

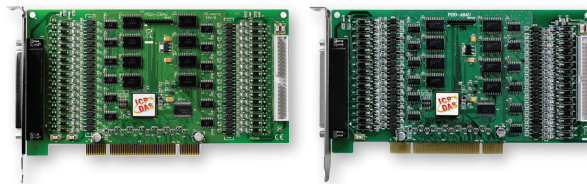
PISO-C64U/PISO-A64U

Universal PCI, 64-channel Optically-isolated Digital Output Board (Sink/Source)



PISO-C64U

PISO-A64U



Features

- Universal PCI (3.3 V/5 V) Interface
- 64-channel Optically-isolated Open-collector Digital Output
 - PISO-C64U: Current Sinking, NPN type
 - PISO-A64U: Current Sourcing, PNP type
- Supports Card ID (SMD Switch)
- Supports DO Status Readback (Register Level)
- 4 Isolated Banks when using 4 Isolated External Power Supplies
- 3750 V_{rms} Photo-isolation Protection

Introduction

The PISO-C64U/PISO-A64U Universal PCI card supports the 3.3 V/5 V PCI bus. These cards provide 64 optically-isolated Digital Output channels, each of which includes a PNP transistor (PISO-A64U) or a Darlington transistor (PISO-C64U) and an integrated suppression diode for the inductive load.

The Digital Output channels are allocated to four isolated banks when using four isolated external power supplies, and act as an interface to field logic signals, eliminating ground-loop problems, and isolating the host computer from potentially damaging voltage spikes. The open-collector Digital Output channels are typically used for alarm and warning notifications, signal output control, control for external circuits that require a higher voltage level, or signal transmission applications, etc.

The PISO-C64U/PISO-A64U card also includes an onboard Card ID switch that enables the board to be recognized via software if two or more boards are installed in the same computer. Both cards have a DB-37 connector and a 40-pin male header, each supporting 32 output channels.

Pin Assignments

Pin Assignment	Terminal No.	Pin Assignment	Pin Assignment	Terminal No.	Pin Assignment
Ext. GND0	01	20	Ext. GND1	01	Ext. GND3
DO_0	02	21	DO_16	02	DO_48
DO_1	03	22	DO_17	03	DO_49
DO_2	04	23	DO_18	04	DO_50
DO_3	05	24	DO_19	05	DO_51
DO_4	06	25	DO_20	06	DO_52
DO_5	07	26	DO_21	07	DO_53
DO_6	08	27	DO_22	08	DO_54
DO_7	09	28	DO_23	09	DO_55
DO_8	10	29	DO_24	10	DO_56
DO_9	11	30	DO_25	11	DO_57
DO_10	12	31	DO_26	12	DO_58
DO_11	13	32	DO_27	13	DO_59
DO_12	14	33	DO_28	14	DO_60
DO_13	15	34	DO_29	15	DO_61
DO_14	16	35	DO_30	16	DO_62
DO_15	17	36	DO_31	17	DO_63
Ext. PWR0	18	37	Ext. PWR1	18	Ext. PWR3
N.C.	19			19	N.C.
				20	N.C.
				21	N.C.
				22	N.C.
				23	N.C.
				24	N.C.
				25	N.C.
				26	N.C.
				27	N.C.
				28	N.C.
				29	N.C.
				30	N.C.
				31	N.C.
				32	N.C.
				33	N.C.
				34	N.C.
				35	N.C.
				36	N.C.
				37	N.C.
				38	N.C.
				39	N.C.
				40	N.C.

Software

Drivers

- 32/64-bit Windows XP/2003/2008/7/8/10
- Linux
- DASyLab

Sample Programs

- DOS Lib and TC/BC/MSC Demo
- LabVIEW Toolkit
- VB/VC/Delphi/BCB/VB.NET/C#.NET/VC.NET/MATLAB Demo

Hardware Specifications

Model	PISO-C64U	PISO-A64U
Digital Output		
Channels	64	
Isolation Voltage	3750 V _{rms} (Using external power)	
Compatibility	Sink, Open-collector	Source, Open-collector
Output Capability	100 mA/+30 V for each channel @ 100% duty	100 mA/+30 V for each channel @ 60% duty
Response Speed	4 kHz (Typical)	
General		
Bus Type	3.3 V/5 V Universal PCI, 32-bit, 33 MHz	
Card ID	Yes (4-bit)	
Connectors	Female DB37 x 1 40-pin Box Header x 1	
Power Consumption	800 mA @ +5 V	
Operating Temperature	0°C to +60°C	
Humidity	5 to 85% RH, Non-condensing	

Ordering Information

PISO-C64U CR	Universal PCI, 64-channel Optically-isolated Open-collector Digital Output Board (Sink, RoHS). Includes one CA-4037B Cable and two CA-4002 D-sub Connectors
PISO-A64U CR	Universal PCI, 64-channel Optically-isolated Open-collector Digital Output Board (Source, RoHS). Includes one CA-4037B Cable and two CA-4002 D-sub Connectors.

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PCI Bus Data Acquisition Boards