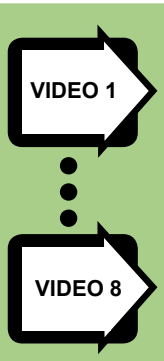
MERIDIAN TECHNOLOGIES

Digitaly Encoded Eight 10-Bit 7MHz Video Mux



FEATURES

- 10 Bit 7 MHz 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
- 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

MARKETS

√ Security and Surveillance
√ Intelligent Transportation System (ITS)
√ Access Control Systems
√ Campus Lecture Networks

DESCRIPTION

The FT/FR-8W-CWDM series fiber optic transmission system that utilizes Meridian's new digital encoding technology to transport following signals:

- Eight real-time, high quality, 10-bit 7MHz video channels

This product is available for transmitting any one of the industry standard CWDM wavelengths from 1270nm through 1610nm over one, singlemode fiber with either an ST or FC optical connector. The transmitter will interface with any standard CWDM multiplexer to efficiently add it to the overall wavelength plan of the fiber system. It is ideally suited to Meridian's 4 & 8 channel CWDM multiplexer (CWDM-4 & CWDM-8). See the appropriate data sheets for detailed information about these wavelength multiplexer products.
The versatility of the FT/FR-8W-CWDM system is enhanced by *SpectraView,* an On-Screen Video Diagnostic / Setup firmware system and *SpectraSmart,* an optional PC Based Network Diagnostic 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. *SpectraView* is easy to use, always active and eliminates the need for additional test equipment. *SpectraView* also includes a selectable on-board audio & data test signal generator with built-in local and remote loop-back functions.
The functionality of FT/FR-8W-CWDM 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-8W-CWDM product 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-1000/S, 2 slot desk / wall mount chassis (87VAC-264VAC).

SPECIFICATIONS:

Video

Format	NTSC, PAL, SECAM
Voltage/Impedance	1 Vp-p, 75 Ohm, 1.5 Vp-p max.
Bandwidth	5 Hz to 7 MHz @ -3 dB
Differential Gain	<0.6%
Differential Phase	<0.3°
SNR	>67 dB (weighted)*
Return Loss	>30 dB
Field Tilt	< 0.5%

Optical

Fiber Data Rate	1800 Mb/s

Connectors

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

REFERENCE NUMBER	WAVELEGNTH
27	CWDM, 1270 nm DFB Laser
29	CWDM, 1290 nm DFB Laser
31	CWDM, 1310 nm DFB Laser
33	CWDM, 1330 nm DFB Laser
35	CWDM, 1350 nm DFB Laser
37	CWDM, 1370 nm DFB Laser
39	CWDM, 1390 nm DFB Laser
41	CWDM, 1410 nm DFB Laser
47	CWDM, 1470 nm DFB Laser
49	CWDM, 1490 nm DFB Laser
51	CWDM, 1510 nm DFB Laser
53	CWDM, 1530 nm DFB Laser
55	CWDM, 1550 nm DFB Laser
57	CWDM, 1570 nm DFB Laser
59	CWDM, 1590 nm DFB Laser
61	CWDM, 1610 nm DFB Laser
3	Singlemode 1270-1610 Rx

* *measured @ max. optical budget*
** *Due to variations of drivers and diagnostic options, power shown @ max value*

Power **

Card	8 Watts

Indicators (LEDs)

1 - Green	Power On
1 - Bi-color	TX Carrier/ Laser Over Current
1 - Bi-color	RX Carrier - Present / Error
8 - Bi-color	Video Present / Overload
8 - Bi-color	Sync. Present / Load Absent

Physical

Dimensions (Card)	44 (W) x 127 (H) x 160 (D) mm (1.7 x 5.0 x 6.3 inch)
Weight (Card)	450 gms (16 Oz)
No. of Slots	2
Module	See SR-1000 Brochure

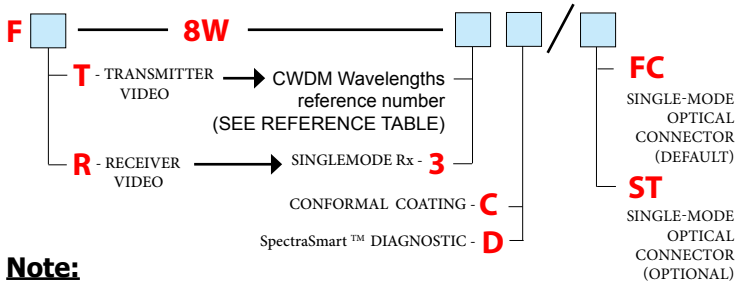
Enviromental

Operating Temperature	-34°C to +74°C
Storage Temperature	-55°C to +85°C
Relative Humidity	0 to 95% Non-condensing

Quality

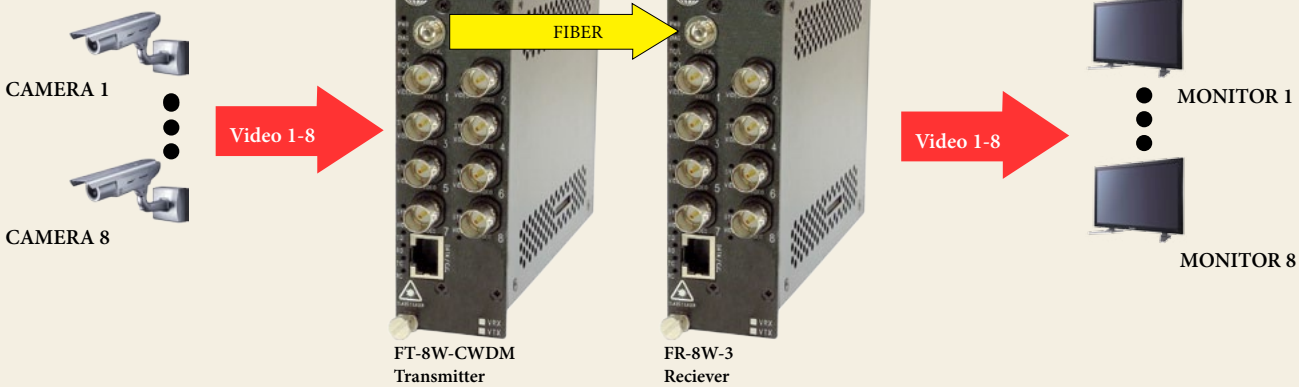
MTBF	>170,000 hours @ Ground Fix 35°C per MIL217F

Part Numbers:



Note:

Compatible receiver is the **FR-8W-3**
(with options for ST or FC connector, conformal coating and diagnostics)



OPTICAL:

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)
Singlemode (DFB Laser) 9 / 125	+1	-22	23	1270-1610	ST, FC	25	65

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