

PISO-P32S32WU

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

Features

- Universal PCI (3.3 V/5 V) Interface
- Supports Card ID (SMD Switch)
- 3750 Vrms Photo-isolation Protection
- Input Range up to 30 VDC
- 32 Optically-isolated Digital Input Channels
- 32 Optically-isolated Digital Output Channels (Sink, NPN)
  - ☐ 100 mA (24 Channels) Low Driving
  - ☐ 500 mA (8 Channels) High Driving

Introduction

PISO-P32S32WU has 32 channels of Isolated DI and 32 channels of Isolated open-collector output board (8-channel for 500 mA and 24-channel for 100 mA current sinking output, NPN), arranged into four isolated banks. Each input channel use a photo-coupler to isolate the card and computer from external signal. Each DO offers a NPN transistor and integral suppression diode for inductive load. PISO-P32S32WU requires external power to drive the D/I and D/O ports and supports Card ID (jumper) features for multi-board identification and supports both 5 V and 3.3 V PCI slot.

This interface board is easily installed in any PC. The board interface to field logic signals, eliminating ground-loop problems and isolating the host computer from damaging voltages. PISO-P32S32WU has one 37-pin D-Sub connector and one 40-pin male header. The 40-pin to DB-37 flat cable is used to fix with the case. The user can connect the digital signal through the second D-Sub connector. Each D-Sub connector contains 16 input channels and 16 output channels.

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.

Applications

- Factory automation
- Product test
- Laboratory automation

Software

Drivers

- ☑ 32/64-bit Windows 10/11
- ☑ Linux

Sample Programs

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

Hardware Specifications

Hardware	
Card ID	Yes (4-bit) for version 1.5 or above
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
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	500 mA for one high driving channel @ 100% duty 500 mA for all high driving channels @ 100% duty (The GND pins all must be connected with GND of External Power) 100 mA for one low driving channel @ 100% duty 100 mA for all low driving channels @ 100% duty (The GND pins all must be connected with GND of External Power)
Response Speed	4 kHz (Typical)
Isolation	3750 Vrms (Using external power)
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

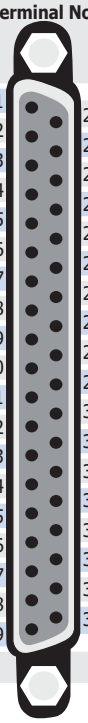
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Ordering Information

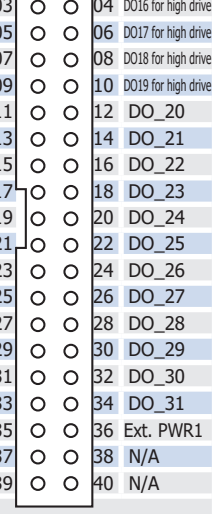
PISO-P32S32WU CR	Universal PCI, 32-ch Optical Isolated DI and 32-ch Open Collector Isolated (Sink, NPN) DO Board (RoHS) Includes one CA-4037B cable and two CA-4002 D-Sub connectors

Pin Assignments

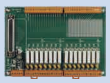
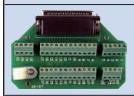
Pin Assignment	Terminal No.		Pin Assignment
Ext. GND0	01	20	Ext. GND0
DI_0	02	21	DO0 for high drive
DI_1	03	22	DO1 for high drive
DI_2	04	23	DO2 for high drive
DI_3	05	24	DO3 for high drive
DI_4	06	25	DO_4
DI_5	07	26	DO_5
DI_6	08	27	DO_6
DI_7	09	28	DO_7
DI_8	10	29	DO_8
DI_9	11	30	DO_9
DI_10	12	31	DO_10
DI_11	13	32	DO_11
DI_12	14	33	DO_12
DI_13	15	34	DO_13
DI_14	16	35	DO_14
DI_15	17	36	DO_15
GND for High drive	18	37	Ext. PWR0
GND for High drive	19		
CON1			

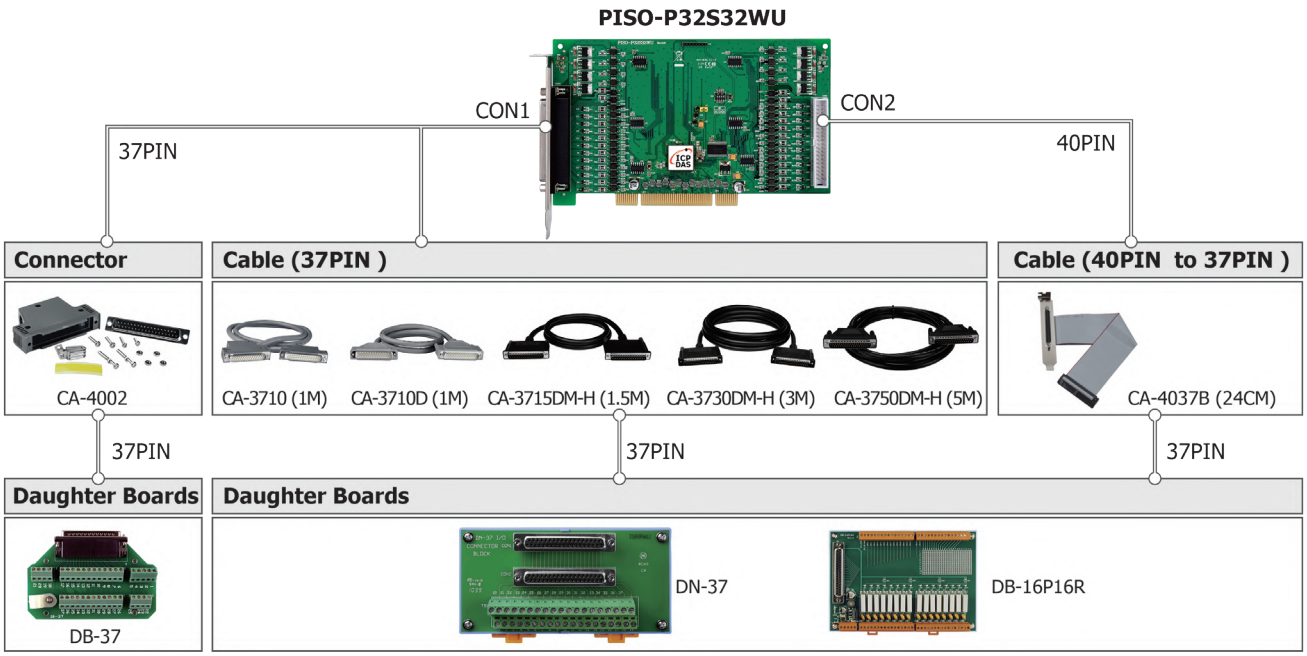


Pin Assignment	Terminal No.		Pin Assignment
Ext. GND1	01	02	Ext. GND1
DI_16	03	04	DO16 for high drive
DI_17	05	06	DO17 for high drive
DI_18	07	08	DO18 for high drive
DI_19	09	10	DO19 for high drive
DI_20	11	12	DO_20
DI_21	13	14	DO_21
DI_22	15	16	DO_22
DI_23	17	18	DO_23
DI_24	19	20	DO_24
DI_25	21	22	DO_25
DI_26	23	24	DO_26
DI_27	25	26	DO_27
DI_28	27	28	DO_28
DI_29	29	30	DO_29
DI_30	31	32	DO_30
DI_31	33	34	DO_31
GND for High drive	35	36	Ext. PWR1
GND for High drive	37	38	N/A
N/A	39	40	N/A
CON2			



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 (RoHS) Include : CA-3710D Male- Male D-sub Cable 1.0 M
 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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