

Media Converters

D A T A
S H E E T

FAST-TWIST MIL-180 and MIL-190C Fast Ethernet TX to FX



- Autonegotiates to Full Duplex
- Increase your network bandwidth tenfold with 100Mbps Fast Ethernet (200Mbps in full-duplex mode)
- Convert your signals from fiber to UTP without the need of a Class I hub
- Shielded connectors allow the use of screened or shielded UTP cabling to reduce EMI and ESD issues
- Easily seen LEDs make for faster diagnosis of network problems
- A compact design makes this an unseen, but powerful addition to your network
- 5 year warranty

The Fiber•Twist MIL-180 is a 100BaseFX Fast Ethernet MultiMode fiber optic to 100BaseTX UTP converter that is compliant with the IEEE 802.3u standard. The MIL-190C similarly converts from 100 BASE-TX to 100 BASE-FX, for single mode fiber. They easily convert fiber optic to UTP cabling without the need of a Class 1 hub allowing you to add fiber ports as you need them and where you need them. They add a minimal 150 nanosecond delay in converting from copper to fiber and operate automatically in either Half- or Full- Duplex mode.

A unique feature of the MIL-180 and MIL-190 is that they will initiate auto negotiation notifying that they support Full Duplex 100 Mbps on the UTP port. This eliminates the need of using software controls to force a port into Full Duplex. Fiber optic cabling is ideal for installations that require minimal electromagnetic interference. The MIL-180 and MIL-190 provides shielded connectors to allow the use of screened or shielded UTP cabling to further reduce EMI and ESD issues. The streamlined, compact design allows for an unobtrusive conversion of media to your network.



Features/Specifications

Features

- Converts Fast Ethernet UTP TX to fiber FX optic cabling
- Supports half- and full-duplex operation
- Selectively force 100Mbps full-duplex on UTP port
- One UTP port with a shielded RJ-45 connector
- One multimode fiber port with ST or SC style connector or one SC single male
- Diagnostic LEDs
- Compact footprint (2.9"W x 1."H x 3.5"D)
- IEEE 802.3u 100BaseFX and 100BaseTX compliant
- Link Sentry™ pass through of link failures

Product Package

- Installation guide

Ports

100BaseTX

- UTP using shielded RJ-45 connectors
- Configured to connect to repeater/hub.
- To connect to a DTE, swap pins 1 to 3, 2 to 6, 3 to 1 and 6 to 2.

Pin Assignment

1 TX +	5
2 TX -	6 RX -
3 RX +	7
4	8

100BaseFX

- ST or SC style connectors (SC only on MIL-190C)

Fiber Specification

	Multi-Mode	Single-Mode
■ Wavelength	1300nm	1300nm
■ Launch Power	-14dBm	-8dBm
■ Receiver Sensitivity -	-31dBm	-31dBm
■ Cable	62.5/125	8-9/125

LED's

- TX Active, FX Active, Power On

Conversion Delay

- 150 nseconds

Electrical

- External switching power supply
- Input Voltage 60Hz 110 VAC or 50Hz 220 VAC
- Output Voltage 5V, 1.5A

Standards Compliance

- FCC Class A
- CE
 - EN55022 Class B
 - EN50082
- UL 1950
- CSA 22 No. 950
- EN60950

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Models and Part Numbers

ST style MMF connectors (110V power supply)	. . .	MIL-180T
ST style MMF connectors (220V power supply)	. . .	MIL-180TI
SC style MMF connectors (110V power supply)	. . .	MIL-180C
SC style MMF connectors (220V power supply)	. . .	MIL-180CIN
SC style SMF connectors (110V power supply)	. . .	MIL-190C
SC style SMF connectors (220V power supply)	. . .	MIL-190CIN

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