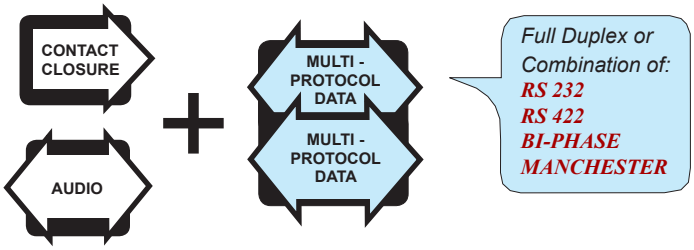
MERIDIAN TECHNOLOGIES

ST/SR-1B2G1C/1B2G **DigiSlim™**

Aiphone/Dukane Intercom System with 2 Channels of Multi-Protocol, Bi-directional Data



FEATURES:

- Surface Mount Technology (SMT) for High Reliability and Repeatability
- Hot Swappable Cards
- Laser Based Back-Biased Photo Detection Circuitry for Stable Optical Output Over Full Temperature Range (Singlemode)
- ST™, FC Optical Connector
- 10 Hz to 15 KHz Audio Bandwidth
- Single Direction Contact Closure
- Digital Transmission technology
- SpectraSmart™ Compatible
- Meets NEMA TS1/TS2 and Caltrans Specifications
- Utilizes Switching, Internal Power Supplies
- LED Status Indicators Provide Rapid Indication of Critical Operating Parameters
- Automatically Resettable Solid-State Current Limiters on All Power Lines: Provides Equipment Protection
- Wide Optical Dynamic Range: Optical Attenuators are Never Required
- Bi-directional, multi-protocol data channel (RS-232, RS-422, RS-485, Bi-phase, Manchester)
- DB25F connector for audio, contact and data signals

DESCRIPTION:

The ST/SR-1B2G1C/1B2G series products incorporates an all-digital transmission technology that transmits/receives intercom-compatible fiber optic audio and bi-directional, multi-protocol data over one multimode or singlemode fiber. This product family supports intercom products from both Aiphone and Dukane. A push-to-talk contact is als included from the door panel to the entry control panel. The product's capabilities are further enhanced with its compatibility with Meridian's optional PC based SpectraSmart Network Management and diagnostic software system. SpectraSmart supervises the operating parameters of the transmission systems such as status of the digital carrier signal, voltage, temperature, audio, optical levels, etc. See SpectraSmart brochure for more details.

Optional features include:

- *Video transmission*
- *Additional bi-directional audio channel*

CONFIGURATIONS:

The ST/SR-1B2G1C/1B2G product family is available as rack mount cards that can be installed in all of Meridian's card chassis, desk chassis and 19" racking frames. This system can be configured in either star (module to rack) or trunking (rack to rack) configurations. This product requires no user adjustments & features superior quality and performance.

MARKETS:

√ Security and Surveillance
√ Intercom Systems
√ Nurse Call Stations
√ Residential Intercom

SPECIFICATIONS:

Audio

I/O Impedance	4-8 Ohm Unbalanced
I/O Level	-40 to +15 dBm
Frequency Responce	10 Hz to 15 KHz
THD	<0.1%, 1 KHz @ max modulation
SNR	>65 dB (weighted)*

Contact Closure

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

Data

Formats	RS-485, RS-422, RS-232 Bi-Phase, Manchester
Data Rate RS-422 / 485	DC to 1Mb/s
Data Rate RS-232	DC to 125Kb/s
Bit Error Rate	10^{-9}

Optical

Fiber Data Rate	250 Mb/s

Connectors

Audio, Contact Closure, Data	DB25F Connector
Optical	STTM , FC
Power	2 Pin Terminal Block (SR-500 chassis)

Power **

Card	3.2 W
Module	130 mA @ 24 VAC
Adapter for SR-1000/S	Model PS-100

** Measured @ 1Km (multimode), @ 10Km (singlemode)*
*** Due to variations of drivers and diagnostic options power shown at maximum measurements*

Indicators (LEDs)

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

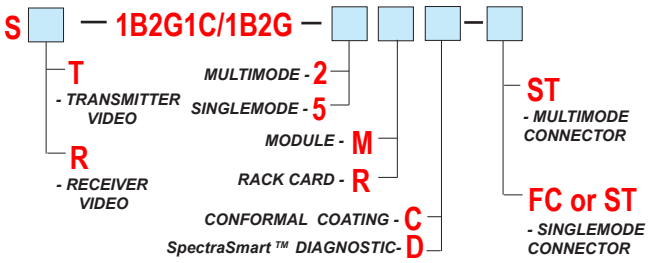
Enviromental

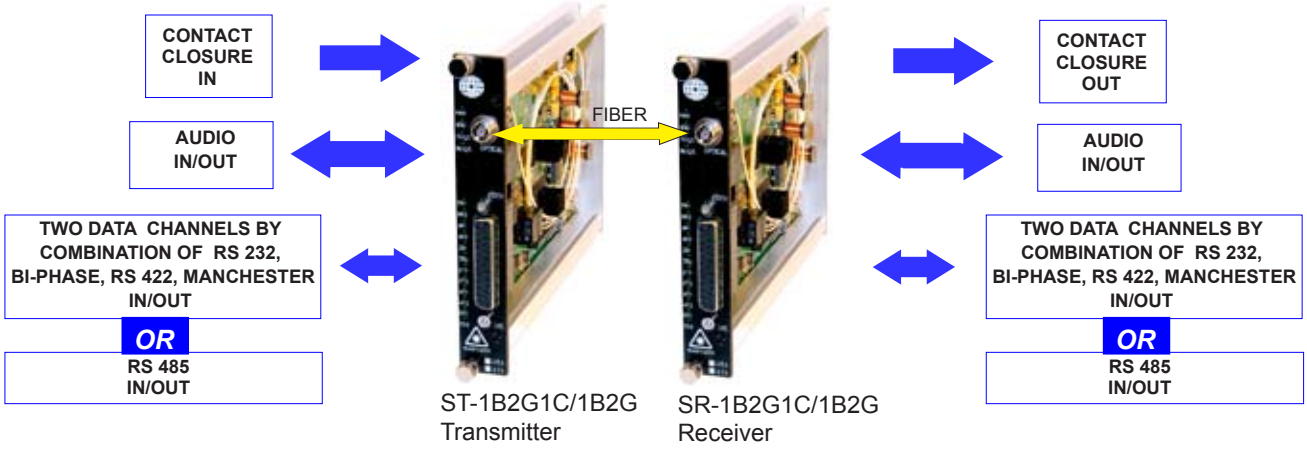
Operating Temperature	-34°C to +74°C
Storage Temperature	-55°C to +85°C
Relative Humidity	0 to 95% Non-condensing

Quality

MTBF	>210,000 hours @ Ground Fix 35°C per MIL217F

Part Numbers:





ST-1B2G1C/1B2G Transmitter

SR-1B2G1C/1B2G Receiver

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

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