PCI-AC48

Features

- Compatible with standard 33 MHz PCI bus.
- Reliable communication.
- Buffering on the card prevents loss of data.
- Isolated from transient voltages.
- Provides tri-state control in hardware, 64-byte FIFO, and 16550 UART-compatible registers.

PCI-AC48

DESCRIPTION

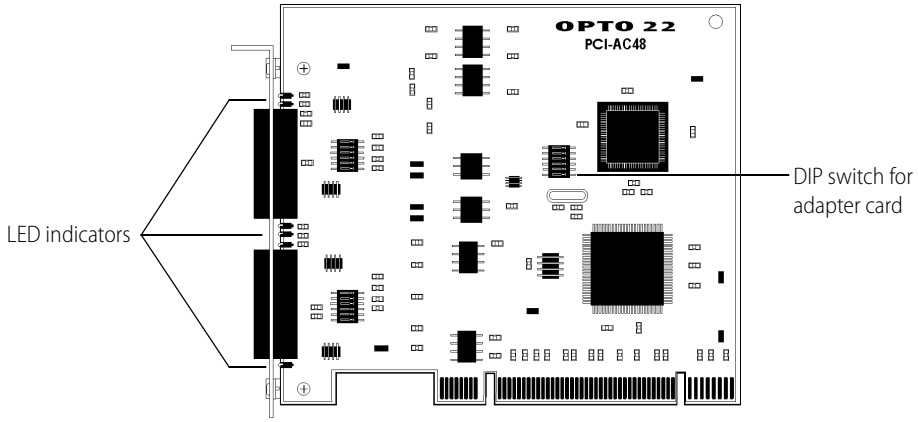
The PCI-AC48 [OBSOLETE] is an isolated, high-speed adapter card designed to link RS-485 serial devices, such as Opto 22's B3000 brains, with computers using the Peripheral Component Interconnect (PCI) bus of today's personal computers. The PCI-AC48 is compatible with computers that feature a standard 33 MHz PCI bus. This adapter card is ideal for customers who have been using Opto 22's AC37 adapter card but must upgrade to a newer computer that uses the PCI bus rather than the ISA bus.

Two RS-485 serial ports provide reliable communication. These ports can be used as two 2-wire ports or as one 4-wire port (two- and four-wire modes cannot be used at the same time). Buffering on the card prevents loss of data, and the serial communication lines and the adapter card itself are isolated from transient voltages. The adapter card also provides tri-state control in hardware, 64-byte FIFO, and 16550 UART-compatible registers.

The PCI-AC48 adapter card requires 5 VDC @ 600 mA (provided by the PCI bus) and operates at temperatures of 0 °C to 70 °C. The card is configured using DIP switches. Six LEDs on the card indicate bus operation or user application status.

Software Drivers

Included software drivers for Microsoft® Windows® 2000 or Windows XP let applications access the adapter card ports as standard COM ports. Drivers are shipped with the adapter card and can also be downloaded from the Opto 22 Web site. For details on installing and using the PCI-AC48 card and drivers, see Opto 22 form #1520, the *PCI-AC48 User's Guide*.



Part Numbers

Part	Description
PCI-AC48 **[OBSOLETE]**	Adapter Card: PCI Bus to RS-485 Serial **[OBSOLETE]**

MADE IN THE USA

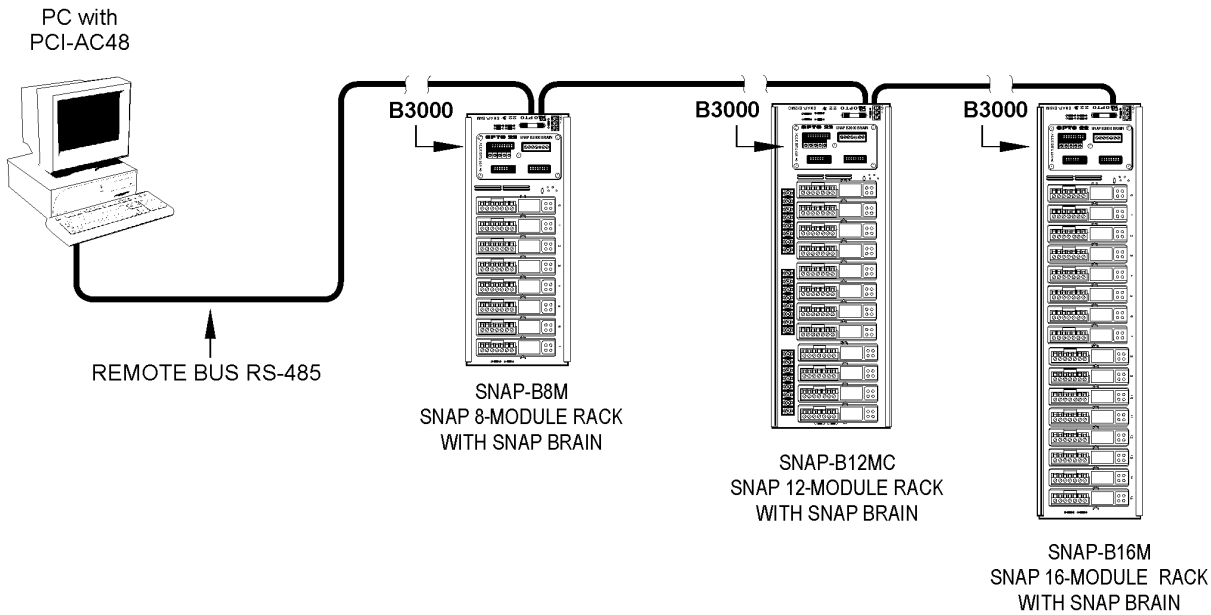
mistic™ Remote I/O and Optomux® I/O

The PCI-AC48 adapter card supports communication to Opto 22 *mistic* remote I/O as well as Opto 22's Optomux I/O. A *mistic* remote I/O bus uses one twisted-pair cable for communication; however, a second pair can optionally be used in systems needing mistic interrupt capability. The communication cable must be terminated at both ends of the cable (the PCI-AC48 will usually be at one end). The communication cable must also be biased at one location only, typically also at the PCI-AC48 card. Bias and termination are set using DIP switches.

Specifications [PCI-AC48 is Obsolete]

Computer Interface	32-bit, 33 MHz PCI bus, PCI Specification Revision 2.2
Ports	Two serial ports, configurable for the following: • Two ports when used in RS-485 2-wire mode, or • One port when used in RS-485 4-wire mode
Isolation	2,500 VAC transient
Communications	RS-485 2-wire or 4-wire operation
Baud Rates	Serial link to 460,800 baud
Cable Length Distance	Up to 3,000 ft. (915 m) @ 115,200 baud
Termination	200 Ohm termination for RS-485 and IRQ (DIP switch configurable)
Biasing	RS-485 pull-up/pull-down biasing (DIP switch configurable)
Indicators	Transmit, Receive, and IRQ LEDs for each serial port
System Requirements for Software Driver	Microsoft Windows 2000 or Windows XP
Power Requirements	5 VDC @ 600 mA
Operating Temperature Storage Temperature	0 °C to 70 °C –30 °C to 85 °C
Humidity	95% relative humidity, non-condensing

Typical Connection Using B3000 Serial Brains



More about Opto 22

OPTO 22

PRODUCTS

Opto 22 develops and manufactures reliable, easy-to-use, open standards-based hardware and software products. Industrial automation, process control, remote monitoring, data acquisition, and industrial internet of things (IIoT) applications worldwide all rely on Opto 22.

groov RIO®

groov RIO edge I/O offers a single, compact, PoE-powered industrial package with web-based configuration and IIoT software built in, support for multiple OT and IT protocols, and security features like a device firewall, data encryption, and user account control.

Standing alone, *groov* RIO connects to sensors, equipment, and legacy systems, collecting and securely publishing data from field to cloud. Choose a universal I/O model with thousands of possible field I/O configurations, with or without Ignition from Inductive Automation®, or a RIO EMU energy monitoring unit that reports 64 energy data values from 3-phase loads up to 600 VAC, Delta or Wye.

You can even write an IEC 61131-3 compliant control program to run on *groov* RIO, using CODESYS. You can also use *groov* RIO with a Modbus/TCP master or as remote I/O for a *groov* EPIC system.

groov EPIC® System

Opto 22's *groov* Edge Programmable Industrial Controller (EPIC) system gives you industrially hardened control with a flexible Linux®-based processor with gateway functions, guaranteed-for-life I/O, and software for your automation and IIoT applications.

groov EPIC Processor

The heart of the system is the *groov* EPIC processor. It handles a wide range of digital, analog, and serial functions for data collection, remote monitoring, process control, and discrete and hybrid manufacturing.

In addition, the EPIC provides secure data communications among physical assets, control systems, software applications, and online services, both on premises and in the cloud. No industrial PC needed.

Configuring and troubleshooting I/O and networking is easier with the EPIC's integrated high-resolution color touchscreen. Authorized users can manage the system locally on the touchscreen, on a monitor connected via the HDMI or USB ports, or on a PC or mobile device with a web browser.

groov EPIC I/O

groov I/O connects locally to sensors and equipment. Modules have a spring-clamp terminal strip, integrated wireway, swing-away cover, and LEDs indicating module health and discrete channel status. *groov* I/O is hot swappable, UL Hazardous Locations approved, and ATEX compliant.

groov EPIC Software

The *groov* EPIC processor comes ready to run the software you need:

- Programming: Choose flowchart-based PAC Control, CODESYS Development System for IEC61131-3 compliant programs, or secure shell access (SSH) to the Linux OS for custom applications
- Node-RED for creating simple IIoT logic flows from pre-built nodes
- Efficient MQTT data communications with string or Sparkplug data formats
- Multiple OPC UA server options
- HMI: *groov* View to build your own HMI viewable on touchscreen, PCs, and mobile devices; PAC Display for a Windows HMI; Node-RED dashboard UI
- Ignition or Ignition Edge® from Inductive Automation (requires license purchase) with OPC-UA drivers to Allen-Bradley®, Siemens®, and other control systems, and MQTT communications

Older products

From solid state relays, to world-famous G4 and SNAP I/O, to SNAP PAC controllers, older Opto 22 products are still supported and working hard at thousands of installations worldwide. You can count on us for the reliability and service you expect, now and in the future.

QUALITY

Founded in 1974, Opto 22 has established a worldwide reputation for high-quality products. All are made in the U.S.A. at our manufacturing facility in Temecula, California.

Because we test each product twice before it leaves our factory rather than testing a sample of each batch, we can afford to guarantee most solid-state relays and optically isolated I/O modules for life.

FREE PRODUCT SUPPORT

Opto 22's California-based Product Support Group offers free technical support for Opto 22 products from engineers with decades of training and experience. Support is available in English and Spanish by phone or email, Monday–Friday, 7 a.m. to 5 p.m. PST.

Support is always available on our website, including free online training at OptoU, how-to videos, user's guides, the Opto 22 KnowledgeBase, and OptoForums.

PURCHASING OPTO 22 PRODUCTS

Opto 22 products are sold directly and through a worldwide network of distributors, partners, and system integrators. For more information, contact Opto 22 headquarters at **800-321-6786** (toll-free in the U.S. and Canada) or **+1-951-695-3000**, or visit our website at www.opto22.com.

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MADE IN THE USA

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