OPTO 22

PCI-AC51 AND PCIE-AC51 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

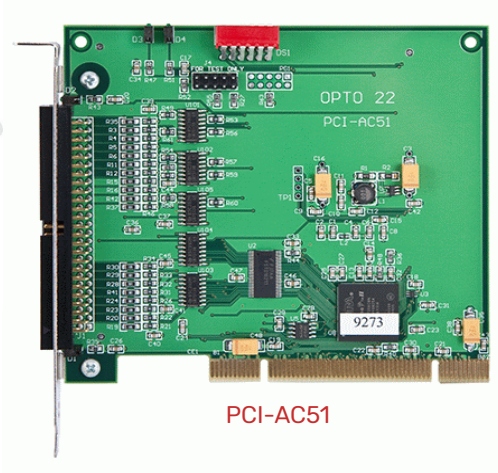> Software SDK included

PCI-AC51

DESCRIPTION

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

- The PCI-AC51 is compatible with a standard PCI bus.
- The PCIe-AC51 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 and PCIe-AC51 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	PCIe-AC51
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	PCI adapter card for Pamux
PCIe-AC51	PCI Express adapter card for Pamux
PC-PAMUX-SDK	Pamux Systems SDK

MADE IN THE USA

OPTO 22 • 800-321-6786 • 1-951-695-3000 • www.opto22.com • sales@opto22.com

PRODUCTS

Opto 22 develops and manufactures reliable, easy-to-use, open standards-based hardware and software products.

Industrial automation, process control, building automation, industrial refrigeration, remote monitoring, data acquisition, and industrial internet of things (IIoT) applications worldwide all rely on Opto 22.

groov EPIC® System

Opto 22's *groov* Edge Programmable Industrial Controller (EPIC) system is the culmination of over 40 years of experience in designing products for the automation industry.

groov EPIC gives you an industrially hardened system with guaranteed-for-life I/O, a flexible Linux®-based processor with gateway functions, and software that meets the needs of your automation and IIoT applications.

groov EPIC I/O

I/O provides the local connection to sensors and equipment. *groov* I/O offers up to 24 channels on each I/O module, with a spring-clamp terminal strip, integrated wireway, swing-away cover, and LEDs indicating module health and digital channel status.

groov I/O is hot swappable, UL Hazardous Locations approved, and ATEX compliant. Opto 22 I/O is so reliable, we guarantee it for life.

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, online services, and more, both on premises and in the cloud.

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 or on a monitor connected via the HDMI or USB ports.

groov EPIC Software

Software included in the *groov* EPIC controller:

- PAC Control engine to run PAC Control strategies and PAC Display projects
- CODESYS Runtime engine to run IEC61131-3 compliant programs built with CODESYS Development System

- Optional access to the Linux operating system through a secure shell (SSH) to download and run custom applications
- *groov* View for building your own device-independent HMI, viewable on the touchscreen, PCs, and mobile devices.
- Node-RED for creating simple logic flows from pre-built nodes
- Ignition Edge® from Inductive Automation®, with OPC-UA drivers to Allen-Bradley®, Siemens®, and other control systems, and MQTT/Sparkplug communications for efficient IIoT data transfer

Older products

From solid state relays (our first products) to world-famous G4 and SNAP I/O, to SNAP PAC controllers, older Opto 22 products are still supported and still doing the job at thousands of installations worldwide. You can count on us to give you 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, comprehensive 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, troubleshooting tips, and OptoForums. In addition, instructor-led, hands-on Premium Factory Training is available at our Temecula, California headquarters, and you can register online.

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.

OPTO 22 • www.opto22.com
43044 Business Park Dr. Temecula, CA 92590-3614

SALES • sales@opto22.com
800-321-6786 • 1-951-695-3000

SUPPORT • support@opto22.com
800-835-6786 • 1-951-695-3080

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