

Three Channel FM Video System



FEATURES:

- Surface Mount Technology (SMT) for High Reliability and Repeatability
- Hot Swappable Cards
- ST™, FC Optical Connector
- 10MHz Video Bandwidth
- Meets EIA RS-170, RS-343A
- 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

DESCRIPTION:

The Series 190 is a Frequency Modulated (FM) fiber optic video system that transmits and receives three real time video signals over three multi-mode or singlemode fibers. PAL, SECAM and NTSC formats in B&W or color are seamlessly transmitted distances of 6Km (multimode) and 100Km (singlemode). The 190'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 Series 190 is available as a rack mount card that can be installed in all of Meridian's card chassis, desk chassis and 19" racking frames. Series 190 are compatible with Series 140 Single Channel Systems. The Series 190 can be converted to a module by installing it in the SR-500 card chassis. This system can be configured in either star (module to rack) or trunking (rack to rack) configurations and can accommodate up to 54 transmitters or receivers in a 19" chassis for high density applications. This product requires no user adjustments and features superior quality and performance.

APPLICATIONS:

Security and Surveillance
 Military Communications
 Intelligent Transportation System (ITS)

SPECIFICATIONS:

Video

Format	NTSC, PAL, SECAM
Voltage/Impedance	1Vp-p, 75 Ohm, 1.5 Vp-p max.
Bandwidth	5 Hz to 10 MHz @ -3 dB
Differential Gain	<2% typical
Differential Phase	<1.5° typical
SNR	66 dB weighted*
Return Loss	>30 dB
Field Tilt	<0.5% max.
Carrier Frequency	70 MHz

Connectors

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

Power **

Card	3 W
Module	120 mA @ 24 VAC
Adapter for SR-500/S	Model WP-24

Indicators (LEDs)

Red	Power On
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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, (0.8") W
	10 mm (4") H
Weight:	
Module (w/SR-500)	900 g (32 oz.)
Card	450 g (16 oz.)
	One

Enviromental

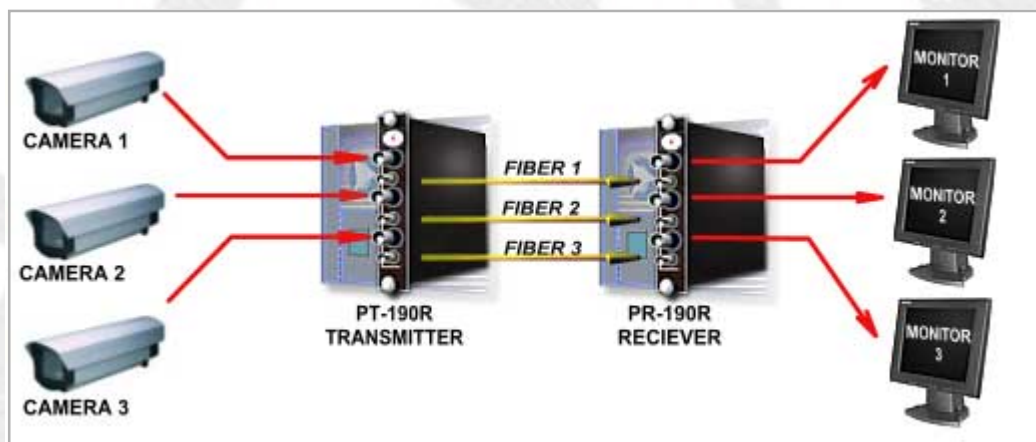
Operating Temperature	-40°C to +74°C
Storage Temperature	-55°C to +85°C
Relative Humidity	0 to 95% Non-condensing

Quality

MTBF	>175,000 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



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
Singlemode (Laser)						
9/125	-7***	-36	28	1310	ST, FC	41
9/125	-10***	-36	26	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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