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## NI PCI-6013

### Low-Cost 200 kS/s, 16-Bit, 16-Analog-Input Multifunction DAQ

- Consider M Series for 16-bit resolution, 250 kS/s, and similar costs with the PCI-6220.
- Basic functionality for simple applications or OEM products
- 8 digital I/O lines, two 24-bit counters, digital triggering
- LabVIEW, LabWindows/CVI, and Measurement Studio for Visual Basic and Visual Studio .NET integration
- FREE award-winning global services and support at ni.com/support
- NI-DAQmx measurement services software to simplify configuration and measurements



## Overview

National Instruments recommends M Series DAQ and NI-DAQmx driver software for new applications. Quadruple your resolution; increase sampling speed; and improve accuracy with the 16-bit, 250 kS/s PCI-6220.

Providing guaranteed measurement accuracy at a low price, NI B Series multifunction DAQ boards are ideal for a wide variety of OEM products or simple applications in laboratory automation, research, design verification/test, and manufacturing test. The National Instruments PCI-6013 can sustain digital and counter/timer I/O operations together with analog input operations. Consider the NI PCI-6014 for applications needing analog output. Using NI hardware, you have flexible OS, application development environment, and application software choices.

## Specifications

### Specifications Documents

- Specifications
- Data Sheet

### Specifications Summary

#### General

Product Name	PCI-6013
Product Family	Multifunction Data Acquisition
Form Factor	PCI
Part Number	778629-01
Operating System/Target	Real-Time , Linux , Mac OS , Windows
LabVIEW RT Support	Yes

<b>DAQ Product Family</b>	B Series
<b>RoHS Compliant</b>	No
<b>Analog Input</b>	
<b>Channels</b>	16 , 8
<b>Single-Ended Channels</b>	16
<b>Differential Channels</b>	8
<b>Resolution</b>	16 bits
<b>Sample Rate</b>	200 kS/s
<b>Max Voltage</b>	10 V
<b>Maximum Voltage Range</b>	-10 V , 10 V
<b>Maximum Voltage Range Accuracy</b>	8.984 mV
<b>Minimum Voltage Range</b>	-50 mV , 50 mV
<b>Minimum Voltage Range Accuracy</b>	0.069 mV
<b>Number of Ranges</b>	4
<b>Simultaneous Sampling</b>	No
<b>On-Board Memory</b>	512 samples
<b>Analog Output</b>	
<b>Channels</b>	0
<b>Max Voltage</b>	10 V
<b>Maximum Voltage Range</b>	-10 V , 10 V
<b>Maximum Voltage Range Accuracy</b>	5827 $\mu$ V
<b>Minimum Voltage Range</b>	-10 V , 10 V
<b>Minimum Voltage Range Accuracy</b>	5827 $\mu$ V
<b>Current Drive Single</b>	5 mA
<b>Digital I/O</b>	
<b>Bidirectional Channels</b>	8
<b>Input-Only Channels</b>	0
<b>Output-Only Channels</b>	0
<b>Number of Channels</b>	0 , 8
<b>Timing</b>	Software
<b>Logic Levels</b>	TTL

<b>Input Current Flow</b>	Sinking , Sourcing
<b>Output Current Flow</b>	Sinking , Sourcing
<b>Programmable Input Filters</b>	No
<b>Supports Programmable Power-Up States?</b>	No
<b>Current Drive Single</b>	24 mA
<b>Current Drive All</b>	192 mA
<b>Watchdog Timer</b>	No
<b>Supports Handshaking I/O?</b>	No
<b>Supports Pattern I/O?</b>	No
<b>Maximum Input Range</b>	0 V , 5 V
<b>Maximum Output Range</b>	0 V , 5 V
<b>Counter/Timers</b>	
<b>Counters</b>	2
<b>Number of DMA Channels</b>	1
<b>Buffered Operations</b>	Yes
<b>Debouncing/Glitch Removal</b>	No
<b>GPS Synchronization</b>	No
<b>Maximum Range</b>	0 V , 5 V
<b>Max Source Frequency</b>	20 MHz
<b>Pulse Generation</b>	Yes
<b>Resolution</b>	24 bits
<b>Timebase Stability</b>	100 ppm
<b>Logic Levels</b>	TTL
<b>Physical Specifications</b>	
<b>Length</b>	16.2 cm
<b>Width</b>	9.2 cm
<b>I/O Connector</b>	68-pin male SCSI-II type
<b>Timing/Triggering/Synchronization</b>	
<b>Triggering</b>	Digital
<b>Synchronization Bus (RTSI)</b>	No

## Pricing

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### NI PCI-6013 Complete Package

Each NI PCI-6013 requires:

1 Connector Block	1 Cable	<b>NI PCI-6013</b>	Software
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Roll over icons above to learn why you need each item in the package.

### NI PCI-6013 and Accessories

Hardware Subtotal: \$ 1,027

<b>NI PCI-6013</b> - 778629-01	Qty	\$ 579 each
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#### Required Accessories

<b>Connector Block - Screw Terminal</b> SCB-68 - 776844-01	Qty	\$ 319 each
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<b>Cable - Shielded</b> SH68-68-EP Cable (2m) - 184749-02 Select length: 1m 2m 5m 10m	Qty	\$ 129 each
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Change Accessories

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

[Optional Accessories Show](#)

### Software

Software Subtotal: \$ 0

**Note :** You should only purchase this device without software if you already own compatible application software.

<b>LabVIEW Full Development System for Windows</b> (English) , 1 year SSP - 776670-35	Qty	\$ 2,699 each
<b>LabVIEW Application Builder for Windows</b> - 776675-35	Qty	\$ 999 each

Estimated Shipping Days: 1 - 3

**Package Price: \$ 1,027**

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Since your device does not have direct signal connectivity, you need a connector block to act as an interface between your sensors/signals and your device. A connector block provides easy access to the inputs and outputs of your hardware. You need a cable to transmit signals between your device and your signal connections on your connector block. You need software to interface with your hardware and to collect, analyze, present, and store your measurements. This board is compatible with a variety of programming languages, including LabVIEW, C/C++, Visual Basic, and .NET. LabVIEW provides the easiest integration with all of your NI hardware and is recommended to maximize your hardware investment. You have selected **United States** as the country where you will use the product(s) (change).

## Services

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### 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\(document.referrer,%20'US'\)](javascript:openCallMeWindowCTA(document.referrer,%20'US'))]
- View Warranty Repair Policies [[http://www.ni.com/services/warranty\\_repair\\_policies.htm](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/apps/utf8/nisv.custed>]

### 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](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) [<http://www.ni.com/support/>]

## Resources

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### Additional Product Information

- Manuals (6)
- Product Certifications

## Related Information

- [PCI-6220 -- 16-Bit, 250 kS/s for More Performance, I/O, and Value](#)
- [Learn about NI-DAQmx and Other Driver Software Options](#)
- [Measure Sensors and High Voltages with NI Signal Conditioning](#)
- [Upgrade to S Series with Simultaneous Sampling](#)
- [View OEM Pricing and the OEM Elite Program](#)
- [Learn about Academic Pricing and Product Kits](#)

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