



Technical Sales
United States
(866) 531-6285
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NI USB-6008

12-Bit, 10 kS/s Low-Cost Multifunction DAQ

- 8 analog inputs (12-bit, 10 kS/s)
- 2 analog outputs (12-bit, 150 S/s); 12 digital I/O; 32-bit counter
- Bus-powered for high mobility; built-in signal connectivity
- OEM version available
- Compatible with LabVIEW, LabWindows/CVI, and Measurement Studio for Visual Studio .NET
- NI-DAQmx driver software and NI LabVIEW SignalExpress LE interactive data-logging software



Overview

The National Instruments USB-6008 provides basic data acquisition functionality for applications such as simple data logging, portable measurements, and academic lab experiments. It is affordable for student use, but powerful enough for more sophisticated measurement applications. Use the NI USB-6008 with the included ready-to-run data logger software to begin taking basic measurements in minutes, or program it using LabVIEW or C and the included NI-DAQmx Base measurement services software for a custom measurement system.

To supplement simulation, measurement, and automation theory courses with practical experiments, NI developed a USB-6008 Student Kit that includes a copy of the LabVIEW Student Edition. These kits are exclusively for students, giving them a powerful, low-cost, hands-on learning tool. Visit the NI academic products page for more details.

For faster sampling, more accurate measurements, and higher channel count, consider the NI USB-6210 and NI USB-6211 high-performance USB data acquisition devices.

Every USB data acquisition module includes a copy of NI LabVIEW SignalExpress LE so you can quickly acquire, analyze and present data without programming. In addition to LabVIEW SignalExpress, USB data acquisition devices are compatible with the following versions (or later) of NI application software – LabVIEW 7.x, LabWindows™/CVI 7.x, or Measurement Studio 7.x. USB data acquisition modules are also compatible with Visual Studio .NET, C/C++, and Visual Basic 6.

Specifications

Specifications Documents

- Detailed Specifications (2)
- Data Sheet

Specifications Summary

General

Form Factor

USB

OS Support	Windows, Linux, Mac OS, Pocket PC
Measurement Type	Voltage
DAQ Product Family	B Series
Analog Input	
Number of Channels	8 SE/4 DI
Sample Rate	10 kS/s
Resolution	12 bits
Simultaneous Sampling	No
Maximum Voltage Range	-10..10 V
Range Accuracy	138 mV
Minimum Voltage Range	-1..1 V
Range Accuracy	37.5 mV
Number of Ranges	8
On-Board Memory	512 B
Analog Output	
Number of Channels	2
Update Rate	150 S/s
Resolution	12 bits
Maximum Voltage Range	0..5 V
Range Accuracy	7 mV
Minimum Voltage Range	0..5 V
Range Accuracy	7 mV
Current Drive (Channel/Total)	5 mA/10 mA
Digital I/O	
Number of Channels	12 DIO
Timing	Software
Logic Levels	TTL
Maximum Input Range	0..5 V
Maximum Output Range	0..5 V
Input Current Flow	Sinking, Sourcing
Programmable Input Filters	No

Output Current Flow	Sinking, Sourcing
Current Drive (Channel/Total)	8.5 mA/102 mA
Watchdog Timer	No
Supports Programmable Power-Up States?	No
Supports Handshaking I/O?	No
Supports Pattern I/O?	No
Counter/Timers	
Number of Counter/Timers	1
Resolution	32 bits
Maximum Source Frequency	5 MHz
Minimum Input Pulse Width	100 ns
Logic Levels	TTL
Maximum Range	0..5 V
Timebase Stability	50 ppm
GPS Synchronization	No
Pulse Generation	No
Buffered Operations	Yes
Debouncing/Glitch Removal	No
Timing/Triggering/Synchronization	
Synchronization Bus (RTSI)	No
Triggering	Digital
Physical Specifications	
Length	8.51 cm
Width	8.18 cm
Height	2.31 cm
I/O Connector	Screw terminals

Pricing

Step 1: Verify Device and Quantity Selection

Part Number	Description	Est Ship Days	US Dollars*	Qty
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779051-01	NI USB-6008	1 - 2	\$ 169.00	1
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Step 2: Select Optional Accessories

Part Number	Description	Est Ship Days	US Dollars*	Qty
Other				
779371-01	USB-6008/09 Accessory Kit	5 - 10	\$ 29.00	0
779511-01	USB-6000 Series Prototyping Accessory	5 - 10	\$ 29.00	0
777550-01	USB/PCMCIA Strain Relief Kit for laptops	5 - 10	\$ 49.00	0
779489-01	DAQ 7 Steps Tutorial	5 - 10	\$ 95.00	0

* You have selected the United States as the country where you will use the product(s). Pricing may have changed since you printed this document on 05/11/2009. Please visit ni.com to see current pricing.

Step 3: Place Order or Obtain Quote

Order Online or by Fax

- 1 . Navigate to ni.com/products and select "Order by Part Number" found under the "Business Center" section.
- 2 . Once you have added your items to your cart, see the "Your Cart Options" section to place your order, obtain a quote, or print a fax form.

Order by Phone

Call (866) 531-6285 to place your order or obtain a quote.

Software

Application Need

Data acquisition, analysis, and user interface customization	Data logging
Automated test and test sequencing	Industrial monitoring and control

Graphical Programming

Select any of the following software products

Part Number	Description	Est Ship Days	US Dollars*	Qty
LabVIEW Software				
776670-09	NI LabVIEW Full Development System for Windows (English)	1 - 2	\$ 2,599.00	0
777756-09	NI LabVIEW Full Development System for Linux	5 - 10	\$ 2,599.00	0
776675-01	LabVIEW Application Builder for Windows (English)	5 - 10	\$ 999.00	0

777755-03	NI LabVIEW Application Builder for Linux	5 - 10	\$ 999.00	0
778406-03	NI LabVIEW Report Generation Toolkit for Microsoft Office	5 - 10	\$ 529.00	0

Specialty Software

778807-09	DIAdem Advanced Edition (English)	5 - 10	\$ 2,399.00	0
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Text-Based Programming

Select any of the following software products

Part Number	Description	Est Ship Days	US Dollars*	Qty
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Application Software

776800-09	LabWindows/CVI Full Development System for Windows	5 - 10	\$ 2,599.00	0
778801-09	NI Measurement Studio Professional Edition for Microsoft Visual Studio	5 - 10	\$ 1,249.00	0
779384-03	NI LabWindows/CVI Run-Time Module for Linux	5 - 10	\$ 1,049.00	0

Specialty Software

778807-09	DIAdem Advanced Edition (English)	5 - 10	\$ 2,399.00	0
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 Other compatible software: ANSI C/C++, C#, Visual Basic .NET

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Driver Software

- View Drivers and Updates
- Search All Drivers

Place Order or Obtain Quote

Order Online or by Fax

1. Navigate to ni.com/products and select "Order by Part Number" found under the "Business Center" section.
2. Once you have added your items to your cart, see the "Your Cart Options" section to place your order, obtain a quote, or print a fax form.

Order by Phone

Call (866) 531-6285 to place your order or obtain a quote.

Services

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]

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]
- 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

Additional Product Information

- Manuals (5)
- Dimensional Drawings (1)
- Product Certifications (1)

Related Information

- NI USB Data Acquisition for OEM
- Download NI Data Acquisition Drivers
- NI LabVIEW SignalExpress Interactive Data-Logging Software