



# 10/100/1000Base-T to 100/1000Base SFP Ethernet Media Converter PoE Powered Device

### FEATURES:

- ◆ SFP Port 100/1000Base Auto Sensing
- ◆ Ethernet 802.3af Class 1 PoE Powered
- ◆ Auxiliary 48 VDC Power Input
- ◆ Auto MDI / MDIX Detection
- ◆ Auto Negotiate 10/100/1000 Port
- ◆ Link and Activity Indicators for UTP and Fiber Ports
- ◆ Port Configuration Switches
- ◆ Active Link Pass Through LPT
- ◆ Jumbo frames Support
- ◆ AVB Audio Video Bridging Support
- ◆ Lifetime Warranty

### SPECIFICATIONS:

#### Ethernet:

Data Rate  
Auto negotiated .....10/100/1000 Mb/s  
Connector.....RJ45

#### Configuration Switches:

- SW1: Auto-Negotiation TP On/Off
- SW2: Speed TP : Force 10Mb or 100Mb
- SW3: Duplex TP : Force Half or Full
- SW4: 1000Base-X / SGMII Mode
- SW5: 100Base-FX / 1000Base-X Mode
- SW6: Duplex Fiber : Force Half or Full
- SW7: PSE Power On/Off
- SW8: PSE/LPT On/Off
- SW9: Link Pass Through LPT On/Off
- SW10: PoE Legacy On/Off

#### Optical:

SFP (ordered separately, see SFP datasheet)  
100Base-FX/1000Base-X

#### Power:

Voltage .....42 to 56 VDC  
Power PoE Class 1 .....<3.85W  
Aux Power Connector .....2.1 x 5mm Barrel  
Center Positive, Reverse Polarity Protected  
PS-4820 Power Supply Included

#### Environmental:

Operating Temperature..... 0 °C to 40 °C  
Humidity .....5 % to 95 %  
Weight ..... 1lb  
Compliance ..... RoHS, CE, FCC Part 15, UL  
Warranty.....Lifetime

Dimensions:.....4¼" x 4¼" x 1½"

#### Ordering Information

MX-1G-PD  
SFP Ordered Separately  
LC Optical Connectors Standard on SFPs

11/23 JPM

SFP NOT INCLUDED]

The American Fibertek Series MX-1G-PD transmits and receives a 10/100/1000Base-T Ethernet signal at the RJ45 port and a 100 Base-FX or 1000Base-X at the fiber port over 1 or 2 single-mode or multi-mode fibers using an SFP optical component. The SFP optic is ordered separately (see AFI SFP datasheet). Diagnostic indicators provide a quick visual indication of system status.

The system is designed to be completely transparent with an auto negotiation feature which automatically configures the unit for the correct speed (10/100/1000Base-T). Auto MDI/MDIX operation eliminates the potential need for crossover cables. However, data configuration switches are available to force the system into specific operating modes if required.

The Series MX-1G-PD is powered by a PoE switch or mid-span injector from the RJ45 port over the copper connection. The device may also be powered by an included 48 Volt power source. A PS-4820 power supply is included.

The Series MX-1G-PD also supports active 'Link Pass Through LPT'. With LPT, the media converter monitors both the fiber and copper RX (receive) ports for loss of signal. If there is a loss of a RX signal on one of the media's ports, the media converter will automatically disable the TX (transmit) signal of the media converter's other port. Upon installation and power up, the active LPT feature is suspended until both the copper and fiber links have been established which assists in troubleshooting initial connection issues.

The benefit of LPT is that the fiber link can act as a transparent copper connection where both end devices are able to see a loss connection and, if managed, send an SNMP alert so that corrective action can take place.

AMERICAN FIBERTEK, INC.

745 43<sup>RD</sup> STREET SOUTH, SAINT PETERSBURG FLORIDA 33711

email: mail@americanfibertek.com

phone: (800) 323-0660