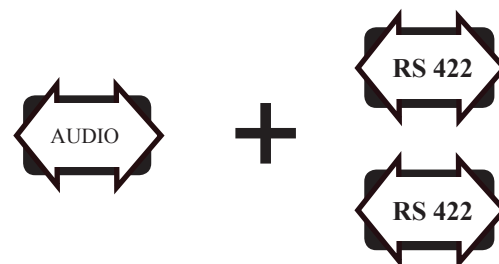


Digitally Encoded One Bi-directional 24-bit Audio and Two Full Duplex RS-422 Data (Manchester, Bi-Phase)



FEATURES:

- One Slot Digital Module Design
- Real Time Audio and Data Transmission
- Meets RS-250C Short Haul Transmission Specifications
- One 24-bit bi-directional Audio Channel
- Full Duplex RS-422 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 SX-1A2F-55/57 and SX-1A2F-57/55 products incorporate an all-digital encoding technology. They transmit or receive 1 full-duplex 24-bit audio channel and 2 RS-422 Data over two singlemode fibers. Manchester and Bi-Phase data protocol/formats are all 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 **DigiSlim** systems are also compatible with Meridian's *SpectraSmart* Network management and diagnostic PC based system. See the *SpectraSmart* brochure for additional details.

Tx side:

SX-1A2F-55/57

- 1-ch 24-Bit Audio = Tx @ 1550nm & Rx @ 1570nm
- 2-ch RS-422 Data = Tx @ 1550nm & Rx @ 1570nm

Rx side:

SX-1A2F-57/55

- 1-ch 24-Bit Audio = Rx @ 1550nm & Tx @ 1570nm
- 2-ch RS-422 Data = Rx @ 1550nm & Tx @ 1570nm

CONFIGURATIONS:

The **DigiSlim** products are 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-422, Manchester, Bi-Phase |
| Data Rate | DC to 1Mb/s |
| Bit Error Rate | 10 ⁻⁹ * |

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 _{pp} 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 |

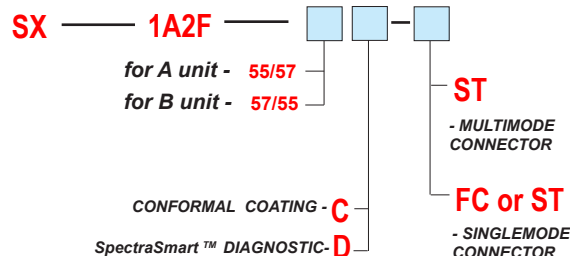
Environmental

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

Quality

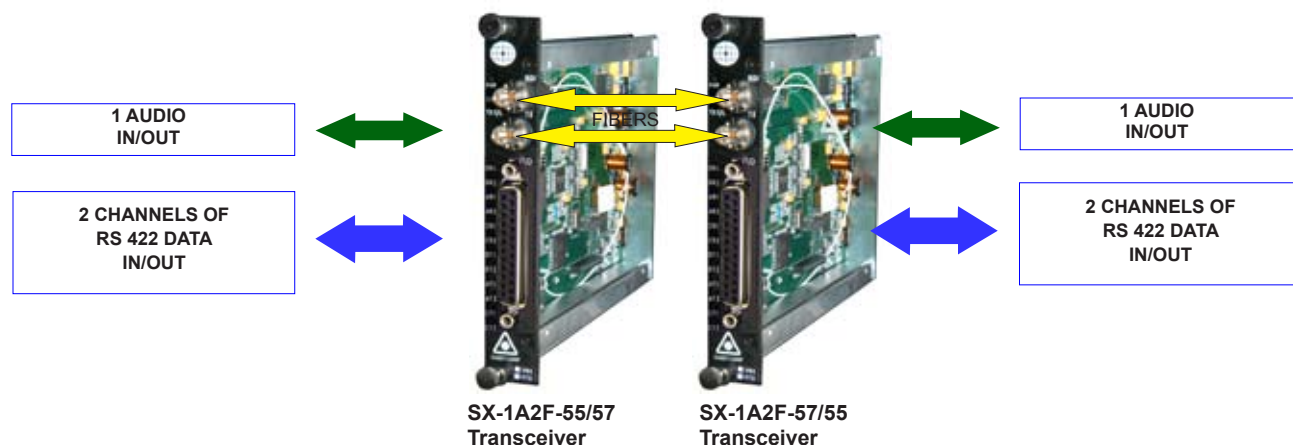
| | |
|------|---|
| MTBF | >170,000 hours @ Ground Fix 35°C per MIL217F |
|------|---|

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) |
|----------------------------------|----------------------|----------------------------|---------------------|-----------------|-------------------|----------------------------|
| Singlemode (FP Laser) 9 / 125 | -5 | -26 | 21 | 1550 / 1570 | ST, FC | 24 |