MERIDIAN
TECHNOLOGIES

Four Full Duplex RS-232 Data Channels

RS-232

RS-232

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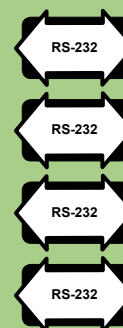
RS-232

FEATURES:

- Real Time Data Transmission

- Four Bi-directional RS-232 Data Channels

- Wide Optical Dynamic Range: Eliminates Need For Optical Attenuators

- Laser Based Systems for Multimode and Singlemode

- Surface Mount Technology (SMT) for High Reliability and Repeatability

- SpectraSmartTM PC Based Network Management

- Local LED Status Indicators to Monitor Critical System Diagnostics for Performance Parameters

- ST, FC Optical Connector

- Hot Swappable Cards

- Laser Back - Biased Photo Detector Circuitry for Stable Optical Output Over Full Temperature Range

- Screw Terminal Type Connectors for RS-232 Data

DESCRIPTION:

The SXA/SXB-4D/4D-x series products incorporate a new digital encoding technology. This fiber optic system transmits Four Bi-directional RS-232 Data signals over one optical fiber.

Both, multimode or singlemode fiber versions are available (See "Part Numbers" section).

The functionality this system is further enhanced by its 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 SXA/SXB-4D/4D-x 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
- ✓ Access Control

SPECIFICATIONS:

Data

Formats	RS-232
Data Rate RS-232	DC to 125 Kb/s
Bit Error Rate	10⁻⁹*

Connectors

Data	Screw Terminals
Optical	ST - MM(default), FC - SM(default)
Power	See SR-500 data sheet

Optical

Fiber Data Rate	250 Mb/s

Environmental

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

Power**

Card	4 Watts

Indicators (LEDs)

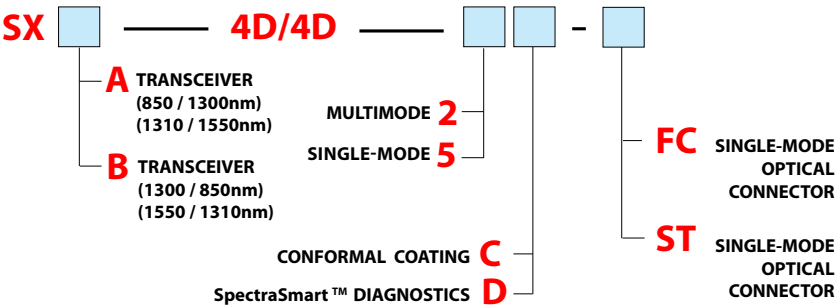|	
1 - Green	Power On
1 - Bi-color	TX Carrier/ Laser Over Current
1 - Bi-color	RX optical signal - Present / Error
4 - Green	TX Data Present
4 - Green	RX Data Present
1 - Bi-color (Optional)	Card Diagnostics

Physical

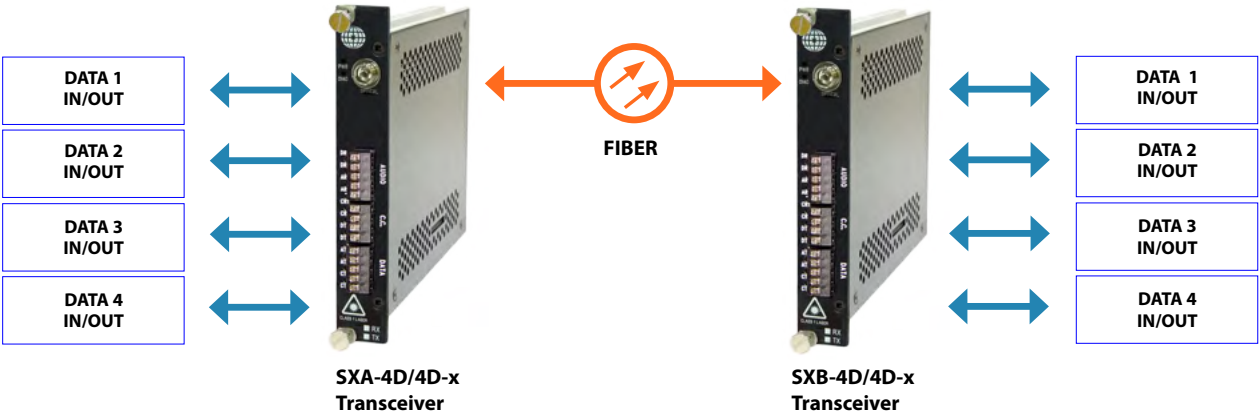|	
Dimensions (Card)	20 (W) x 127 (H) x 160 (D) mm (0.8 x 5.0 x 6.3 inch)
Weight (Card)	450 gms (0.9 lb.)
No. of Slots	1
Module	See SR-500 data sheet

Quality

MTBF	>170,000 hours, @ 35oC Ground Fix as per MIL 217F

Part Numbers:

SX ☐ —— 4D/4D —— ☐ ☐ – ☐

A TRANSCEIVER (850 / 1300nm) (1310 / 1550nm)

B TRANSCEIVER (1300 / 850nm) (1550 / 1310nm)

MULTIMODE **2**

SINGLE-MODE **5**

CONFORMAL COATING **C**

SpectraSmart ™ DIAGNOSTICS **D**

FC SINGLE-MODE OPTICAL CONNECTOR

ST SINGLE-MODE OPTICAL CONNECTOR

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

DATA 1 IN/OUT
DATA 2 IN/OUT
DATA 3 IN/OUT
DATA 4 IN/OUT

FIBER

DATA 1 IN/OUT
DATA 2 IN/OUT
DATA 3 IN/OUT
DATA 4 IN/OUT

SXA-4D/4D-x Transceiver

SXB-4D/4D-x Transceiver

OPTICAL:

Meridian Optical Code	Fiber Type/Size (um)	Optical Output (dBm)	Receiver Sensitivity (dBm)	Optical Budget (dB)	Wavelength (nm)	Optical Connector	Optical Dynamic Range (dB)	Max Distance (Km)
2	Multimode (Laser) 62.5 / 125	-5	-28	23	850/1300	FC, ST	28	4
5	Single-mode (FP Laser) 9 / 125	-5	-28	23	1310/1550	FC, ST	28	70

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