

# Single or Dual Fiber Ethernet Data System

## 10Base-T, 100Base-TX, 1000Base-SX, or 1000Base-LX

**45-FX/ML**  
**47-SX/LX**  
**SERIES**  
**MULTIMODE**



### FEATURES:

- Complete Fiber Optic to Twisted Pair Media Interface
- Diagnostics: UTP Activity, UTP Link, Fiber Activity, and Fiber Link
- 10/100 Mb/s, Full/Half Duplex (45 Series)
- 1000 Mb/s (47 Series)
- MDI / MDIX Switch (45 Series)
- Auto MDI / MDIX Detection (47 Series)
- One and Two Fiber Versions Available

### SPECIFICATIONS:

#### Ethernet Data:

Data Rate:  
 45 Series ..... 10/100 Mb/s  
 47 Series ..... 1000 Mb/s  
 Data Connector ..... RJ45

#### Optical:

Wavelength:  
 45-FX Series ..... 1310 nm  
 45-ML Series ..... 1310/1550 nm  
 47-SX Series ..... 850 nm  
 47-LX Series (Dual Fiber) ..... 1310 nm  
 47-LX Series (One Fiber) ..... 1310/1550 nm  
 Maximum Distance (Per IEEE802.3):  
 45 Series (Half Duplex) ..... 412 m  
 45 Series (Full Duplex) ..... 2 Km  
 47-SX Series (50/125u) ..... 550 m  
 47-SX Series (62.5/125u) ..... 220 m  
 47-LX Series ..... 550 m  
 Loss Budget (62.5/125u):  
 45 Series ..... 11 dB  
 47-SX Series ..... 7 dB  
 47-LX Series ..... 10 dB  
 Connector ..... SC  
 ST connector optional on 45-FX Series

#### Temperature (Operating)

-20°C to +70°C, non-condensing

#### Power Supply:

Module - 12 VDC (AFI Part #: PS-12D)  
 Power Consumption ..... 5 Watts  
 Rack Card (See AFI Part #: SR-20D/2)  
 Power Consumption ..... 6 Watts

#### Size:

Module - 4 1/4" x 4 1/4" x 1 1/8"  
 Rack Card - 6 1/2" x 1" x 5"

*Example: MX-45-FX-ST to MX-45-FX-ST*

*Example: MX-45-FX-ST to RX-45-FX-ST*

*Example: MT-45-ML-SC to RR-45-ML-SC*

*Example: MX-47-SX to MX-47-SX*

*Example: MX-47-LX to RX-47-LX*

*Example: MTX-47-LX to RRX-47-LX*



The American Fibertek 45-FX Series and 45-ML Series transmit 10Base-T or 100Base-TX Ethernet data over multimode optical fiber. The 47-SX Series transmits 1000Base-SX Ethernet data and the 47-LX Series transmits 1000Base-LX data. The system is comprised of two transceivers forming a point-to-point link and requires no field adjustments at installation or additional maintenance thereafter. The system is designed to be completely transparent with auto negotiate features. The 45 Series provides a MDI/MDIX crossover switch while the 47 Series incorporates auto negotiate MDI/MDIX operation. Diagnostic indicators provide a quick visual indication of system status.

The 45 and 47 Series may be ordered as stand alone modules or rack cards that are mounted in the SR-20D/2 or SR-20R/1 American Fibertek Card Cages.

#### ORDERING INFORMATION (Dual Fiber Units):

MX-45-FX-ST = 10/100 Mb/s Module Transceiver with ST Connectors  
 RX-45-FX-ST = 10/100 Mb/s Rack Card Transceiver with ST Connectors  
 MX-45-FX-SC = 10/100 Mb/s Module Transceiver with SC Connectors  
 RX-45-FX-SC = 10/100 Mb/s Rack Card Transceiver with SC Connectors

MX-47-SX = 1000 Mb/s Module Transceiver with SC Connectors  
 RX-47-SX = 1000 Mb/s Rack Card Transceiver with SC Connectors

MX-47-LX = 1000 Mb/s Module Transceiver with SC Connectors  
 RX-47-LX = 1000 Mb/s Rack Card Transceiver with SC Connectors

#### ORDERING INFORMATION (Single Fiber Units, all with SC Connectors):

**Note: One end of link must have 1310 nm TX, the other end 1550 nm TX**

MT-45-ML-SC = 10/100 Mb/s Module Transceiver 1310 nm TX/ 1550 nm RX  
 RT-45-ML-SC = 10/100 Mb/s Rack Card Transceiver 1310 nm TX/ 1550 nm RX  
 MR-45-ML-SC = 10/100 Mb/s Module Transceiver 1550 nm TX/ 1310 nm RX  
 RR-45-ML-SC = 10/100 Mb/s Rack Card Transceiver 1550 nm TX/ 1310 nm RX

MTX-47-LX = 1000 Mb/s Module Transceiver 1310 nm TX/ 1550 nm RX  
 RTX-47-LX = 1000 Mb/s Rack Card Transceiver 1310 nm TX/ 1550 nm RX  
 MRX-47-LX = 1000 Mb/s Module Transceiver 1550 nm TX/ 1310 nm RX  
 RRX-47-LX = 1000 Mb/s Rack Card Transceiver 1550 nm TX/ 1310 nm RX

SEE WEBSITE FOR CURRENT RoHS PRODUCT AVAILABILITY