

GPIB Plug-In Interface for ExpressCard

NI ExpressCard-GPIB

- Complete IEEE 488.2 compatibility
- FIFOs for increased performance
- Ability to control up to 14 GPIB instruments
- Compact and lightweight ExpressCard/34 module
- Plug-and-play configuration
- Hi-Speed USB technology
- Maximum GPIB transfer rates
 - Up to 1.8 MB/s (IEEE 488.1)
 - Up to 7.2 MB/s (HS488)

Operating Systems

- Windows 2000/XP

Recommended Software

- LabVIEW
- LabWindows/CVI
- Measurement Studio

Driver Software (included)

- NI-488.2



Overview

The National Instruments ExpressCard-GPIB is a low-cost, high-performance IEEE 488 interface for computers with ExpressCard slots running Windows 2000/XP. The card also offers plug-and-play compatibility for easy installation and configuration.

The NI ExpressCard-GPIB comes in a compact card no larger than the palm of your hand! Laptops and other PCs equipped with the latest ExpressCard technology can use this 34 mm ExpressCard to connect to and control GPIB instruments. The small size of the card provides unmatched portability with industry-leading performance.

The NI ExpressCard-GPIB comes with NI-488.2, a robust driver with additional utilities and wizards that help you troubleshoot your applications and decrease your development time. Furthermore, you maintain compatibility with existing systems. Applications previously written for other National Instruments GPIB controllers can run unmodified with the NI ExpressCard-GPIB.

Transfer Rates

The NI ExpressCard-GPIB software and hardware provide maximum performance, at the full range of data transfer sizes, even when the data block is small. The NI ExpressCard-GPIB can sustain data transfer rates of up to 1.8 MB/s using the IEEE 488.1 standard handshake, and implements the IEEE 488.1 high-speed handshake (HS488) for benchmarked data transfers at up to 7.2 MB/s. Actual obtainable data transfers depend on host computer, system configuration, and device capability.

Secure Cabling

The NI ExpressCard-GPIB controller is shipped with special cables including latching connectors that offer a secure mechanical setup and easy connection from the card to any standard GPIB instrument. NI also offers a cable strain relief kit to provide an even more secure setup.

Ordering Information

NI ExpressCard-GPIB and NI-488.2 with	
2 m GPIB cable	779425-02
4 m GPIB cable	779425-04

BUY NOW!

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



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Specifications

IEEE 488 Compatibility

IEEE 488.1 and IEEE 488.2 compatible

Capability Code	Description
SH1	Source Handshake
AH1	Acceptor Handshake
T5, TE5	Talker, Extender Talker
L3, LE3	Listener, Extender Listener
SR1	Service Request
PP1, PP2	Local/Remote Parallel Poll
RL1	Remote/Local
C1, C2, C3, C4, C5	Controller
E1, E2	Three-state bus drivers with automatic switch to open collector during parallel poll

Maximum IEEE 488 Bus Transfer Rates

IEEE 488 interlocked handshake 1.8 MB/s

IEEE 488 noninterlocked
(HS488) handshake 7.2 MB/s

(actual rates depend on system configuration and instrument capabilities)

Physical Dimensions

34 mm card

Power Requirements

+3.3 V 140 mA typical

I/O Connectors

GPIB 26-position latching connector

Operating Environment

Ambient temperature 0 to 65 °C

Relative humidity 5 to 95%, noncondensing

(tested in accordance with IEC-60068-2-1, IEC-60068-2-2, and IEC-60068-2-56)

Storage Environment

Ambient temperature -20 to 65 °C

Relative humidity 5 to 95%, noncondensing

Nonoperating thermal shock -20 to 65 °C, 5 shocks

(tested in accordance with IEC-60068-2-1, IEC-60068-2-2, and IEC-60068-2-56)

Shock and Vibration

Nonoperating shock 50 g, 11 ms

(tested in accordance with IEC 60068-2-27)

Nonoperating vibration, sinusoidal 15 g, 100 to 2,000 Hz

(tested in accordance with IEC 60068-2-6)

Nonoperating drop test 2 drops in 3 mutually exclusive axes from 75 cm onto noncushioning vinyl tile surface

Compliance and Safety

Visit 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.

Training and Certification

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.

Professional Services

Our Professional Services Team is comprised of NI applications engineers, NI Consulting Services, and a worldwide National Instruments Alliance Partner program of more than 600 independent consultants and

integrators. Services range from start-up assistance to turnkey system integration.

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OEM Support

We offer design-in consulting and product integration assistance if you want to use our products for OEM applications. For information about special pricing and services for OEM customers, visit ni.com/oem.

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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

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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