# 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

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### 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**

IEEE 488.1, 488.2 Compatibility

■ GPIB Transfer Rate 1.5 MB/s

Windows® 2000/XP OS Support

■ 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 1 x IEEE 488 standard 24-pin I/O Connectors 119.91 x 64.41mm (Low profile MD1) Dimensions (L x H)

Typical: 5 V<sub>DC</sub> @ 375 mA Power Consumption

 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)

PCI-1671S1 High-performance IEEE-488.2 Interface Card, PCI-1671UP, with IEEE-488 cable 1 m

IEEE-488 Cable, 1 m PCL-10488-1

PCL-10488-2 IEEE-488 Cable, 2 m PCL-10488-4 IEEE-488 Cable, 4 m

PCL-ADP488 GPIB Adapter (Necessasy while using PCI-

1671UP in low-profile chassis)

High-performance IEEE-488.2 Interface Card, PCI-1671S2

PCI-1671UP, with IEEE-488 cable 2m