

PISO-1730U

Universal PCI, 32-ch Isolated DI and 32-ch Open Collector Isolated (Sink, NPN) DO Board

Features

- Universal PCI (3.3 V/5 V) Interface
- 32 Optically-isolated Digital Input Channels
- 32 Optically-isolated Digital Output Channels (Sink, NPN)
- Built-in DC/DC Converter with 3000 VDC Isolation
- 3750 Vrms Photo-isolation Protection
- Four Isolated Banks
- Supports Card ID (SMD Switch)

Introduction

The PISO-1730U universal PCI card supports 3.3 V/5 V PCI bus.The PISO-1730U provides 32 channels of Isolated DIs and 32 channels of Isolated DOs, arranged into four isolated banks. Each input channel uses a photo-coupler input. Each DO offers a Darlington transistor. The power supply of the output port and input port should use the external power. The board eliminates ground-loop problems and isolates the host computer from damaging voltages.

The PISO-1730U provides a Card ID switch. Users can set Card ID on a board and recognize the board by the ID via software when using two or more PIO-1730U cards in one computer.

The cards support various OS versions, such as Linux, DOS, Windows. DLL and Active X control together with various language sample program based on Turbo C++, Borland C++, Microsoft C++, Visual C++, Borland Delphi, Borland C++ Builder, Visual Basic, C#.NET, Visual Basic.NET and LabVIEW are provided in order to help users to quickly and easily develop their own applications.

Software

Drivers

- ☑ 32/64-bit Windows 10/11
- ☑ Linux

Sample Programs

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

Applications

- High speed data acquisition system.
- Process monitor and control.
- Vibration analysis.
- Digital pattern generator from digital I/O port.

Ordering Information

PISO-1730U CR	Universal PCI, 32-ch Isolated DI and 32-ch Open Collector Isolated (Sink, NPN) DO Board (RoHS) Includes one CA-4037B cable and two CA-4002 D-Sub connectors

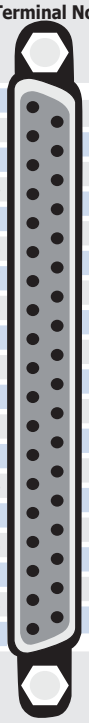
Hardware Specifications

Hardware	
Card ID	Yes (4-bit)
Connector	Female DB37 x 1 , 40-pin box header x 1
Digital Input	
Channels	32
Type	Wet Contact , Photocoupler
Sink/Source (NPN/PNP)	Sink/Source
ON Voltage Level	9 ~ 24 V (Min. 7 V; Max. 30 V)
OFF Voltage Level	0 ~ 1 V
Response Speed	4 kHz (Typical)
Trigger Mode	Static Update
Isolation	3750 Vrms (Using external power)
Digital Output	
Channels	32
Type	Open Collector
Sink/Source (NPN/PNP)	Sink (NPN)
Operation Mode	Static Update
Load Current	100 mA/+30 V for each channel @ 100% duty
Response Speed	4 kHz (Typical)
Isolation	3750 Vrms
PC Bus	
Type	3.3 V/5 V Universal PCI, 32-bit, 33 MHz
Data Bus	8-bit
Power	
Consumption	600 mA @ +5 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

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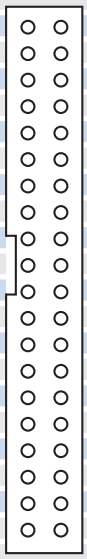
Pin Assignments

Pin Assignment	Terminal No.		Pin Assignment
IDO_0	01	20	IDO_1
IDO_2	02	21	IDO_3
IDO_4	03	22	IDO_5
IDO_6	04	23	IDO_7
PCOM	05	24	IDO_8
IDO_9	06	25	IDO_10
IDO_11	07	26	IDO_12
IDO_13	08	27	IDO_14
IDO_15	09	28	PCOM
IDO_16	10	29	IDO_17
IDO_18	11	30	IDO_19
IDO_20	12	31	IDO_21
IDO_22	13	32	IDO_23
PCOM	14	33	IDO_24
IDO_25	15	34	IDO_26
IDO_27	16	35	IDO_28
IDO_29	17	36	IDO_30
IDO_31	18	37	PCOM
EGND	19		



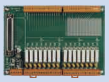
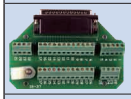
CON1 (Female DB-37)

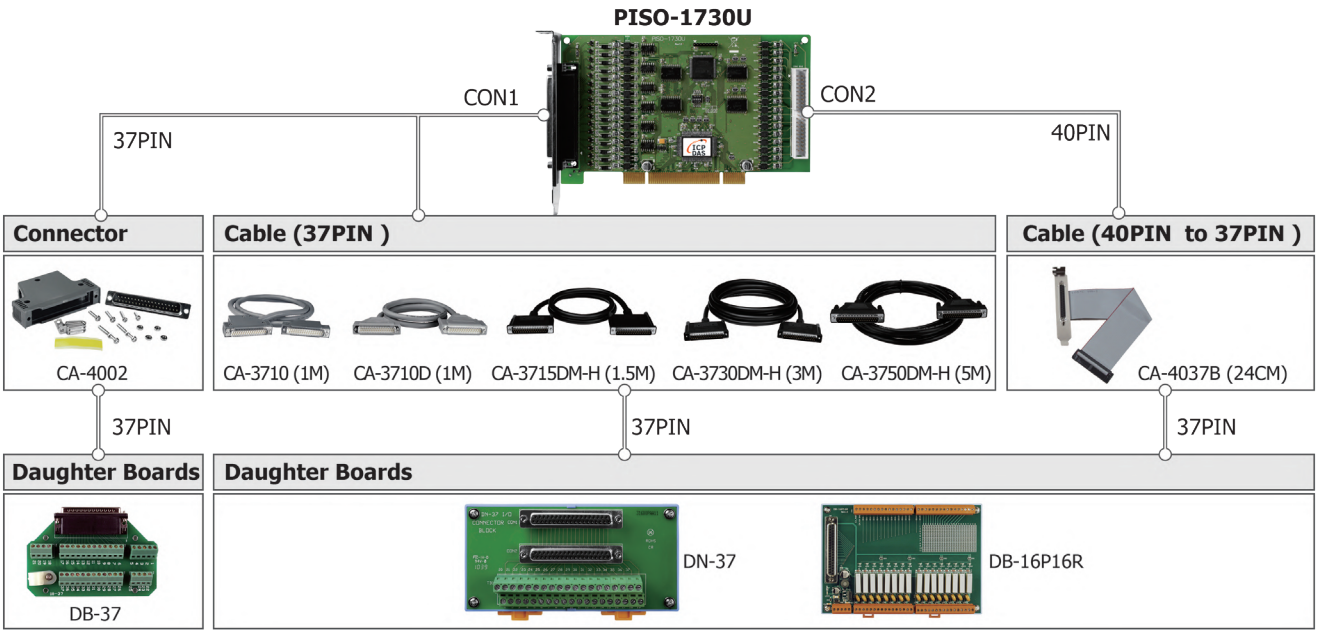
Pin Assignment	Terminal No.		Pin Assignment
IDI_0	01	02	IDI_1
IDI_2	03	04	IDI_3
IDI_4	05	06	IDI_5
IDI_6	07	08	IDI_7
PCOM	09	10	IDI_8
IDI_9	11	12	IDI_10
IDI_11	13	14	IDI_12
IDI_13	15	16	IDI_14
IDI_15	17	18	PCOM
IDI_16	19	20	IDI_17
IDI_18	21	22	IDI_19
IDI_20	23	24	IDI_21
IDI_22	25	26	IDI_23
PCOM	27	28	IDI_24
IDI_25	29	30	IDI_26
IDI_27	31	32	IDI_28
IDI_29	33	34	IDI_30
IDI_31	35	36	PCOM
EGND	37	38	N/A
N/A	39	40	N/A



CON2 (40-pin Box Header)

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-16P16R CR	16-channel input terminal and 16-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)



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