



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

#### 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<sub>DC</sub> bus-typed isolation protection. All channels feature a programmable input range of  $\pm 10$  V or  $\pm 5$  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	ш	37	CNT0_OUT
CNT1_CLK	04	ш	38	CNT0_CLK
DGND	05	ш	39	DGND
DOUT11	06	ш	40	DOUT10
DOUT9	07	ш	41	DOUT8
DOUT7	08	ш	42	DOUT6
DOUT5	09	ш	43	DOUT4
DOUT3	10	П	44	DOUT2
DOUT1	11	ш	45	DOUT0
DIN11	12	ш	46	DIN10
DIN9	13	ш	47	DIN8
DGND	14	ш	48	DGND
DIN7	15	ш	49	DIN6
DIN5	16		50	DIN4
DIN3	17		51	DIN2
DIN1	18	ш	52	DIN0
N/A	19		53	N/A
AI_CONV	20	ш	54	N/A
DTRG1	21	ш	55	DTRG0
AGND	22	ш	56	AGND
AGND	23	ш	57	AGND
AO1	24		58	AO0
AGND	25	ш	59	AGND
AGND	26	ш	60	AGND
AI15	27	ш	61	AI14
AI13	28		62	AI12
AI11	29	ш	63	AI10
AI9	30		64	AI8
AI7	31	ш	65	AI6
AI5	32		66	AI4
AI3	33		67	AI2
AI1	34		68	AI0
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## **A** 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











## Software

#### **Drivers**



✓ 32/64-bit Windows 10/11

## **Sample Programs**



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

# **■ Hardware Specifications**

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Analog Input		
Isolation Voltage	2500 VDC (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 VDC	
Digital Output		
Channels	12	
Isolation Voltage	2500 VDC	
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	
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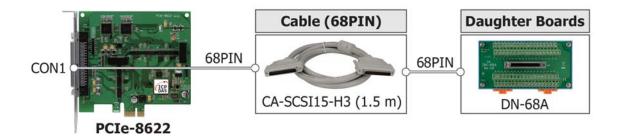
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# **■** Ordering Information

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)



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