

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

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.

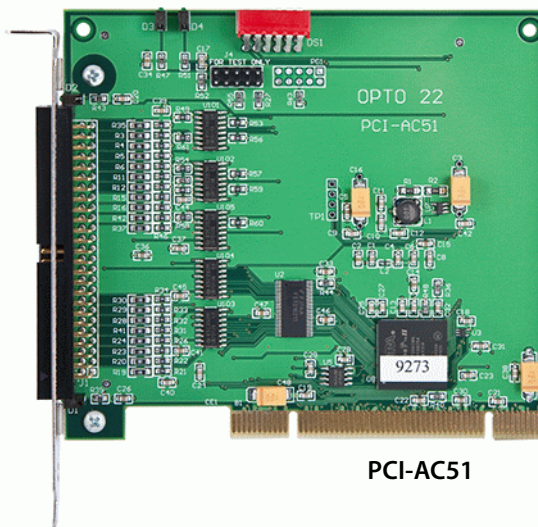
These adapters are suited for new development and can also replace Opto 22's AC28 and PCI-AC28 adapter cards when upgrading an existing system to a newer PC. (AC28 and PCI-AC28 adapter cards are not recommended for new designs.)

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.

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.



PCI-AC51

Free with both cards is the Pamux Systems SDK. The SDK is included on the Pamux Systems SDK CD (shipped with the cards) and can also be downloaded 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*.

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

More About Opto 22

Products

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

Industrial automation, process control, building automation, industrial refrigeration, remote monitoring, data acquisition, Industrial Internet of Things (IIoT), and information technology applications all rely on Opto 22.



groov

Monitor and control your equipment from anywhere using your smartphone or tablet with groov. Build your own mobile app easily—just drag, drop, and tag. No programming or coding. Visit groov.com for more information and your free trial.

SNAP PAC System

Developer- and IIoT-ready, the SNAP PAC System connects physical assets to databases and applications using open standards. The SNAP PAC System consists of four integrated components:

- SNAP PAC controllers
- PAC Project™ Software Suite
- SNAP PAC brains
- SNAP I/O™

SNAP PAC Controllers

SNAP PAC programmable automation controllers handle a wide range of digital, analog, and serial functions for data collection, remote monitoring, process control, and discrete and hybrid manufacturing.

For IIoT applications and easier integration with company systems, standalone and rack-mounted SNAP PACs include a built-in HTTP/HTTPS server and **RESTful API** (application program interface). The REST API gives you secure, direct access to I/O and variable data using your choice of programming languages. No middleware, protocol converters, drivers, or gateways needed.

Based on open Ethernet and Internet Protocol (IP) standards, SNAP PACs make it easier to build or extend a system without the expense and limitations of proprietary networks and protocols.

PAC Project Software Suite

Opto 22's PAC Project Software Suite offers full-featured, cost-effective control programming, HMI (human machine interface), OPC server, and database connectivity software.

Control programming includes both easy-to-learn flowcharts and optional scripting. Commands are in plain English; variables and I/O point names are fully descriptive.

PAC Project Basic offers control and HMI tools and is free for download on our website, www.opto22.com. PAC Project Professional, available for separate purchase, adds one SoftPAC software-based controller, OptoOPCServer, OptoDataLink, options for controller redundancy or segmented networking, and support for legacy Opto 22 serial *mistic*™ I/O units.

SNAP PAC Brains

While SNAP PAC controllers provide central control and data distribution, SNAP PAC brains provide distributed intelligence for I/O processing and communications. Brains offer analog, digital, and serial functions, including thermocouple linearization, local PID loop control, watchdog, totalizing, and much more.

SNAP I/O

I/O provides the local connection to sensors and equipment. Opto 22 SNAP I/O offers 1 to 32 points of reliable I/O per module. Analog, digital, and serial modules are mixed on one mounting rack and controlled by a SNAP PAC brain or rack-mounted PAC.

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 only testing a sample of each batch, we can 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.

Additional support is always available on our website: how-to videos, OptoKnowledgeBase, self-training guide, troubleshooting and user's guides, and OptoForums.

In addition, hands-on training is available for free 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 951-695-3000, or visit our website at www.opto22.com.

{RESTful API}



www.opto22.com

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