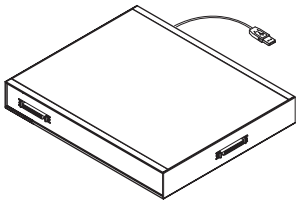
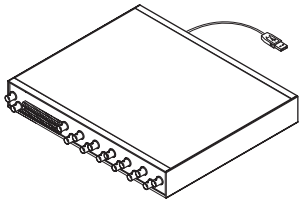
About Your DAQPad™-6070E

The DAQPad-6070E is a high-performance multifunction analog, digital, and timing I/O device for computers with IEEE 1394 ports.

This document serves a dual purpose: to provide new information about the DAQPad-6070E for BNC and to update information originally found in the *DAQPad-6070E User Manual.*

There are two versions of the DAQPad-6070E. Table 1 illustrates the different I/O connectivity and form factors that each version offers.

Table 1. DAQPad-6070E Models

DAQ Device	I/O Connector	Form Factor	
DAQPad-6070E	68-pin SCSI II Male	Full-size box (30.7 by 25.4 by 4.32 cm, or 12.1 by 10 by 1.7 in.) Rack-mountable, stackable	
DAQPad-6070E for BNC	BNC and removable screw terminals	Full-size box (30.7 by 25.4 by 4.32 cm, or 12.1 by 10 by 1.7 in.) Rack-mountable, stackable	

Measuring More than Eight Channels with the DAQPad-6070E for BNC

The DAQPad-6070E for BNC is designed for convenient measurement of up to eight differential channels using BNC connectors and cabling. To measure more than eight channels, you must use one of the single-ended measurements modes. Up to 16 single-ended channels are available in the single-ended measurement configuration.

To use a single-ended measurement mode, you must change the source type (FS/GS) switch settings. Figure 1 shows the source type switch locations.

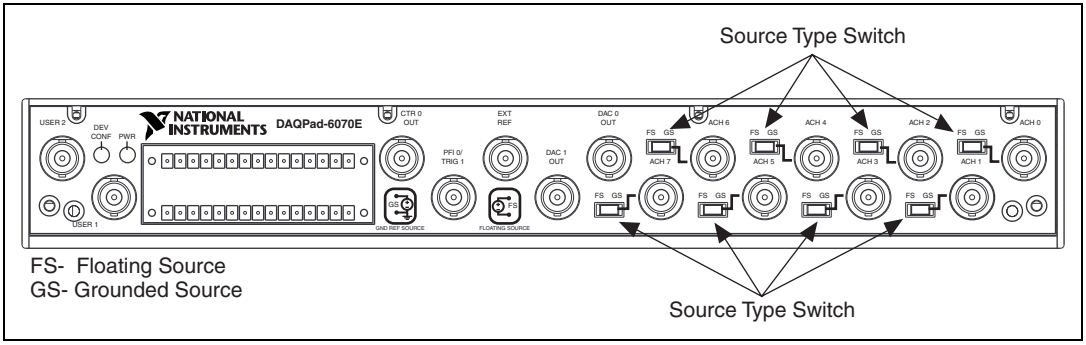


Figure 1. Front Panel of the DAQPad-6070E for BNC

For each BNC connector that you use for two channels, set the source type switch to the GS position. This setting disconnects the built-in ground reference resistor from the negative terminal of the BNC connector, allowing it to be used as a single-ended channel, as shown in Figure 2. When you set the source type to the GS position and configure the device for single-ended input using software, each BNC connector provides access to two single-ended channels, ACH(*i*) and ACH(*i*+8). For example, the BNC connector labeled ACH0 provides access to single-ended channels ACH0 and ACH8, the BNC connector labeled ACH1 provides access to single-ended channels ACH1 and ACH9, and so on.

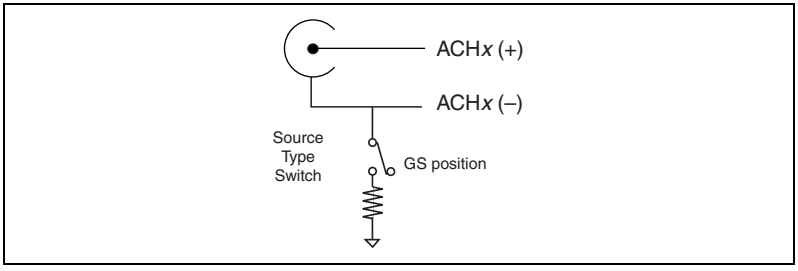


Figure 2. BNC Connector Wiring

Specifications

Some specifications for the DAQPad-6070E are inaccurate in the *DAQPad-6070E User Manual*. The corrected specifications are as follows (changes shown in italics):

Analog Input

Dynamic Characteristics

Crosstalk (DC to 100 kHz)

Adjacent channels ..... *–75 dB*

All other channels ..... *–90 dB*

Stability

Onboard calibration reference

Level ..... 5.000 V (±*3.5* mV)
(*over full operating temperature,*
actual value stored in EEPROM)

Analog Output

Stability

Onboard calibration reference

Level ..... 5.000 V (±*3.5* mV)
(*over full operating temperature,*
actual value stored in EEPROM)

Bus Interface

Type ..... IEEE 1394, 400 *Mb/s,*
asynchronous protocol

Physical

Dimensions
(not including BNC connector)..... *30.7 by 25.4 by 4.3 cm*
(12.1 by 10 by 1.7 in.)