ICP DAS

PCIe-8622

PCI Express, 200 kS/s, 16-ch, 16-bit Simultaneously Sampled Analog Input Board with 12-ch Isolated DI

Features

- PCI Express x1 Interface, Full-profile
- 12-channel Isolated Digital Input
- 12-channel Isolated Digital Output
- 2-channel 16-bit Analog Output
- 16 Single-ended Analog Input channels
  - ☐ Synchronous Sample and Hold
  - ☐ Analog Input Range: ±10 V, ±5 V
  - ☐ 16-bit, 200 kS/s Sampling Rate for each channel
  - ☐ Hardware FIFO for Analog Input with a total of 2048 Samples
  - ☐ Built-in MagicScan Controller

Introduction

The PCIe-8622 is a bus-type, isolated high-speed AD multifunction board with 16-bit DA and isolated DI/O. The simultaneously sampled AD offers a mix of up to 16 single-ended, 16-bit Analog Input channels with a 2 k Sample hardware FIFO and 2500 V_{DC} bus-typed isolation protection. All channels feature a programmable input range of ±10 V or ±5 V with a sampling rate up to 200 kS/s per channel.

The PCIe-8622 supports the PCI Express bus and provides 12 isolated Digital Input channels, 12 isolated Digital Output channels and 2 Analog Output channels at 16-bit resolution. The board has a single high-density connector that reduces the amount of space required for installation.

Pin Assignments

Pin Assignment	Terminal		No.	Pin Assignment
Output +5 V	01		35	Output +15 V
CNT1_GATE	02		36	CNT0_GATE
CNT1_OUT	03		37	CNT0_OUT
CNT1_CLK	04		38	CNT0_CLK
DGND	05		39	DGND
DOUT11	06		40	DOUT10
DOUT9	07		41	DOUT8
DOUT7	08		42	DOUT6
DOUT5	09		43	DOUT4
DOUT3	10		44	DOUT2
DOUT1	11		45	DOUT0
DIN11	12		46	DIN10
DIN9	13		47	DIN8
DGND	14		48	DGND
DIN7	15		49	DIN6
DIN5	16		50	DIN4
DIN3	17		51	DIN2
DIN1	18		52	DIN0
N/A	19		53	N/A
AI_CONV	20		54	N/A
DTRG1	21		55	DTRG0
AGND	22		56	AGND
AGND	23		57	AGND
AO1	24		58	AO0
AGND	25		59	AGND
AGND	26		60	AGND
AI15	27		61	AI14
AI13	28		62	AI12
AI11	29		63	AI10
AI9	30		64	AI8
AI7	31		65	AI6
AI5	32		66	AI4
AI3	33		67	AI2
AI1	34		68	AI0
		CON1		

Software

Drivers

☑ 32/64-bit Windows 10/11

Sample Programs

☑ VB/VC/Delphi/VB.NET/C#.NET/VC.NET/LabVIEW/Python/MATLAB

Hardware Specifications

Analog Input	
Isolation Voltage	2500 V_{DC} (Bus-type)
Channels	16 Single-ended
Resolution	16-bit
Sampling Rate	200 kS/s (Each Channel)
Bipolar Input	±10 V, ±5 V
FIFO Size	2 k Samples (Total)
Accuracy	0.05% of FSR ±1 LSB @ 25°C, ±10 V
Analog Output	
Channels	2
Resolution	16-bit
Output Range	±5 V, ±10 V
Accuracy	±10 LSB
Digital Input	
Channels	12
Isolation Voltage	2500 V_{DC}
Digital Output	
Channels	12
Isolation Voltage	2500 V_{DC}
Timer/Counter	
Channels	2
General	
Bus Type	PCI Express x1
Card ID	Yes (4-bit)
Connectors	68-pin Female SCSI II x 1
Dimensions (W x L x D)	120 mm x 125 mm x 22 mm
Power Consumption	600 mA @ +3.3 V; 250 mA @ +12 V
Operating Temperature	0°C to +60°C
Humidity	5 to 85% RH, Non-condensing

📁 Ordering Information

PCIe-8622 CR	PCI Express, 200 kS/s, 16-ch, 16-bit Simultaneously Sampled Analog Input Board with 12-ch Isolated DI (RoHS)

📁 Accessories

	CA-SCSI15-H3 CR	68-pin SCSI-II Connector Cable, 1.5 m (RoHS)
	DN-68A CR	DIN-Rail Mountable I/O Connector Block with 68-pin Female SCSI II Connector (RoHS)