

# PXI/DAQ/DAQe-2208

## 96-CH 12-Bit 3 MS/s Ultra High-Density Analog Input Cards



### Ordering Information / Quick Selection Guide

Model Name	Analog Input				Analog Output			DIO	Timer/Counter
	No. of channels	Resolution	Sampling rate	Input range	No. of channels	Resolution	Update rate	No. of channels	No. of channels
PXI/DAQ/DAQe-2208	48 DI/96 SE	12 Bit	3 MS/s	$\pm 0.05$ V to $\pm 10$ V	-	-	-	24-Bit 8255 PIO	-

### Specifications

Model Name	PXI/DAQ/DAQe-2208
<b>Analog Input</b>	
Resolution	12 Bit, no missing codes
Number of channels	96 single-ended or 48 differential
Channel gain queue size	1024
Maximum sampling rate	3 MS/s
Programmable gain	1, 2, 4, 5, 8, 10, 20, 40, 50, 200
Bipolar input ranges	$\pm 10$ V, $\pm 5$ V, $\pm 2.5$ V, $\pm 2$ V, $\pm 1.25$ V, $\pm 1$ V, $\pm 0.5$ V, $\pm 0.25$ V, $\pm 0.2$ V, $\pm 0.05$ V
Unipolar input ranges	0-10 V, 0-5 V, 0-4 V, 0-2.5 V, 0-1 V, 0-0.5 V, 0-0.4 V, 0-0.1 V
Offset error	$\pm 2$ mV
Gain error	$\pm 0.06\%$ of FSR
Input Coupling	DC
Overvoltage protection	Power on: Continuous $\pm 30$ V, Power off: Continuous $\pm 15$ V
Input Impedance	1 G $\Omega$ /100 pF
Trigger sources	Software, external digital/analog trigger, SSI bus
Trigger modes	Pre-trigger, post-trigger, middle-trigger, delay-trigger, and repeated trigger
FIFO buffer size	1 k samples
Data Transfers	Polling, scatter-gather DMA
<b>Digital I/O</b>	
Number of channels	24-CH 8255 programmable input/output
Compatibility	5 V/TTL
Data transfers	Programmed I/O
<b>General Specifications</b>	
Auto Calibration	Yes (+5 V, $\pm 2$ ppm/ $^{\circ}$ C)
Dimensions	160 mm x 100 mm (not including connectors) (PXI-2208) 175 mm x 107 mm (not including connectors) (DAQ-2208) 168 mm x 107 mm (not including connectors) (DAQe-2208)
Connector	68-pin VHDCI female x 2
Operating temperature	0 $^{\circ}$ C to 55 $^{\circ}$ C (32 $^{\circ}$ F to 131 $^{\circ}$ F)
Storage temperature	-20 $^{\circ}$ C to 70 $^{\circ}$ C (-4 $^{\circ}$ F to 158 $^{\circ}$ F)
Humidity	5 to 95%, non-condensing
Power requirements	+5 V 0.95 A typical (PXI/DAQ-2208) +3.3 V 0.81 A, +12 V 0.568 A typical (DAQe-2208)

### Features

- Supports a 32-Bit 3.3 V or 5 V PCI bus (DAQ-2208)
- x1 lane PCI Express<sup>®</sup> Interface (DAQe-2208)
- PXI Specification Rev. 2.2 compliant (PXI-2208)
- 96-CH single-ended or 48-CH differential analog inputs
- Onboard 1 k-sample A/D FIFO
- Bipolar or unipolar analog input ranges
- Programmable gains of x1, x2, x4, x5, x8, x10, x20, x40, x50, x200
- 1024-configuration channel gain queue
- Scatter-gather DMA for analog inputs
- 24-CH TTL digital input/output
- Analog and digital triggering
- Fully auto calibration
- Multiple cards synchronization through SSI (System Synchronization Interface) bus or PXI trigger bus
- 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
- ACL-SSI-2/3/4

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