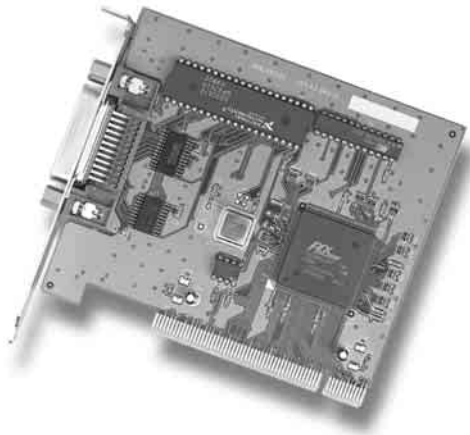


AX4810P

PCI Bus GP-IB Interface Board

DELTA COMPONENTS®



Specifications

Power Requirement	
+5V _{DC}	2.0A max.
Physical/Environmental	
Dimensions	122 x 107mm
Weight	200g
Relative Humidity	0 to 90%, non-condensing
I/O Connector	IEEE-488 standard 24-pin

Software support

Windows utility

Windows® 95/98/NT/2000/XP

Driver

Windows® 95/98/NT/2000/XP

Example Program: (Support HP 34401A and HP 33220A)

- (1) Labview 7.0/6.0 (HP 34401A only)
- (2) DOS
- (3) Visual Basic 6.0
- (4) Visual C++ 6.0
- (5) Borland C++ Builder 6.0
- (6) Delphi 7.0

Features

- ▶ Complete IEEE488.2 Talker/Listener/Controller (TLC) capability
- ▶ Supports NI-like command set
- ▶ Provides various easy-to-use demo. programs for popular instruments: HP 34401A & HP33220A
- ▶ Supports transmission speed up to 1M byte/s
- ▶ Supports Windows® 95/98/2000/NT/XP driver
- ▶ Supports various example program:
LabView 7.0/6.0; VB; VC; BCB; Delphi; DOS

Introduction

The AX4810P is a powerful PCI-bus GPIB card. It's built-in advanced ASIC and performs IEEE 488 function. Besides, AX4810P adopts simple NI-like command set for users to develop the program. AX4810P supports many drivers and examples to meet user's application. In addition, all the examples includes two types of general instrument: Multi-meter (HP 34401A) and Function-generator (HP 33220A) Therefore, AX4810P is excellent solution for PCI GPIB application.

Hardware Capability

The following paragraphs highlight interface features.

Address Decoding

This circuitry monitors the address lines to recognize when the GPIB I/O address is present on the IBM™ PC I/O channel and enables read and write access to the GPIB interface controller.

Buffering and Data Routing

Bidirectional internal bus handles data transfer between the IBM™ PC I/O channel and the GPIB interface controller.

Interrupt Arbitration

This circuit recognizes when interrupts have been enabled or disabled and passes or inhibits them accordingly.

GPIB Interface Controller

This integrated circuit implements virtually all of the IEEE-488 interface functions. Twenty one program registers are used to configure pass commands and data to and from the GPIB.

GPIB Transceivers

The GPIB interface controller is interfaced to the IEEE-488 bus by National Semiconductor 75160A and 75162A transceivers. These ICs are specifically designed to provide power-up/power-down bus protection (glitch free). The AX4810P counts as one IEEE-488 bus load, thereby allowing an additional 14 devices to be connected before exceeding the bus loading restriction.

Programming

Summary of Firmware Routines

PCI-GPIB interface function consists of two levels functions: Board-level and device-level. These powerful functions make it possible to develop your system more complicated. All interface functions are listed below:

Function	Description
ibcac	Become active controller
ibclr	Clear specified device
ibcmd	Send GPIB commands
ibdev	Open and initialize a device
ibeos	Change/disable end-of-string(EOS) mode
ibeot	Enable or disable the automatic assertion of the GPIB EOI line at the end of write I/O operations
ibfind	Open and initialize a GPIB board
ibgts	Go to standby
ibist	Set/Clear individual status bit for parallel polls
iblines	Return GPIB status
ibln	Check for presence of a specified device
ibloc	Go to local
Ibonl	Place the device inline or offline
Ibpad	Change the primary address
ibpct	Pass control
ibppc	Parallel polling configure
ibrd	Read data string from device
ibrpp	Parallel polling
ibrsc	Request or release system control
ibrsp	Serial polling
ibrsv	Request service and change the serial poll status byte
ibsad	Change or disable the secondary address
ibsic	Assert interface clear
ibsre	Set or clear the Remote Enable(REN) line
ibtmo	Change or disable the I/O timeout period
ibtrg	Trigger specified device
Ibwait	Wait for GPIB event
ibwrt	Write data string to device

Ordering Information

AX4810P	GP-IB interface board for PCI bus
Cable	
AX10488-0.5	GP-IB cable, 0.5 meter
AX10488-2	GP-IB cable, 2 meter
AX10488-4	GP-IB cable, 4 meter

Remote RS-485
DA&C Modules

New Generation
DA&C Cards

Cost-effective
AX5000
DA&C Cards

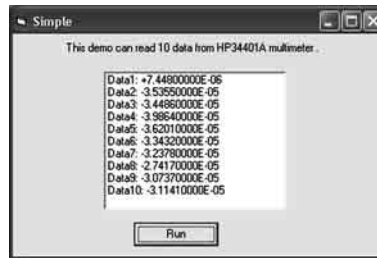
PCI104
Expansion
Modules

Terminal
Boards

Industrial
Communication
Solutions



Labview 7.0 demo program



VB 6.0 example



Windows utility

* All the specifications and photos are subjected to be changed without notice.