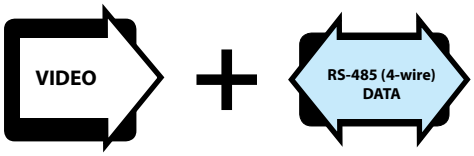
MERIDIAN TECHNOLOGIES

FM Video with One Full Duplex
RS-485 (4-wire) Data Channel

PT- 301R-V8/8 PR- 301R-V8/8
2-Fiber system

PT- 301iR-V8/8 PR- 301iR-V8/8
1-Fiber system



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
- 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
- 3 Pin Terminal Block Connectors for Data

DESCRIPTION:

The PT/PR-301R-V8/8 and PT/PR-301iR-V8/8 is Frequency Modulated (FM), fiber optic video system that transmits a one simplex video signal and one bi-directional RS-485 (4-wire) data signal over multimode or single-mode fiber.
PT/PR-301R-V8/8 is two fiber and PT/PR-301iR-V8/8 is one fiber system.
Distances of 6Km over multimode fiber and over 100Km over singlemode fiber.
PAL, SECAM or NTSC formats, in B&W or color, are seamlessly transmitted.
Capabilities of the system 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 series 300 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
Military Communications
Intelligent Transportation System (ITS)
Access Control

SPECIFICATIONS:

Video

Format	NTSC, PAL, SECAM
Voltage/Impedance	1 Vp-p, 75 Ohm, 1.5 Vp-p max.
Bandwidth	5Hz to 7 MHz @ -3dB
Differential Gain	<2% typical
Differential Phase	<1.5° typical
SNR	65 dB weighted*
Return Loss	>30 dB
Field Tilt	<0.5% max.
Carrier Frequency	70 MHz

Data

Formats	RS-485 (2-wire) RS-485 (4-wire)
Rate	DC to 300 Kb/s
Bit Error Rate	10^{-9} *

Connectors

Video	75 Ohm BNC (Gold Center Pin)
Data	3 Pin Terminal Blocks
Optical	ST™, FC
Power (module)	2 Pin Terminal Block

Power **

Card	2.5 W
Module	100 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	>230,000 hours @ Ground Fix 35°C per MIL217F

** As per RS-250C, measured @ 1Km (multimode), @ 10Km (singlemode)*
*** Due to variations of drivers and diagnostic options, power shown at maximum measurements*

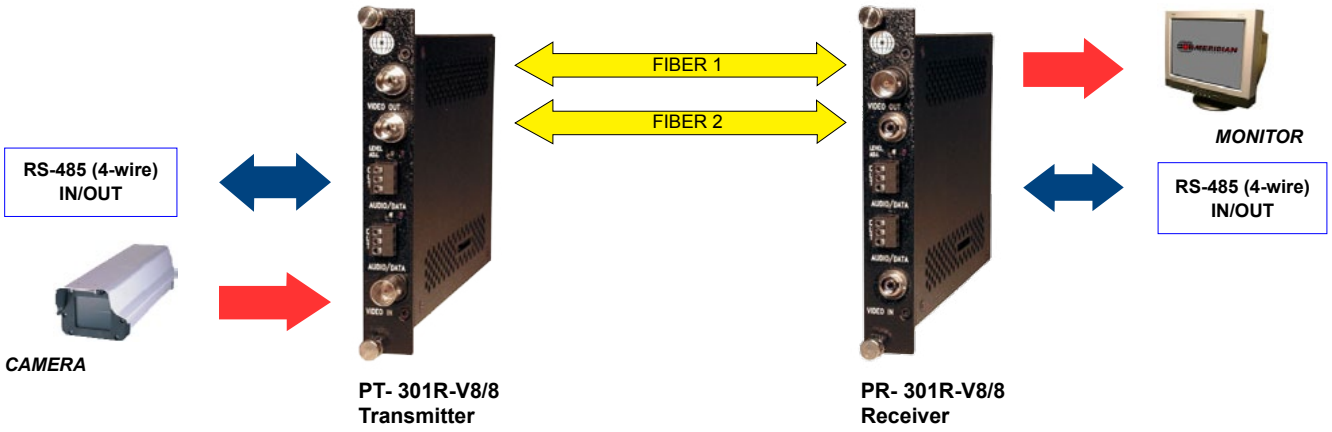


Diagramm shows two fiber system.

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*

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