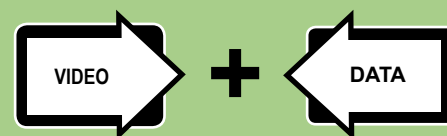# MERIDIAN
TECHNOLOGIES

Extended Range Fiber
Transmitter/Receiver
for Pelco® Coaxitron

VIDEO **+** DATA

FEATURES:

- Supports long distances for Pelco Coaxitron video systems - up to the loss budget of the fiber link

- One Digitally Encoded 10-bit 10 MHz Video Signals with one Integrated "up-the-coax" PTZ Camera Control

- Model supports Pelco Video & Coaxitron PTZ Camera Control

- 10 MHz Video Bandwidth

- Meets RS-250C Transmission Specifications

- Wide Optical Dynamic Range: Eliminates Need For Optical Attenuators

- SpectraSmart™ Network Management Compatible

- 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

- Meets NEMA TS1 / TS2 & CALTRANS Specs.

- 75 Ohm BNC Video Connector (Gold Center Pin)

- Meets EIA RS-170, RS-343A Formats

DESCRIPTION:

The FT/FR-1U/1M-x Extended range Coaxitron fiber optic transport system transmits one real-time, high quality, 10-bit 10 MHz video signals with integrated up-to-coax PTZ camera control data for Pelco PTZ control systems. This product extends the operating range out to the limitations of the link loss budget. In the case of singlemode operation, this estimated operating distance can be in excess of 70km. Both, multimode and singlemode, one fiber versions are available. The functionality of the FT/FR-1U/1M-x series is further enhanced by its compatibility with Meridian's PC based SpectraSmart, Network Monitoring 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-1U/1M-x product is available as rack mount card 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.

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	Pelco Coaxitron ***
Bit Error Rate	10-9*

Connectors

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

Enviromental

Operating Temperature	-40°C to +75°C
Storage Temperature	-55°C to +85°C
Relative Humidity	0 to 95% Non-condensing

Optical

Fiber Data Rate	350 Mb/s

Power **

Card	4 Watts

Indicators (LEDs)

1 - Green	Power On
1 - Bi-color	TX Carrier/ Laser over current
1 - Bi-color	RX Carrier - Present / Error
1 - Green	Video Sync. Present
1 - Bi-Color	Video Present / Overload
1 - Green	Data 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

Quality
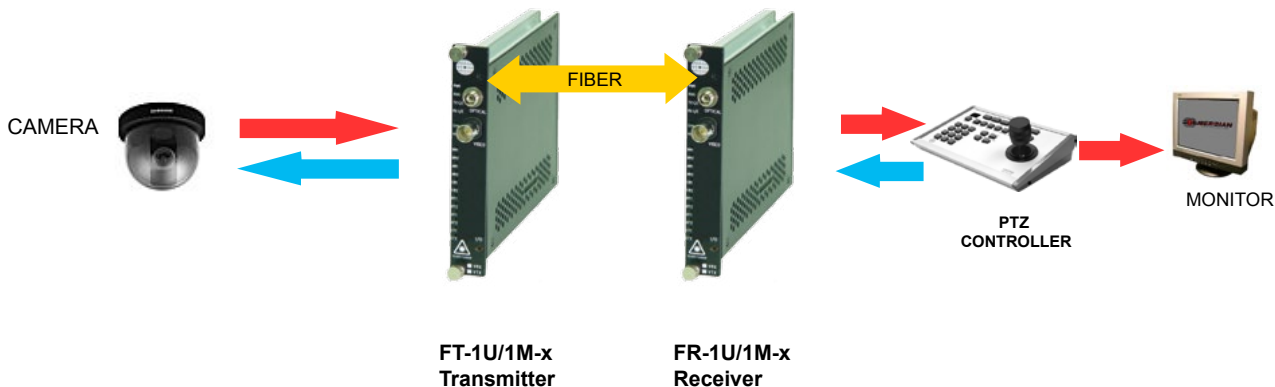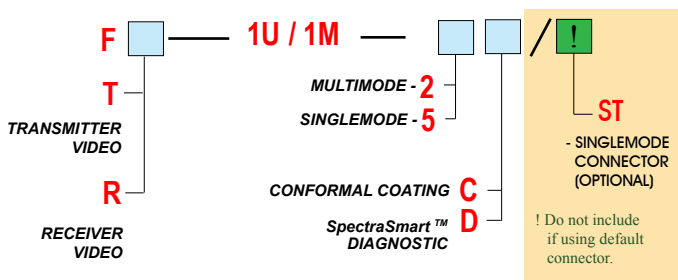
MTBF	>220,000 hours @ Ground Fix
	35oC per MIL217F

*   measured @ max. optical budget
** Due to variations of drivers and diagnostic options, power shown @ max value
*** Coaxitron is a registered trademark of PELCO

Part Numbers:

F [ ] — **1U / 1M** — [ ] [ ] / **!**

T — TRANSMITTER VIDEO

R — RECEIVER VIDEO

MULTIMODE - **2**
SINGLEMODE - **5**

CONFORMAL COATING **C**
SpectraSmart ™ DIAGNOSTIC **D**

ST
- SINGLEMODE CONNECTOR (OPTIONAL)

! Do not include if using default connector.

CAMERA

FIBER

FT-1U/1M-x Transmitter

FR-1U/1M-x Receiver

PTZ CONTROLLER

MONITOR

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)	Estimated Maximum Transmission Distance (km)
2	Multimode (FP Laser) 62.5 / 125	-5	-30	25	1300 / 850	ST	30	5.7
5	Singlemode (FP Laser) 9 / 125	-5	-30	25	1310 / 1550	ST, FC	30	70