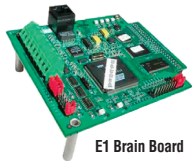
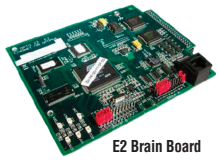
Optomux and Pamux Brain Boards



E1 Brain Board



E2 Brain Board

Optomux and Pamux Brain Boards: Opto 22 brain boards, like SNAP brains, create a truly distributed and scalable I/O system. Used with a host computer, these boards provide local intelligence for an efficient, reliable distributed system. Both Optomux® and Pamux® brain boards are available.

Ethernet Optomux Brain Boards
The E1 and the E2 are Ethernet versions of Opto 22's Optomux family of brain boards, designed to migrate existing Optomux installations to faster networks. The E1 and E2 offer higher performance and more communication options while preserving existing I/O racks, modules and field wiring.

Designed as drop-in replacements for Opto 22's serial-based B1 and B2, the E1 and E2 can connect to standard 10/100 Mbps Ethernet networks while also including support for serial Optomux-based networks. The E1 upgrades the B1 brain board for digital I/O systems, while the E2 upgrades the B2 for analog I/O. Each brain board communicates with a host computer and performs control functions for each I/O point.

Features:
- Drop-In Replacement for Existing B1 and B2 Brain Boards on an Optomux Serial Network
- Dual Network Connectivity: RS-422/485 Serial and 10/100 Mbps Ethernet
- Optomux, Modbus/TCP and OptoMMP Protocol Support
- Provides an upgrade path to Opto 22 PAC Project Software for Control, HMI and OPC Server

Serial Optomux Brain Boards
The B1 and the B2 are the original serial Optomux brain boards. B1s and B2s communicate with a host computer via an RS-422/485 serial link using twisted-pair cable. B1 and B2 Optomux units can be configured for either multidrop or repeat mode operation.

The B1 brain board controls digital I/O modules. It mounts on Opto 22 I/O racks with Standard (G1), G4, Quad Pak, or SNAP I/O modules. The B2 brain board controls G1 analog I/O modules.

Pamux Brain Boards
Opto 22's Pamux system provides low-cost, high-speed distributed control of both digital and analog I/O. A Pamux system can span up to 500 feet and support up to 32 stations with a total of up to 512 I/O points. Pamux brain boards include the B4 (32-channel digital), the B5 (16-channel digital) and the B6 (16-channel analog).

- The B4 is an addressable digital brain board that controls up to 32 input or output points. The B4 is designed for use with the G4PB32H mounting rack for single-point digital I/O, or the PB32HQ mounting rack for quad pak I/O.
- The B5 controls up to 16 digital input or output points and works with a variety of Opto 22 I/O mounting racks, including racks that accept single-point or quad pak digital I/O as well as racks with integrated digital I/O circuitry.
- The B6 controls up to 16 analog input or output points. It is compatible with several mounting racks, including the PB4AH (four points of analog I/O), PB8AH (eight points), and PB16AH (16 points).

TERM1 and TERM2 termination cards provide termination for the Pamux bus.

Feature	B1	E1	B2	E2
Optomux Digital Features				
Read/write to point	●	●		
Input latching	●	●		
Counting	●	●		
Pulse duration measurement	●	●		
Pulse generation	●	●		
Time delays (10 ms resolution)	●	●		
Watchdog timer	●	●		
Optomux Analog Features				
Read/write to point in Engineering units			●	●
Input averaging			●	●
Minimum/maximum values (peak/valley recording)			●	●
Out of range testing (high/low)			●	●
Offset and gain calculation			●	●
Waveform generation			●	●
Watchdog timer			●	●
Networks				
Serial (RS-422/485)	●	●	●	●
Ethernet		●		●
Module families				
G1 analog modules			●	●
G1 digital modules	●	●		
G4 digital modules	●	●		
Quad Pak digital modules	●	●		
Integral digital I/O racks	●	●		
Additional Protocols Supported				
Modbus/TCP		●		●
OptoMMP		●		●

Stock No.	Mfr.'s Type	Description	EACH
691-0148	E1	16-Channel Optomux digital brain, ethernet and serial communications	**295.00**
691-0152	E2	16-Channel Optomux analog brain, ethernet and serial communications	**314.99**

Analog and Digital Intelligent I/O System

Stock No.	Mfr.'s Type	Description	EACH
691-0278	B1	16-Channel Digital Brain	**220.99**
691-0279	B2	16-Channel Analog Brain	**225.01**
691-0280	B4	32-Channel Digital Brain Pamux Protocol	**179.99**
691-0281	B5	16-Channel Digital Brain Pamux Protocol	**175.00**
691-0282	B6	16-Channel Analog Brain Pamux Protocol	**324.98**

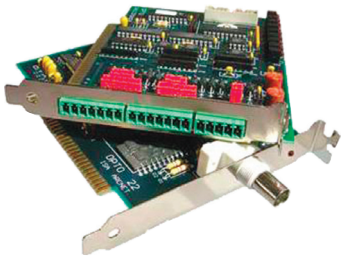
Accessories

Stock No.	Mfr.'s Type	Description	EACH
691-0326	TERM 1	Pamux bus termination card	**36.00**
691-0294	TERM 2	Pamux bus termination card with shielded cable	**36.00**

Adapter Cards

Opto 22 provides both PC and standalone adapter cards to facilitate communication between Opto 22 control systems and a wide range of third-party computers, devices and protocols.

Opto 22 offers a variety of bus-based adapters to fully harness the power of the PC in industrial control. PC adapter cards provide a direct connection from the PC to Opto 22 serial addressable intelligent I/O and parallel addressable I/O as well as direct communications to many third-party devices. Standalone adapter cards provide RS-232 to RS-485 conversion, modem support and addressability for RS-232 devices.



ISA Bus Adapter Cards

Stock No.	Mfr.'s Type	Description	EACH
691-0303	AC24AT	Isolated RS-422/485 Serial	**250.00**
691-0304	AC28	ISA Bus to Pamux Bus Adapter	**185.00**
691-0295	AC37	High-Speed RS-485 Serial with Coprocessor	**600.00**
691-0301	AC5	ISA Bus to Card Edge I/O Rack with 6 Foot Cable	**175.00**
691-0302	G4AC5	ISA Bus to Header I/O Rack with 6 Foot Cable	**195.00**

PCI Bus Adapter Cards

691-0142	PCI-AC48	PCI Bus to RS-485 Serial Adapter	**475.01**
691-5526	PCI-AC5	PCI Bus to Header I/O Rack with 6' Cable	**475.01**
691-0147	PCI-AC51	PCI Bus to Pamux Adapter	**395.01**