MERIDIAN TECHNOLOGIES

ST/SR-1A1C1D-xS DigiSlim™

Digitally Encoded One 24-Bit Audio Channel, One RS-232 Data Channel and One Contact Closure

FEATURES:

- Real Time Audio & Data Transmission
- One Channel of 24-Bit Audio, RS-232 Data and Contact Closure
- 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*™ PC Based Network Management
- *SpectraView*™ Fault / Setup Firmware
- 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.
- 75 Ohm BNC Video Connector (Gold Center Pin)
- Meets EIA RS-170, RS-343A Formats
- Screw Terminal Type Connectors for Audio, Data and Contact Closure

DESCRIPTION:

This module in the DigiSlim™ product family incorporates an all-digital encoding technology. It transmits one 24 bit audio, one RS-232 data and one Contact Closure over single fiber. These single fiber, laser based systems are available in both, Multimode and Singlemode modules. The versatility of the ST/SR-1A1C1D-xS system is enhanced by *SpectraView,* an On-Screen Video Diagnostic / Setup firmware system and *SpectraSmart,* an optional PC Based Network Diagnostic System. *SpectraView* monitors the integrity of the video signal and the fiber link. A break in the fiber path will cause a loss of fiber alarm to be displayed on an associated monitor. *SpectraView* is easy to use, always active and eliminates the need for additional test equipment. *SpectraView* also includes a selectable on-board audio & data test signal generator with built-in local and remote loop-back functions. If greater diagnostic capability is required, the ST/SR-1A1C1D-xS system is also available with Meridian's *SpectraSmart* Network management and diagnostic PC based system. See the *SpectraSmart* or *SpectraView* brochures for additional details.

CONFIGURATIONS:

The ST/SR-1A1C1D-xS system is available as rack mount cards and modules that can be installed in any of Meridian's desk chassis or in 19" racking frames. This system can be configured in either star (module to rack) or trunking (rack to rack) configurations. These systems can be transformed in to a standalone module by utilizing an SR-500/S (standard configuration) or an SR-1000/S.

MARKETS:

- ✓ Security and surveillance
- ✓ Access Control

SPECIFICATIONS:

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 ($4V_{p-p}$ max.) (+18 dBm available on request)
Total Harmonic Distortion	<0.01% @ 1KHz
Resolution	24 Bit

Data

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

Contact Closure

Rate	10 Hz.(Per Channel)
Contact Rating	0.3A, 30V AC / DC
Contact Bounce Time	5 ms

Optical

Fiber Data Rate	250 Mb/s

Connectors

Video	75 Ohm BNC (Gold Center Pin)
Optical	ST, FC
Power (module)	See SR-500 Brochure for details
Data/Audio/Contact closure	Screw Terminal

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	Data Present
1 - Bi-Color	Audio Present / Overmodulation
1 - Green	Contact Closure 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

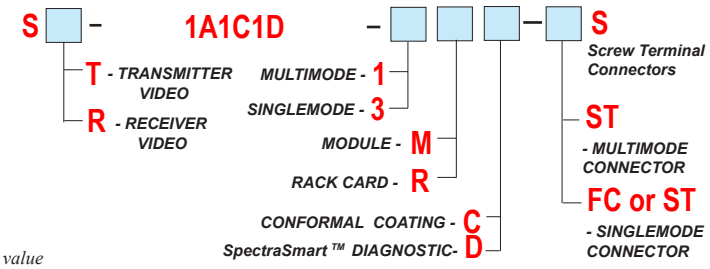
Enviromental

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

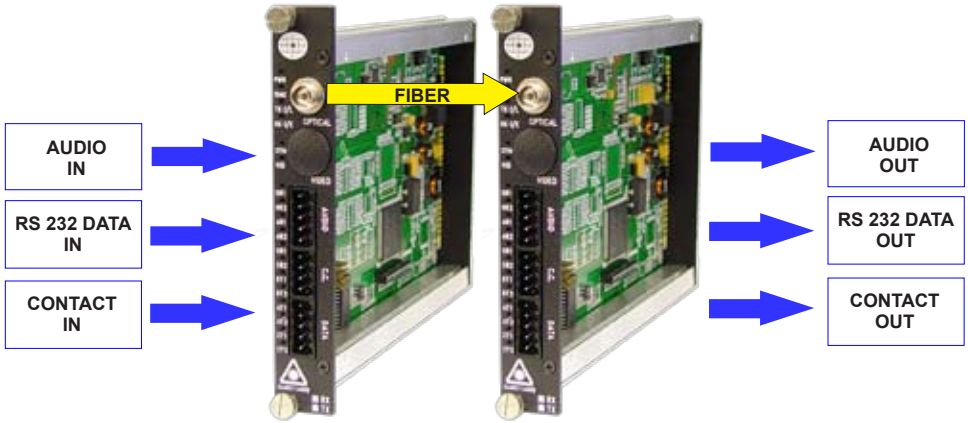
Quality

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*



ST-1A1C1D-xS Transmitter **SR-1A1C1D-xS Receiver**

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	ST	24
Singlemode (FP Laser) 9 / 125	-5	-26	21	1310	ST, FC	24

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