ICP DAS

Features

- Universal PCI (3.3 V/5 V) Interface
- 12-bit, 2-channel Analog Output
  - ☐ 3750 V$_{DC}$ Bus and Channel Isolation Protection
  - ☐ 3000 V$_{DC}$ Power Isolation Protection
  - ☐ Unipolar or Bipolar Analog Output
  - ☐ Software Calibration
  - ☐ Two Timer-triggered Interrupt Sources
  - ☐ Calibration data stored in EEPROM
  - ☐ Double-buffered DA Latch
- Supports Card ID (SMD Switch)

CE UKCA FC RoHS

PISO-DA2U
Universal PCI, 2-ch Isolated AO Board

Introduction

The PISO-DA2U has 2 Analog Output channels with high-voltage isolation protection and is based on the Universal PCI interface (3.3 V/5V). The PISO-DA2U is fully compatible with the PISO-DA2, and is designed as a direct replacement without requiring any modification to the software or the driver.

The built-in high-quality isolation components on the PISO-DA2U provide 3750 V$_{DC}$ bus-type and channel-to-channel isolation, and offer durable abilities. The voltage output range for the PISO-DA2U can be set to ±10 V, ±5 V, 0 to 10 V, or 0 to 5 V, and the current output range can be either 0 to 20 mA or 4 to 20 mA.

In addition, the PISO-DA2U also features the following innovative advantages:

1. Accurate and easy-to-use calibration:

ICP DAS provides a software calibration function rather than manual calibration so that jumpers and trim-pots are no longer required for calibration, and the calibration data can be saved in the EEPROM for long-term use.

2. Channel-to-channel configuration:

Each channel can be individually configured as either voltage or current output and can be set to a different output range.

3. Card ID:

ICP DAS has also included an onboard Card ID switch on the PISO-DA2U that enables the board to be recognized via software if two or more boards are installed in the same computer.

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

Hardware Specifications

Hardware	
Card ID	Yes (4-bit)
Connector	Male DB9 x 2
Analog Output	
Channels	2
Range	Voltage: ±10 V, ±5 V, 0 ~ 10 V, 0 ~ 5 V Current: 0 ~ 20 mA, 4 ~ 20 mA
Resolution	12-bit
Accuracy	0.015% of FSR ±1/2 LSB @ 25 °C, ±10 V
Response Time	500 kHz
Voltage Output Capability	±5 mA
Slew Rate	0.15 V/μs
Isolation	3750 V$_{DC}$ (Bus Type, CH-to-CH)
Operation Mode	Static Update
PC Bus	
Type	3.3 V/5 V Universal PCI, 32-bit, 33 MHz
Data Bus	8-bit
Power	
Consumption	1350 mA @ +5 V
Mechanical	
Dimensions (mm)	98 x 189 x 22 (W x L x D)
Environment	
Operating Temperature	0 ~ +60°C
Storage Temperature	-20 ~ +70°C
Humidity	5 ~ 85% RH, Non-condensing

Applications

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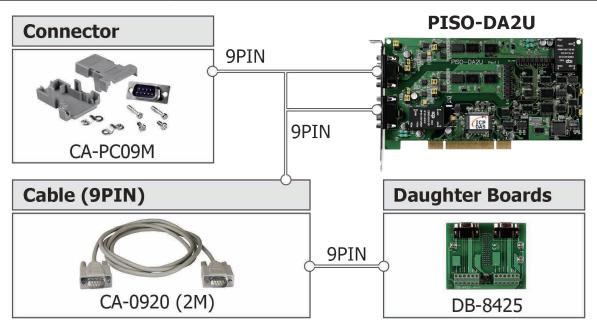- Harsh environment operation.
- Signal isolation.

Pin Assignments

Pin Assignment	Terminal No.	Pin Assignment
GND	05	
GND	04	09 +15 V
ExtREF V Int	03	08 GND
GND	02	07 I OUT
V OUT	01	06 GND
	CON1	

Pin Assignment	Terminal No.	Pin Assignment
GND	05	
GND	04	09 +15 V
ExtREF V Int	03	08 GND
GND	02	07 I OUT
V OUT	01	06 GND
	CON2	

📁 Ordering Information

PISO-DA2U CR	Universal PCI, 2-ch Isolated AO Board (RoHS) Includes two CA-PC09M D-Sub connectors
PISO-DA2U/S CR	Universal PCI, 2-ch Isolated AO Board (RoHS)

📁 Accessories

	CA-PC09M CR	9-pin Male D-sub connector with plastic cover (RoHS)
	CA-0920 CR	9-pin Male-Male D-sub cable, 2 M (RoHS)
	DB-8425 CR	Provided for easy wire connection with the controlled device or equipment (RoHS)

Connector

CA-PC09M

PISO-DA2U

9PIN

9PIN

Cable (9PIN)

CA-0920 (2M)

9PIN

Daughter Boards

DB-8425