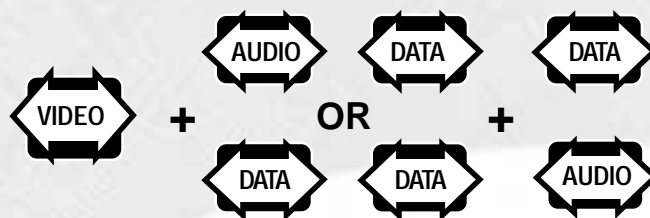## Duplex FM Video with Three Duplex Channels

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
- 7 MHz Video Bandwidth
- 10 Hz to 20KHz Audio Bandwidth
- DC to 300 Kb/s Data Rate
- Meets EIA RS-170, RS-343A
- Frequency Modulated (FM) Transmission
- SpectraSmart™ Compatible
- Meets NEMA TS1/TS2 and Caltrans Specifications
- Utilizes Internal Switching Power Supplies
- Meets RS-250C Transmission Requirements
- Compatible with All NTSC, PAL, or SECAM Systems
- Automatically Resettable Solid-State Current Limiters on All Power Lines: Provides Equipment Protection
- Wide Optical Dynamic Range: Optical Attenuators are Never Required
- BNC Video Connector
- DB Type Connector for Data and/or Audio

DESCRIPTION:

The Series 800 and 800i are Frequency Modulated (FM) fiber optic video systems that transmit a duplex video signal plus a combination of three voice and/or data signals for distances of 6Km on multimode fiber and over 100Km on singlemode fiber. The Series 800 operates over two optical fibers and the Series 800i operates over one optical fiber. PAL, SECAM or NTSC formats, in B&W or color, are seamlessly transmitted. The Series 800's capabilities are enhanced by it's compatibility with Meridian's PC based SpectraSmart TM Network Management and Diagnostic software system. SpectraSmart™ supervises the operating parameters of the transmission system such as status on video levels, sync, FM carrier detect, voltage, temperature, optical levels, etc., and external equipment which are attached to the Meridian equipment. See the SpectraSmart™ brochure for more details.

CONFIGURATIONS:

The 800 product family is available as a rack mount card 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.

APPLICATIONS:

Security and Surveillance
Intelligent Transportation System (ITS)
Video Teleconferencing
Distance Learning
Access Control

SPECIFICATIONS:

Video

Format	NTSC, PAL, SECAM
Voltage/Impedance	1 Vp-p, 75 Ohm, 1.5 Vp-p max.
Bandwidth	5 Hz to 7 MHz @ -3 dB
Differential Gain	<2% typical
Differential Phase	<1.5º typical
SNR	64 dB weighted*
Return Loss	>30 dB
Field Tilt	<0.5% max.
Carrier Frequency	70 MHz

Audio

I/O Impedance.	600 Ohm, 10 kOhm, 47 kOhm
. . . .	Balanced/Unbalanced
I/O Level.	-6 to +6 dBm
Frequency Responce.	10 Hz to 20 KHz
THD.	<1%, 1 KHz @ max modulation
SNR.	>60 dB (weighted)*

Data

Formats.	RS-232D, RS-422A, GenLock,
. . . .	RS-485 2w/4w, Manchester,
. . . .	Biphase, 4-20mA Current Loop,
. . . .	TTL, Contact Closure,Sensornet
Rate.	DC to 300 Kb/s
Bit Error Rate.	10^{-9} *

Connectors

Video	75ohm BNC (Gold Center Pin)
Audio.	DE-15 Female
Data.	DE-15 Female
Optical	ST™ , FC
Power	5 pin Male DIN

Power **

Card	8.7 W
Module	360 mA @ 24 VAC
Adapter for SR-1000/S.	Model PS-100

İndicators (LEDs)

Red	Power On
Green (8).	Video, Audio, Data
. . . .	Activity LED's

Physical

Dimensions:

Module (w/SR-1000)	182 mm (7.16") L, 165 mm (6.5") W
. . . .	44 mm (1.75") H
Card	160 mm (6.3") L, 40 mm (1.7") W
. . . .	100 mm (4") H

Weight:

Module (w/SR-1000)	1350 g (48 oz.)
Card	675 g (24 oz.)
Number of Rack Slots	Two

Enviromental

Operating Temperature.	-40ºC to +74ºC
Storage Temperature.	-55ºC to +85ºC
Relative Humidity.	0 to 95% Non-condensing

Quality

MTBF.	>135,000 hours @ Ground Fix
	35ºC per MIL217F

* As per RS-250C, measured @ 1Km (multimode), @ 10Km (singlemode)

** Due to variations of drivers and diagnostic options, power shown at maximum measurements

PT-800iR TRANSMITTER — PR-800iR RECEIVER
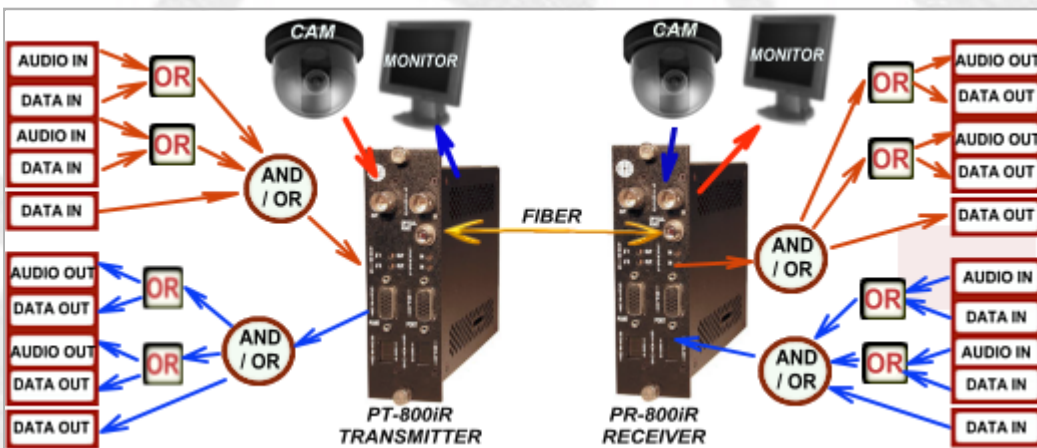
OPTICAL:

Fiber Type/Size (um)	Optical Output (dBm)	Reciever Sensitivity (dBm)	Optical Budget (dB)	Wavelength (nm)	Optical Connector	Optical Dynamic Range (dB)
Multimode* (SLED)						
62.5/125	-13	-34	21**	850	ST	39
62.5/125	-16	-34	18**	1300	ST	39
62.5/125	-15/-18	-33/-33	15**	850/1300	ST	39
Singlemode (Laser)						
9/125	-7***	-36	29	1310	ST, FC	41
9/125	-10***	-36	26	1550	ST, FC	41
9/125	-10/-10	-34	24	1310/1550	ST, FC	41

* Distance is limited to fiber loss, splices and fiber bandwidth

** For 50/125µm fiber, subtract 3dB

*** Higher output lasers available