

cPCI-7452

128-CH Isolated DI & 128-CH Isolated DO Card

CompactPCI



Introduction

The ADLINK cPCI-7452 is a 256-CH extra-high-density opto-isolated digital input and output card. It provides a robust 2500 V_{RMS} isolation protection, suitable for most industrial applications. The wide input range of the cPCI-7452 makes it easy to sense the status of external devices. The cPCI-7452 also features a wide output range from 5 to 35 V, suitable for driving relays and use in industrial automation applications. The cPCI-7452 provides sink drive outputs. The cPCI-7452 provides Change-of-State interrupt on all digital input channels, simplifying configuration and management.

Features

- 6U Eurocard form factor, CompactPCI compliant (PICMG 2.0 R3.0)
- 128-CH isolated digital inputs and 128-CH isolated digital outputs
- Non-polarity digital input range
- Isolated input voltage up to 28 V_{DC}
- Isolation voltage up to 2500 V_{RMS}
- Sink current up to 300 mA on each isolated output
- Interrupt sources: 128-CH DI Change-of- State
- Output status read back

Operating Systems

- Windows 7/Vista/XP/2000/2003 Server
- Linux

Recommended Software

- AD-Logger
- VB.NET/VC.NET/VB/VC++/BCB/Delphi
- DAQBench

Driver Support

- DAQPilot for LabVIEW™
- DAQ-MTLB for MATLAB®
- PCIS-DASK for Windows
- PCIS-DASK/X for Linux

Specifications

Isolated Digital Input

- Number of channels: 128
- Maximum input range: 24 V, non-polarity
- Digital logic levels: 0-24 V, non-polarity
 - Input high voltage: 5-24 V
 - Input low voltage: 0-2 V
- Input resistance: 2.4 kΩ @ 1/2 W
- ESD protection CKT switch (Forward)
- Isolation voltage: 2500 V_{RMS} channel-to-system
- Interrupt sources: 128 channel Change-of-state (COS)
- Data transfer: programmed I/O

Isolated Digital Output

- Number of channels: 128
- Supply voltage: 5-35 V
- Output type: open collector Darlington transistor
- Sink current: 500 mA for one channel @ 100% duty
- Isolation voltage: 2500 V_{RMS} channel-to-system
- Data transfer: programmed I/O

Isolation +5 V Power Supply

- Output Voltage: +5 V
- Output Current: 100 mA max. (@ 40°C)

General Specifications

- I/O connector
 - Two 200-pin dual port VHDCI female
- Operating temperature: 0°C to 60°C
- Storage temperature: -20°C to 80°C
- Relative humidity: 5% to 95%, non-condensing
- Power requirements

3.3 V	+5 V
300 mA typical	1.26 A typical
- Dimensions (not including connectors)
233.35 mm (L) x 160 mm (W)

Terminal Boards & Cables

DIN-100S-01

Terminal Board with One 100-pin SCSI-II Connector and DIN-Rail Mounting (Cables are not included.)

ACL-102150-1

SCSI-100 to MINI SCSI-100 connector, 1 M (cPCI-7452 only)

* For more information on mating cables, please refer to P2-61/62.

Ordering Information

cPCI-7452

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Pin Assignment

DO Connector

CN1B		
N/C	100	50
IGND	99	49
IGND	98	48
IGND	97	47
VDD2	96	46
IDO_127	95	45
IDO_126	94	44
IDO_125	93	43
IDO_124	92	42
IDO_123	91	41
IDO_122	90	40
IDO_121	89	39
IDO_120	88	38
IGND	87	37
IGND	86	36
IGND	85	35
VDD2	84	34
IDO_111	83	33
IDO_110	82	32
IDO_109	81	31
IDO_108	80	30
IDO_107	79	29
IDO_106	78	28
IDO_105	77	27
IDO_104	76	26
N/C	75	25
IGND	74	24
IGND	73	23
IGND	72	22
VDD2	71	21
IDO_95	70	20
IDO_94	69	19
IDO_93	68	18
IDO_92	67	17
IDO_91	66	16
IDO_90	65	15
IDO_89	64	14
IDO_88	63	13
IGND	62	12
IGND	61	11
IGND	60	10
VDD2	59	9
IDO_79	58	8
IDO_78	57	7
IDO_77	56	6
IDO_76	55	5
IDO_75	54	4
IDO_74	53	3
IDO_73	52	2
IDO_72	51	1

CN1A		
IDO_0	1	51
IDO_1	2	52
IDO_2	3	53
IDO_3	4	54
IDO_4	5	55
IDO_5	6	56
IDO_6	7	57
IDO_7	8	58
VDD1	9	59
IGND	10	60
IGND	11	61
IGND	12	62
IDO_16	13	63
IDO_17	14	64
IDO_18	15	65
IDO_19	16	66
IDO_20	17	67
IDO_21	18	68
IDO_22	19	69
IDO_23	20	70
VDD1	21	71
IGND	22	72
IGND	23	73
IGND	24	74
N/C	25	75
IDO_32	26	76
IDO_33	27	77
IDO_34	28	78
IDO_35	29	79
IDO_36	30	80
IDO_37	31	81
IDO_38	32	82
IDO_39	33	83
VDD1	34	84
IGND	35	85
IGND	36	86
IGND	37	87
IDO_48	38	88
IDO_49	39	89
IDO_50	40	90
IDO_51	41	91
IDO_52	42	92
IDO_53	43	93
IDO_54	44	94
IDO_55	45	95
VDD1	46	96
IGND	47	97
IGND	48	98
IGND	49	99
V5V	50	100

DI Connector

CN2B		
N/C	100	50
COM16	99	49
COM16	98	48
COM16	97	47
COM16	96	46
IDI_127	95	45
IDI_126	94	44
IDI_125	93	43
IDI_124	92	42
IDI_123	91	41
IDI_122	90	40
IDI_121	89	39
IDI_120	88	38
COM14	87	37
COM14	86	36
COM14	85	35
COM14	84	34
IDI_111	83	33
IDI_110	82	32
IDI_109	81	31
IDI_108	80	30
IDI_107	79	29
IDI_106	78	28
IDI_105	77	27
IDI_104	76	26
N/C	75	25
COM12	74	24
COM12	73	23
COM12	72	22
COM12	71	21
IDI_95	70	20
IDI_94	69	19
IDI_93	68	18
IDI_92	67	17
IDI_91	66	16
IDI_90	65	15
IDI_89	64	14
IDI_88	63	13
COM10	62	12
COM10	61	11
COM10	60	10
COM10	59	9
IDI_79	58	8
IDI_78	57	7
IDI_77	56	6
IDI_76	55	5
IDI_75	54	4
IDI_74	53	3
IDI_73	52	2
IDI_72	51	1

CN2A		
IDI_0	1	51
IDI_1	2	52
IDI_2	3	53
IDI_3	4	54
IDI_4	5	55
IDI_5	6	56
IDI_6	7	57
IDI_7	8	58
COM1	9	59
COM1	10	60
COM1	11	61
COM1	12	62
IDI_16	13	63
IDI_17	14	64
IDI_18	15	65
IDI_19	16	66
IDI_20	17	67
IDI_21	18	68
IDI_22	19	69
IDI_23	20	70
COM3	21	71
COM3	22	72
COM3	23	73
COM3	24	74
N/C	25	75
IDI_32	26	76
IDI_33	27	77
IDI_34	28	78
IDI_35	29	79
IDI_36	30	80
IDI_37	31	81
IDI_38	32	82
IDI_39	33	83
COM5	34	84
COM5	35	85
COM5	36	86
COM5	37	87
IDI_48	38	88
IDI_49	39	89
IDI_50	40	90
IDI_51	41	91
IDI_52	42	92
IDI_53	43	93
IDI_54	44	94
IDI_55	45	95
COM7	46	96
COM7	47	97
COM7	48	98
COM7	49	99
N/C	50	100

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