



PISO-813U

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

Introduction

The PISO-813U card is designed as an easy replacement for the PISO-813 without requiring any modification to the software or the driver.

The PISO-813U is a bus-type isolated 12-bit AD board that supports both the 3.3 V and the 5 V PCI bus and features 10 kHz data acquisitions under both DOS and Windows, and provides 32 single-ended Analog Input channels. The isolation range of the board has been increased to 3000 V, making it the most cost effective solution when considering isolated AD boards for the PCI bus.

The PISO-813U also includes an onboard Card ID that enables the board to be recognized via software if two or more PISO-813U cards are installed in the same computer.

Pin Assignments

Pin Assignment	Terminal No.	Pin Assignment
AI_0	01	AI_1
AI_2	02	AI_3
AI_4	03	AI_5
AI_6	04	AI_7
AI_8	05	AI_9
AI_10	06	AI_11
AI_12	07	AI_13
AI_14	08	AI_15
A.GND	09	A.GND
A.GND	10	A.GND
AI_16	11	AI_17
AI_18	12	AI_19
AI_20	13	AI_21
AI_22	14	AI_23
AI_24	15	AI_25
AI_26	16	AI_27
AI_28	17	AI_29
AI_30	18	AI_31
A.GND	19	

CON3

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: $0 \sim +0.625$ V, $0 \sim +1.25$ V, $0 \sim +2.5$ V, $0 \sim +5$ V, $0 \sim +10$ 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)



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

Analog Input	
Isolation Voltage	3750 Vrms (Bus Type)
Channels	32 Single-ended
A/D Converter	12-bit, 8 μ s Conversion Time
Accuracy	0.01% of FSR ± 1 LSB @ 25°C, ± 10 V
Sampling Rate	10 kS/s
Input Impedance	10 M Ω /6 pF
Trigger Modes	Software
Data Transfer	Polling
General	
Bus Type	3.3 V/5 V Universal PCI, 32-bit, 33 MHz
Card ID	Yes (4-bit)
Connectors	Female DB37 x 1
Power Consumption	850 mA @ +5 V
Operating Temperature	0°C to +60°C
Humidity	5 to 85% RH, Non-condensing

Ordering Information

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

Accessories

	ADP-20/PCI	Extender, Extended dual 20-pin flat-cable connector to PC slot window
	CA-3710	DB-37 Male-Male D-sub cable 1 M (Cable for Daughter Board (45°))
	CA-3710D	DB-37 Male-Male D-sub cable 1 M (Cable for Daughter Board (180°))
	CA-3715DM-H	DB-37 Male-Male Cable, 1.5 M, 180°. (RoHS)
	CA-3730DM-H	DB-37 Male-Male Cable, 3.0 M, 180°. (RoHS)
	CA-3750DM	DB-37 Male-Male Cable, 5.0 M, 180°. (RoHS)
	CA-3750DM-H	DB-37 Male-Male Cable, 5.0 M, 180°. (RoHS)
	CA-4002	37-pin Male D-sub connector with plastic cover.
	DB-8325	Screw terminal board , filter circuitry can be added for PCI-1800H, 1800L
	DB-37	Directly connect signals to the back of PISO-813
	DN-37	I/O connector block with DIN rail mounting and 37-PIN D-SUB connector on it.
	125Ω, 0.1% DIP Resistors	125 Ω External Resistor for use with Current Input

