

# CPCI-GPIB

## High-Performance IEEE-488.2 Interface for CompactPCI-Bus Computers



### Description

The CPCI-GPIB IEEE-488 interface converts any CompactPCI bus personal computer into an instrumentation control and data acquisition system. Connect up to 14 instruments using standard IEEE-488 cables such as the C488-2M, 2 meter IEEE-488 interface cable. The CPCI-GPIB is based on ComputerBoards' powerful CB7210.2 GPIB chip.

### Greater than 1 MB/s Transfer Rates

The CPCI-GPIB transfers data over the GPIB at rates in excess of 1 million bytes per second using the maximum IEEE-488 specification cable length (2 meters times the # of devices).

ComputerBoards' advanced high-speed, State Machine Bus Manager and the powerful CB7210.2 chip assure the board is able to maintain its high data transfer rate over the GPIB bus. 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 since words carry twice the information bytes do, packed data requires fewer bus cycles to transfer the same GPIB information.

### IEEE-488.2 (GPIB) Compatibility

The CPCI-GPIB 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 a CPCI-GPIB, a personal computer can:

- Control GPIB instruments.
- Gather data from GPIB test equipment.
- Become a data acquisition station in a GPIB system.

### Features

- IEEE 488.2 Standard interface
- Complete Talker/Listener/Controller
- Uses powerful CB7210.2 chip
- Data transfer rates over 1 Megabytes/sec
- REP-INSW block transfer
- 1024-word FIFO buffer
- High Speed State Machine Bus Manager
- 7 Interrupt lines, shared interrupt capability
- Transparent interrupt enabling/disabling

Includes GPIB-Library software

### Plug & Play - No switches or jumpers

The CPCI-GPIB is a true Plug and Play. Plug in the PCI-GPIB, run the installation software then start communicating. The Plug and Play specification is a standard for system configuration of boards and software which automatically configures the PCI-GPIB.

### Software

The CPCI-GPIB includes ComputerBoards' powerful GPIB-Library. The library greatly simplifies your programming effort. The PCI-GPIB is also supported by a wide variety of application software packages including SoftWIRE, LabVIEW and many others.

### Windows 95/98/2000/NT/3.x and DOS Compatibility

The CPCI-GPIB hardware supports all popular operating systems and languages regardless of the operating systems support for Plug and Play. The installation software will manage resources for you on non-Plug and Play systems.

### Specifications

IEEE compatibility	IEEE-488.1 and IEEE-488.2
Transfer Rate	>1 Mbyte/sec
Power	5 Vdc @ 375 mA typical
I/O Connector	IEEE-488 Standard 24-pin
Operating Temp. & Hum.	0-60 degrees C @ 0-90%
Storage Temp. & Hum.	-40 to 100 degrees C @ 5-90%

### Ordering Guide

<b>CPCI-GPIB</b>	GPIB Interface board for CompactPCI compatible computers.
<b>C488-2M</b>	2 meter GPIB cable