

## 4-, 8-, and 16-Port Fiber Optic Muxes

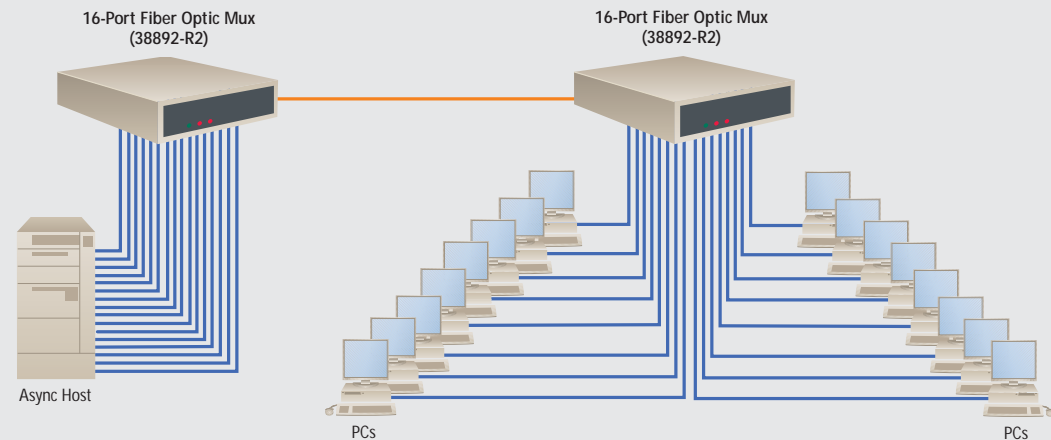


Support up to 4, 8, or 16 channels over fiber optic cable in limited-distance applications.

## FEATURES

- Fiber optic multiplexor and line driver in one compact unit.
- Ideal for limited-distance applications.
- Easy to install—no option switches to set.
- Transparent to speed and protocol.
- Operates at distances up to 10,000 feet (3048 m) over duplex multimode fiber optic cable.
- Supports software (X-ON/X-OFF) flow control.

*Use the multimode fiber optic cable in your small-to-medium-sized campus to connect 16 PCs to an async host up to 10,000 ft. (3048 m) away with the 16-Port Fiber Optic Mux.*



## OVERVIEW

Why buy a mux and a line driver separately when you can get both in one convenient package. If you have fiber optic cable installed in your small-to-medium-sized campus, consider our 4-, 8-, or 16-Port Async Local Fiber Optic RS-232 Muxes.

These async time-division multiplexors support up to 4, 8, or 16 channels at speeds up to 19.2 kbps (38890-R2 or 38892-R2) or 64 kbps (38888-R2). And the integral line driver for duplex multimode fiber gives you point-to-point communications over short distances (up to 10,000 feet [3048 m]).

Compared to statistical multiplexors and leased-line modems, the TDM (Time-Division Multiplexor) and line-driver combination offers a couple of advantages for limited-distance applications:

- Although SPM (Statistical Packet Multiplexing) is very efficient, it's also much more expensive than TDM. If you have limited distances to carry data, the fixed bandwidth used by TDMs gets you more for your money.

- Leased-line modems are not used between devices in the same building or close to each other. To send data a short distance over private, point-to-point fiber optic cable systems, you'd typically use a line driver.

Synchronization between Asynchronous Local RS-232 Muxes is maintained continuously with no operator control required. A Sync Loss indicator on the front of the unit alerts you if loss of sync occurs.

These muxes automatically adapt port speeds to the rates of the individual terminals, without requiring a clock source. All ports operate at maximum throughput levels with virtually no multiplexing delay. As DTE speeds vary, high-speed data sampling on each port makes the unit transparent to error control, EIA signal propagation, or flow control.

## Technically Speaking

### Time-division multiplexing.

TDM operates by dividing the available bandwidth into fixed-duration segments. Each segment or channel is assigned to a user and is given its own time slot to access the network. First, information from Channel A is transmitted, then information from Channel B, and so on in a regular sequence, continually cycling back to Channel A. Bandwidth allocation is static: Each channel receives a fixed amount of bandwidth, preset by the network administrator.

TDM is a relatively inexpensive multiplexing technique and is simple to implement, so it has typically been the first multiplexing technique applied to any new high-speed bandwidth service at first offerings. TDM introduces very little signal delay, so it's well suited to transport data, voice, and video traffic, provided enough bandwidth is available.

The figure on page 2 shows a mux merging 16 data channels over dual fiber optic cable. Each data channel can achieve speeds of up to 19.2 kbps with the 38892-R2 or 38890-R2, 64 kbps with the 38888-R2.

## Technically Speaking

### Why choose fiber?

Fiber optic cable offers several clear advantages over twisted-pair:

- Using fiber completely eliminates the potential for ground loops and electrical problems like crosstalk (interference from an adjacent communication channel).
- With fiber you also get more bandwidth and speed, as well as longer distances, which means more data goes farther faster.

## TECH SPECS

**Maximum Distance** — 10,000 ft. (3048 m) over duplex multimode fiber

**Multiplexing Technique** — Time-division

**Operation** — Full duplex

**Protocol** — Async

**Speed** — 38892-R2, 38890-R2: 19.2 kbps;

38888-R2: 64 kbps

**Interface** — Channel: RS-232;

Composite: Dual ST®

**Connectors** — Composite: All: (2) ST;

Channel: 38888-R2: (4) RJ-45;

38890-R2: (8) RJ-45;

38892-R2: (16) RJ-45

**Indicators** — (3) LEDs: Power, Composite Data, Sync Loss

**Power** — 115-VAC, 60-Hz external power supply

**Size** — 38888-R2, 38890-R2: 1.7"H x 7"W x 5.3"D (4.3 x 17.8 x 13.5 cm);

38892-R2: 2.2"H x 7"W x 5.3"D (5.6 x 17.8 x 13.5 cm)

**Weight** — 38888-R2, 38890-R2: 2 lb. (0.9 kg);

38892-R2: 2.5 lb. (1.1 kg)



38892-R2

Item	Code
Async Local Fiber Optic RS-232 Multiplexor	
4-Port	38888-R2
8-Port	38890-R2
16-Port	38892-R2
<b>Optional accessories include...</b>	
Telephone Bulk Cable	EL08A
Fiber Optic Duplex Bulk Cable	EXN062A
Modular Adapters	
DB25 Male/RJ-45 for DTE	523951
DB9 Female/RJ-45 for DTE	523953
DB25 Female/RJ-45 for DTE	523954
DB25 Male/RJ-45 for DCE	523952