Overview

The compact National Instruments GPIB-USB-B transforms any computer with a USB port into a full-function, IEEE 488.2 controller that can control up to 14 programmable GPIB instruments. The small size and light weight of the NI GPIB-USB-B make it ideal for portable applications using a laptop computer or other applications in which the computer has no available internal I/O slots. The GPIB-USB-B works with Windows 2000/XP/Me/98 or Linux computers with a USB port.

The GPIB-USB-B is easy to install and use because there are no external DIP switches and you do not need to restart your computer for the system to recognize your IEEE 488.2 interface. The GPIB-USB-B is a plug-and-play interface that the OS automatically recognizes and configures as soon as you physically attach it to the USB port on your computer. With the GPIB-USB-B, you can get up and running quickly, so you can focus on developing your instrument control applications.

Using a TNT family Talker/Listener/Controller IEEE 488.2 ASIC, the GPIB-USB-B implements the full range of GPIB controller functions, including those required and recommended by IEEE 488.2. It also implements normal and extended talker and listener, serial and parallel polling, service requests, and pass/receive control functions. Drawing power directly from the USB port, the GPIB-USB-B requires no external power input.

With NI-488.2, you get a robust driver with additional utilities and wizards that help you troubleshoot your applications and decrease your development time (see Figure 2). Furthermore, you maintain compatibility with existing systems. Applications previously written for other National Instruments GPIB controllers can run unmodified with the GPIB-USB-B.

Connecting the GPIB-USB-B to Your Instruments

The GPIB-USB-B does not require a GPIB cable for connecting to your instruments. You can attach it directly to the GPIB port on your instrument and then connect the USB cable to the USB port on your computer. If you have multiple instruments in a daisy chain or star configuration, attach any cables that connect to the other instruments first, and then piggyback the GPIB-USB-B as the last connector in the stack.

Figure 1. Easily connect your GPIB instruments to the USB port of your computer.
GPIB Controller for USB

A. Run the Getting Started Wizard

B. Communicate with your instrument

Figure 2. Take these easy steps to get up and running with your instrument communication.

Ordering Information
GPIB-USB-B and NI-488.2 for
Windows 2000/XP ........................................... 778416-01
Windows Me/98 ............................................. 779192-01
Linux ............................................................ 779354-01
Includes built-in 2 m USB cable.

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

Specifications
USB Port
Full-speed USB signaling ............................ 12 Mb/s

IEEE 488 Compatibility
IEEE 488.1 and IEEE 488.2 compatible

Maximum IEEE 488 Bus Transfer Rates
Standard IEEE 488 handshake .................... 880 kB/s

External Indicators
USB configured, USB active

Power Requirement
USB self-powered device
Maximum power consumption .................. 200 mA

Physical
Dimensions ............................................... 10.7 by 6.6 by 2.6 cm (4.2 by 2.6 by 1.0 in.)

I/O Connectors
GPIB ...................................................... IEEE 488 standard 24 pin
USB ........................................................... USB standard series A plug

Operating Environment
Temperature ............................................ 0 to 55 °C
Relative humidity ..................................... 10 to 90%, noncondensing

Storage Environment
Temperature .......................................... -20 to 70 °C
Relative humidity .................................. 5 to 95%, noncondensing

Compliance
Online at ni.com/compliance
NI Services and Support

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We also offer service programs that provide automatic upgrades to your application development environment and higher levels of technical support. Visit ni.com/ssp.

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
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