MERIDIAN TECHNOLOGIES

ST/SR-1W/1G

DigiSlim™

# Digitally Encoded 1 Channel Video with Return Multi-Protocol Data Channel


## FEATURES:

- One slot digital module design
- 10 Bit Video Digital Encoding
- Real Time Video and DataTransmission
- 7 MHz Video Bandwidth
- Meets RS-250C Short Haul Transmission Specifications
- NTSC, PAL, SECAM Compatible
- 1 User-selectible, Return Multiprotocol Data Channels
- 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 Data

## DESCRIPTION:

This module in the **SC** product family incorporates an all-digital encoding technology that transmits one real-time, simplex 10-bit video channel and one, user selectable, return RS-232, RS-422, Manchester, Bi-Phase data channel. Standard 3-pin terminal blocks are used for easy connection of the data channel interface. 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 either 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 made a standalone system by using the SR-500/S, SR-1000/s, 1 or 2 slot desk / wall mount chassis (87 VAC- 264VAC)

## 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-422, Manchester or Bi-Phase |
| Data Rate | DC to 125 Kb/s |
| Bit Error Rate | $10^{-9*}$ |

## 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 | 3-pin 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 - Bi-color | Video Present / Overload |
| 1 - Green | Video Sync. Present |
| 1 - Green | Data Present |

## Physical

| | |
|---|---|
| Dimensions (Card) | 160 mm (6.3") L, 127 mm (5") W<br>20mm (0.80") W |
| Weight (Card) | 450 gms (16 Oz) |
| No. of Slots | 1 |
| Module | See SR-500 Brochure |

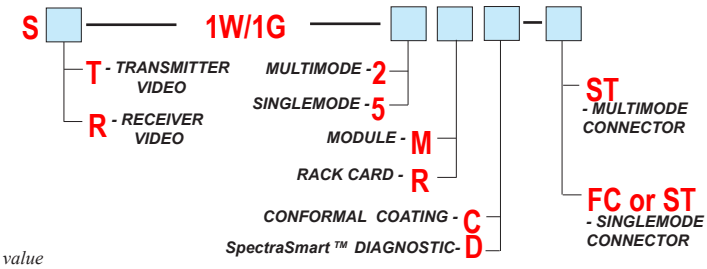
## Enviromental

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

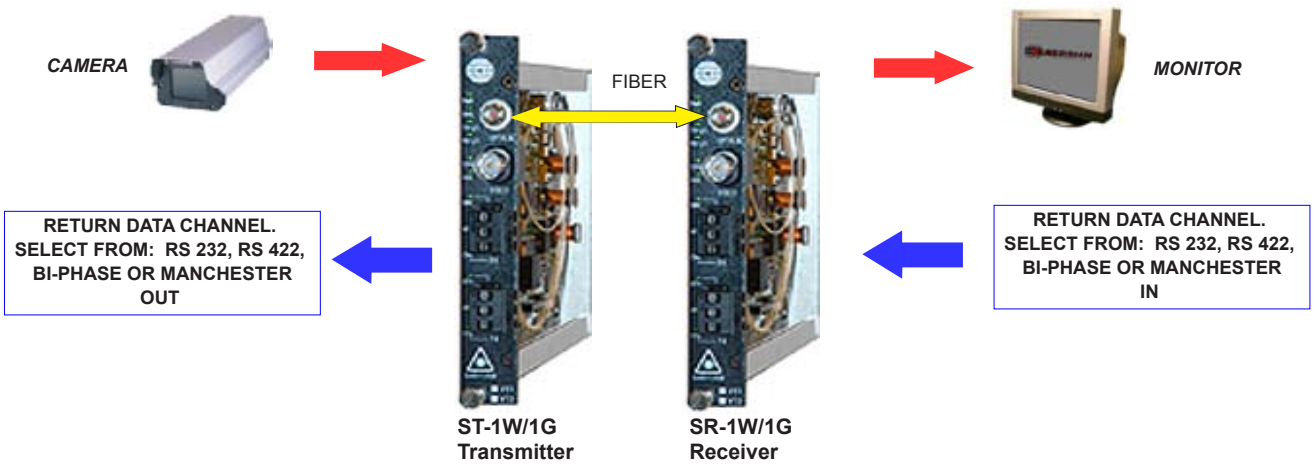
## Quality

| | |
|---|---|
| MTBF | >170,000 hours @ Ground Fix<br>35°C per MIL217F |

## 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 |


**Meridian Technologies Inc.**
700 Elmont Road. •Elmont, NY 11003 • 516. 285. 1000 • FAX 516. 285. 6300 • E-mail sales@meridian-tech.com
www.meridian-tech.com


ver 04/05 A