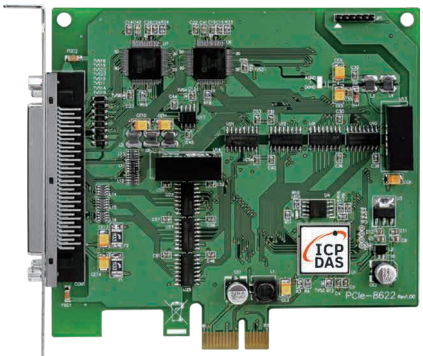


PCIe-8622

PCI Express, 200 kS/s, 16-ch, 16-bit Simultaneously Sampled AI 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
  - Built-in MagicScan Controller
  - 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

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 VDC 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.

The PCIe-8622 also includes a second-order anti-alias analog filter where the -3 dB frequency for the ±5 V input range is typically 15 kHz, and is typically 23 kHz for the ±10 V input range.

Hardware Specifications

Hardware	
Card ID	Yes (4-bit)
Connector	SCSI II 68-pin x 1
Analog Input	
Channels	16 single-ended (Simultaneously)
Range	Gain: 1, 2 Bipolar Range: ±10 V, ±5 V
Resolution	16-bit
Accuracy	0.05 % of FSR ±1 LSB @ 25 °C, ±10 V
Sampling Rate	200 kS/s
Input Impedance	10,000 MΩ/4 pF
Overvoltage Protection	Continuous ±35 Vp-p
FIFO Size	2048 samples
Trigger Mode	Software, Pacer, External
Isolation	2500 VDC (Bus-type)
Data Transfer	Polling, Interrupt, DMA
Analog Output	
Channels	2
Range	±5 V, ±10 V
Resolution	16-bit
Accuracy	±10 LSB
Voltage Output Capability	±5 mA
Slew Rate	2.8 V/μs
Operation Mode	Static update
Digital Input	
Channels	12
Type	5 V/TTL
ON Voltage Level	2.0 V Min.
OFF Voltage Level	0.8 V Max.
Response Speed	1.0 MHz (Typical)
Trigger Mode	Static Update
Data Transfer	Polling
Isolation	2500 VDC

Digital Output	
Channels	12
Type	5 V/CMOS
Operation Mode	Static Update
Load Current	Sink: 6 mA @ 0.33 V Source: 6 mA @ 4.77 V
Response Speed	1.0 MHz (Typical)
Isolation	2500 VDC
DO Readback	Yes
Timer/Counter/Frequency	
Channels	2
PC Bus	
Type	PCI Express x 1
Data Bus	32-bit
Power	
Consumption	600 mA @ +3.3 V 250 mA @ +12 V
Mechanical	
Dimensions (mm)	120 x 125 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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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

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

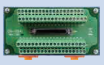
Sample Programs

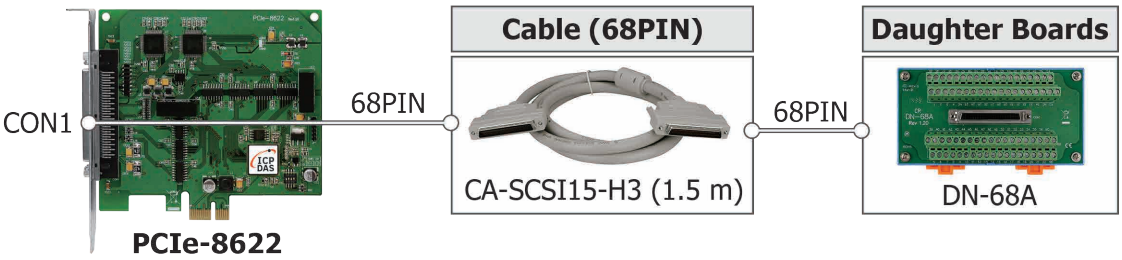
- [x] VB/VC/Delphi/VB.NET/C#.NET/VC.NET/LabVIEW/Python/MATLAB

Ordering Information

PCIe-8622 CR	PCI Express, 200 kS/s, 16-ch, 16-bit Simultaneously Sampled AI 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)



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