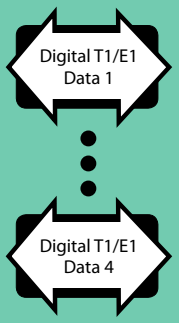
MERIDIAN TECHNOLOGIES

FX-4T-SFP FX-4E-SFP DigiCool™

Digitally Encoded Four Bi-directional Digital T1/E1 Data using the Industry Standard Small Form Pluggable (SFP) Optical Device



FEATURES

- User Selectable formats: AMI, B8ZS or HDB3
- Synchronous Data Rates 1.544/2.048 Mbs
- Cable Equalization up to 600 feet
- Data and Clock Recovery Functions
- Transmit/Receive Side Jitter Attenuation
- Local and Remote LoopBack
- Digital FPGA Technology
- Meets NEMA TS1/TS2 and Caltrans Specifications
- Utilizes Internal Switching Power Supplies Automatically Resettable Solid-State Current Limiters on All Power Lines: Provides Equipment Protection
- Hot Swappable Cards
- Surface Mount Technology (SMT) for High Reliability and Repeatability
- LC, SC Optical Connector (SFP dependent)
- SpectraSmart™ Compatible
- LED Status Indicators Provide Rapid Indication of Critical Operating Parameters

DESCRIPTION

The FX-4T-SFP and FX-4E-SFP series fiber optic transmission systems take advantage of Meridian's new digital encoding technology transmit following signals:

1. Four Bi-directional T1/E1 signals

over one or two multimode or singlemode fibers.
T1/E1 interface support full duplex operation at data rates up to 1.544 (T1) and 2.048 Mbs (E1).
This products are employing the industry standard Small Form Pluggable (SFP) optical device. This SFP gives you the option for either singlemode, multimode or CWDM wavelength selections by simply plugging in the appropriate SFP module.
The capabilities of these systems are enhanced by their compatibility with Meridian's PC based SpectraSmart™ Network Management and Diagnostic software system. SpectraSmart monitors operating parameters of the transmission system as well as allowing features like a remote optical bypass card, for optically bypassing any faulted card in a ring configuration.

CONFIGURATIONS

The DigiCool™ family products are available as rack mount cards that can be installed in Meridian's card chassis, desk chassis and 19" racking frames. This system can be configured in either star (module to rack) or trunking (rack to rack) configurations. These systems can be made a standalone system by using the SR-500, 1 slot desk / wall mount chassis (87VAC-264VAC).

MARKETS

√ Security and Surveillance
√ Intelligent Transportation System (ITS)
√ Access Control Systems
√ Campus Lecture Networks

SPECIFICATIONS:

Data

Formats - T1	AMI, B8ZS
Format - E1	HDB3
Data Rate - T1	1.544 Mb/s
Data Rate - E1	2.048 Mb/s
Bit Error Rate	10^{-11} *

Optical

Fiber Data Rate	1 Gb/s

Connectors

Data - T1	RJ48 (shielded), 100 Ohm (Balanced)
Data - E1	RJ48 (shielded), 120 Ohm (Balanced)
Optical	LC, SC Optical Connector (SFP dependent)
Power (Module)	2 Pin Screw Block via SR-500 chassis)

Power **

Card	5 Watts

Indicators (LEDs)

1- Red	Power On
1 - Bi-color	TX Carrier / Fail
1 - Bi-color	RX Carrier / Error
1 - Bi-color	TX Signal / Alarm
1 - Bi-color	RX Signal / Alarm

Physical

Dimensions (Card)	160 mm (6.3") L, 127 mm (5") W
	20mm (0.80") W
Weight (Card)	450 gms (16 Oz)
No. of Slots	1
Module	See SR-500 Brochure

Environmental

Operating Temperature	-40°C to +74°C
Storage Temperature	-55°C to +85°C
Relative Humidity	0 to 95% Non-condensing

Quality

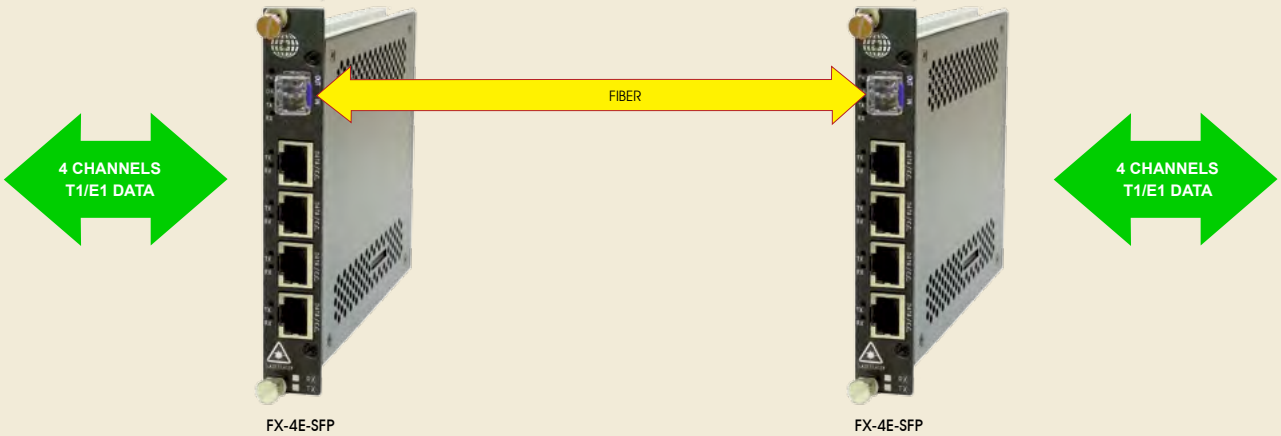
MTBF	>170,000 hours @ Ground Fix 35°C per MIL217F

Part Numbers:

FX – 4 [ ] — SFP — [ ]

- [ ] = T - T1 DATA
- [ ] = E - E1 DATA
- [ ] = C - CONFORMAL COATING
- [ ] = D - SpectraSmart ™ DIAGNOSTIC

* *measured @ max. optical budget*
** *Due to variations of drivers and diagnostic options, power shown @ max value*



SFP OPTIONS:

The SFP series products are available for both singlemode and multimode fiber applications and ether one or two fiber versions.
Recommended optical speed for this product is 1.25 Gb/s.

For more specifications on a SFP optical devices go to SFP data sheet clicking SFP DEVICES or go to: **WWW.MERIDIAN-TECH.COM -> PRODUCTS -> ACCESSORIES -> SFP OPTICAL DEVICES**

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