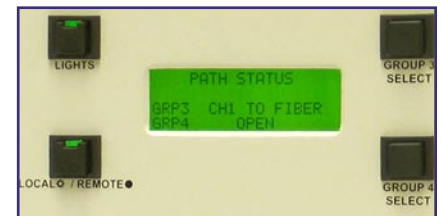


The FX-4P Fiber Optic Extender provides seamless and transparent interconnection of up to four Naval Tactical Data System (NTDS) Parallel Type A or B devices with other devices located up to 14 km away.

As part of X-COM's line of Commercial-Off-The-Shelf (COTS) NTDS solutions, the FX-4P provides system managers with unprecedented design flexibility to interconnect remote equipment as if it were located in the same laboratory. It is designed to cost-effectively meet the unique needs of today's NTDS development, evaluation, and training environments.



▲ LCD displays on the front panel simplify operation and maintenance

## Features

### Expandable

Links up to eight NTDS Type A or B devices in four independent two-channel groups

### Extended Range

NTDS devices up to 14 km away can be connected via fiber optic cables

### Versatile

Each two-channel group can be selected to be isolated, connected device-to-device locally, or linked via a fiber optic cable to a remote device

### Diagnostics

Front-panel status indicators simplify operation and maintenance

### Enables Remote Configurations

Equipment located in remote labs can be combined into new virtually co-located configurations

### Easy to Use

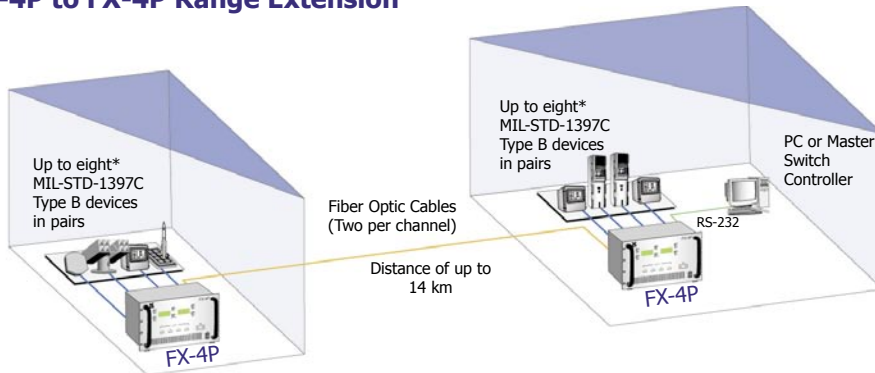
Can be configured and monitored either using the front-panel display or via RS-232 using a PC or Master Switch Controller

### Reliable

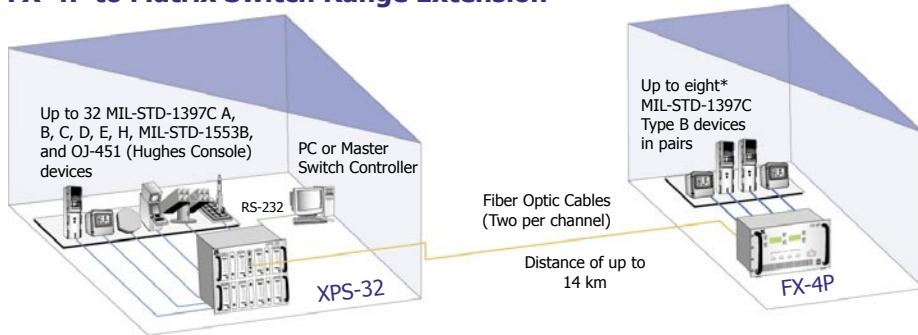
Patented signal processing algorithm and 100% signal regeneration ensures maximum data integrity in the demanding environments

### FX-4P Typical Applications

#### FX-4P to FX-4P Range Extension



#### FX-4P to Matrix Switch Range Extension



\*Each fiber optic channel can be connected to either one or two devices

### Specifications

#### Interfaces:

MIL-STD-1397C Type A or B

#### Size:

FX-4P Chassis:  
10 1/2" (6U) H x 15 1/4" D x 19" W  
(19" rack mount)

#### Weight:

Approximately 20 lbs.

#### Power:

Standard IEC 115 VAC

#### Control:

Front Panel, PC, or Master Switch  
Controller via RS-232

#### X-COM Systems, LLC

12345-B Sunrise Valley Drive

Reston, VA 20191

Phone: (703) 390-1087

Fax: (703) 390-1086

<http://www.SystemsX.com>

### Typical Applications

The FX-4P is typically used at shore-based test, evaluation, and training commands to link remotely located NTDS equipment, such as radar or sonar units, to a central switching center. The fiber optic extender connects up to eight local devices arranged in four pairs. Each paired channel may be isolated, connected to each other locally, or either device can be connected using high speed fiber optic lines to a remote NTDS Type A or B device located up to 14 km away. The fiber optic link from the FX-4P can be connected to another FX-4P or to an optional fiber optic multi-function card in an XPS-32 switch. When connected to a XPS-32, the matrix switch has direct access to the remote equipment in a fully transparent manner as if the equipment were connected directly via NTDS cables.



▲ Two-channel module with fiber extension

### System Design and Testing

The FX-4P delivers performance with reliability. It is modular, reliable, simple to repair, and requires no routine maintenance. Front-panel status indicators allow for easy monitoring of link status. The FX-4P has been rigorously field-tested with demonstrated bit-error rates of less than  $10^{-10}$  and latency less than 500 nanoseconds.



FX-4P Rear-Panel View ▶