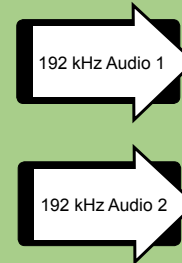


Two Simplex Channels of 192 kHz Digital Audio  
over One Multimode or Single-mode Fiber



#### FEATURES

- Two Unidirectional Channels of 192 kHz Digitally Encoded Audio over one Fiber
- Transparent Digital Audio Transmission
- AES3 and S/PDIF support per IEC60958
- Dolby Digital / DTS support per IEC61937
- Low Power Consumption
- High Efficiency, Isolated Power Supply
- Laser Based Systems for Multimode and Single-mode 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
- Wide Optical Dynamic Range: Optical Attenuators are Never Needed
- BNC Connectors for Audio

#### DESCRIPTION

The ST/SR-2AX-x series fiber optic transmission system that takes advantage of Meridian's new digital encoding technology transmits following signals over one multimode or single-mode fiber:

1. Two Simplex 192 kHz digital audio

The functionality of ST/SR-2AX-x series is further enhanced by its compatibility with Meridian's PC based SpectraSmart™ Network Management and Remote Diagnostic Software System. SpectraSmart™ supervises the operating parameters of the transmission system such as status on video levels, sync, carrier detect, voltage, temperature, optical levels, data present etc. See the SpectraSmart brochure for more details.

**Note:** Digital Audio channels in conjunction with Video, Analog Audio and Data channels are available at customer request.

#### CONFIGURATIONS

The ST/SR-2AX-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/s, 1 slot desk / wall mount chassis (87VAC-264VAC).

#### MARKETS

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

SPECIFICATIONS:

Audio Inputs (Tx) / Outputs (Rx)

|                      |                         |
|----------------------|-------------------------|
| Format Support       | PCM, Dolby Digital, DTS |
| Sample Rate          | 32 kHz - 192 kHz        |
| Input Impedance      | 75 Ohms (Unbalanced)    |
| Minimum Input Signal | 0.2 V p-p               |
| Maximum Input Signal | 1.2 V p-p               |
| Jitter               | <20ns                   |
| Return Loss          | >15dB, 0.1 to 6.0MHz    |

Optical

|                 |        |
|-----------------|--------|
| Fiber Data Rate | 1 Gb/s |
|-----------------|--------|

Connectors

|                |                                    |
|----------------|------------------------------------|
| Audio          | 75 Ohm BNC (Gold Center Pin)       |
| Optical        | ST - MM(default), FC - SM(default) |
| Power (module) | See SR-500 Brochure for details    |

Power

|      |         |
|------|---------|
| Card | 5 Watts |
|------|---------|

Indicators (LEDs)

|              |                                |
|--------------|--------------------------------|
| 1 - Green    | Power On                       |
| 1 - Bi-color | TX Carrier/ Laser Over Current |
| 1 - Bi-color | RX Carrier - Present / Error   |
| 2 - Bi-color | Audio Present / Overload Tx/Rx |

Physical

|                   |   |
|-------------------|---|
| Dimensions (Card) | 20 (W) x 127 (H) x 160 (D) mm<br>(0.8 x 5.0 x 6.3 inch) |
| Weight (Card)     | 450 gms (16 Oz)   |
| No. of Slots      | 1   |
| Module            | See SR-500 Brochure                                     |

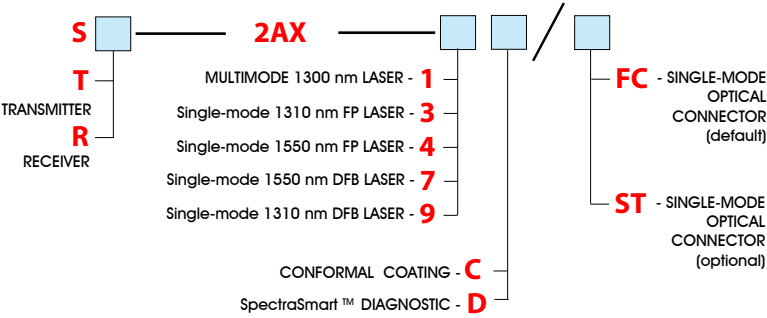
Environmental

|                       |                         |
|-----------------------|-------------------------|
| 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<br>35°C per MIL217F |
|------|---|

Part Numbers:



DIGITAL AUDIO SOURCE 1



DIGITAL AUDIO SOURCE 2

DIGITAL AUDIO 1 IN

DIGITAL AUDIO 2 IN



ST-2AX-x  
Transmitter

FIBER



SR-2AX-x  
Receiver

DIGITAL AUDIO 1 OUT

DIGITAL AUDIO 2 OUT



AUDIO SPEAKER 1



AUDIO SPEAKER 2

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) |
|-------------------------|---------------------------------|----------------------|----------------------------|---------------------|-----------------|-------------------|----------------------------|-------------------|
| 1                       | Multimode (FP Laser) 62.5 / 125 | -3                   | -22                        | 19                  | 1300            | ST                | 22                         | 2                 |
| 3                       | Single-mode (FP Laser) 9 / 125  | -3                   | -22                        | 19                  | 1310            | ST, FC            | 22                         | 50                |
| 4                       | Single-mode (FP Laser) 9 / 125  | -3                   | -22                        | 19                  | 1550            | ST, FC            | 22                         | 65                |
| 7                       | Single-mode (DFB Laser) 9 / 125 | +1                   | -22                        | 23                  | 1550            | ST, FC            | 22                         | 80                |
| 9                       | Single-mode (DFB Laser) 9 / 125 | +1                   | -22                        | 23                  | 1310            | ST, FC            | 22                         | 65                |