

PXI-6227 32-Channel Parallel Acquisition Module

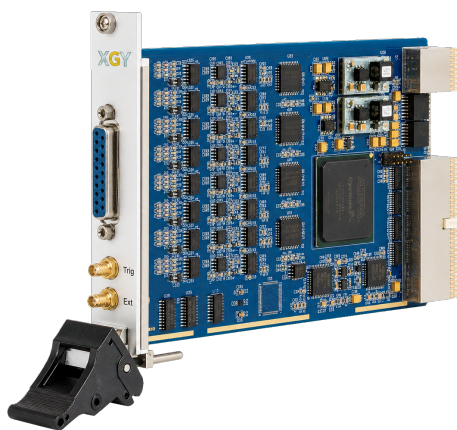
16-bit 50 kSa/s PXI module with 32 differential inputs
and selectable ranges

At a Glance

PXI-6227 is a 32-channel parallel data acquisition module for PXI-based measurement and control systems.

Each differential input channel supports 16-bit acquisition at up to 50 kSa/s with selectable ± 0.1 V, ± 1 V, and ± 10 V ranges.

The module provides selectable AC/DC coupling, 1 Mohm input impedance, onboard buffering, and VISA-based software driver support.



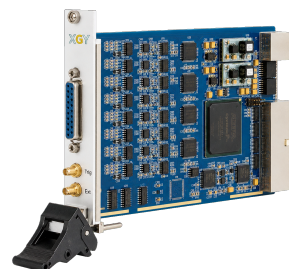
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PXI-6227 32-Channel Parallel Acquisition Module

Product Overview

PXI-6227 provides synchronized parallel acquisition across 32 differential analog input channels in a compact 3U PXI module.

The design supports low-level and general-purpose voltage measurement with configurable input ranges, selectable coupling, and common-mode protection.



Key Features

- **32 Differential Inputs**

Parallel acquisition supports 32 differential voltage input channels.

- **16-Bit, 50 kSa/s**

Each channel supports 16-bit sampling at up to 50 kSa/s.

- **Selectable Ranges**

Input ranges include ± 0.1 V, ± 1 V, and ± 10 V.

- **AC/DC Coupling**

DC or AC coupling can be selected when the hardware option is configured.

- **Common-Mode Protection**

The module operates with ± 10 V common-mode voltage and tolerates ± 20 V without damage.

- **Buffered PXI Design**

Onboard buffering provides 4 MSa storage per channel in a 3U single-width module.

Technical Specifications

Input and Acquisition	
Channels	32 channels
Acquisition Mode	Parallel acquisition
Signal Input	Differential
Sampling Rate	50 kSa/s per channel
Resolution	16 bits
Input Impedance	1 Mohm
Coupling	DC or AC, hardware option
Input Range	+/-0.1 V, +/-1 V, +/-10 V
Accuracy and Protection	
DC Accuracy	$\leq 0.03\%$ FSR for 1 V ranges and above; $\leq 0.1\%$ FSR for 100 mV range
AC Accuracy	$\leq 0.15\%$ FSR at $f < 1$ kHz for 1 V ranges and above; $\leq 0.35\%$ FSR at $f < 1$ kHz for 100 mV range
Bandwidth	20 kHz (-3 dB)
Common-Mode Voltage	+/-10 V normal operation; +/-20 V without damage
Onboard Buffer	4 MSa per channel
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-6227	32 channels, 50 kSa/s, 16 bits, commercial grade	Standard
PXI-6227-I	32 channels, 50 kSa/s, 16 bits, industrial grade	Optional
PXI-6227-J	32 channels, 50 kSa/s, 16 bits, military grade	Optional
3002029	SCSI68 pin-to-pin adapter cable with large-to-small metal connector, 1 m length	Standard

Default configuration is PXI-6227, 32-channel parallel acquisition module, commercial grade.

Ordering format is PXI-6227-X, where X selects the temperature grade: C for commercial default, I for industrial, and J for military.

Packing List

Item	Description	Quantity
32-Channel Parallel Acquisition Module	32 channels, 50 kSa/s, 16 bits, commercial grade	1 unit
Accessory Cable	SCSI68 pin-to-pin adapter cable with large-to-small metal connector, 1 m length	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.