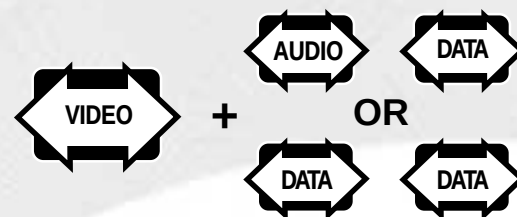




### FM Video with Two Duplex Channels over One Fiber



#### 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
- 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 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
- DB Type Connector for Data and/or Audio

#### DESCRIPTION:

The Series 600i Frequency Modulated (FM) fiber optic video systems that transmit duplex video, voice and data signals for distances of 6Km on multimode fiber and over 100Km on singlemode fiber. The Series 600i operates over one optical fiber. PAL, SECAM or NTSC formats, in B&W or color, are seamlessly transmitted. The Series 600i capabilities are enhanced by its 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 600i 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.

#### APPLICATIONS:

Security and Surveillance  
Intelligent Transportation System (ITS)  
Video Teleconferencing  
Distance Learning

## 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 . . . . . 64 dB 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%, 1 KHz @ 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<sup>-9</sup> \*

### 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 @ 24VAC  
Adapter for SR-500/S. . . . . Model WP-24

### Indicators (LEDs)

Red . . . . . Power On  
Red . . . . . Input Level Adjustment  
Red . . . . . Output Level Adjustment

### 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

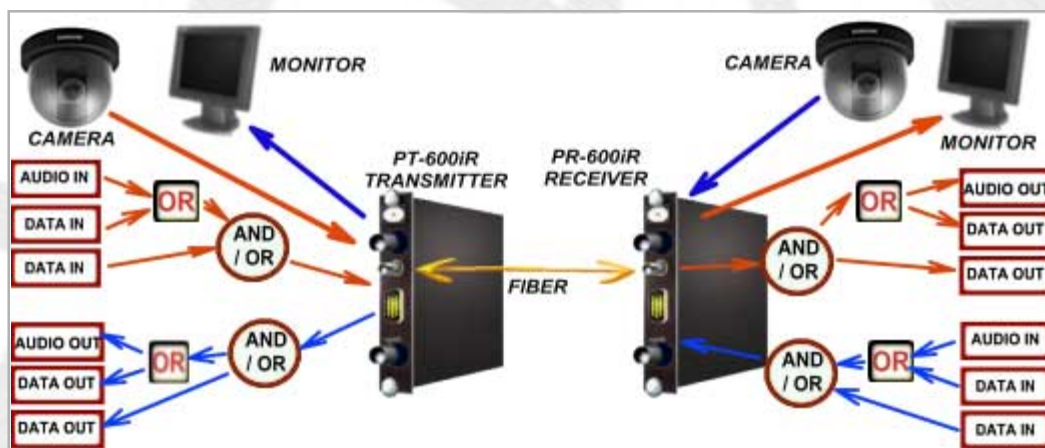
### Enviromental

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

### Quality

MTBF. . . . . >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) | Receiver 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 50/125um fiber, subtract 3dB  
\*\*\* Higher output lasers available

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