

## Digitally Encoded 1 Channel Video with 1 Channel of Bi-directional Audio



### FEATURES:

- One slot digital module design
- 10 Bit Video Digital Encoding
- Real Time Video and Audio Transmission
- 7 MHz Video Bandwidth
- Meets RS-250C Short Haul Transmission Specifications
- NTSC, PAL, SECAM Compatible
- 1 channel of Bi-directional Audio (Balanced or Un-balanced)
- 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.
- 75 Ohm BNC Video Connector (Gold Center Pin)
- Meets EIA RS-170, RS-343A Formats
- 3-pin Screw Terminal Connectors for Audio

### DESCRIPTION:

This **SC** series fiber optic product incorporates digital encoding technology and transmits/receives one real-time, simplex 10-bit video and one full-duplex, 24-bit audio channels over one optical fiber. Convenient 3-pin terminal blocks are used for easy connection of the audio channel interfaces. NTSC, PAL and SECAM video formats are all seamlessly supported. These single fiber, laser based systems are available in both, Multimode and Singlemode modules. The **SC** series is also compatible with Meridian's *SpectraSmart* Network management and diagnostic PC based system. See the *SpectraSmart* brochure for additional details.

### CONFIGURATIONS:

The **SC** product family 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:

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

# SPECIFICATIONS:

## Video

Format .....	NTSC, PAL, SECAM
Voltage/Impedance .....	1 Vp-p, 75 Ohm, 1.5 Vp-p max.
Bandwidth .....	5 Hz to 6.8 MHz @ -3 dB
Differential Gain .....	<0.6%
Differential Phase .....	<0.3°
SNR .....	>67 dB (weighted)*
Return Loss .....	>30 dB
Field Tilt .....	< 0.5%

## 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

## Optical

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

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

## 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 .....	Video Sync. Present
1 - Bi-color .....	Video Present / Overload
2 - Bi-Color .....	Audio Present / Overmodulation

## 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

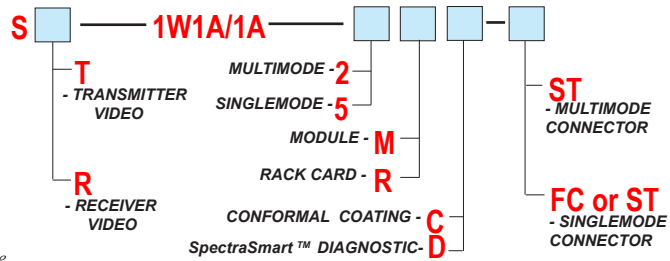
## Enviromental

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

## Quality

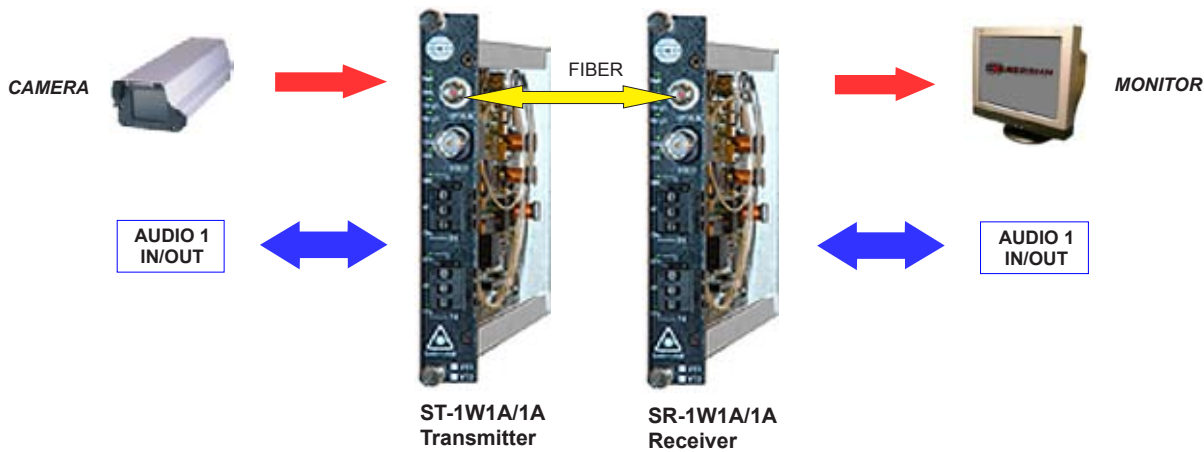
MTBF .....	>170,000 hours @ Ground Fix 35°C per MIL217F
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## Part Numbers:



\* 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

Order From: **MULTICOM**

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