

Single Channel FM Wide Band
Video System with Noise
Reduction Circuit



FEATURES:

- 75 Ohm Input Impedance on Transmitter unit, 75 Ohm Output Impedance with internal 75 Ohm termination on Receiver unit.
- Laser Based Back-Biased Photo Detection Circuitry for Stable Optical Output Over Full Temperature Range (Singlemode)
- 30MHz Video Bandwidth
- Meets EIA RS-170, RS-343A
- Frequency Modulated (FM) Transmission
- Noise Reduction Circuit
- Input Voltage Range: 12VDC-35VDC, 9VAC-24VAC (Modules)
- 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
- 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

DESCRIPTION:

The PT/PR-146R system is a Frequency Modulated (FM) state-of-the-art wide band fiber optic video system that transmits and receives a real time video signal over one multimode or singlemode fiber. This system featuring Noise Reduction Circuit. PAL, SECAM or NTSC formats, in B&W or color, are seamlessly transmitted distances of up to 3Km (multimode) and 100 Km (singlemode). All Meridian products requires no user adjustments & features superior quality and performance. The capabilities of the PT/PR-146R are enhanced by it's compatibility with Meridian's PC based SpectraSmart™ Network Management and Diagnostic software system. See the SpectraSmart™ brochure for more details.

CONFIGURATIONS:

The PT/PR-146R product is available in both stand-alone modules and rack mount cards. The cards 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. The PT/PR-146R is compatible with the Series 195 triple transmitter and receiver cards for high-density applications.

APPLICATIONS:

Security and Surveillance
 Military Communications
 Intelligent Transportation System (ITS)
 Radar

SPECIFICATIONS:

Video

Format	NTSC, PAL, SECAM
Voltage/Impedance	1 Vp-p, 75 Ohm, 1.5 Vp-p max.
Bandwidth	5Hz to 30 MHz @ -3 dB
Differential Gain	<2% typical
Differential Phase	<1.5° typical
SNR	64 dB weighted*
Return Loss	>30 dB
Field Tilt	<0.5% max.
Carrier Frequency	150 MHz

Connectors

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

Power**

Transmitter Card	2 W
Transmitter Module	85 mA @ 24 VAC
Receiver Card	2 W
Receiver Module	95 mA @ 24 VAC

Indicator

Module (Bi-Color LED):	
Green	Video Sync Present
Red	Video Sync Absent
Off	Absence of Power
Card (LED):	
Red	Power On

Physical

Dimensions:	
Module***	90 mm (3.5") L, 60 mm (2.3") W 25 mm (1") H
Card	160 mm (6.3") L, 20 mm (0.8") W 100 mm (4") H
Weight:	
Module	858 g (3 oz.)
Card	450 g (16 oz.)
Number of Rack Slots	One

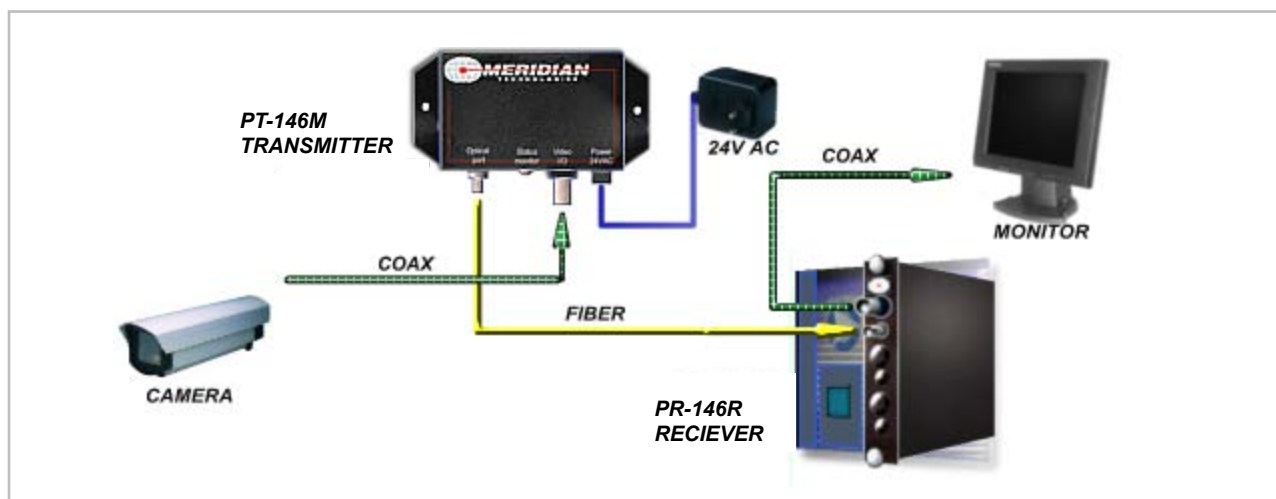
Environmental

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

Quality

MTBF	>340,000 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
*** Add 30mm to include mounting flanges



OPTICAL:

Fiber Type/Size (um)	Optical Output (dBm)	Receiver Sensitivity (dBm)	Optical Budget (dB)	Wavelength (nm)	Optical Connector	Optical Dynamic Range (dB)
Multimode* (SLED)						
62.5/125	-13	-33	20**	850	ST	39
62.5/125	-16	-33	17**	1300	ST	39
Singlemode (Laser)						
9/125	-7***	-35	28	1310	ST, FC	41
9/125	-10***	-35	25	1550	ST, FC	41

* Distance is limited to fiber loss, splices and fiber bandwidth
** For 50/125um fiber, subtract 3dB
*** Higher output lasers available

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