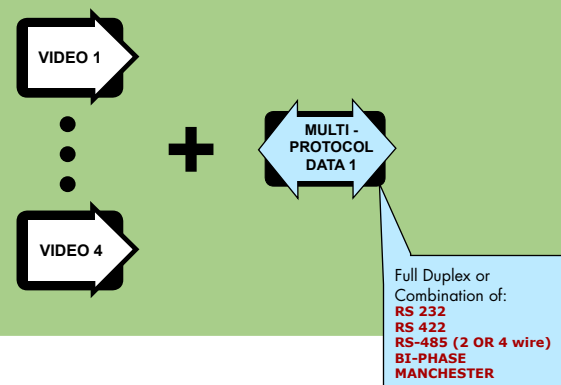


## Digitally Encoded Four 10-Bit 7MHz Video Mux with One Full Duplex Multiprotocol Data



### FEATURES

- 10 Bit 7 MHz Video Digital Encoding
- Real Time Video and Data Transmission
- Low Power Consumption
- High Efficiency, Isolated Power Supply
- Meets RS-250C Short Haul Transmission Specifications
- NTSC, PAL, SECAM Compatible
- Bi-directional Multiprotocol Data Channel Supports RS-232, RS-422 & RS-485 (2 & 4-wire) and
- Wide Optical Dynamic Range: Eliminates Need For Optical Attenuators
- Laser Based Systems for both Multimode and Singlemode modules
- Surface Mount Technology (SMT) for High Reliability and Repeatability
- SpectraSmart™ PC Based Network Management
- SpectraView™ Fault / Setup Firmware
- Local LED Status Indicators to Monitor Critical System Parameters
- ST, FC Optical Connector
- Hot Swappable Cards
- Laser Back - Biased Photo Detector Circuitry for Stable Optical Output Over Full Temperature Range.
- 75 Ohm BNC Video Connector (Gold Center Pin)
- Meets EIA RS-170, RS-343A Formats
- RJ45 Connector for Data

### DESCRIPTION

The FT/FR-4W1G/1G-x series fiber optic transmission system that takes advantage of Meridian's new digital encoding technology transmits following signals:

1. Four real-time, high quality, 10-bit 7MHz video
2. One channel of user selectable, full duplex RS-232, RS-485 (2 or 4 wire), RS-422, Manchester, Bi-Phase or in combination

Both, multimode and singlemode, one fiber versions are available. The versatility of the FT/FR-4W1G/1G-x system is enhanced by *SpectraView*, an On-Screen Video Diagnostic / Setup firmware system and *SpectraSmart*, an optional PC Based Network Diagnostic System. *SpectraView* monitors the integrity of the video signal and the fiber link. A break in the fiber path will cause a loss of fiber alarm to be displayed on an associated monitor. *SpectraView* is easy to use, always active and eliminates the need for additional test equipment. *SpectraView* also includes a selectable on-board audio & data test signal generator with built-in local and remote loop-back functions.

If greater diagnostic capability is required, the functionality of FT/FR-4W1G/1G-x series is further enhanced by its 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, carrier detect, voltage, temperature, optical levels, data present etc. See the SpectraSmart brochure for more details.

### CONFIGURATIONS

The FT/FR-4W1G/1G-x product are available as rack mount cards that can be installed in 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. These systems can be made a standalone system by using the SR-500/S, 1 slot desk / wall mount chassis (87VAC-264VAC).

### MARKETS

- ✓ 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 7 MHz @ -3 dB
Differential Gain .....	<0.6%
Differential Phase .....	<0.3°
SNR .....	>67 dB (weighted)*
Return Loss .....	>30 dB
Field Tilt .....	< 0.5%

## Data

Formats .....	RS-232 w/ full speed handshake, RS-485, RS-422, Manchester or Bi-Phase
Data Rate (RS-232).....	DC to 125 Kb/s
Data Rate (RS-422, RS-485)...	DC to 250 Kb/s
Bit Error Rate .....	10 <sup>-9</sup> *

## Optical

Fiber Data Rate .....	900 Mb/s
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## Connectors

Video .....	75 Ohm BNC (Gold Center Pin)
Optical .....	ST - MM(default), FC - SM(default)
Power (module) .....	See SR-500 Brochure for details
Data .....	RJ45 Connector

## Power \*\*

Card .....	4 Watts
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## Indicators (LEDs)

1 - Green .....	Power On
1 - Bi-color .....	TX Carrier/ Laser Over Current
1 - Bi-color .....	RX Carrier - Present / Error
4 - Bi-color .....	Video Present / Overload
4 - Bi-color .....	Sync. Present / Load Absent
2 - Green .....	Data Present

## Physical

Dimensions (Card) .....	20 (W) x 127 (H) x 160 (D) mm (0.8 x 5.0 x 6.3 inch)
Weight (Card) .....	450 gms (16 Oz)
No. of Slots .....	1
Module .....	See SR-500 Brochure

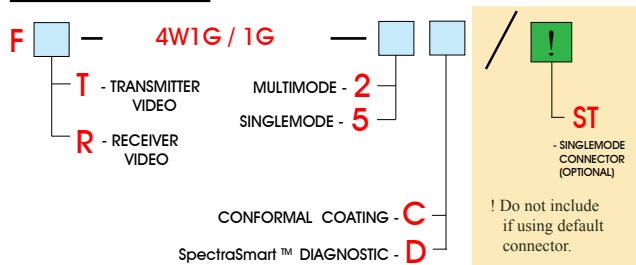
## Enviromental

Operating Temperature ...	-34°C to +74°C
Storage Temperature .....	-55°C to +85°C
Relative Humidity .....	0 to 95% Non-condensing

## Quality

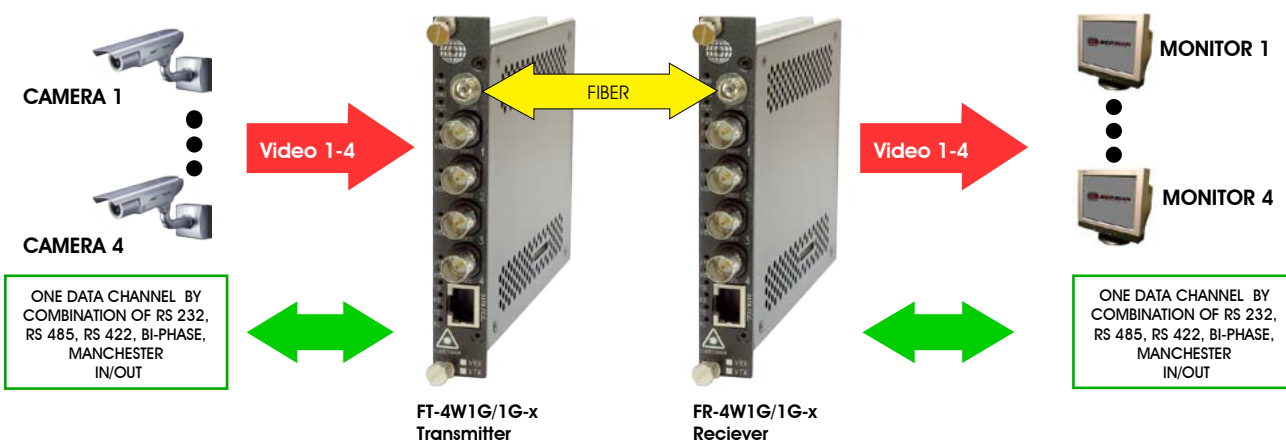
MTBF .....	>170,000 hours @ Ground Fix 35°C per MIL217F
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## Part Numbers:



\* measured @ max. optical budget

\*\* Due to variations of drivers and diagnostic options, power shown @ max value



## OPTICAL:

Optical Code	Fiber Type/Size (um)	Optical Output (dBm)	Receiver Sensitivity (dBm)	Optical Budget (dB)	Wavelength (nm)	Optical Connector	Optical Dynamic Range (dB)	Estimated Maximum Transmission Distance (km)
2	Multimode (FP Laser) 62.5 / 125	-5	-25	20	1300 / 850	ST	25	2
5	Singlemode (FP Laser) 9 / 125	-5	-25	20	1310 / 1550	ST, FC	25	50

Meridian Technologies Inc.

700 Elmont Road. • Elmont, NY 11003 • 516. 285. 1000 • FAX 516. 285. 6300 • E-mail sales@meridian-tech.com  
 www.meridian-tech.com

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