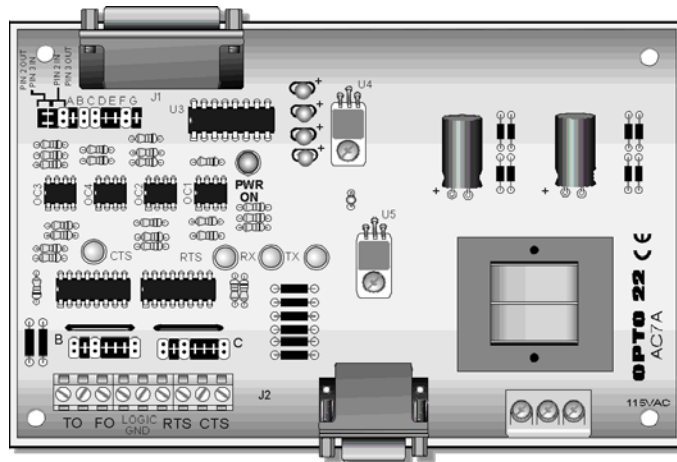


### Description

### Introduction

Part Numbers	Description
AC7A	RS232-RS422/485 Converter 120V
AC7B	RS232-RS422/485 Converter 220V

The AC7A/B is a stand-alone adapter card that converts RS-232 serial communication to RS-422/485 serial communication, which is directly compatible with the Optomux family of intelligent brain boards.



### Features

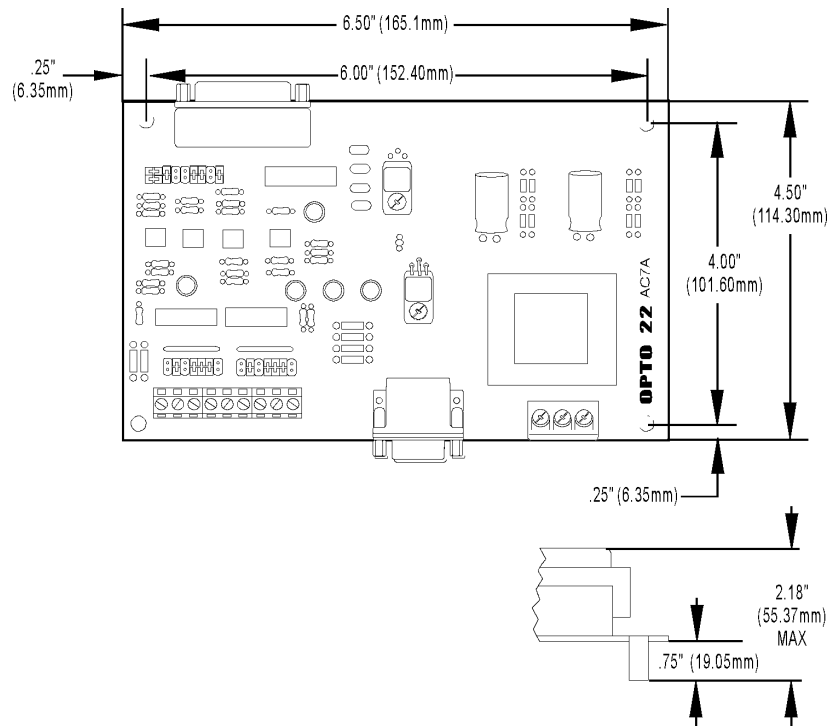
- RS-422/485 balanced line drivers
- Operates with up to 5,000 feet of RS422/485 cable
- Optical isolation between RS-232 and RS-422/485 lines
- Visual LED indicators for transmit, receive, RTS, CTS, and power
- Transmission speeds up to 115,200 bits per second.  
Only "REV L" boards and above (AC7A) and "Rev C" boards and above (AC7B), can be used up to 115,200 baud. Earlier revision boards will operate up to 38,400 baud only.

Form 960-010126

### Specifications

Power Requirements AC7A AC7B	115 VAC ± 10 VAC @ 50-60 Hz 220 VAC ± 20 VAC @ 50-60 Hz
Power Consumption	0.1 amps @ 115 VAC 5 watts (dissipation)
Operating Temperature Range	0° C to 70° C 0 to 95% Humidity (non-condensing)
Optical Isolation	4,000 V between RS-232 and RS-422/485
RS-232 Interface	25-pin, DB-25 female connector
RS-422/485 Interface	Screw terminals or 9-pin, DB-9 female connector
Baud Rate	Up to 38,400 baud; 115.2Kbd in Rev. L (AC7A) and later and in Rev. C (AC7B) and later.
RS-232 Distance	Up to 50 feet
RS-422/485 Distance	Up to 5,000 feet at 38,400 baud (3,000 feet at 115,200 baud)
Communications	RS-422/485 full duplex over two twisted pairs and a ground. Additional twisted pairs for RTS and CTS. Also supports RS-485 2-wire mode. This requires user to build a custom RS-232 cable.
Indicators	Transmit, receive, RTS, CTS, and power

### Dimensions



## Products

Opto 22 produces a broad array of reliable, flexible hardware and software products for industrial automation, remote monitoring, enterprise data acquisition, and machine-to-machine (M2M) applications.

## SNAP Ethernet Systems

Based on the Internet Protocol (IP), SNAP Ethernet systems offer flexibility in their network connectivity and in the software applications they work with. The physical network may be a wired Ethernet network, a cellular wireless network, or a modem. A wide variety of software applications can exchange data with SNAP Ethernet systems, including:

- Opto 22's own ioProject™ suite of control and HMI software
- Manufacturing resource planning (MRP), enterprise management, and other enterprise systems
- Human-machine interfaces (HMIs)
- Databases
- Email systems
- OPC client software
- Custom applications
- Modbus/TCP software and hardware.



SNAP Ethernet system hardware consists of controllers and I/O units. Controllers provide central control and data distribution. I/O units provide local connection to sensors and equipment.

## SNAP OEM Systems

Opto 22 SNAP OEM I/O systems are highly configurable, programmable processors intended for OEMs, IT professionals, and others who need to use custom software with Opto 22 SNAP I/O modules.

Linux® applications running on these systems can read and write to analog, simple digital, and serial I/O points on SNAP I/O modules using easily implemented file-based operations. Applications can be developed using several common development tools and environments, including C or C++, Java, and shell scripts.



## M2M Systems

Machine-to-machine (M2M) systems connect your business computer systems to the machines, devices, and environments you want to monitor, control, or collect data from. M2M systems often use wireless cellular communications to link remote facilities to central systems over the Internet, or to provide monitoring and control capability via a cellular phone.

Opto 22's Nvio™ systems include everything you need for M2M—interface and communications hardware, data service plan, and Web portal—in one easy-to-use package. Visit [nvio.opto22.com](http://nvio.opto22.com) for more information.

## Opto 22 Software

Opto 22's ioProject and FactoryFloor® software suites provide full-featured and cost-effective control, HMI, and OPC software to power your Opto 22 hardware. These software applications help you develop control automation solutions, build easy-to-use operator interfaces, and expand your manufacturing systems' connectivity.



## Quality

In delivering hardware and software solutions for worldwide device management and control, Opto 22 retains the highest commitment to quality. We do no statistical testing; each product is made in the U.S.A. and is tested twice before leaving our 160,000 square-foot manufacturing facility in Temecula, California. That's why we can guarantee solid-state relays and optically-isolated I/O modules *for life*.

## Product Support

Opto 22's Product Support Group offers comprehensive technical support for Opto 22 products. The staff of support engineers represents years of training and experience, and can assist with a variety of project implementation questions. Product support is available in English and Spanish from Monday through Friday, 7 a.m. to 5 p.m. PST.

## Opto 22 Web Sites

- [www.opto22.com](http://www.opto22.com)
- [nvio.opto22.com](http://nvio.opto22.com)
- [www.internetio.com](http://www.internetio.com) (live Internet I/O demo)

## Other Resources

- OptoInfo CDs
- Custom integration and development
- Hands-on customer training classes.



## About Opto 22

Opto 22 manufactures and develops hardware and software products for industrial automation, remote monitoring, enterprise data acquisition, and machine-to-machine (M2M) applications. Using standard, commercially available Internet, networking, and computer technologies, Opto 22's input/output and control systems allow customers to monitor, control, and acquire data from all of the mechanical, electrical, and electronic assets that are key to their business operations. Opto 22's products and services support automation end users, OEMs, and information technology and operations personnel.

Founded in 1974 and with over 85 million Opto 22-connected devices deployed worldwide, the company has an established reputation for quality and reliability.