NI cDAQ-9174

NI CompactDAQ 4-Slot USB Chassis

- Choose from more than 50 hot-swappable I/O modules with integrated signal conditioning
- Four general-purpose 32-bit counter/timers built into chassis (access through digital module)
- Run up to seven hardware-timed analog I/O, digital I/O, or counter/timer operations simultaneously
- Stream continuous waveform measurements with patented NI Signal Streaming technology
- Windows 7 OS support
- Measure in minutes with NI-DAQmx software and automatic code generation using the DAQ Assistant

Overview

The NI cDAQ-9174 is a 4-slot NI CompactDAQ USB chassis designed for small, portable, mixed-measurement test systems. Combine the cDAQ-9174 with up to four NI C Series I/O modules for a custom analog input, analog output, digital I/O, and counter/timer measurement system.

Modules are available for a variety of sensor measurements including thermocouples, RTDs, strain gages, load and pressure transducers, torque cells, accelerometers, flow meters, and microphones. NI CompactDAQ systems combine sensor measurements with voltage, current, and digital signals to create custom, mixed-measurement systems with a single, simple USB cable back to the PC, laptop, or netbook.

The cDAQ-9174 has four 32-bit general-purpose counter/timers built in. You can access these counters through an installed, hardware-timed digital NI C Series module such as the NI 9401 or NI 9402 for applications that involve quadrature encoders, PWM, event counting, pulse train generation, and period or frequency measurement.

The cDAQ-9174 chassis is shipped with the following:

- AC/DC converter that plugs directly into the chassis

- USB cable with a thumbscrew lock for strain relief

Power cord sold separately.

NI-DAQmx driver software is shipped with every chassis and includes the following:

- LabVIEW SignalExpress LE for simple data-logging applications

- API for LabVIEW, ANSI C/C++, C#, and Visual Basic .NET

- DAQ Assistant code generation for NI LabVIEW, LabWindows™/CVI, and Measurement Studio

- Example programs for all supported languages

- NI Measurement & Automation Explorer (MAX) for system configuration and test

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Specifications

Specifications Documents
- Specifications
- Data Sheet

Specifications Summary

General	
Product Name	cDAQ-9174
Form Factor	CompactDAQ
Part Number	781157-01
Operating System/Target	Windows
LabVIEW RT Support	No
Operating Relative Humidity	10 percent , 90 percent
Chassis	
Number of Slots	4
Total Available Power	15 W
Input Voltage Range	9 V , 30 V
Built-In Trigger	No
Counter/Timers	
Counters	4
Resolution	32 bits
Bus Interface	
USB Specification	USB 2.0 Hi-Speed
High-Performance Data Streams	7
Types Available	Digital Output , Analog Input , Analog Output , Counter/Timer Input , Digital Input
Shock and Vibration	
Operational Shock	30 g
Random Operating Frequency Range	5 Hz , 500 Hz
Random Vibration	0.3 g
Physical Specifications	

Length	15.9 cm
Width	8.81 cm
Height	5.89 cm
Weight	574 gram
Minimum Operating Temperature	-20 °C
Maximum Operating Temperature	55 °C
Maximum Altitude	2000 m

Pricing

Part Number	Description	Est Ship	US Dollars*	Qty
NI CompactDAQ Chassis				
781157-01	cDAQ-9174, CompactDAQ chassis (4 slot USB)	--	For prices, Select Country	
781156-01	cDAQ-9178, CompactDAQ chassis (8 slot USB)	--	For prices, Select Country	
Common Starter Accessories				
763000-01	Power Cord, AC, U.S., 120 VAC, 2.3 meters	--	For prices, Select Country	
763068-01	Power Cord, 240V, 10A, North American	--	For prices, Select Country	
779473-01	NI 9901 Desktop Mounting Kit	--	For prices, Select Country	
196917-01	NI 9977 C Series Filler Module for Empty Slot	--	For prices, Select Country	
777550-01	USB/PCMCIA Cable Strain Relief for Laptop	--	For prices, Select Country	
780315-01	Rugged Carrying Case for Portable Instrumentation	--	For prices, Select Country	
781233-01	EMI Suppression Ferrite, 7.0mm	--	For prices, Select Country	
780702-01	2-Position Screw Terminal Kit for Power Supply Connection, Qty 4	--	For prices, Select Country	

* 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 02/22/2011. Please visit *ni.com* to see current pricing.

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')]
- 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/]

Resources

Additional Product Information

- Manuals (4)
- Dimensional Drawings
- Product Certifications