

USB/LPCI/LPCle-3488A

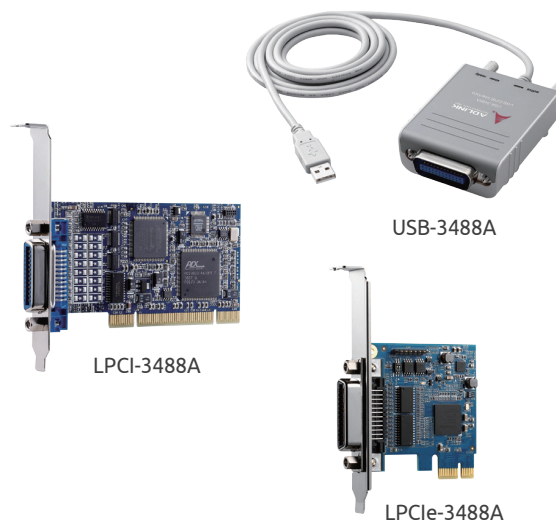
High-Performance IEEE-488 GPIB Interface for USB/PCI/PCI Express

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 LPCle-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 LPCle-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 LPCle-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
- LabVIEW™*
- 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
- **LPCle-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 LCPI-3488A) Maximum 1.2 MB/s data transfer rate (LPCle-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™* | |
| | MATLAB®* | |
| 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 | +5 V |
| | 250 mA (typical) | 190 mA (typical) |
| | 300 mA (maximum) | 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) | |