GPIB Controller for USB 2.0 High-Speed

NI GPIB-USB-HS

- Completely IEEE 488.2 compatible
- Controls up to 14 GPIB instruments
- Compact size and light weight
- Plug-and-play configuration
- No external power required
- Built-in 2 m USB cable
- No GPIB cable required to connect to instruments
- USB 2.0 high-speed compliant
- Maximum GPIB transfer rates
  - More than 1.8 MB/s (IEEE 488.1)
  - More than 7.2 MB/s (HS488)

Operating Systems
- Windows 2000/XP

Recommended Software
- LabVIEW
- LabWindows/CVI
- Measurement Studio

Driver Software (included)
- NI-488.2

NEW

Overview

The compact National Instruments GPIB-USB-HS 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-HS 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-HS works with Windows 2000/XP computers with a USB port.

The GPIB-USB-HS 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-HS 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-HS, you can get up and running quickly, so you can focus on developing your instrument control applications.

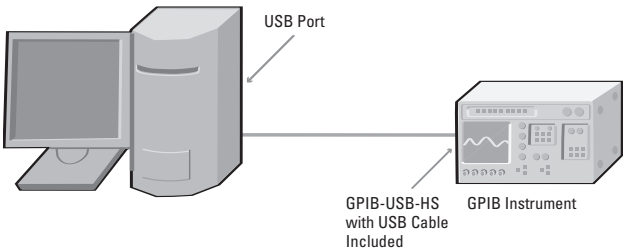

Figure 1. Easily connect your GPIB instruments to the USB port of your computer.

The GPIB-USB-HS is the first GPIB interface to take advantage of the superior performance of high-speed USB 2.0 signaling (480 Mb/s). Plugging the GPIB-USB-HS into a USB high-speed port provides industry-leading GPIB performance using both the standard and high-speed IEEE 488.1 handshake.

Using a TNT family Talker/Listener/Controller IEEE 488.2 ASIC, the GPIB-USB-HS 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-HS 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-HS.

Connecting the GPIB-USB-HS to Your Instruments

The GPIB-USB-HS 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-HS as the last connector in the stack.

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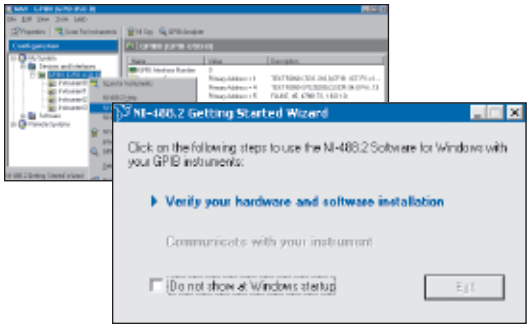
GPIB Controller for USB 2.0 High-Speed

A. Run the Getting Started Wizard



B. Communicate with your instrument

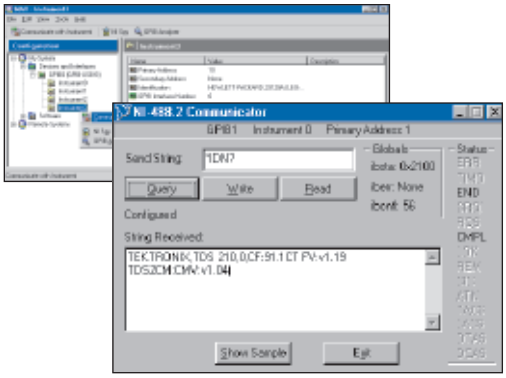


Figure 2. Take these easy steps to get up and running with your instrument communication.

Ordering Information

NI GPIB-USB-HS.....778927-01

Includes NI-488.2 software and a 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

High-speed USB signaling ..... 480 Mb/s

IEEE 488 Compatibility ..... IEEE 488.1 and IEEE 488.2

Maximum IEEE 488 Bus Transfer Rates[1]

IEEE 488 interlocked handshake ..... 1.8 MB/s

IEEE 488 non-interlocked handshake (HS 488) ..... 7.2 MB/s

[1]Actual rates depend on system configuration, instrument capabilities, and USB port in use.

External Indicators

Ready

- Green ..... USB full-speed
- Amber ..... USB high-speed

Active

- Green ..... Device active

Power Requirement

USB bus-powered device

Maximum power consumption ..... 500 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

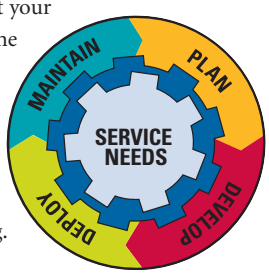
Relative humidity ..... 5 to 95%, noncondensing

Compliance

Online at **ni.com/certification**.

NI Services and Support

NI has the services and support to meet your needs around the globe and through the application life cycle – from planning and development through deployment and ongoing maintenance. We offer services and service levels to meet customer requirements in research, design, validation, and manufacturing. Visit ni.com/services.



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NI training is the fastest, most certain route to productivity with our products. NI training can shorten your learning curve, save development time, and reduce maintenance costs over the application life cycle. We schedule instructor-led courses in cities worldwide, or we can hold a course at your facility. We also offer a professional certification program that identifies individuals who have high levels of skill and knowledge on using NI products. Visit ni.com/training.

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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

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