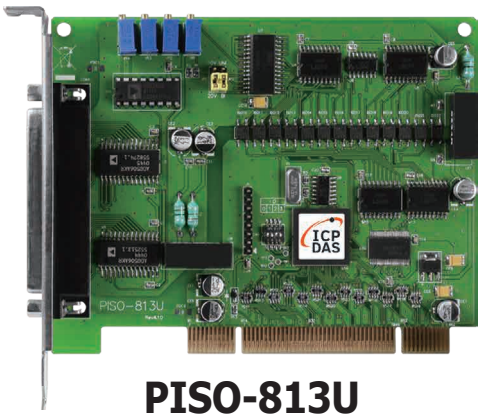


PISO-813U

Universal PCI, 10 kS/s, 32-ch, 12-bit Isolated AI Board

Features

- Universal PCI (3.3 V/5 V) Interface
- 32 Single-ended Analog Input Channels
  - Bipolar Input : ±0.625 V, ±1.25 V, ±2.5 V, ±5 V, ±10 V
  - Unipolar Input : 0 ~ +0.625 V , 0 ~ +1.25 V, 0 ~ +2.5 V, 0 ~ +5 V, 0 ~ +10 V
  - Programmable Gain Control : 1, 2, 4, 8, 16
  - AD Trigger: Software-trigger
  - 12-bit, 10 kS/s AD Converter
  - 3750 Vrms Bus Isolation Protection
  - Built-in DC/DC Converter with 3000 VDC Protection
- Supports Card ID (SMD Switch)

Introduction

The PISO-813U card is bus-typed isolated A/D board and supports 3.3 V/5 V PCI bus. They feature 12-bit 32 single-ended AIs, 3750 Vrms bus-typed isolation protection and 10 kS/s data acquisition under DOS and Windows. It is the most cost effective isolated A/D board for the universal PCI in the world.

The PISO-813U also adds a Card ID switch on-board. Users can set Card ID and then recognizes the board by the ID via software when using two or more PISO-813U 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

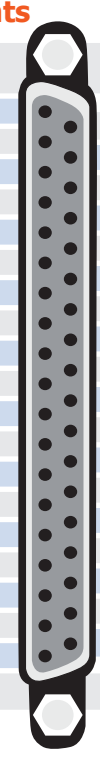
- [x] 32/64-bit Windows 10/11
- [x] Linux
- [x] DASYLab

Sample Programs

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

Pin Assignments

Pin Assignment	Terminal No.		Pin Assignment
AI_0	01	20	AI_1
AI_2	02	21	AI_3
AI_4	03	22	AI_5
AI_6	04	23	AI_7
AI_8	05	24	AI_9
AI_10	06	25	AI_11
AI_12	07	26	AI_13
AI_14	08	27	AI_15
A.GND	09	28	A.GND
A.GND	10	29	A.GND
AI_16	11	30	AI_17
AI_18	12	31	AI_19
AI_20	13	32	AI_21
AI_22	14	33	AI_23
AI_24	15	34	AI_25
AI_26	16	35	AI_27
AI_28	17	36	AI_29
AI_30	18	37	AI_31
A.GND	19		



CON3

Hardware Specifications

Hardware	
Card ID	Yes (4-bit)
Connector	Female DB37 x 1
Analog Input	
Channels	32 single-ended
Range	Gain : 1, 2, 4, 8, 16 Bipolar Range : ±10 V, ±5 V, ±2.5 V, ±1.25 V,±0.625V, ±5 V, ±2.5 V, ±1.25 V, ±0.625V Unipolar Range : 0 ~ 10 V, 0 ~ 5 V, 0 ~ 2.5 V, 0 ~ 1.25 V, 0 ~ 0.625 V
Resolution	12-bit
Accuracy	0.01% of FSR ±1 LSB @ 25 °C, ± 10 V
Sampling Rate	10 kS/s. Max.
Input Impedance	10 MΩ/6 Pf
Overvoltage Protection	Continuous ±35 Vp-p
Zero Drift	±25 ppm/°C of FSR
Trigger Mode	Software
Isolation	3750 Vrms (Bus Type)
Data Transfer	Polling
PC Bus	
Type	3.3 V/5 V Universal PCI, 32-bit, 33 MHz
Data Bus	8-bit
Power	
Consumption	850 mA @ +5 V
Mechanical	
Dimensions (mm)	92 x 128 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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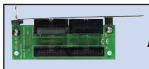
Applications

- High speed data acquisition system.
- Harsh environment operation.
- Signal isolation.

Ordering Information

PISO-813U CR	Universal PCI, 10 kS/s, 32-ch, 12-bit Isolated AI Board (RoHS) Includes one CA-4002 D-Sub connector
PISO-813U/S CR	Universal PCI, 10 kS/s, 32-ch, 12-bit Isolated AI Board (RoHS) Includes one DB-8325 screw terminal board

Accessories

 ADP-20/PCI CR	Extender, Extended dual 20-pin flat-cable connector to PC slot window (RoHS)
 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-37 CR	Directly connect signals to the back of PISO-813 (RoHS)
 DN-37 CR	I/O connector block with DIN rail mounting and 37-PIN D-SUB connector on it (RoHS)
 2AB125R CR	Resistor DIP 125R 0.1% 1/4W MF 50PPM (1PCS) (RoHS)

