MERIDIAN TECHNOLOGIES

FM Video
Four Channels Mux

VIDEO
VIDEO
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FEATURES:

- SpectraSmart™ Network Management Compatible

- Surface Mount technology (SMT) for High Reliability and Repeatability

- Hot-swappable Rack Modules

- FM / FDM Design

- Transmits Four Real-Time Video Signals

- ST™, FC Optical Connector

- 7 MHz Video Bandwidth per Individual Channel

- Requires No In-field Electrical or Optical Adjustments

- Meets EIA RS-170, RS-343A

- Meets NEMA TS1/TS2 and Caltrans specifications

- Utilizes Internal Switching Power Supplies

- Meets RS-250C Transmission Requirements

- NTSC, PAL, SECAM Compatible

- Automatic Resettable, Solid-State Current Limiters on All Power Lines: Provides Equipment Protection

- Wide Optical Dynamic Range: Optical Attenuators are Never Required

- BNC Video Connectors

DESCRIPTION:

The 4000i is a reliable, cost effective, state-of-the–art, one fiber single wavelength video transmission system. The 4000i is frequency Modulated/Frequency Division Multiplexed (FM/FDM) for superior performance. Cross talk on adjacent channels is eliminated. This fiber optic system transmits four channels of real-time video over one fiber. The 4000i accepts PAL, SECAM, and NTSC formats. B&W or Color signals are seamlessly transmitted distances of up to 5Km (multimode) and 80 km (singlemode). The 4000i capabilities are enhanced by it's compatibility with Meridian's PC based SpectraSmart™, Network Management and Remote 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 4000i product family is available as rack mount cards that can be installed in all of Meridian's card chassis, desk chaises and 19″ racking frames. This system can be configured in either star (module to rack) or trunking (rack to rack) configurations. These products require no user adjustments & features superior quality and performance.

APPLICATIONS:

Security and Surveillance
Intelligent Transportation System (ITS)
Access Control Systems
Campus Lecture Networks

SPECIFICATIONS:

Video

Format	NTSC, PAL, SECAM
Voltage/Impedance	1 Vp-p, 75 Ohm, 1.5 Vp-p max.
Bandwidth	5 Hz to 6.8 MHz @ -3 dB
Differential Gain	<2% typical
Differential Phase	<2º typical
SNR	58 dB weighted*
Return Loss	>30 dB
Field Tilt	<0.5% max.
Highest Carrier Frequency . .	150 MHz
. . . . . .	

Connectors

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

Power **

Card	6 W
Module	250 mA @ 24 VAC,
Adapter for SR-500/S.	Model WP-24

Indicators (LEDs)

Red	Power On

Physical

Dimensions:

Module (w/SR-500/S)	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:

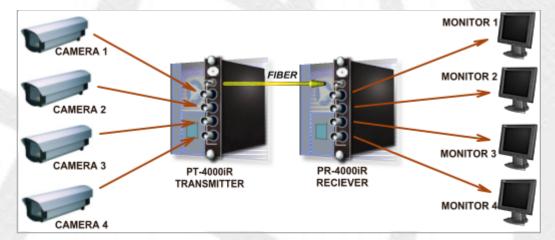|	
Module (w/SR-500/S)	900 g (32 oz.)
Card	450 g (16 oz.)
Number of Rack Slots	One

Enviromental

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

Quality

MTBF.	>175,000 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

OPTICAL:

Fiber Type/Size (um)	Optical Output (dBm)	Reciever Sensitivity (dBm)	Optical Budget (dB)	Wavelength (nm)	Optical Connector	Optical Dynamic Range (dB)
Multimode* (Laser)						
62.5/125	-7	-24	17**	850	ST	39
62.5/125	-8	-24	18**	1300	ST	39
Singlemode (Laser)						
9/125	-7***	-26	19	1310	ST, FC	41
9/125	-10***	-26	16	1550	ST, FC	41

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