Digitaly Encoded One 10-Bit 10MHz Video over One Fiber

VIDEO ⟩

FEATURES

- 10 Bit 10MHz Video Digital Encoding

- Real Time Video Transmission

- Low Power Consumption

- High Efficiency, Isolated Power Supply

- Meets RS-250C Short Haul Transmission Specifications

- NTSC, PAL, SECAM Compatible

- 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

DESCRIPTION

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

1. One real-time, high quality, 10-bit 10 MHz video

Both, multimode and singlemode, one fiber versions are available. The versatility of the FT/FR-1U-x system is enhanced by *SpectraView,* an On-Screen Video Diagnostic / Setup firmware 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. *Spectra-View* is easy to use, always active and eliminates the need for additional test equipment.

If greater diagnostic capability is required, the functionality of FT/FR-1U-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-1U-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	<0.3º
SNR	>67 dB (weighted)*
Return Loss	>30 dB
Field Tilt	< 0.5%

Optical

Fiber Data Rate	350 Mb/s

Connectors

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

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 - Bi-color	Video Present / Overload
1 - Bi-color	Sync. Present / Load Absent

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

Quality

MTBF	>170,000 hours @ Ground Fix 35ºC per MIL217F

Part Numbers:

F [ ] — 1U — [ ] [ ] — [ ]

TRANSMITTER VIDEO — **T**
RECEIVER VIDEO — **R**

MULTIMODE **1**
SINGLE-MODE **3**
SINGLE-MODE w/DFB LASER **7, 9**

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

ST — SINGLE-MODE CONNECTOR
FC — SINGLE-MODE CONNECTOR
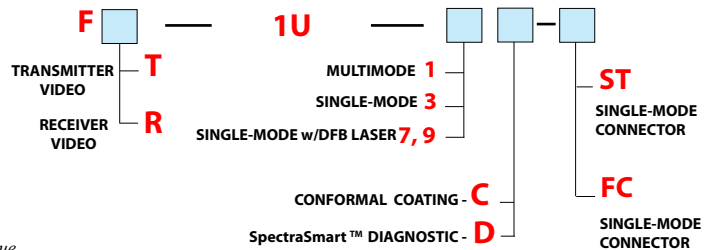
*   measured @ max. optical budget
** Due to variations of drivers and diagnostic options, power shown @ max value

CAMERA

FT-1U-x
Transmitter

FR-1U-x
Reciever

MONITOR
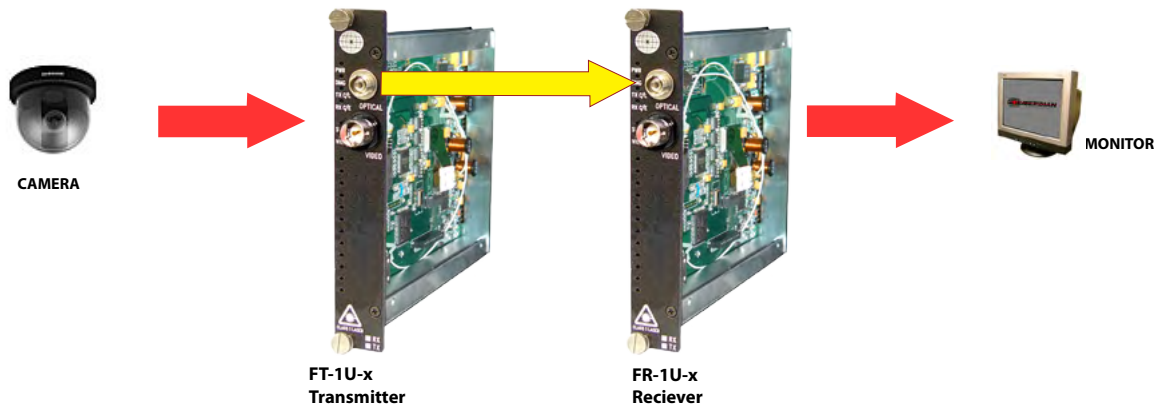
OPTICAL:

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	ST	23
Singlemode (FP Laser) 9 / 125	-5	-25	20	1310	ST, FC	23
Singlemode (DFB Laser) 9 / 125	0	-25	25	1310	ST, FC	23