

PEX-C64

PCI Express, 64-ch Open Collector Isolated (Sink, NPN) DO Board

Features

- PCI Express x1 Interface
- 64-channel Optically-isolated Digital Output (Sink, NPN)
- Supports Card ID (SMD Switch)
- 3750 Vrms Photo-isolation Protection
- Digital Input Arranged into Four Isolated Banks when using Four Isolated External Power Supplies

Introduction

The PEX-C64 board utilizes the PCI Express bus and provides 64 optically-isolated Digital Output channels, each of which includes a Darlington transistor that provides 3750 Vrms isolation, and an integrated suppression diode for the inductive load. The DO channels are allocated into four isolated banks when using four isolated external power supplies, and act as an interface between field logic signals, eliminating ground loop problems and isolating the host computer from potentially damaging voltage spikes.

The PEX-C64 board also includes an onboard Card ID switch that enables the board to be easily recognized via software if two or more cards are installed in the same computer. The PEX-C64 board is designed as an easy replacement for the PISO-C64U board without requiring any modification to either the software or the driver.

Software

Drivers

- [x] 32/64-bit Windows 10/11
- [x] Linux

Sample Programs

- [x] DOS Lib and TC/BC/MSC Demo
- [x] VB/VC/Delphi/VB.NET/C#.NET/VC.NET/LabVIEW/Python/MATLAB

Applications

- Factory automation
- Product test
- Laboratory automation

Pin Assignments

Pin Assignment	Terminal No.		Pin Assignment
Ext. GND0	01	20	Ext. GND1
DO_0	02	21	DO_16
DO_1	03	22	DO_17
DO_2	04	23	DO_18
DO_3	05	24	DO_19
DO_4	06	25	DO_20
DO_5	07	26	DO_21
DO_6	08	27	DO_22
DO_7	09	28	DO_23
DO_8	10	29	DO_24
DO_9	11	30	DO_25
DO_10	12	31	DO_26
DO_11	13	32	DO_27
DO_12	14	33	DO_28
DO_13	15	34	DO_29
DO_14	16	35	DO_30
DO_15	17	36	DO_31
Ext. PWR0	18	37	Ext. PWR1
N.C.	19		

CON1

Pin Assignment	Terminal No.		Pin Assignment
Ext. GND2	01	02	Ext. GND3
DO_32	03	04	DO_48
DO_33	05	06	DO_49
DO_34	07	08	DO_50
DO_35	09	10	DO_51
DO_36	11	12	DO_52
DO_37	13	14	DO_53
DO_38	15	16	DO_54
DO_39	17	18	DO_55
DO_40	19	20	DO_56
DO_41	21	22	DO_57
DO_42	23	24	DO_58
DO_43	25	26	DO_59
DO_44	27	28	DO_60
DO_45	29	30	DO_61
DO_46	31	32	DO_62
DO_47	33	34	DO_63
Ext. PWR2	35	36	Ext. PWR3
N.C.	37	38	N.C.
N.C.	39	40	N.C.

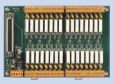
CON2

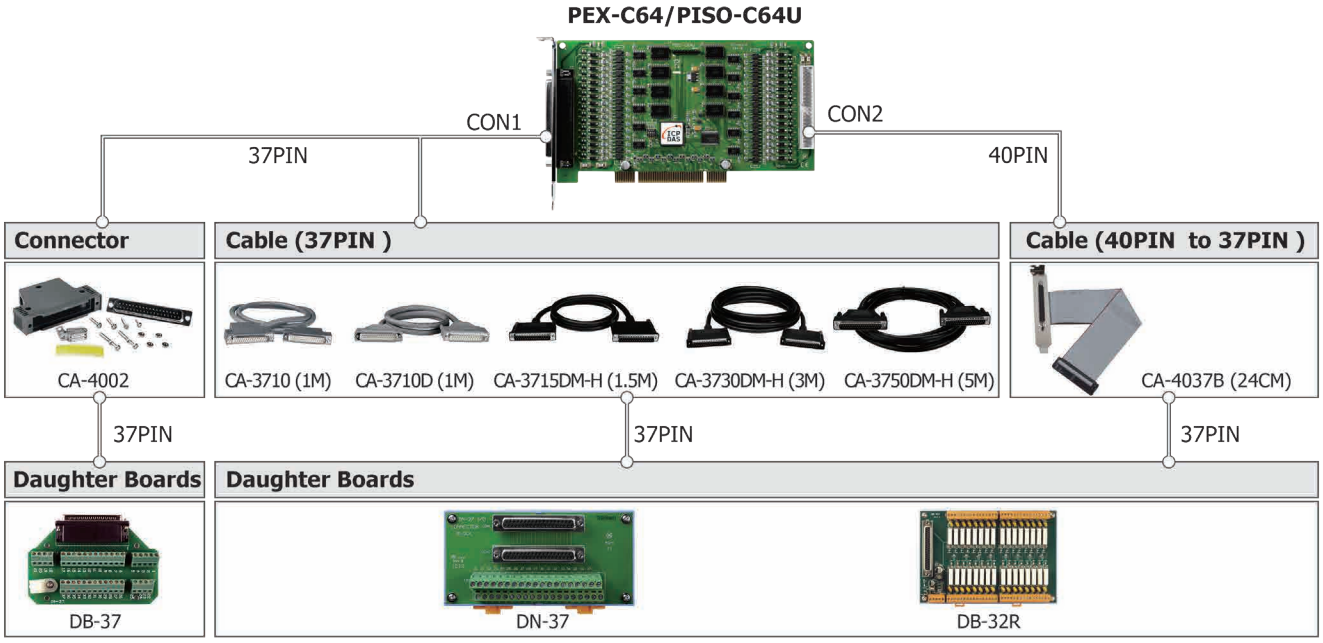
Hardware Specifications

Hardware	
Card ID	Yes (4-bit)
Connector	Female DB37 x 1 40-pin box header x 1
Digital Output	
Channels	64
Sink/Source (NPN/PNP)	Sink, Open Collector
Operation Mode	Static Update
Load Current	100 mA/+30 V for each channel @ 60% duty
Response Speed	4 kHz (Typical)
Isolation	3750 Vrms
PC Bus	
Type	PCI Express x 1
Data Bus	8-bit
Power	
Consumption	400 mA @ +3.3 V 200 mA @ +12 V
Mechanical	
Dimensions (mm)	105 x 180 x 22 (W x L x D)
Environment	
Operating Temperature	0 ~ +60°C
Storage Temperature	-20 ~ +70°C
Humidity	5 ~ 85% RH, Non-condensing

LRI Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Accessories

 CA-3710 CR	DB-37 Male-Male D-sub cable 1 M (Cable for Daughter Board (45°)) (RoHS)
 CA-3710D CR	DB-37 Male-Male D-sub cable 1 M (Cable for Daughter Board (180°)) (RoHS)
 CA-3715DM-H CR	DB-37 Male-Male Cable, 1.5 M, 180° (RoHS)
 CA-3730DM-H CR	DB-37 Male-Male Cable, 3.0 M, 180° (RoHS)
 CA-3750DM CR	DB-37 Male-Male Cable, 5.0 M, 180° (RoHS)
 CA-3750DM-H CR	DB-37 Male-Male Cable, 5.0 M, 180° (RoHS)
 DB-32R CR	32-channel relay output board Include : CA-3710D Male- Male D-sub Cable 1.0 M (RoHS)
 DB-37 CR	Directly connect signal to D-sub 37-pin connector (RoHS)
 DN-37 CR	DIN Rail Mounting 37-pin Connector (RoHS)



Ordering Information

PEX-C64 CR	PCI Express, 64-ch Open Collector Isolated (Sink, NPN) Digital Output Board (RoHS) Includes one CA-4037B cable and two CA-4002 D-Sub connectors

LRI Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000