 and cPCI/PCI-7434 feature a wide output range from 5 to 35 V, suitable for relay driving and industrial automation applications. The cPCI/PCI-7432 and cPCI/PCI-7433 also provide two interrupt sources on digital input channels, which are easily configurable.

Specifications

Isolated Digital Input

- Number of channels
 - 32 (PCI-7432/7432HIR, cPCI-7432/7432R/7432RP)
 - 64 (PCI-7433/7433HIR, cPCI-7433/7433R)
- Maximum input range (Non-polarity)
 - 24 V, non-polarity (PCI-7432/7433, cPCI-7432/7432R/7432RP/7433/7433R)
- Digital logic levels: 0 V to 28 V, non-polarity
 - Input high voltage: 5 V to 28 V
 - Input low voltage: 0 V to 1.5 V
- Input resistance
 - 2.4 kΩ @ 0.5 W (PCI-7432 & PCI-7433, cPCI-7432/7432R/7432RP)
 - 2.4 kΩ @ 1 W (PCI-7433, cPCI-7433/7433R)
 - 4.7 kΩ @ 0.5 W (PCI-7432HIR)
 - 4.7 kΩ @ 1 W (PCI-7433HIR)
- Isolation voltage: 2500 V_{RMS}: PCI-7432/7432HIR/7433/7433HIR, cPCI-7432R/7432RP/7433R
- 5000 V_{RMS}: cPCI-7432/7433/7434/7434R/7434P/7434RP
- Interrupt sources: digital input channel 0 & 1
- Data transfers: programmed I/O

- Source current (cPCI-7432RP/7434P/7434RP)
 - 260 mA for all channel @ 100% duty
 - 59 mA for all channels @ 20% duty
- Power dissipation: Max. 2.25 W per chip (8 DO channels) (PCI-7432/7432HIR/7434, cPCI-7432/7432R/7434/7434R) Max. 1.47 W per chip (8 DO channels) (cPCI-7432RP/7434P/7434RP)
- Supply voltage: 5-35 V
- Isolation voltage: 2500 V_{RMS}
- Data transfers: programmed I/O

General Specifications

- I/O connector: 100-pin SCSI-II female
- Operating temperature: 0 °C to 60 °C
- Storage temperature: -20 °C to 80 °C
- Relative humidity: 5% to 95%, non-condensing
- Power requirements

Device	+5 V
PCI-7432/7432HIR, cPCI-7432/7432R/7432RP	530 mA typical
PCI-7433/7433HIR, cPCI-7433/7433R	500 mA typical
PCI-7434, cPCI-7434/7434R/7434P/7434RP	560 mA typical

- Dimensions (not including connectors)
 - 156 mm x 106 mm (PCI-7432 & PCI-7432HIR)
 - 175 mm x 107 mm (PCI-7433, PCI-7433HIR)
 - 156 mm x 106 mm (PCI-7434)
 - 156 mm x 106 mm (PCI-7434)

Features

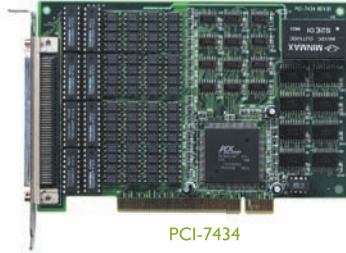
- Supports a 32-bit 5 V PCI bus (PCI-7432/7433/7434)
- 3U Eurocard form factor, CompactPCI compliant (PICMG 2.0 R2.1) (cPCI-7432/7433/7434)
- 32-CH isolated digital inputs & 32-CH isolated digital outputs (PCI-7432/7432HIR, cPCI-7432/7432R/7432RP)
- 64-CH isolated digital inputs (PCI-7433/7433HIR, cPCI-7433/7433R)
- 64-CH isolated digital outputs (PCI-7434, cPCI-7434/7434R/7434P/7434RP)
- Isolation Voltage:
 - 2500 V_{RMS}: PCI-7432/7433/7434, cPCI-7432R/7432RP/7433R
 - 5000 V_{RMS}: cPCI-7432/7433/7434/7434R/7434P/7434RP
- Sink current up to 500 mA on each isolated output
- Isolated input voltage up to 24 V (PCI-7432/7433, cPCI-7432/7432R/7432RP/7433/7433R)
- Isolated input voltage up to 50 V (PCI-7432HIR/7433HIR)
- Two external interrupt sources (PCI-7432/7432HIR/7433/7433HIR, cPCI-7432/7432R/7432RP/7433/7433R)
- Operating Systems
 - Windows Vista/XP/2000/2003
 - Linux
- Recommended Software
 - AD-Logger
 - VB.NET/VC.NET/VB/VC++/BCB/Delphi
 - DAQBench
- Driver Support
 - DAQPilot for Windows
 - DAQPilot for LabVIEW™
 - DAQ-MTLB for MATLAB®
 - PCIS-DASK for Windows
 - PCIS-DASK/X for Linux

Isolated Digital Output

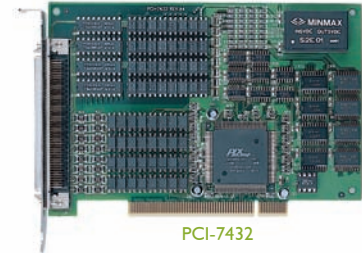
- Number of channels
 - 32 (PCI-7432/7432HIR, cPCI-7432/7432R/7432RP)
 - 64 (PCI-7434, cPCI-7434/7434R/7434P/7434RP)
- Output type: open collector Darlington transistor
- Sink current (PCI-7432/7432HIR/7434, cPCI-7432/7432R/7434/7434R)
 - 500 mA for one channel @ 100% duty
 - 500 mA for all channels @ 20% duty



PCI-7433



PCI-7434



PCI-7432

Terminal Boards

■ DIN-100S-01

Terminal Board with One 100-pin SCSI-II Connector and DIN-Rail Mounting (Cables are not included. For information on mating cables, refer to Section 12, Accessories.)

Note:

Legacy DIN-502S can be replaced by two DIN-50S-01 and ACL-10252-1 (100-Pin to two 50-Pin Cable, 1 M)

Ordering Information

- **PCI-7432**
32-CH Isolated DI & 32-CH Isolated DO Card
- **PCI-7432HIR**
32-CH Isolated DI & 32-CH Isolated DO Card with High Input Range
- **PCI-7433**
64-CH Isolated DI Card
- **PCI-7433HIR**
64-CH Isolated DI Card with High Input Range
- **PCI-7434**
64-CH Isolated DO Card
- **cPCI-7432R**
32-CH Isolated DI & 32-CH Isolated DO Card with Rear I/O
- **cPCI-7432RP**
cPCI-7432 with Rear I/O & Source Current Transistor
- **cPCI-7433**
64-CH Isolated DI Card
- **cPCI-7433R**
64-CH Isolated DI Card with Rear I/O
- **cPCI-7434**
64-CH Isolated DO Card
- **cPCI-7434R**
64-CH Isolated DO Card with Rear I/O
- **cPCI-7434P**
64-CH Isolated DO Card with Source Current Transistor
- **cPCI-7434RP**
cPCI-7434 with Rear I/O & Source Current Transistor

Pin Assignment

PCI-7432/7432HIR,
cPCI-7432/7432R

IDL_0	1	51	IDL_8
IDL_1	2	52	IDL_9
IDL_2	3	53	IDL_10
IDL_3	4	54	IDL_11
IDL_4	5	55	IDL_12
IDL_5	6	56	IDL_13
IDL_6	7	57	IDL_14
IDL_7	8	58	IDL_15
COM1	9	59	COM2
COM1	10	60	COM2
COM1	11	61	COM2
COM1	12	62	COM2
IDL_16	13	63	IDL_24
IDL_17	14	64	IDL_25
IDL_18	15	65	IDL_26
IDL_19	16	66	IDL_27
IDL_20	17	67	IDL_28
IDL_21	18	68	IDL_29
IDL_22	19	69	IDL_30
IDL_23	20	70	IDL_31
COM3	21	71	COM4
COM3	22	72	COM4
COM3	23	73	COM4
COM3	24	74	COM4
N/C	25	75	N/C
IDO_0	26	76	IDO_8
IDO_1	27	77	IDO_9
IDO_2	28	78	IDO_10
IDO_3	29	79	IDO_11
IDO_4	30	80	IDO_12
IDO_5	31	81	IDO_13
IDO_6	32	82	IDO_14
IDO_7	33	83	IDO_15
VDD1	34	84	VDD2
IGND	35	85	IGND
IGND	36	86	IGND
IGND	37	87	IGND
IDL_16	38	88	IDO_24
IDL_17	39	89	IDO_25
IDL_18	40	90	IDO_26
IDL_19	41	91	IDO_27
IDL_20	42	92	IDO_28
IDL_21	43	93	IDO_29
IDL_22	44	94	IDO_30
IDL_23	45	95	IDO_31
VDD3	46	96	VDD4
IGND	47	97	IGND
IGND	48	98	IGND
IGND	49	99	IGND
+5Vout	50	100	+5Vout

PCI-7433/7433HIR,
cPCI-7433/7433R

IDL_0	1	51	IDL_8
IDL_1	2	52	IDL_9
IDL_2	3	53	IDL_10
IDL_3	4	54	IDL_11
IDL_4	5	55	IDL_12
IDL_5	6	56	IDL_13
IDL_6	7	57	IDL_14
IDL_7	8	58	IDL_15
COM1	9	59	COM2
COM1	10	60	COM2
COM1	11	61	COM2
COM1	12	62	COM2
IDL_16	13	63	IDL_24
IDL_17	14	64	IDL_25
IDL_18	15	65	IDL_26
IDL_19	16	66	IDL_27
IDL_20	17	67	IDL_28
IDL_21	18	68	IDL_29
IDL_22	19	69	IDL_30
IDL_23	20	70	IDL_31
COM3	21	71	COM4
COM3	22	72	COM4
COM3	23	73	COM4
COM3	24	74	COM4
N/C	25	75	N/C
IDL_32	26	76	IDL_40
IDL_33	27	77	IDL_41
IDL_34	28	78	IDL_42
IDL_35	29	79	IDL_43
IDL_36	30	80	IDL_44
IDL_37	31	81	IDL_45
IDL_38	32	82	IDL_46
IDL_39	33	83	IDL_47
COM5	34	84	COM6
COM5	35	85	COM6
COM5	36	86	COM6
COM5	37	87	COM6
IDL_48	38	88	IDL_56
IDL_49	39	89	IDL_57
IDL_50	40	90	IDL_58
IDL_51	41	91	IDL_59
IDL_52	42	92	IDL_60
IDL_53	43	93	IDL_61
IDL_54	44	94	IDL_62
IDL_55	45	95	IDL_63
COM7	46	96	COM8
COM7	47	97	COM8
COM7	48	98	COM8
COM7	49	99	COM8
N/C	50	100	N/C

PCI-7434,
cPCI-7434/7434R

IDO_0	1	51	IDO_8
IDO_1	2	52	IDO_9
IDO_2	3	53	IDO_10
IDO_3	4	54	IDO_11
IDO_4	5	55	IDO_12
IDO_5	6	56	IDO_13
IDO_6	7	57	IDO_14
IDO_7	8	58	IDO_15
VDD1	9	59	VDD2
IGND	10	60	IGND
IGND	11	61	IGND
IGND	12	62	IGND
IDL_16	13	63	IDO_24
IDL_17	14	64	IDO_25
IDL_18	15	65	IDO_26
IDL_19	16	66	IDO_27
IDL_20	17	67	IDO_28
IDL_21	18	68	IDO_29
IDL_22	19	69	IDO_30
IDL_23	20	70	IDO_31
VDD3	21	71	VDD4
IGND	22	72	IGND
IGND	23	73	IGND
IGND	24	74	IGND
N/C	25	75	N/C
IDO_32	26	76	IDO_40
IDO_33	27	77	IDO_41
IDO_34	28	78	IDO_42
IDO_35	29	79	IDO_43
IDO_36	30	80	IDO_44
IDO_37	31	81	IDO_45
IDO_38	32	82	IDO_46
IDO_39	33	83	IDO_47
VDD5	34	84	VDD6
IGND	35	85	IGND
IGND	36	86	IGND
IGND	37	87	IGND
IDL_48	38	88	IDO_56
IDL_49	39	89	IDO_57
IDL_50	40	90	IDO_58
IDL_51	41	91	IDO_59
IDL_52	42	92	IDO_60
IDL_53	43	93	IDO_61
IDL_54	44	94	IDO_62
IDL_55	45	95	IDO_63
VDD7	46	96	VDD8
IGND	47	97	IGND
IGND	48	98	IGND
IGND	49	99	IGND
+5Vout	50	100	+5Vout