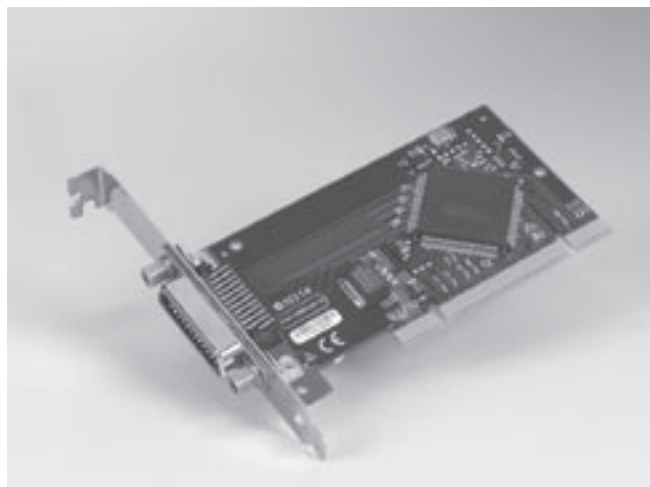# PCI-1671UP

High-Performance IEEE-488.2 Interface for PCI

Features

- IEEE 488.2 Standard interface
- Complete Talker/Listener/Controller
- Industry standard 32-bit PCI bus
- Data transfer rates over 1.5 Megabytes/sec
- 1024-word FIFO buffer
- High-Speed State Machine Bus Manager
- 7 Interrupt lines, shared interrupt capability
- Transparent interrupt enabling/disabling
- Includes GPIB-Library software
- Low profile MD1 size

Introduction

The PCI-1671UP IEEE-488 interface converts any PCI bus personal computer into an instrumentation control and data acquisition system. Connect up to 14 instruments using standard IEEE-488 cables such as the PCL-10488-2, 2 meter IEEE-488 interface cable.

Greater than 1.5 MB/s Transfer Rates

The PCI-1671UP transfers data over the GPIB at rates in excess of 1.5 million bytes per second using the maximum IEEE-488 specification cable length (2 meters times the # of devices). A 1024-word FIFO buffer and the advanced REP-INSW ISR data transfer method provide the horsepower required to then transfer the data between the GPIB board and the host computer. The high-speed state machine also provides byte-to-word packing and unpacking, and because words carry twice the information that bytes do, packed data requires fewer bus cycles to transfer the same GPIB information.

IEEE-488.2 (GPIB) Compatibility

The PCI-1671UP adheres to ANSI/IEEE Standard 488-1978. Often referred to as the IEEE-488.2 bus, GPIB bus or HP-IB bus, the GPIB (General Purpose Interface Bus) is a standard for instrumentation communication and control for instruments from manufacturers the world over. The GPIB provides handshaking and interface communications over an 8-bit data bus employing 5 control and 3 handshake signals. Equipped with PCI-1671UP, a personal computer can:

Control GPIB instruments, gather data from GPIB test equipment, or become a data acquisition station in a GPIB system.

Software

The PCI-1671UP includes powerful GPIB-Library. The library greatly simplifies your programming effort. The PCI-1671UP is also supported by a wide variety of application software packages including LabWindows/CVI®, LabVIEW® and many others.

Specifications

GPIB

- **Compatibility**   IEEE 488.1, 488.2
- **GPIB Transfer Rate**   1.5 MB/s
- **OS Support**   Windows® 2000/XP
- **Library Support**   Visual C++®, Borland C++ Builder®, LabWindows/CVI, Visual Basic®, Delphi®, LabVIEW
- **Max. GPIB Connections**   15

General

- **Bus Type**   PCI-1671UP: Universal PCI V2.2
- **I/O Connectors**   1 x IEEE 488 standard 24-pin
- **Dimensions (L x H)**   119.91 x 64.41mm (Low profile MD1)
- **Power Consumption**   Typical: 5 VDC @ 375 mA
- **Operating Temperature**   0 ~ 60° C (32 ~ 158° F) @ 0-90% RH
- **Storing Temperature**   -40 ~ 100° C (-40 ~ 212° F) @ 5-90% RH
- **Operating Humidity**   0 ~ 90% RH, non-condensing

Ordering Information

- **PCI-1671UP**   High-Performance IEEE-488.2 Interface for PCI-Bus Computers (cable is not included)
- **PCL-10488-2**   IEEE-488 Cable, 2 m
- **PCL-ADP488**   GPIB Adapter (Necessary while using PCI-1671UP in low-profile chassis)
- **PCI-1671S2**   High-performance IEEE-488.2 Interface Card, PCI-1671UP, with IEEE-488 cable 2 m