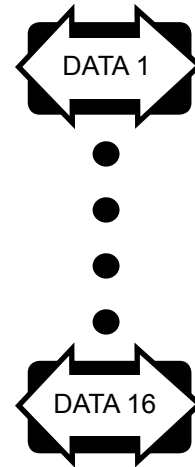


Bi-directional, One Fiber  
RS-422 Data Transceiver  
1-16 Data Channels



#### FEATURES:

- Laser Based Systems for Multimode and Singlemode Fiber
- Surface Mount Technology (SMT) for High Reliability and Repeatability
- SpectraSmart Network Management Compatible
- Local LED Status Indicators to Monitor Critical System-Diagnostics and Performance Parameters
- ST, FC Optical Connector
- Hot Swappable Rack Cards
- Back - Biased Photo Detector Circuitry for Stable Optical Laser Output Over Full Temperature Range
- Meets NEMA TS1 / TS2 & CALTRANS Specifications Utilizes Internal Switching Power Supplies
- Automatically Resettable Solid-State Current Limiters on All Power Lines: Provides Equipment Protection
- DB 9 Type Connectors for Data
- DC to 1Mb/s Data Rate\*
- Wide Optical Dynamic Range: Optical Attenuators are Never Needed

#### DESCRIPTION:

The DX -16F-2 series product incorporates a new digital encoding technology. This fiber optic system is available in different configurations ranging from 1 Channel to 16 Channels of Bi-directional RS 422 data signals over one Singlemode or Multimode fiber. Meridian's digital product line incorporates plug-in personality circuit cards to easily configure a wide variety of data channels on this system. The functionality of the DX-16F-2 series are further enhanced by their compatibility with Meridian's PC based SpectraSmart Network Management & Diagnostic Software system. SpectraSmart supervises the operating parameters of the transmission system such as the status on Digital carrier detect, voltages, temperatures, optical levels etc. See SpectraSmart brochure for further details.

#### CONFIGURATIONS:

The DX-16F-2 product family is available as rack mount cards suitable for mounting in Meridian card chassis and utilizes 5 card slots. These products can easily be converted to a Standalone module with the SR-1500/S, Desk / Wall mount 7-slot chassis (87- 264 VAC). See SR-1500 brochure for further details.

#### MARKETS:

- √ Security and surveillance
- √ Access control systems
- √ Intelligent transportation systems (ITS)
- √ SCADA

## SPECIFICATIONS:

### Data

Formats	RS-422D
Rate	DC to 1Mb/s * (Per Channel)
Bit Error Rate	10 <sup>-9**</sup>

### Power

Card	5 Watts (1-4 Ch. System)
	8 Watts (16 Ch. System)

### Connectors

Data	DB 9 F
Optical	ST™, FC
Power	See SR-1000/S Spec. Sheet

### Optical

Bandwidth	250 Mb/s.
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NOTE: Standard Systems incorporates Fabry Perot Lasers

### Enviromental

Operating Temperature	-34oC to +74oC
Storage Temperature	-55oC to +85oC
Relative Humidity	0 to 95% Non-condensing

### Model No.

#### SIDE "A"

DXA-1F-2. . . . .	1 Ch. Transceiver, 1300 / 850 nm, MM
DXA-2F-2. . . . .	2 Ch. Transceiver, 1300 / 850 nm, MM
DXA-4F-2. . . . .	4 Ch. Transceiver, 1300 / 850 nm, MM
DXA-8F-2. . . . .	8 Ch. Transceiver, 1300 / 850 nm, MM
DXA-16F-2. . . . .	16 Ch. Transceiver, 1300 / 850 nm, MM
DXA-1F-5. . . . .	1 Ch. Transceiver, 1550 / 1310 nm, SM
DXA-2F-5. . . . .	2 Ch. Transceiver, 1550 / 1310 nm, SM
DXA-4F-5. . . . .	4 Ch. Transceiver, 1550 / 1310 nm, SM
DXA-8F-5. . . . .	8 Ch. Transceiver, 1550 / 1310 nm, SM
DXA-16F-5. . . . .	16 Ch. Transceiver, 1550 / 1310 nm, SM

#### SIDE "B"

DXB-1F-2. . . . .	1 Ch. Transceiver, 850 / 1300 nm, MM
DXB-2F-2. . . . .	2 Ch. Transceiver, 850 / 1300 nm, MM
DXB-4F-2. . . . .	4 Ch. Transceiver, 850 / 1300 nm, MM
DXB-8F-2. . . . .	8 Ch. Transceiver, 850 / 1300 nm, MM
DXB-16F-2. . . . .	16 Ch. Transceiver, 850 / 1300 nm, MM
DXB-1F-5. . . . .	1 Ch. Transceiver, 1310 / 1550 nm, SM
DXB-2F-5. . . . .	2 Ch. Transceiver, 1310 / 1550 nm, SM
DXB-4F-5. . . . .	4 Ch. Transceiver, 1310 / 1550 nm, SM
DXB-8F-5. . . . .	8 Ch. Transceiver, 1310 / 1550 nm, SM
DXB-16F-5. . . . .	16 Ch. Transceiver, 1310 / 1550 nm, SM

### Indicators (LEDs)

1 - Green	Power On
1 - Bi-color	TX Carrier/ Laser Over Current
1 - Bi-color	RX Carrier - Present / Error
1 - Bi-color	RX optical signal - Present / Absent
1 - Green	Data Present ( One Per Channel)
1 - Bi-color (Optional)	Card Diagnostics

### Physical

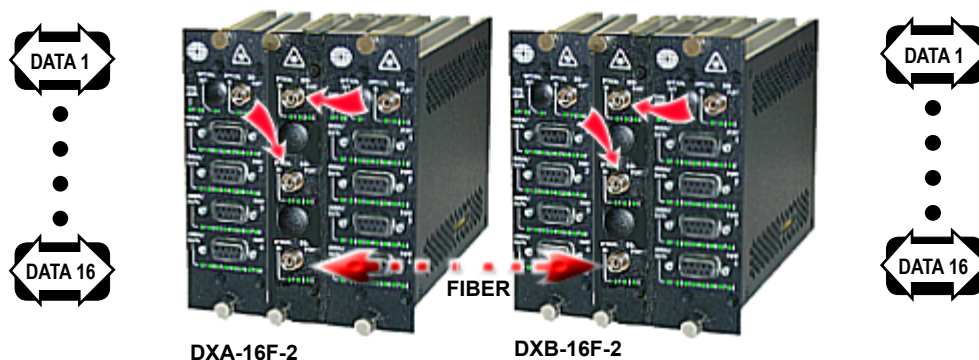
Dimensions:	
Card	160 mm (6.3") L, 100 mm (4") W
	44mm (1.7") H
Weight:	
Card	450 g (16 oz.)
Number of Rack Slots	5

### Quality

MTBF	>200,000 hours, @ 35°C Ground
	Fix as per MIL 217F

\* measured @ max. optical budget

\*\* Due to variations of drivers and diagnostic options, power shown @ max value



## OPTICAL:

Fiber Type/Size (um)	Optical Output (dBm)	Reciever Sensitivity (dBm)	Optical Budget (dB)	Wavelength (nm)	Optical Connector	Optical Dynamic Range (dB)
Multimode (FP) 62.5 / 125	-4	-24	20	850 / 1300	ST	25
Singlemode (FP) 9 / 125	-4	-24	20	1310 / 1550	ST , FC	25
Singlemode (DFB) 9 / 125	+3	-24	27	1310 / 1550	ST , FC	25