

USB/LPCI/LPCIe-3488A

High-Performance IEEE-488 GPIB Interface for USB/PCI/PCI Express

Features

- Fully compatible with the IEEE-488 standard
- Support 32-bit 3.3 V or 5 V PCI bus (LPCI-3488A)
- Up to 1.5 MB/s data transfer rates (USB-3488A and LPCI-3488A)
- Built-in FIFO for read/write operations
- Provide APIs compatible with NI-488.2 driver software*
- Support industrial-standard VISA library
- Interactive utility for testing and diagnostics

USB-3488A

- USB 2.0 compatible
- 2 M USB cable attached for instrument connection
- No external power required
- Easy GPIB connectively for laptops



Introduction

The IEEE-488 standard, also known as GPIB, is a bus interface that connects instruments with a computer to form an ATE system. Today, GPIB is still the most popular interface between computer and instruments. ADLINK's USB-3488A, LPCI-3488A and LPCIE-3488A controller interface cards are fully compatible with the IEEE-488.2 instrumentation control and communication standard and are capable of controlling up to 14 stand-alone instruments via IEEE-488 cables (Figure 1)*. The USB-3488A, LPCI-3488A and LPCIE-3488A are designed to meet the requirements of high performance and maximum programming portability.

With APIs that are compatible with NI-488.2* driver software and VISA support, the USB-3488A, LPCI-3488A and LPCIE-3488A offer the best compatibility with your existing applications and instrument drivers. ADLINK has also implemented GPIB interface on our PXI/PXIe controller product line. (Please refer to page 1-5 ~ 1-10)

ADLINK's LPCI-3488A with low-profile PCI form factor, supports both 3.3 V and 5 V PCI buses and can be adapted to most industrial and desktop computers. A built-in FIFO between the GPIB bus and PCI controller buffers GPIB read/write operations. The maximum GPIB transfer rates of LPCI-3488A and USB-3488A up to 1.5 MB/s. (Figure 2)

*Devices can be connected in linear or star configuration, or a combination of the two topologies.

Supported Operating System

- Windows XP, Windows 7/8 x64/x86

Driver and SDK

- Visual Studio.NET/BCB
- LabVIEWTM*
- MATLAB®*

Ordering Information

- **USB-3488A**
High-Performance IEEE-488 GPIB interface for USB
- **LPCI-3488A**
High-Performance IEEE-488 GPIB interface card for low-profile PCI bus
- **LPCIE-3488A**
High-Performance IEEE-488 GPIB interface card for low-profile PCI Express bus
- **ACL-IEEE488-1**
IEEE-488 standard cable, 1 meter length
- **ACL-IEEE488-2**
IEEE-488 standard cable, 2 meter length
- **ACL-IEEE488-4**
IEEE-488 standard cable, 4 meter length

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*MATLAB® is Copyright of the MathWorks, Inc.

Specifications

	LPCI-3488A	USB-3488A
GPIB Bus Specifications	Up to 14 instruments connected	
	Maximum 1.5 MB/s data transfer rate (USB-3488A and LPCI-3488A) Maximum 1.2 MB/s data transfer rate (LPCIe-3488A)	
	Cable length -2 meters between each instrument (suggested) -20 meters total cable length	
	Data transfer mode: 8 bits parallel	
	Handshake: 3 wire handshake, reception of each data byte is acknowledged	
Certifications	EMC/EMI: CE, FCC Class A	
Software Compatibility	Visual Studio.NET/BCB	
	LabVIEW™*	
External Indicators (USB-3488A)	MATLAB®*	
	Ready : Green for active device Active : Blinking amber for data transferring	
General Specifications	Operating temperature : 0°C to 55°C (32°F to 131°F)	
	Storage temperature : -20°C to +80°C (-4°F to 176°F)	
	Relative humidity : 5% to 95%, non-condensing	
	Power requirements	
	+5 V 250 mA (typical) 300 mA (maximum)	+5 V 190 mA (typical) 500 mA (maximum)
Dimensions (not including connectors)	LPCI-3488A: 120 mm x 64 mm (4.68" x 2.49")	
	USB-3488A: 81.7 mm (L) x 66.1 mm (W) x 27.8 mm (H) (3.2" x 2.57" x 1.1")	
I/O Connectors	GPIB: IEEE-488 standard 24 pin	
	USB: USB standard series A plug (USB-3488A)	

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