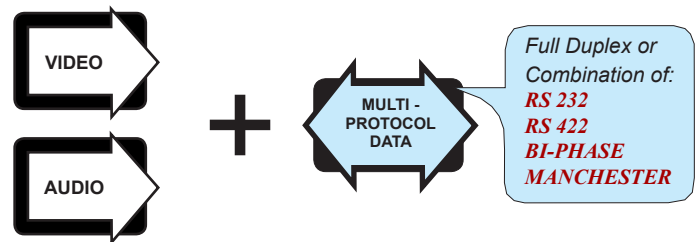


**Digitally Encoded 1 Channel Video and
One 24-Bit Audio Channel with
Full Duplex Multi-Protocol
Data Channel**



FEATURES:

- Real Time Video and Audio Transmission
- 10 Bit Video Digital Encoding
- 7 MHz Video Bandwidth
- Meets RS-250C Short Haul Transmission Specifications
- NTSC, PAL, SECAM Compatible
- One Channel of 24-Bit Audio plus Full Duplex Multiprotocol Data Channel
- 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 and Data

DESCRIPTION:

This module in the DigiSlim™ product family incorporates an all-digital encoding technology. It transmits One real-time, simplex 10-bit video, One 24 bit audio and One user selectable, full duplex, RS-232, RS-422, Manchester, Bi-Phase data channel. These single fiber, laser based systems are available in both, Multimode and Singlemode modules. The versatility of the ST/SR-1W1A1G/1G-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 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* 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-1W1A1G/1G-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-1W1A1G/1G-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:

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

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

Physical

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

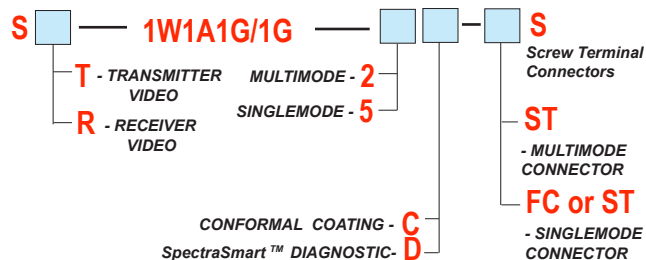
Enviromental

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

Quality

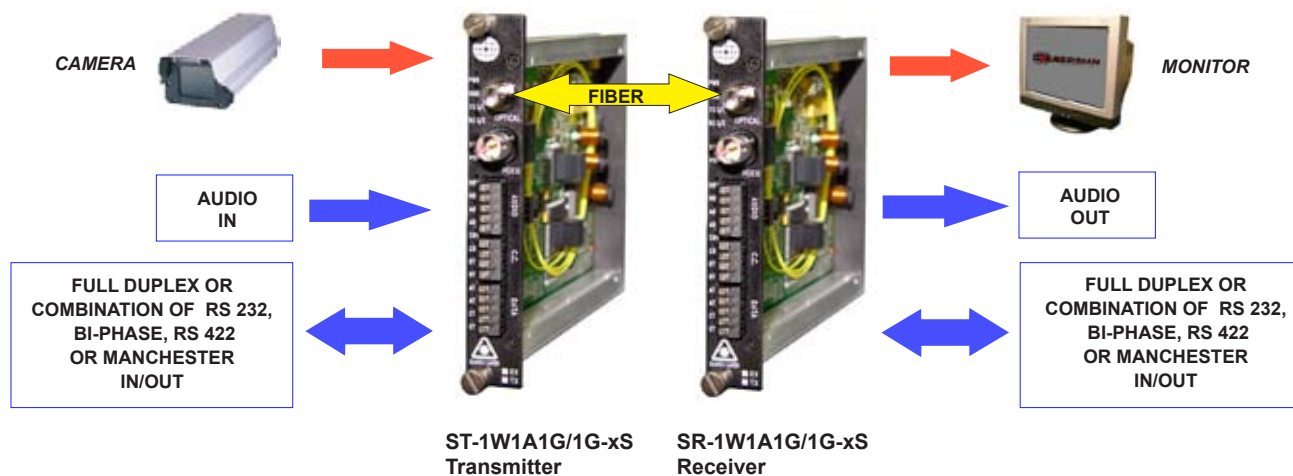
| | |
|------------|---|
| MTBF | >170,000 hours @ Ground Fix 35°C per MIL217F |
|------------|---|

Part Numbers:



* measured @ max. optical budget

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



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 | -28 | 23 | 1300 / 850 | ST | 24 |
| Singlemode (FP Laser) 9 / 125 | -5 | -28 | 23 | 1310 / 1550 | ST, FC | 24 |

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