# OPTO 22
## DATA SHEET
## INSTALLATION NOTES

Form 741-040917

| Part Number | Description |
|---|---|
| AC28 | ISA Bus to Pamux Bus Adapter |
| ADAPTERCARDTOOLKITCD | ISA Pamux Developer Toolkit |

## Description

The AC28 is a high-speed adapter card designed to link the Pamux® bus to IBM PC/AT or compatible computers. The AC28 is compatible with computers that feature a standard 8-MHz ISA bus.

Each AC28 can access up to 512 points of I/O along a Pamux bus of up to 500 feet in length. Four AC28s can be installed in one PC, supporting up to 2,048 points of I/O. The AC28 includes a 50-pin male header connector and is compatible with HH-series flat-ribbon cable. The card requires 5 VDC @ 1.5 A and operates at temperatures of 0° C to 70° C.

Included with the AC28 is the Opto 22 Adapter Card Toolkits CD, containing the ISA Pamux Toolkit. This toolkit includes the Pamux driver and supports Microsoft Windows 95, 98, and NT. (If you need a DOS driver, contact Opto 22

Also shipped with the AC28 is Opto 22 form #726, the *Pamux User's Guide*.
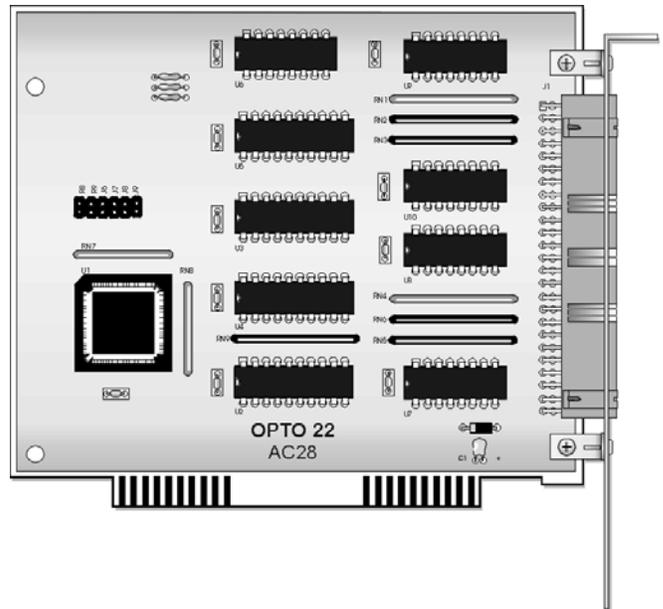


## Installation

### Setting the Jumpers

The AC28 includes six jumpers. Jumpers J6, J7, J8, and J9 are used to set the AC28 base address. Jumpers R8 and R9 are used to set the reset port address. Tables 1 and 2 show the jumper configurations for these addresses.

**Table 1: Base Address Jumpers**

| Base Address | J9 | J8 | J7 | J6 |
|---|---|---|---|---|
| 100 hex | In | Out | In | In |
| 140 hex | In | Out | In | Out |
| 180 hex | In | Out | Out | In |
| 280 hex | Out | In | Out | In |

**Table 2: Reset Port Address Jumpers**

| Reset Port Address | R9 | R8 |
|---|---|---|
| 0E0 hex | In | In |
| 1E0 hex | In | Out |
| 2E0 hex | Out | In |
| 3E0 hex | Out | Out |

***Note:*** *The IBM PC can use only addresses 2E0 and 3E0.*

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## Installation (continued)

### Installing Hardware

The AC28 adapter card installs into any ISA expansion slot of an IBM PC/AT or compatible computer.

1. Turn off the computer. Remove the power cord and the computer's cover.
2. Before handling the AC28, discharge excess static electricity by touching the computer's metal chassis.
3. Follow instructions in your computer's documentation for installing an ISA expansion card such as the AC28.

### Installing Software

To install the Pamux driver, insert the Opto 22 Adapter Card Toolkits CD into your CD-ROM drive. The installer should open automatically; if it does not, open the file setup.exe. Follow instructions to install the toolkit for the AC28.

If you have any questions about Pamuxproducts, contact Opto 22 at or 951-695-3080, Monday through Friday, 8 a.m. to 5 p.m. Pacific Time.

## Acknowledgment Data

You can identify the last board communicated with by using acknowledge lines. The acknowledgment data is read at the reset port address. This Pamux feature works only with the following revisions of Pamux boards:

AC28: Revision C or later
B4: Revision L or later
B5: Revision J or later
B6: Revision G or later

Refer to Table 3 as a guide to using this feature.

**Table 3: Communication Acknowledgment**

| PAMUX Configuration | Data |
|---|---|
| Old AC28 with no connection or any board | FF hex |
| New AC28 with no connection or an old Pamux brain board | 00 hex |
| New AC28 with new B4 | 01 hex |
| New AC28 with new B5 | 02 hex |
| New AC28 with new B6 | 03 hex |