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

AUDIO **+** MULTI - PROTOCOL DATA
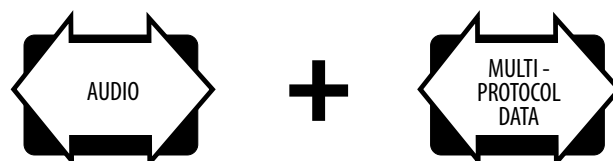
FEATURES

- Real Time Audio & Data Transmission
- 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
- SpectraSmartTM PC Based Network Management
- SpectraViewTM 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's transmits 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 the multimode and single-mode.

The versatility of the ST/SR-1A1G/1G-x system is enhanced by SpectraSmart, the PC Based Network Diagnostic System. See the SpectraSmart brochures for additional details.

CONFIGURATIONS

The DigiSlim™ 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

MARKETS

√ Security and surveillance
√ Access Control

SPECIFICATIONS

Data

Formats	RS-232,RS-485, RS-422, Manchester or Bi-Phase
Data Rate	DC to 125 Kb/s
Bit Error Rate	10^{-9*}

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

Optical

Fiber Data Rate	250 Mb/s

Connectors

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

Power **

Card	6 Watts

Indicators (LED)

1 - Green	Power On
1 - Bi-color	TX Carrier/ Laser Over Current
1 - Bi-color	RX Carrier - Present / Error
2 - Green	Data Present
1 - Bi-Color	Audio Present / Overmodulation

Physical

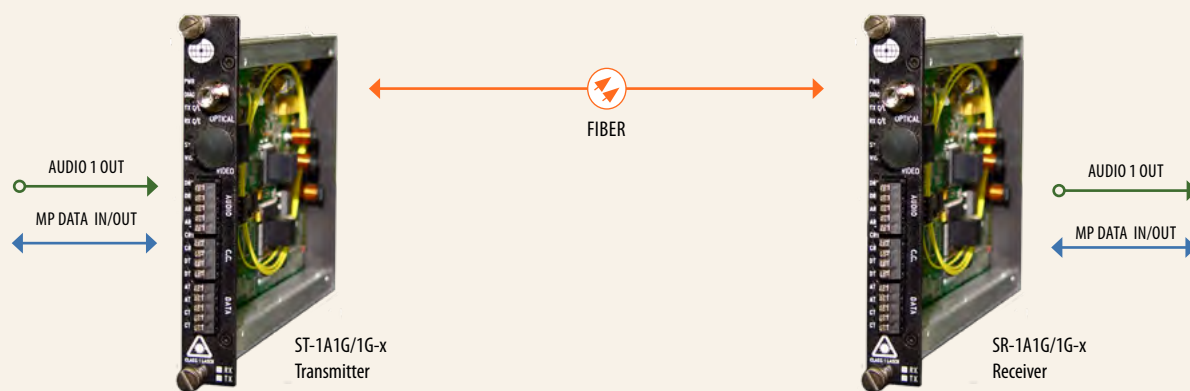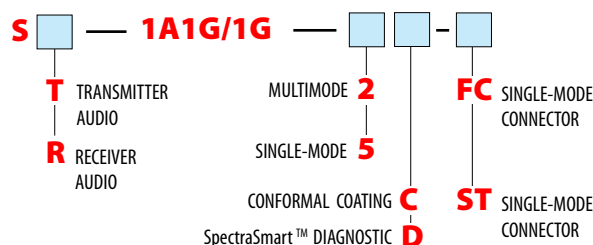|	
Dimensions (Card)	160 mm (6.3") L, 127 mm (5") W 20mm (0.80") W
Weight (Card)	450 gms (16 Oz)
No. of Slots	1
Module	See SR-500 Brochure

Environmental

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

Quality

MTBF	>170,000 hours @ Ground Fix 35ºC per MIL217F

Part Numbers:

S [ ] — 1A1G/1G — [ ] [ ] – [ ]

- T TRANSMITTER AUDIO
- R RECEIVER AUDIO
- MULTIMODE **2**
- SINGLE-MODE **5**
- CONFORMAL COATING **C**
- SpectraSmart ™ DIAGNOSTIC **D**
- FC SINGLE-MODE CONNECTOR
- ST SINGLE-MODE CONNECTOR

ST-1A1G/1G-x
Transmitter

AUDIO 1 OUT

MP DATA IN/OUT

FIBER

SR-1A1G/1G-x
Receiver

AUDIO 1 OUT

MP DATA IN/OUT

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)
2	Multimode (FP Laser) 62.5 / 125	-5	-26	21	850/ 1300	ST	26	4
5	Single-mode (FP Laser) 9 / 125	-5	-26	21	1310 / 1550	ST, FC	26	60