



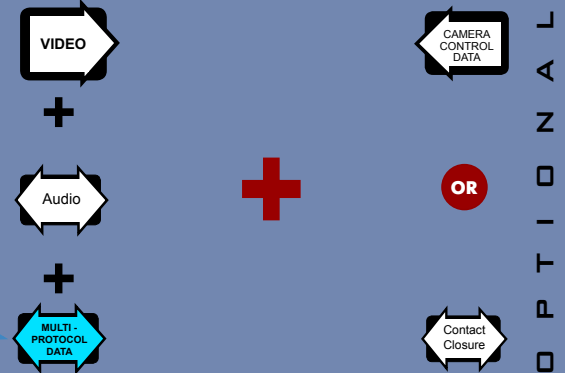
MERIDIAN
TECHNOLOGIES

FT/FR-1U1A1C1G/1P1A1C1G-x **DigiCool™**



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 Video Signal with One Integrated Pelco® Coaxitron or Panasonic® Up-the-coax PTZ Camera Control
- Model supports both Pelco® Coaxitron or 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 Audio and Contact Closure, One Channel of Bi-Directional Multi-protocol Data
- 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 Audio, Data and Contact Closure

DESCRIPTION

The FT/FR-1U1A1C1G/1P1A1C1G-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 full duplex 24 bit audio
3. 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:

4. One integrated Pelco® Coaxitron or Panasonic® Up-the-coax PTZ camera control data
5. 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-1U1A1C1G/1P1A1C1G-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-1U1A1C1G/1P1A1C1G-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 ⁻⁹ * |

Contact Closure

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

Audio

| | |
|--------------------------------|---|
| I/O Impedance | 600 Ohm (Bal.), 47 KOhm (Un Bal.) |
| Frequency Response | 10 Hz to 20 KHz |
| SNR | >90dB (Weighted)@ 1 KHz |
| In/Out Level | -8 to +8 dBm (4V _{p-p} max.) (+18 dBm available on request) |
| Total Harmonic Distortion | <0.01% @ 1KHz |
| Resolution | 24 Bit |

Optical

| | |
|-----------------------|----------|
| Fiber Data Rate | 350 Mb/s |
|-----------------------|----------|

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 |
|------------|---------|

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 - Bi-Color | Audio Present / Overload |
| 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 |

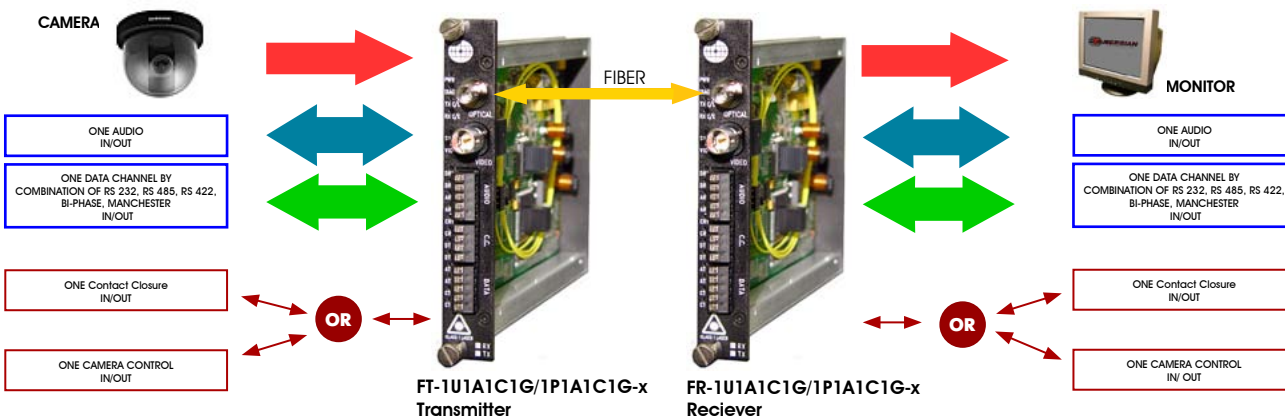
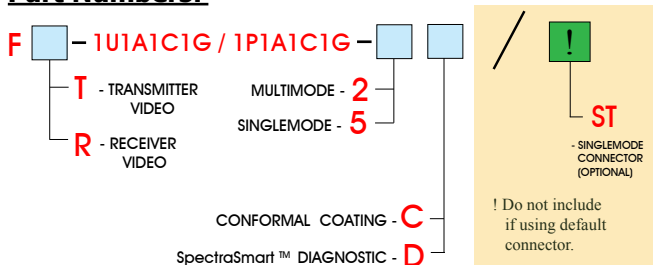
Enviromental

| | |
|---------------------------|-------------------------|
| 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 |
|------------|---|

Part Numbers:



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 | 23 | 3 |
| 5 | Singlemode (FP Laser) 9 / 125 | -5 | -25 | 20 | 1310 / 1550 | ST, FC | 23 | 50 |

Singlemode DFB lasers available on request.

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