

PXI-6304 8-Channel High-Speed ADC Module

16-bit 1 MSa/s isolated PXI acquisition module with programmable input ranges

At a Glance

PXI-6304 is an 8-channel high-speed analog-to-digital converter module for isolated PXI acquisition systems.

The module provides 16-bit resolution, 1 MSa/s sampling, channel-to-channel isolation, and parallel acquisition.

Programmable input ranges of ± 1 V, ± 2 V, ± 5 V, and ± 10 V support flexible measurement of isolated signals.



PXI-6304 8-Channel High-Speed ADC Module

Product Overview

PXI-6304 provides high-speed acquisition for eight isolated differential channels in a compact 3U PXI module.

The module is designed for systems that need simultaneous high-speed conversion, programmable input range selection, and straightforward PXI software integration.



Key Features

- **8 Isolated Channels**

Eight differential channels provide channel-to-channel isolation.

- **16-Bit, 1 MSa/s**

Parallel acquisition supports 16-bit conversion at 1 MSa/s.

- **Programmable Ranges**

Input range options include ± 1 V, ± 2 V, ± 5 V, and ± 10 V.

- **Low DC Error**

DC error is specified as less than 0.2% FSR.

- **Per-Channel Storage**

Storage depth is 1 MSa per channel.

- **PXI Driver Support**

VISA-based PNP driver support is provided for Windows and Linux.

Technical Specifications

Input and Acquisition	
Channels	8 differential channels with channel-to-channel isolation
Input Range	+/-10 V; programmable +/-1 V, +/-2 V, +/-5 V, and +/-10 V ranges
Resolution	16 bits
Sampling Rate	1 MSa/s
Acquisition Mode	Parallel acquisition
DC Error	<0.2% FSR
Storage Depth	1 MSa per channel
Input Impedance	1 Mohm
System	
Operating System	Windows 7 / Windows 8 / Windows 10 / Linux
Driver Support	VISA-based PNP driver
Form Factor	3U single-width, 4HP

Environmental Grades

Condition	Commercial C	Industrial I	Military J
Operating Temperature	0 to +50 deg C	-20 to +50 deg C	-40 to +50 deg C
Storage Temperature	-20 to +70 deg C	-40 to +70 deg C	-55 to +85 deg C
Humidity	95% @ 25 deg C, non-condensing	95% @ 25 deg C, non-condensing	95% @ 25 deg C, non-condensing

Temperature values are specified in degrees Celsius.

Ordering Information

Model	Description	Availability
Default Configuration		
PXI-6304	8-channel isolated module, 1 MSa/s, 16 bits, commercial grade	Standard
PXI-6304-I	8-channel isolated module, 1 MSa/s, 16 bits, industrial grade	Optional
PXI-6304-J	8-channel isolated module, 1 MSa/s, 16 bits, military grade	Optional
3002012	J30JA-37TJ cable, 50 cm, with wire labels	Standard

Default configuration is PXI-6304, 8-channel isolated high-speed acquisition module, commercial grade.

Ordering format is PXI-6304-X, where X selects the temperature grade: C for commercial default, I for industrial, and J for military.

Packing List

Item	Description	Quantity
8-Channel High-Speed ADC Module	8-channel isolated module, 1 MSa, 16 bits, commercial grade	1 unit
Accessory Cable	J30JA-37TJ cable, 50 cm, with wire labels	1 set
User Manual	Product use and maintenance information	1 copy
Certificate of Conformance	Factory inspection certificate	1 copy

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Specifications subject to change without notice. Per AS/NZS standards.