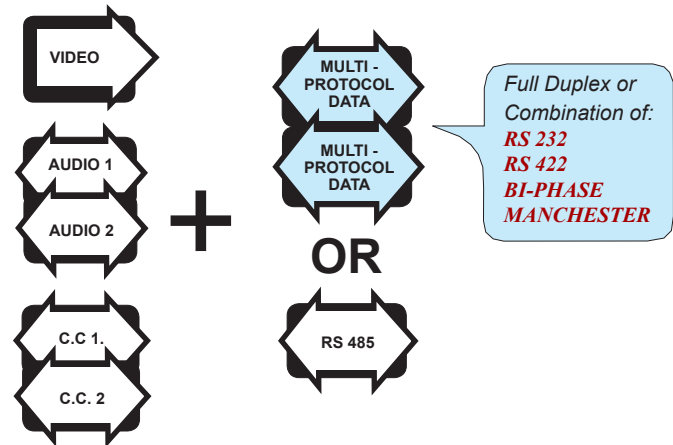


## Digitally Encoded 1 Channel Video with 2 Channels of bi-directional Data, Audio and Contact Closures



### FEATURES:

- 10 Bit Video Digital Encoding
- Real Time Video, Audio & Data Transmission
- 7 MHz Video Bandwidth
- Meets RS-250C Short Haul Transmission Specifications
- NTSC, PAL, SECAM Compatible
- Two Channels of Bi-Directional Audio, Multi-protocol 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
- DB 25 Type Connectors for Audio, Data and Contact Closure

### DESCRIPTION:

This module in the **SC** product family incorporates an all-digital encoding technology that transmits one real-time, simplex, 10 bit composite video, two full duplex 24 bit audio, and two user selectable, full duplex RS-232, RS-422, Manchester, Bi-Phase or in combination. RS-485 ( 2 or 4 wire ) is also supported, but only as a single full duplex channel. In addition, two full duplex contact closure channels are included. These single fiber, laser based systems are available in both, Multimode and Singlemode modules. The versatility of the **SC** series 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 while loss of video sync will generate a loss of sync alarm on the 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. In addition a video grey scale function is included to assist in monitor and system setup. If greater diagnostic capability is required, the SC series 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 **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%

## Data

Formats .....	RS-232,RS-485, RS-422, Manchester or Bi-Phase
Data Rate .....	DC to 125 Kb/s
Bit Error Rate .....	10 <sup>-9</sup> *

## Contact Closure

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

## 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
Data/Audio/Contact closure ...	DB25 Female

\* measured @ max. optical budget

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

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

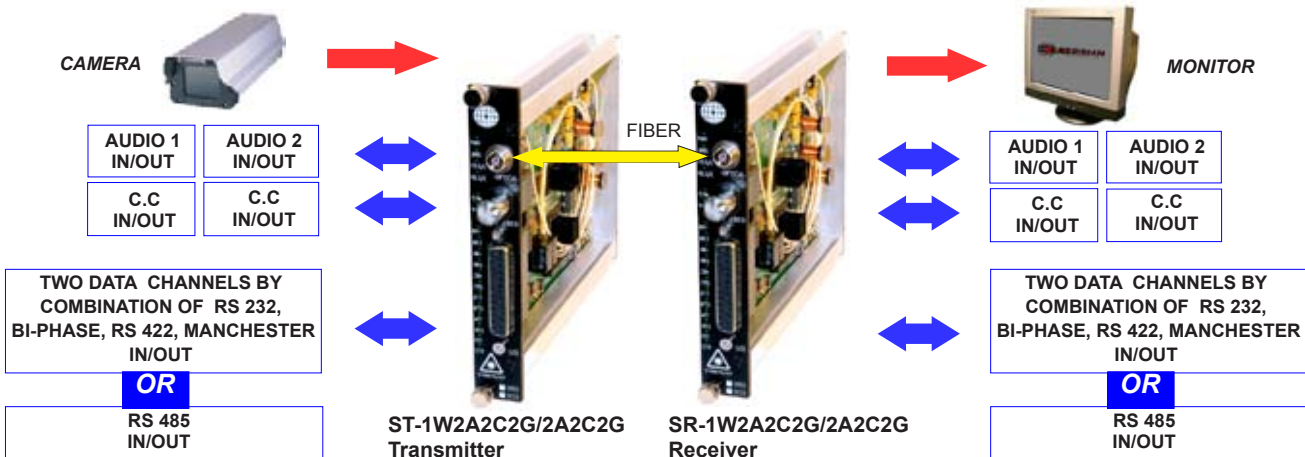
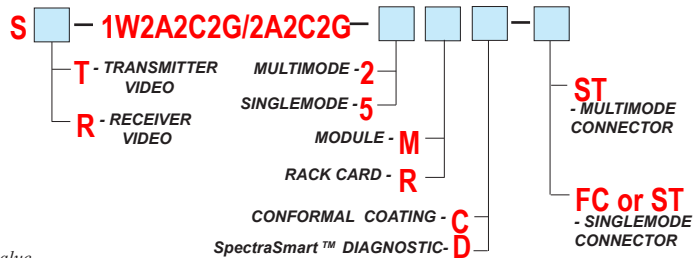
## Environmental

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
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## Part Numbers:



## 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