

PXI-5412X 2-Channel Arbitrary Waveform Generator Module

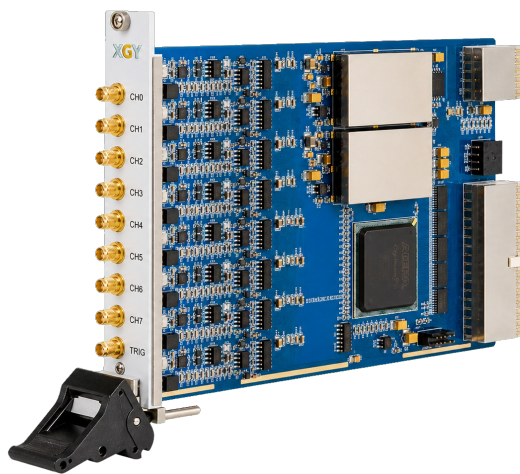
12-bit 50 MSa/s CPCI/PXI arbitrary waveform output module with 64 kSa per channel memory

At a Glance

PXI-5412X is a 2-channel arbitrary waveform generator module for 3U CPCI/PXI signal generation systems.

The module supports sine, triangle, square, pulse, ramp, and arbitrary waveform sequence output.

Each channel supports 12-bit resolution, up to 50 MSa/CH conversion rate, 64 kSa/CH waveform memory, and +/-5 V output amplitude.

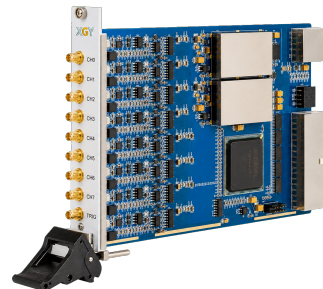


PXI-5412X 2-Channel Arbitrary Waveform Generator Module

Product Overview

PXI-5412X provides two arbitrary waveform output channels in a compact 3U CPCI/PXI module.

The module is designed for automated test and signal-simulation systems that require triggered waveform generation, external clock support, and configurable waveform sequences.



Key Features

- **Two Output Channels**

Two analog output channels support arbitrary waveform generation in PXI/CPCI systems.

- **12-Bit, 50 MSa/CH**

The output engine provides 12-bit resolution and up to 50 MSa/CH conversion rate.

- **64 kSa/CH Memory**

Waveform memory supports storage lengths up to 64 kSa per channel.

- **Flexible Waveforms**

Sine, triangle, square, pulse, ramp, and arbitrary waveform sequence output are supported.

- **Trigger and Clock Support**

Software trigger, PXI trigger, and 10 MHz to 50 MHz external clock operation are supported.

- **PXI Integration**

The 3U single-width 4HP form factor supports chassis-based test-system integration.

Technical Specifications

Signal Output	
Channel Count	2 channels
Resolution	12 bits
Conversion Rate	50 MSa/CH
Waveform Memory	64 kSa/CH
Waveform Types	Sine, triangle, square, pulse, ramp
Output Amplitude	+/-5 V
Output Impedance	50 ohm
Timing and Accuracy	
Repeat Count	1 to 65535 times or continuous
Trigger Mode	Software trigger, PXI trigger
DC Accuracy	+/-0.8% x setting value +/-1 mV
AC Accuracy	+/-1.0% x setting value x 0.707 +/-5 mVrms @ f <= 300 kHz
Output Frequency	Sine: 5 MHz; triangle/square/ramp: 1 MHz; pulse: 10 kHz
External Clock	10 MHz to 50 MHz
System	
Connector	SMA x 4: 2 analog outputs, 1 external reference clock, 1 external trigger
Operating System	Windows XP / Windows 7 / 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-5412	2 channels; 50 MSa/s; 12 bits; +/-5 V; commercial grade	Standard
PXI-5412B	2 channels; 50 MSa/s; 12 bits; +/-5 V; commercial grade	Optional
PXI-5412-1	1 channel; 50 MSa/s; 12 bits; +/-5 V; commercial grade	Optional
PXI-5412X-I	2 channels; 50 MSa/s; 12 bits; +/-5 V; industrial grade	Optional
PXI-5412X-J	2 channels; 50 MSa/s; 12 bits; +/-5 V; military grade	Optional
3002018	BNC male to SMA male coaxial Q9 adapter extension cable; for PXI-5412B	Optional
3002015	SMB to Q9(BNC) cable, 1 m length; for PXI-5412	Standard

Default configuration is PXI-5412, 2 channels, 50 MSa/s, 12 bits, +/-5 V, commercial grade.

Ordering format is PXI-5412X-XX. Temperature grade selects C commercial, I industrial, or J military; channel count selects 1 or 2 channels; B selects the expansion option.

Packing List

Item	Description	Quantity
2-Channel AWG Module	2 channels; 50 MSa/s; 12 bits; +/-5 V; commercial grade	1 unit
Accessory Cable	SMB to Q9(BNC) cable, 1 m length	4 sets
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.