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
- 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



USB-3488A



LPCI-3488A



LPCIe-3488A

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 ~ -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 rate of the USB-3488A is up to 1.5 MB/s.

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

Supported Operating System

- ARM32, ARM64, Intel, AMD

Supported Operating System

- Windows XP*/7/8/10/11 (x86/x64)

*Note: Windows XP driver is no longer updated.

Driver and SDK

- Visual Studio C/C++/C#/VB/VB.Net
- Borland C
- Delphi
- Labview

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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Specifications

	LPCI-3488A	LPCIe-3488A		USB-3488A
GPIB Bus Specifications	Up to 14 instruments connected			
	Maximum 1.5 MB/s data transfer rate (USB-3488A) Maximum 1.2 MB/s data transfer rate (LPCI-3488A and LPCIe-3488A)			
	Cable length 2 meters between each instrument (suggested) -20 meters total cable length			
	Data transfer mode: 8-bit parallel			
	Handshake: 3 wire handshake, reception of each data byte is acknowledged			
Certifications	EMC/EMI: CE, FCC Class A			
Software Compatibility	Visual Studio C/C++/C#/VB/VB. Net Borland C Delphi Labview			
External Indicators (USB-3488A)	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	+3.3V	+12V	+5 V
	250 mA (typical)	90mA (Max.)	150mA (Max.)	190 mA (typical)
	300 mA (maximum)	80mA (Typ.)	100mA (Typ.)	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”)			
	LPCIe-3488A: 119.77mm x 68.9 mm			
I/O Connectors	GPIB: IEEE-488 standard 24 pin			
	USB: USB standard series A plug (USB-3488A)			

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