



PCIe-8620

PCI Express, 200 kS/s, 8-ch, 16-bit Simultaneously Sampled Analog Input Board with 4-ch Isolated DIO

Introduction

The PCIe-8620 is a bus-type, isolated high-speed Analog Input board with isolated DI/O. The simultaneously sampled AD offers a mix of up to 8 singleended 16-bit Analog Input channels with a 2 k Sample hardware FIFO. 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-8620 provides 4 isolated Digital Input channels and 4 isolated Digital Output channels. The isolation range of the board has been increased to 2500 VDC, making it one of the most cost-effective solutions when considering isolated AD with DI/O boards.

PCIe-8620 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.

The PCIe-8620 is a low-profile PCI Express board that is suitable for computers with limited space, and is also suitable for standard-size computers since the board is shipped with both full-height and low-profile brackets.



Pin Assignments

Pin Assignment	Те	rminal No.		Pin Assignment
AD0	01	14	1	AGND
AD1	02	15	;	AGND
AD2	03	16		AGND
AD3	04	17		AGND
AD4	05			
AD5	06	18		AGND
AD6	07	19)	AGND
AD7	08	20)	AGND
DGND	09	21		DGND
DIN1	10	22		DIN0
DIN3	11	23	}	DIN2
DOUT1	12	24	}	DOUT0
DOUT3	13	25	5	DOUT2
			СО	N1

₱ Features

- PCI Express x1 Interface, Full-profile or Low-profile
- 4-channel Isolated Digital Input
- 4-channel Isolated Digital Output
- 8 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

= Hardware Sp	Cerrications	
Analog Input		
Isolation Voltage	2500 VDC (Bus-type)	
Channels	8 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	
Digital Input		
Channels	4	
Isolation Voltage	2500 VDC	
Digital Output		
Channels	4	
Isolation Voltage	2500 VDC	
General		
Bus Type	PCI Express x1	
Card ID	Yes (4-bit)	
Connectors	Female DB25 x 1	
Dimensions (W x L x D)	Full-profile: 120 mm x 107 mm x 22 mm Low-profile: 80 mm x 107 mm x 22 mm	
Power Consumption	500 mA @ +3.3 V; 200 mA @ +12 V	
Operating Temperature	0°C to +60°C	
Humidity	5 to 85% RH, Non-condensing	

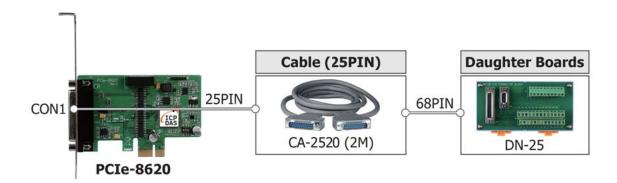
Ordering Information

PCIe-8620 CR	PCI Express, 200 kS/s, 8-ch, 16-bit Simultaneously Sampled Analog Input Board with 4-ch Isolated DIO (RoHS) Includes one CA-PC25M D-Sub Connector and One Lowprofile bracket
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Accessories

CA-2520 CR	DB25 Male/90° to Male/90° Cable, 2M (RoHS)
DN-25 CR	DIN-Rail Mountable I/O Connector Block with 25/9-pin D-sub Connector for PCIe-8620 (RoHS) Include: one CA-0920 Cable and one Ca-2520 Cable



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