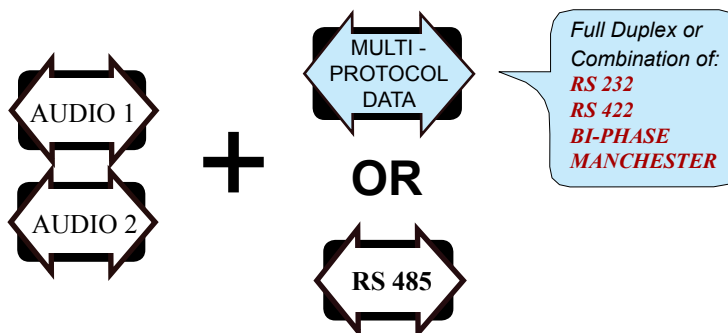


## Digitally Encoded Full Duplex Multi-Protocol Data and Two Bi-directional 24-bit Audio



### FEATURES:

- One Slot Digital Module Design
  - Real Time Audio and Data Transmission
  - Meets RS-250C Short Haul Transmission Specifications
  - Two 24-bit bi-directional Audio Channels
  - Full Duplex Multiprotocol Data Channel
  - 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
  - *SpectraSmart*™ Network Management Compatible
  - 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.
  - Meets EIA RS-170, RS-343A Formats
- DB25F connector for Audio/Data interfaces

### DESCRIPTION:

This module in the **SXA/SXB-2A1G-x** product incorporates an all-digital encoding technology that transmits two full-duplex 24-bit audio channels and one user selectable, full duplex, multi-protocol data channel. RS-232, RS-422, RS-485 (2 or 4 wire), Manchester and Bi-Phase data protocol/formats are all supported. NTSC, PAL and SECAM video formats are all seamlessly supported. A standard DB25F connector is provided for the audio/data interface. These single fiber, laser based systems are available in both, Multimode and Singlemode modules.

The **SXA/SXB-2A1G-x** system is also compatible with Meridian's *SpectraSmart* Network management and diagnostic PC based system. See the *SpectraSmart* brochure for additional details.

### CONFIGURATIONS:

The **SXA/SXB-2A1G-x** product is available as rack mount cards that can be installed in either Meridian's desk chassis or in 19" racking frames. Shelf/surface mount modules are also available. 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/S, SR-1000/s, 1 or 2 slot desk / wall mount chassis (87 VAC- 264VAC)

### MARKETS:

- ✓ Intelligent transportation systems (ITS)
- ✓ Security and surveillance
- ✓ Access Control

# SPECIFICATIONS:

## Data

Formats ..... RS-232, RS-422, RS-485,  
Manchester or Bi-Phase  
Data Rate..... DC to 125 Kb/s  
Bit Error Rate ..... 10<sup>-9\*</sup>

## Audio

I/O Impedance ..... 600 Ohm (Bal.), 47 KOhm (Un Bal.)  
Frequency Response ..... 10 Hz to 20 KHz  
SNR ..... >90dB (Weighted)@ 1 KHz  
In/Out Level ..... -8 to +8 dBm (4V<sub>pp</sub> max.)  
(+18 dBm available on request)  
Total Harmonic Distortion .... <0.01% @ 1KHz  
Resolution ..... 24 Bit

## Connectors

Video ..... 75 Ohm BNC (Gold Center Pin)  
Optical ..... ST, FC  
Power (module) ..... See SR-500 Brochure for details  
Data ..... 3-pin Screw Terminal

## Optical

Fiber Data Rate ..... 250 Mb/s

## Power \*\*

Card ..... 6 Watts

## Indicators (LEDs)

1 - Green ..... Power On  
1 - Bi-color ..... TX Carrier/ Laser Over Current  
1 - Bi-color ..... RX Carrier - Present / Error  
1 - Green ..... Tx Data Present  
1 - Green ..... Rx Data Present  
2 - Green ..... Audio Input Present  
2 - Green ..... Audio Output Present

## 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

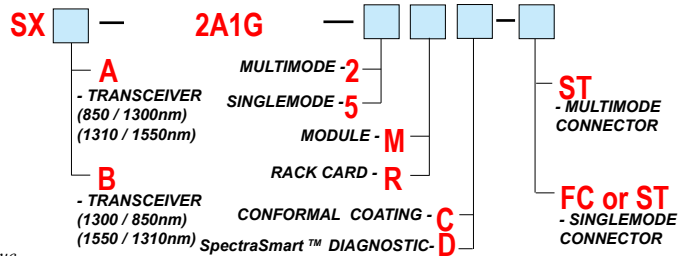
## Environmental

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

## Quality

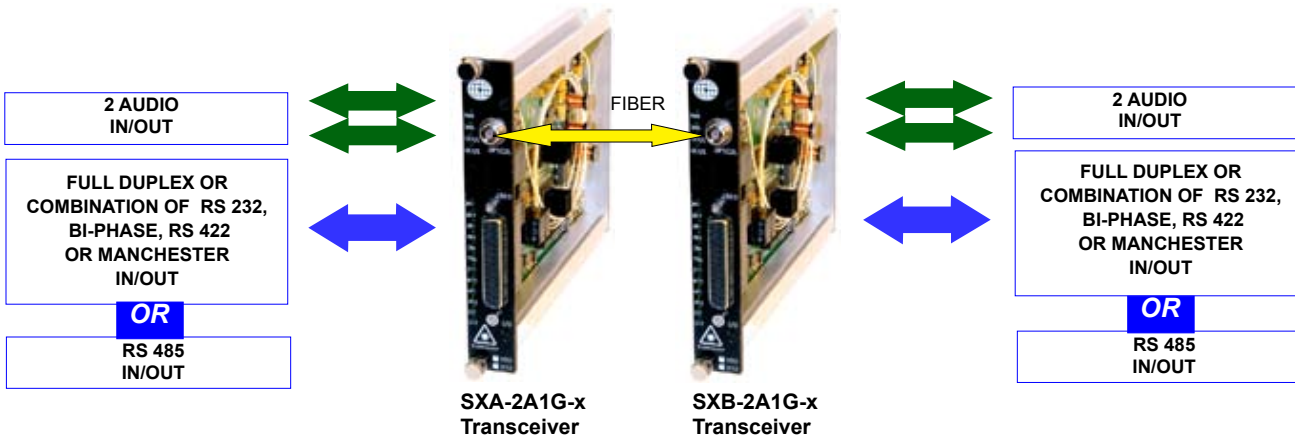
MTBF ..... >170,000 hours @ Ground Fix  
35°C per MIL217F

## Part Numbers:



\* measured @ max. optical budget

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



## OPTICAL:

Fiber Type/Size (um)	Optical Output (dBm)	Receiver Sensitivity (dBm)	Optical Budget (dB)	Wavelength (nm)	Optical Connector	Optical Dynamic Range (dB)
Multimode (FP Laser) 62.5 / 125	-5	-26	21	1300 / 850	ST	24
Singlemode (FP Laser) 9 / 125	-5	-26	21	1310 / 1550	ST, FC	24

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