OPTO 22

PCI-AC51 [OBSOLETE] AND PCIE-AC51 [OBSOLETE] PAMUX® ADAPTER CARDS

Features

> Link Pamux® bus to PCI- or PCIe-compatible PCs
> Access up to 512 I/O points on a 500-foot Pamux bus
> Software SDK included

PCI-AC51

DESCRIPTION

The PCI-AC51 [Obsolete] and PCIe-AC51 [Obsolete] are high-speed adapter cards designed to link the Pamux bus to PCI or PCI Express (PCIe) compatible computers.

• The PCI-AC51 [Obsolete] is compatible with a standard PCI bus.

• The PCIe-AC51 [Obsolete] is compatible with PCI Express.

These adapters are suited for new development and can also replace Opto 22's AC28 and PCI-AC28 adapter cards when upgrading an existing system to a newer PC. (AC28 and PCI-AC28 adapter cards are not recommended for new designs.)

Each PCI-AC51 [Obsolete] and PCIe-AC51 [Obsolete] can access up to 512 points of I/O along a Pamux bus of up to 500 feet in length.

The card includes a 50-pin male header connector and is compatible with HH-series and OD-series flat-ribbon cable. Four LEDs on the card indicate card operation.

Free with both cards is the Pamux Systems SDK. The SDK is available for download from our website, www.opto22.com. The SDK includes sample applications with full source code and drivers. For adapter card installation instructions and detailed information on using the SDK, see Opto 22 form 1459, *PCI-AC51 and PCIe-AC51 User's Guide*.

SPECIFICATIONS

	PCI-AC51 [Obsolete]	PCIe-AC51 [Obsolete]
Power requirements (provided by PCI/PCIe bus)	5 VDC @ 500 mA 3.3 VDC @ 300 mA	12 VDC @ 50 mA 3.3 VDC @ 500 mA
Computer compatibility	32- or 64-bit PCI bus	PCI Express x1 or higher
SDK compatibility	64- and 32-bit versions of Windows® 10 Professional, 8.1 Professional, and 7 Professional; supports C#® and VB.NET®	
PCI compliance	PCI Specification Revision 2.2	PCI Express Specification Revision 1.1*
Opto 22 brain compatibility	B4, B5, B6, SNAP-B4, SNAP-B6	B4, B5, B6, SNAP-B4, SNAP-B6
LEDs	Four, indicating board access, reset level, read, and write	Four, indicating board access, reset level, read, and write
Operating temperature	0 to 70 °C	0 to 60 °C
Storage temperature	-30 to 85 °C	-30 to 85 °C

* Because PCI Express is backward compatible, the card is also compatible with version 2 and 3 PCIe slots.

Part Numbers

Part	Description
PCI-AC51 [Obsolete]	[Obsolete] PCI adapter card for Pamux
PCIe-AC51 [Obsolete]	[Obsolete] PCI Express adapter card for Pamux
PC-PAMUX-SDK	Pamux Systems SDK

MADE IN THE
USA

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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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