

Digitally Encoded One 10-Bit 10MHz Video Mux  
 with One Bi-directional Contact Closure,  
 One Full Duplex Multiprotocol Data  
 and One Return Channel of Pelco® Coaxitron  
 or Panasonic® Up-the-coax Control Data



## EXTENDED RANGE CAMERA CONTROL

Full Duplex or  
 Combination of:  
 RS 232  
 RS 422  
 RS-485 (2 OR 4 wire)  
 BI-PHASE  
 MANCHESTER



### FEATURES

- One Digitally Encoded 10-bit 10 MHz Video Signal with One Integrated Pelco® Coaxitron or Panasonic® Up-the-coax PTZ Camera Control
- Model supports both Pelco® Coaxitron and Panasonic® Up-the-coax PTZ Camera Control
- 10 MHz Video Bandwidth
- Integrated Pelco® Coaxitron or Panasonic® Up-the-coax PTZ Camera Control is Time Base Corrected
- Meets RS-250C Short Haul Transmission Specifications
- NTSC, PAL, SECAM Compatible
- One Channels of Bi-Directional Multi-protocol Data and Contact Closure
- Wide Optical Dynamic Range: Eliminates Need For Optical Attenuators
- Laser Based Systems for Multimode and Singlemode
- 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 Diagnostics for Performance 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
- Screw Terminals Type Connectors for Data and Contact Closure

### DESCRIPTION

The FT/FR-1U1C1G/1M1C1G-x series fiber optic transmission system that takes advantage of Meridian's new digital encoding technology transmits following signals on permanent bases:

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

In addition, following signals are optionable and interchangeable:

3. One integrated Pelco® Coaxitron or Panasonic® Up-the-coax PTZ camera control data
4. One full duplex contact closure channels

Each camera's PTZ can be individually controlled.

Time Base Correction feature aloud achive distances:

- up to 3Km for multimode
- up to 50Km for singlemode

Both, multimode and singlemode, one fiber versions are available. The functionality of FT/FR-1U1C1G/1M1C1G-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-1U1C1G/1M1C1G-x products 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 10 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> *

## Contact Closure

Rate .....	10 Hz.(Per Channel)
Contact Rating .....	0.3A, 30V AC / DC
Contact Bounce Time .....	5 ms

## Optical

Fiber Data Rate .....	350 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/Audio/Contact closure ...	Screw Terminals Connector

\* measured @ max. optical budget

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

## Power \*\*

Card .....	5 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
1 - Bi-color .....	Video Present / Overload
1 - Bi-color .....	Sync. Present / Load Absent
2 - Green .....	Data Present
2 - Green .....	Contact Closure Present

## Physical

Dimensions (Card) .....	160 mm (6.3") L, 127 mm (5") W 20mm (0.80") W
Weight (Card) .....	450 gms (16 Oz)
No. of Slots .....	1
Module .....	See SR-500 Brochure

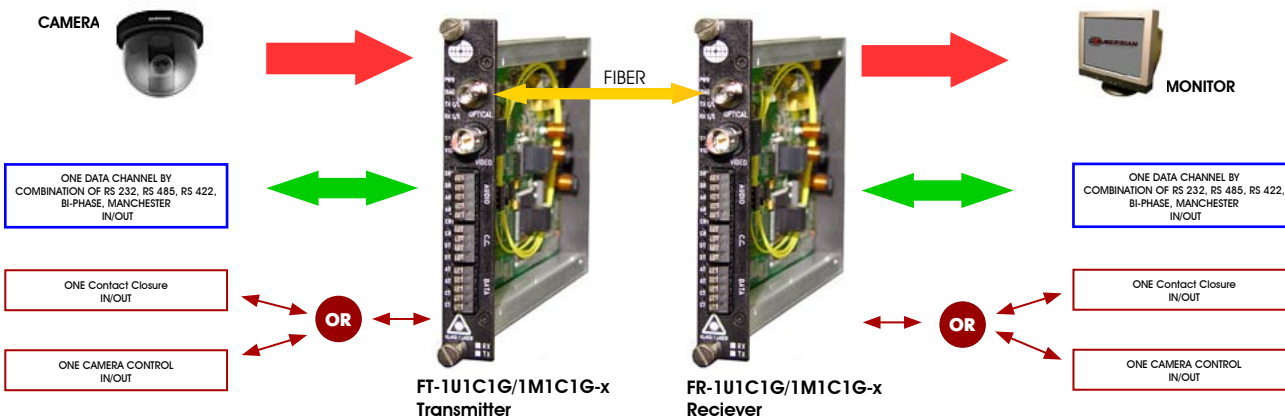
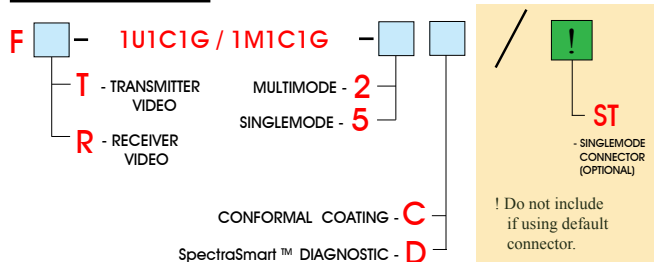
## Enviromental

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:



## OPTICAL:

Meridian optic code	Fiber Type/Size (um)	Optical Output (dBm)	Receiver Sensitivity (dBm)	Optical Budget (dB)	Wavelength (nm)	Optical Connector	Optical Dynamic Range (dB)	Max Distance (Km)
2	Multimode (FP Laser) 62.5 / 125	-5	-25	20	1300 / 850	ST	25	3
5	Singlemode (FP Laser) 9 / 125	-5	-25	20	1310 / 1550	ST, FC	25	50

Singlemode DFB lasers available on request.

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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