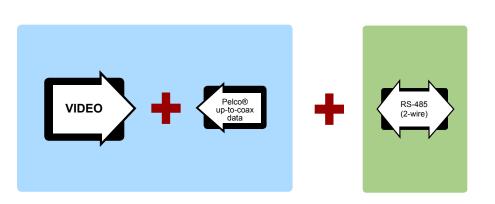


# FT/FR-1W1J/1P1J-x

DigiCool™

Digitaly Encoded One 10-Bit 7 MHz Video with One Full Duplex RS 485 (2-wire) Data and One Return Channel of Pelco® Coaxitron Control Data





#### **FEATURES**

- One Digitally Encoded 10-bit 7 MHz Video Signal with One Integrated Pelco® "up-the-coax" PTZ Camera Control
- Model supports Pelco Video & Coaxitron PTZ Camera Control
- 7 MHz Video Bandwidth
- Integrated Pelco® "up-the-coax" PTZ Camera Control is Time Base Corrected
- Meets RS-250C Short Haul Transmission Specifications
- NTSC, PAL, SECAM Compatible
- One Channel of Bi-Directional RS-485 (2-wire) 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<sup>™</sup> PC Based Network Management
- SpectraView<sup>™</sup> 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-1W1J/1P1J-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 7 MHz video
- 2. One full duplex RS-485 (2 wire)
- 3. One integrated up-to-coax PTZ camera control data for Pelco® telemetry systems

Time Base Correction feature aloud achieve distances:

- up to 2Km for multimode
- up to 50Km for singlemode

Both, multimode and singlemode, one fiber versions are available. The functionality of FT/FR-1W1J/1P1J-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-1W1J/1P1J-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

- $\sqrt{}$  Security and Surveillance
- $\sqrt{}$  Intelligent Transportation System (ITS)
- $\sqrt{}$  Access Control Systems
- ✓ Campus Lecture Networks

Differential Gain	<0.6%	1 - DI-COIOI	video i resent / Overload				
Differential Phase	<0.3°		1 - Bi-color Sync. Present / Load Absent				
SNR	>67 dB (weighted)*	2 - Green	reen Data Present				
Return Loss	>30 dB						
Field Tilt	< 0.5%	<b>.</b>					
		Physical		l			
		Dimensions (Card)	20 (W) x 127 (H) x 160 (D) mm	l			
Data			(0.8 x 5.0 x 6.3 inch)	l			
Formats	RS-485	Weight (Card)	450 gms (16 Oz) 1				
Data Rate	DC to 250 Kb/s	No. of Slots					
Bit Error Rate	10-9*	Module	See SR-500 Brochure				
		_					
		Enviromental		l			
Optical		Operating Temperature	$-34^{\circ}$ C to $+74^{\circ}$ C				
Fiber Data Rate	350 Mb/s	Storage Temperature	-55°C to +85°C				
	550 1010/5	Relative Humidity	0 to 95% Non-condensing				
				l			
		Quality					
Connectors		MTBF	>170,000 hours @ Ground Fix				
Video	75 Ohm BNC (Gold Center Pin)		35°C per MIL217F				
Optical	ST, FC		55 C per Mill21/1				
Power (module)	See SR-500 Brochure for details						
Data/Audio/Contact closure	Screw Terminals Connector						
Power **		Part Numbers:					
Card 5	Watts						
		F 1W1J/	1P1J — –				
		• •					
		- TRANSMITTER VIDEO					
		VIDEO		)F			
		VIDEO SING					
				ст			
* measured @ max. optical budget							
	diagnostic options, power shown @ max value	Spec	traSmart ™ DIAGNOSTIC - D - SINGLEMO CONNECTO				
5	5 I /I 0			~~			
			Charles 1				
	FIBER						
		TION OTTO	MONITOR				
	NOC NOC	VICE VICE					
ONE PELCO® "UP-THE-COAX" OUT			ONE PELCO® "UP-THE-COAX" OUT				
ONE BIDIRECTIONAL CHANNEL			ONE BIDIRECTIONAL CHANNEL				
RS 485 (2-WIRE) DATA			RS 485 (2-WIRE) DATA				
IN/OUT			IN/OUT				

Indicators (LEDs)

1 - Green ..... 1 - Bi-color .....

1 - Bi-color .....

1 - Bi-color .....

Power On

TX Carrier/ Laser Over Current

RX Carrier - Present / Error

Video Present / Overload



Transmitter

FR-1W1J/1P1J-x Receiver

# **OPTICAL:**

**SPECIFICATIONS:** 

NTSC, PAL, SECAM

<0.6%

5 Hz to 7 MHz @ -3 dB

1 Vp-p, 75 Ohm, 1.5 Vp-p max.

Format .....

Voltage/Impedance .....

Bandwidth .....

Differential Gain .....

Video

Fiber Type/Size (um)	Optical Output (dBm)	Receiver Sensitivity (dBm)	Optical Budget (dB)	Wavelength (nm)	Optical Connector	Optical Dynamic Range (dB)
Multimode (FP Laser) 62.5 / 125	-5	-25	20	1300 / 850	ST	23
Singlemode (FP Laser) 9 / 125	-5	-25	20	1310 / 1550	ST, FC	23
Singlemode (DFB Laser) 9 / 125	+5	-25	26	1310/1550	ST, FC	23

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