



**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 fiber-optic card is in the DigiSlim™ product family and incorporates an all-digital encoding technology.

It's 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 Contact Closure channel can be configured as either Normally Open (N.O.) or Normally Closed (N.C.).

The versatility of the ST/SR-1A1C1D-x 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-x 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 DigiSlim family products are available as rack mount cards and modules which can be installed in any of Meridian's desk chassis or in 19" racking frames. These systems 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 (standard configuration) or an SR-1000 chassis.

#### 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 <sub>p-p</sub> 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 <sup>-9*</sup>

Contact Closure

Formats .....	Normally Open (N.O.) or Normally Closed (N.C.) - jumper selectable
Rate .....	10 Hz.(Per Channel)
Contact Rating .....	0.3A, 30V AC / DC
Contact Bounce Time .....	5 ms

Optical

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

Optical .....	ST, FC
Power (module) .....	See SR-500 Brochure for details
Data/Audio/Contact closure ...	Screw Terminal

Power \*\*

Card .....	6 Watts
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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 chassis Brochure

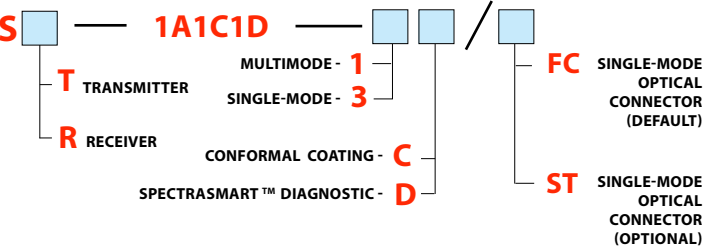
Enviromental

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

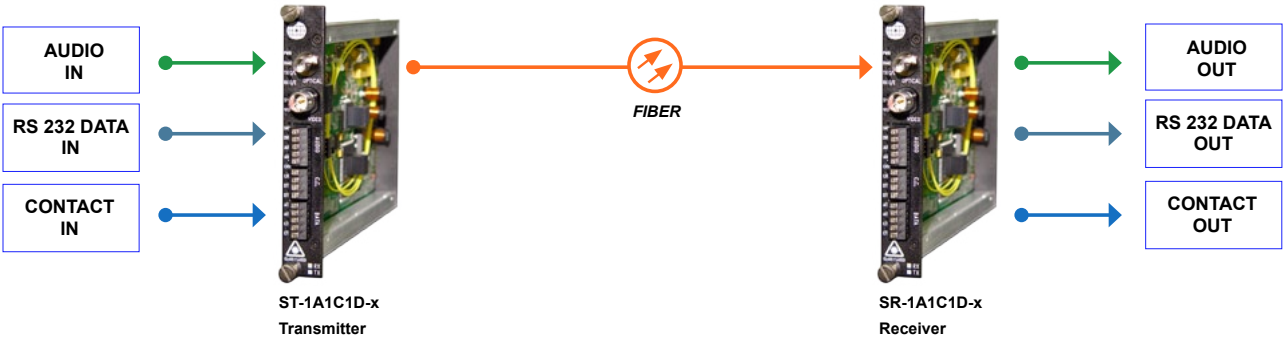
Quality

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



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



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	-5	-26	21	1300	ST	24	7
3	Single-mode (FP Laser) 9 / 125	-5	-26	21	1310	ST, FC	24	60