

PXI-2020/2022

8/16-CH 16-Bit 250 KS/s Simultaneous Sampling DAQ Cards



PXI-2022

Features

- Supports 3.3 V and 5 V PCI signaling
- PXI specification Rev 2.2 compliant
- 8/16-CH differential analog inputs (PXI-2020/PXI-2022)
- Bipolar analog input
- Programmable gains of x1, x4
- Scatter gather DMA transfer for AI continuously data acquisition
- 4-CH TTL digital input/output
- 3U EuroCard form factor
- 2-CH 32-Bit general purpose timer/counters
- Digital triggering
- Fully auto calibration
- Multiple cards synchronization through PXI trigger bus
- Onboard 8 K-sample (16 KB) memory for data storage
- Supported Operating System
 - Windows 7/8 x64/x86, Linux
- Driver and SDK
 - LabVIEW, MATLAB, C/C++ , Visual Basic, Visual Studio.NET
- Software Utility
 - AD-Logger

Terminal Boards & Cables

- DIN-68S-01
- ACL-10568-1

* For more information on mating terminal board and cables, please refer to P3-48/49.

Accessories

- SMB-SMB-1M
- SMB-BNC-1M

Ordering Information / Quick Selection Guide

Model	Analog Input				Analog Output			DIO	Timer/Counter
	No. of channels	Resolution	Sampling rate	Input range	No. of channels	Resolution	Output range	No. of channels	No. of channels
PXI-2020	8-CH DI	16 Bit	250 kS/s	± 2.5 V to ± 10 V	-	-	-	4 DI/4 DO	2-CH, 32-Bit
PXI-2022	16-CH DI	16 Bit	250 kS/s	± 2.5 V to ± 10 V	-	-	-	4 DI/4 DO	2-CH, 32-Bit

Specifications

Model Name	PXI-2020	PXI-2022
Analog Input		
Resolution	16 Bit	
Number of Channels	8 differential channels	16 differential channels
Input Impedance	1 GΩ/pF	
Input Coupling	DC	
Bipolar Input Signal Range	± 10 V, ± 2.5 V	
Programmable gain	1, 4	
Overvoltage Protection	Power on: ±30 V continuous Power off: ±30 V continuous	
Max Sampling Rate	250 KS/s	
Data FIFO Size	8 K-sample (16 KB)	
DNL (gain =1)	±0.8 LSB	
INL (gain =1)	±1.5 LSB (typical), ±3.0 LSB (MAX)	
Offset Error (gain =1)	0.6 mV (typical)	
Gain Error (gain =1)	0.05% of input	
Data Transfer	16 differential channels	
Digital I/O		
Number of Channel	4 input/output	
Compatibility	TTL / CMOS	
Input Logic Levels	Input low voltage: 0.8 V (max) Input high voltage: 2.0 V (min)	
Output Logic Levels	Output low voltage: 0.4 V (max) Output high voltage: 2.8 V (min)	
Output Driving Capacity	±24 mA	
Power-on State	Input, pull-low with 10 KΩ resistor	
Data Transfer	Polling mode	
General Specifications		
Auto Calibration	Yes (+5 V, ±3 ppm/°C)	
Dimensions	Single 3U PXI module, 100 mm x 160 mm (not including connector)	
Connector	ACL-10568-1, 68-pin VHDCI-type female	
Operating Environment	Ambient temperature: 0°C to 55°C (32°F to 131°F) Relative humidity: 10% to 90% non-condensing	
Storage Environment	Ambient temperature: -20°C to 80°C (-4°F to 176°F) Relative humidity: 5% to 95% non-condensing	