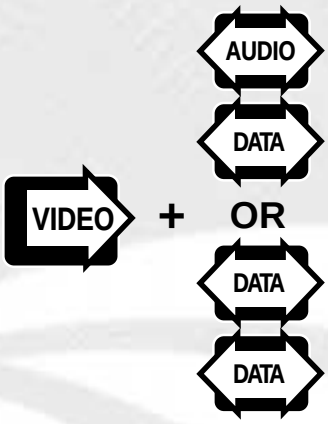
MERIDIAN TECHNOLOGIES

SERIES 500 / 500i

FM Video with Two 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
- 7MHz Video Bandwidth
- 10 Hz to 20 KHz 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 AII 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 Audio

DESCRIPTION:

The Series 500 and 500i are Frequency Modulated (FM), fiber optic video systems that transmit one video signal and one duplex audio and one duplex data or two duplex data signals for distances of 6Km on multimode fiber and 100Km over singlemode optical fiber. The Series 500 operates over two optical fibers and the Series 500i operates over one optical fiber. PAL, SECAM or NTSC formats, in B&W or color, are seamlessly transmitted. The Series 500's capabilities are enhanced by it's compatibility with Meridian's PC based SpectraSmart™ 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 500 product family is available in 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.

APPLICATIONS:

Security and Surveillance
Vessel Tracking System (VTS)
Intelligent Transportation Systems (ITS)
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	<1.5° typical
SNR	64dB 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%, 1KHz @ 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	75 Ohm BNC (Gold Center Pin)
Audio	DE-15 Female
Data	DE-15 Female
Optical	ST™, FC
Power	2 Pin Terminal Block

Power

Card	4.2 W
Module	175 mA @ 24 VAC
Adapter for SR-500/S	Model WP-24

Indicators (LEDs)

Red	Power On

Physical

Dimensions:	
Module (w/SR-500)	182 mm (7.16") L, 132 mm (5.21")W
	29 mm (1.15") H
Card	160 mm (6.3") L, 20 mm (0.8") W
	100 mm (4")H
Weight:	
Module (w/SR-500)	900 g (32 oz.)
Card	450 g (16 oz.)
Number of Rack Slots	One

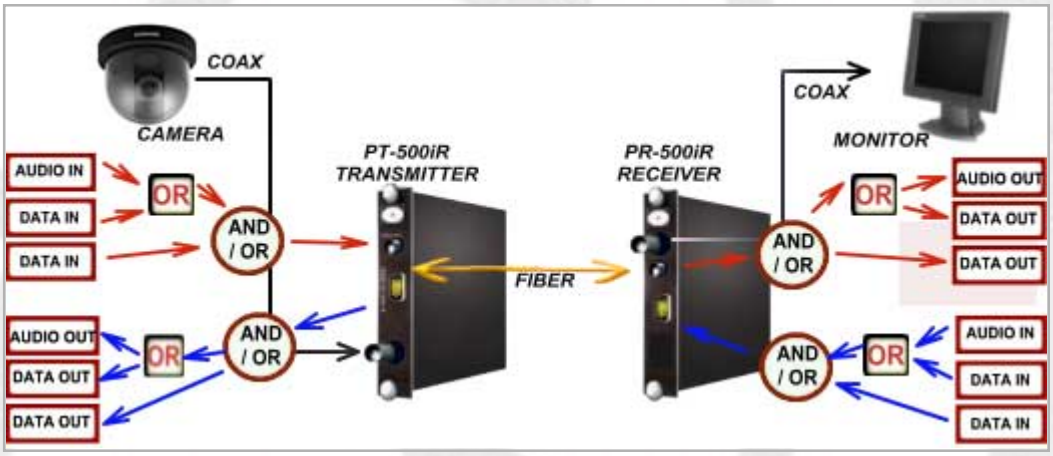
Enviromental

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

Quality

MTBF	>155,000 hours @ Ground Fix
	35°C per MIL217F

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



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*

Meridian Technologies Inc.
700 Elmont Road. •Elmont, NY 11003 • 516. 285. 1000 • FAX 516. 285. 6300 • E-mail sales@meridian-tech.com
Visit our web side: www.meridian-tech.com or www.meridian-tech.tv