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Find the *National Instruments PXI-6733* at our website: *Click HERE*

Technical Sales
United States
(866) 531-6285
info@ni.com

NI PXI-6733

High-Speed Analog Output -- 1 MS/s, 16-Bit, 8 Channels

- 8 high-speed digital I/O lines; two 24-bit counters; digital triggering
- Onboard or external update clock
- PXI trigger bus for synchronization with DAQ, motion, and vision products
- NI-DAQmx driver with configuration utility to simplify configuration and measurements
- Superior integration: LabVIEW, LabVIEW Real-Time, LabWindows™/CVI, and Measurement Studio for VB



Overview

The NI PXI-6733 module delivers high-performance, reliable, high-speed analog outputs to meet a wide range of application requirements. It provides eight analog output channels at 1 MS/s per channel, 16-bit resolution, and digital triggering. It uses the PXI trigger bus to synchronize with additional data acquisition, motion, and vision products, so you can create custom measurement solutions to test innovative designs. The PXI-6733 is ideal for applications such as stimulus-response tests, including acoustic distortion testing and open-loop simulation such as three-phase power simulation.

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Specifications

Specifications Documents

- Specifications
- Data Sheet

Specifications Summary

General

Product Family	Multifunction DAQ
Measurement Type	Voltage
Form Factor	PXI / PXI Express
PXI Bus Type	PXI Hybrid Compatible
Operating System / Target	Linux Mac OS Real-Time Windows

Module Width The number of slots that a module takes up in a PXI chassis.	1
RoHS Compliant	Yes
Analog Input	
Single-Ended Channels	0
Differential Channels	0
Analog Output	
Number of Channels	8
Resolution	16 bits
Maximum Voltage Range	
Range	-10 V - 10 V
Accuracy	2.24 mV
Minimum Voltage Range	
Range	-10 V - 10 V
Accuracy	2.24 mV
Update Rate	1 MS / s
Current Drive Single	5 mA
Current Drive All	40 mA
Digital I / O	
Bidirectional Channels	8
Input-Only Channels	0
Output-Only Channels	0
Timing	Hardware
Maximum Clock Rate	10 MHz
Logic Levels	TTL
Programmable Input Filters	No
Supports Programmable Power-Up States?	No
Digital Input	
Input Type	Sinking Sourcing
Maximum Voltage Range	0 V - 5 V
Digital Output	
Output Type	Sinking

Current Flow

Sourcing

A sinking device provides a path for the current to ground and is not responsible for powering the device. Terms used to describe sinking devices include NPN, Open Collector, Normally High, and IEC Negative Logic.

A sourcing device provides the power or a positive potential. Sourcing devices "push" the current through the load. Terms used to describe sourcing devices include PNP, Open Emitter, Normally Low, and IEC Positive Logic.

Relays are classified by their number of poles and number of throws. The pole of a relay is the terminal common to every path. Each position that the pole can connect to is called a throw. A relay can be made of n poles and m throws. For example, a single-pole single-throw relay (SPST) has one pole and one throw.

- Form A relays are SPST with a default state of normally open.=
- Form B relays are SPST with a default state of normally closed.
- Form C relays are SPDT and break the connection with one throw before making contact with the other (break-before-make)..

Current Drive Single	24 mA
Current Drive All	192 mA
Maximum Voltage Range	0 V - 5 V
Counters / Timers	
Watchdog Timer	No

Digital I/O Watchdogs

NI digital I/O watchdogs are an innovative technology that provides protection against a wide variety of fault conditions:

- Computer crash - total OS crash
- Application crash - software application ceases to respond
- Driver crash - device driver ceases to respond
- PCI bus failure - communications cease to respond

With watchdogs, the digital outputs go to a safe state when a fault condition is detected and the watchdog timer expires for safe recovery. Watchdogs are important whenever the module is connected to actuators such as pumps, valves, motors, and relays. The digital I/O module monitors the software application and, if it fails to respond within the time limit, automatically sets the output lines to a user-defined safe state. The module remains in the watchdog state until the watchdog timer is disarmed by the application and new I/O values are written, the device is reset, or the computer is restarted.

Counters	2
Number of DMA Channels	1

Buffered Operations and DMA

The National Instruments counter/timers can capture numerous data points without dead times. These types of measurements, called buffered operations, are valuable in applications that range from statistical analysis on production lines to experiments in molecular chemistry. For instance, when you configure a counter

for buffered period measurement, data is moved from the counter into a buffer.

Each edge that initiates a measurement also causes a transfer of the count into the buffer. With buffered operations, data is transferred to the computer memory using DMA or interrupts. DMA offers a considerable performance advantage; if your application requires this performance simultaneously on multiple counter/timers, you must know how many DMA channels are available on a particular counter/timer device. For example, if a device contains three DMA channels and eight counter/timers, you can simultaneously perform three high-speed and five lower-speed, interrupt-based, buffered operations.

Buffered Operations	Yes
Debouncing / Glitch Removal	No
Max Source Frequency	20 MHz
Pulse Generation	Yes
Size	24 bits
Timebase Stability	100 ppm
Logic Levels	TTL
Timing / Triggering / Synchronization	
Triggering	Digital
Physical Specifications	
Length	16 cm
Width	10 cm
I / O Connector	68-pin male SCSI-II type

Pricing

NI PXI-6733 Packages

To use the NI PXI-6733 , you need all items in the diagram below. Select Option 1 if you already own a PXI System, or Option 2 if you do not already own a chassis, controller, or software.

Roll over the icons below to learn why you need each item in the system

PXI System

1 Connector Block 1 Cable **NI PXI-6733** Chassis Controller Software

NI PXI-6733 and Accessories Only

- Option 1: **NI PXI-6733 and Accessories Only**
- Option 2: **PXI System**

NI PXI-6733 - 778512-01 Qty $ 2,335 each

Required Accessories

Connector Block - Screw Terminal SCB-68A - 782536-01	Qty	$ 327 each
Cable - Shielded SH68-68-EP Cable (2m) - 184749-02 Select length: 1m 2m 5m 10m	Qty	$ 137 each

Change Accessories
Learn about all compatible accessories and get recommendations based on your application needs.

Optional Accessories

Estimated Shipping Days: 5 - 10

Package Price: $ 2,799

Add to Cart >>

Guarantee your price for 30 days (learn more)

Instant Quote

Save for Later

Get Started with PXI

Choose from hundreds of specialized instruments to create a PXI System that suits your measurement needs and can scale for future applications. Then, well help you choose the right hardware and software to complete your configuration.

Add More Measurements and I/O Modules

Use the PXI Advisor to choose from a variety of modules including analog I/O, digital I/O, switching and more. Then, complete and price the PXI System.

Add Modules

Preview a Complete System

View and price a complete PXI configuration including the PXI System, chassis, and controller. Starting from the default configuration, you can add modules, accessories, and software and customize your system.

View and Price a Configured System

Services

System Assurance Programs

Reduce your setup time and total cost of ownership, and get a system you can use out of the box with National Instruments system assurance programs. System assurance programs include:

- Installation and integration test of all individual hardware
- Courtesy installation of system driver sets and application development environments
- Extended warranty and calibration coverage for up to five years
- Custom documentation plus a custom restore and startup utility

This service is only available for PXI, NI CompactRIO, and NI Compact FieldPoint systems.

- Learn More about System Configuration and Deployment Services [http://www.ni.com/services/configuration.htm]
- Customize Your CompactRIO System [http://ohm.ni.com/advisors/crio]

- Customize Your Compact FieldPoint System [http://ohm.ni.com/advisors/cfp]
- Customize Your PXI System [http://ohm.ni.com/advisors/pxi]
- Talk to an Expert about Custom System Configurations [javascript:openCallMeWindowCTA(document.referrer,%20'US')]

Extended Warranties

National Instruments designs and manufactures all products to minimize failures, however unexpected failures can still occur. Extended warranties provide a fixed economical price at the time of system purchase, covering any repair costs for up to three years. In addition, they offer the following benefits:

- Significant cost savings compared to individual repair incidents
- Fault location, diagnostics, and repair by NI any time the system product fails
- All parts and labor costs covered as well as any adjustments needed to restore the hardware to manufacturing specifications

For more information about your warranty options:

- Learn More about Warranty Services [http://www.ni.com/services/warranty.htm]
- Talk to an Expert about Extended Warranties [javascript:openCallMeWindowCTA(document.referrer,%20'US')]
- View Warranty Repair Policies [http://www.ni.com/services/warranty_repair_policies.htm]

Calibration

NI recognizes the need to maintain properly calibrated devices for high-accuracy measurements. NI provides manual calibration procedures, services to recalibrate your products, and automated calibration software to calibrate many NI measurement products.

- Learn More about Calibration Services [http://www.ni.com/services/calibration.htm]

Training

NI training is the fastest, most certain route to productivity with NI tools and successful application development.

- Learn More about NI Training and Certification [http://www.ni.com/training/]
- Find a Course Near You and View Schedules [http://sine.ni.com/tacs/app/fp/p/ap/ov/pg/1/]

Repair Services

Return your registered product under warranty at no additional labor and parts cost. NI offers fault location, diagnostics, and repair any time the system fails as well as any adjustments needed to restore the hardware to manufacturing specifications.

- Learn More about Repair Services [http://www.ni.com/services/warranty.htm]
- Contact NI to Obtain a Return Material Authorization (RMA) Form and Shipping Instructions [http://sine.ni.com/apps/utf8/nicc.call_me]
- View Your RMA Support Request Status Online [http://www.ni.com/support/servicereq/]
- Register Your Product [http://www.ni.com/register]

Technical Support

ni.com/support [http://www.ni.com/support/]

Resources

Additional Product Information

- Dimensional Drawings
- Product Certifications

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