

Portable E Series Multifunction DAQ

12 or 16-Bit, up to 1.25 MS/s, 16 Analog Inputs

NI E Series – Portable

- 16 analog inputs at up to 1.25 MS/s, 12 or 16-bit resolution
- Up to 2 analog outputs at up to 1 MS/s, 12 or 16-bit resolution
- 8 digital I/O lines (TTL/CMOS); two 24-bit counter/timers
- Analog and digital triggering
- 4 analog input signal ranges
- NI measurement services software that simplifies configuration and measurements

Operating Systems

- Windows 2000/NT/XP
- Others such as Pocket PC (DAQCard devices only)¹

Recommended Software

- LabVIEW
- LabWindows/CVI
- Measurement Studio
- VI Logger

Other Compatible Software

- Visual Basic, C/C++, and C#

Measurement Services Software (included)

- NI-DAQmx driver software
- VI Logger Lite data-logging software



¹ Visit ni.com/labviewpda.

Products	Bus	Analog Inputs	Input Resolution (bits)	Max Sampling Rate (S/s)	Input Range (V)	Analog Outputs	Output Resolution (bits)	Output Rate (S/s)	Output Range (V)	Digital I/O	Counter/ Timers	Triggers	Measurement Services Software ¹
DAQCard-6036E	PCMCIA	16 SE/8 DI	16	200 k	±0.05 to ±10	2	16	1 k	±10	8	2	Digital	NI-DAQmx
DAQCard-6062E	PCMCIA	16 SE/8 DI	12	500 k	±0.05 to ±10	2	12	850 k	±10	8	2	Analog, digital	NI-DAQmx
DAQCard-6024E	PCMCIA	16 SE/8 DI	12	200 k	±0.05 to ±10	2	12	1 k	±10	8	2	Digital	NI-DAQmx
DAQPad-6052E	IEEE 1394	16 SE/8 DI	16	333 k	±0.05 to ±10	2	16	333 k	±10	8	2	Analog, digital	Traditional NI-DAQ
DAQPad-6070E	IEEE 1394	16 SE/8 DI	12	1.25 M	±0.05 to ±10	2	12	1 M	±10	8	2	Analog, digital	Traditional NI-DAQ

¹For up-to-date information on NI-DAQ, visit ni.com/support/daq/versions.htm.

Table 1. NI Portable E Series Model Guide

Overview and Applications

National Instruments E Series portable data acquisition (DAQ) products deliver the same functionality available in PCI and PXI E Series DAQ devices – in a portable format. The NI DAQPad devices are hot-swappable and available in up to three different configurations. The 15 cm enclosure is ideal for desktop or portable applications and features a 68-pin shielded connector. The 30 cm enclosure with mass termination offers a low-profile package that fits under your laptop computer. It features a 68-pin shielded connector to connect signals from an NI SCC modular signal conditioning product or from an NI CA-1000 custom connectivity enclosure. The 30 cm enclosure with BNC connectivity is ideal for applications where you need portability and quick connectivity, such as in-vehicle automotive or aircraft testing and portable data logging.

NI DAQCard devices are Type II, PC Card-compliant and provide performance equivalent to their PCI or PXI counterparts. However, due to their compact design, you can use them in applications where space constraints are important, such as field service and research.

Software Overview

NI portable E Series DAQ devices include NI-DAQmx measurement services software or the Traditional NI-DAQ (Legacy) driver software. NI-DAQmx provides a seamless interface to NI LabVIEW, LabWindows/CVI, and Measurement Studio development environments

with time-sharing features such as DAQ Assistant and a single programming interface for all device functions.

Recommended Accessories

Signal conditioning is required for sensor measurements or voltage inputs greater than 10 V. National Instruments SCXI is a versatile, high-performance signal conditioning platform intended for high-channel-count applications. NI SCC products provide portable, flexible signal conditioning options on a per-channel basis. Both signal conditioning platforms are designed to increase the performance and reliability of your data acquisition system, and are up to 10X more accurate than terminal blocks (please visit ni.com/sigcon for more details). Also refer to Table 2 for more information.

Sensor/Signals (>10 V)

System Description	DAQ Device	Signal Conditioning
High-performance	DAQCard-60xxE, DAQPad-60xxE	SCXI
Low-cost, portable	DAQCard-60xxE, DAQPad-60xxE	SCC

Signals (<10 V)¹

System Description	DAQ Device	Terminal Block	Cable
Shielded	DAQPad-60xxE	SCB-68	SH6868-EP
Shielded	DAQCard-60xxE	SCB-68	SHC6868-EP
Low-cost	DAQPad-60xxE	CB-68LP	R6868
Low-cost	DAQCard-60xxE	CB-68LP	RC6868

¹Terminal blocks do not provide signal conditioning (such as filtering, amplification, and isolation), which may be necessary to increase the accuracy of your measurements.

Table 2. Recommended Accessories

Portable E Series Multifunction DAQ

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Ordering Information

NI DAQCard-6036E	778561-01
NI DAQCard-6062E	777976-01
NI DAQCard-6024E	778269-01
NI DAQPad-6052E ¹ for IEEE 1394 (FireWire) with Mass termination, AC adapter, ² and 4 m FireWire cable	
U.S. 120 VAC.....	778535-01
Universal Euro 240 VAC	778535-04
United Kingdom 240 VAC.....	778535-06
BNC termination, AC adapter, ² and 4 m FireWire cable	
U.S. 120 VAC.....	778536-01
Universal Euro 240 VAC	778536-04
United Kingdom 240 VAC.....	778536-06
NI DAQPad-6070E for FireWire ¹ with Mass termination, AC adapter, ² and 4 m FireWire cable	
U.S. 120 VAC.....	777867-01
Universal Euro 240 VAC	777867-04
United Kingdom 240 VAC.....	777867-06
BNC termination, AC adapter, ² and 4 m FireWire cable	
U.S. 120 VAC.....	777803-01
Universal Euro 240 VAC	777803-04
United Kingdom 240 VAC.....	777803-06

Includes data acquisition driver software.

¹Windows 2000/XP only for DAQPad devices.

²The AC adapter is universal. The difference between these kits is the power cable.

DAQPad Accessories

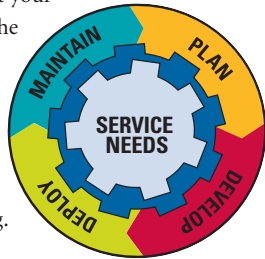
BP-1 rechargeable battery pack	
120 VAC charger.....	776896-01
230 VAC charger.....	776896-31
Rack-mount kit	777665-01
Stacking kit	777666-01
PCI-to-IEEE 1394 adapter	Please call
CardBus-to-IEEE 1394 adapter	Please call

BUY ONLINE!

For complete product specifications, pricing, and accessory information, call (800) 813 3693 (U.S. only) or go to ni.com/dataacquisition.

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Hardware Services

NI Factory Installation Services

NI Factory Installation Services (FIS) is the fastest and easiest way to use your PXI or PXI/SCXI combination systems right out of the box. Trained NI technicians install the software and hardware and configure the system to your specifications. NI extends the standard warranty by one year on hardware components (controllers, chassis, modules) purchased with FIS. To use FIS, simply configure your system online with ni.com/pxiadvisor.

Calibration Services

NI recognizes the need to maintain properly calibrated devices for high-accuracy measurements. We provide manual calibration procedures, services to recalibrate your products, and automated calibration software specifically designed for use by metrology laboratories. Visit ni.com/calibration.

Repair and Extended Warranty

NI provides complete repair services for our products. Express repair and advance replacement services are also available. We offer extended warranties to help you meet project life-cycle requirements. Visit ni.com/services.



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