

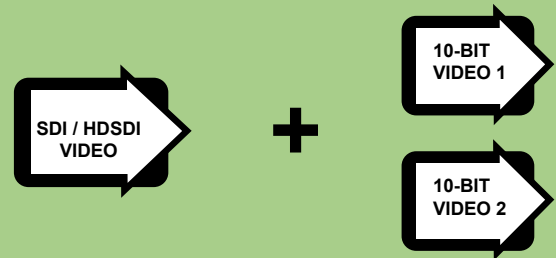


MERIDIAN
TECHNOLOGIES

FT/FR-1HD2W-5

DigiCool™

Digitally Encoded One SDI / HDSDI Video
and Two 10-Bit 7MHz Video Mux



FEATURES

- SDI / HD-SDI Video Transmission (19 Mbps to 1.5Gbps)
- Supports The Following Formats :
 - 19.4 Mbps (SMPTE 310M)
 - 143 To 540 Mbps SMPTE 259M/344M
 - 1.485 Gbps SMPTE 292M HDTV
 - DVB-ASI at 270 Mbps
 - SMPTE 305M SDTI Rates
- Error Free Pathological Pattern Performance
- 10 Bit 7 MHz Video Digital Encoding
- Real Time Video Transmission
- Low Power Consumption
- NTSC, PAL, SECAM Compatible
- Wide Optical Dynamic Range: Eliminates Need For Optical Attenuators
- 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)

DESCRIPTION

The FT/FR-1HD2W-5 series fiber optic transmission system that takes advantage of Meridian's new digital encoding technology transmits following signals:

1. One channel of SDI / HDSDI video
2. Two real-time, high quality, 10-bit 7MHz video

System transmits over one Singlemode fiber.

The versatility of the FT/FR-1HD2W-5 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. *SpectraView* is easy to use, always active and eliminates the need for additional test equipment.

CONFIGURATIONS

The FT/FR-1HD2W-5 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-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:

SDI/HDSDI Video

Formats	19.4 Mbps (SMPTE 310M)
	143 To 540 Mbps SMPTE 259M/344M
	1.485 Gbps SMPTE 292M HDTV
	DVB-ASI at 270 Mbps
	SMPTE 305M SDTI Rates
Nominal Level	0.8 Vp-p, 1.0 Vp-p max.
Data Rate	19 Mb/s - 1.5 Gb/s
Impedance	75 Ohm
Gain	Unity
Input Coupling	AC
Return Loss	>15 dB
Jitter (Pattological Data Pattern)	< 0.2 UI
Cable Equailization	Automatic 0-70 m @ 1.5 Gb/s
Bit-Error Rate (0 to -20dBm)	10 ⁻⁵

10-BIT 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%

Connectors

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

Power **

Card	4 Watts
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Optical

Wavelength HD Video	1550 nm
Wavelength 10-Bit Video	1310 nm
Fiber Data Rate	900 Mb/s

Indicators (LEDs)

1 - Green	Power On
1 - Bi-color	TX Carrier/ Laser Over Current
1 - Bi-color	RX Carrier - Present / Error
1 - Bi-color	SDI/HD-SDI Signal Present (TX)
1 - Bi-color	SDI/HD-SDI Level 0/-20 dB (RX)
2 - Bi-color	Video Present / Overload
2 - 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

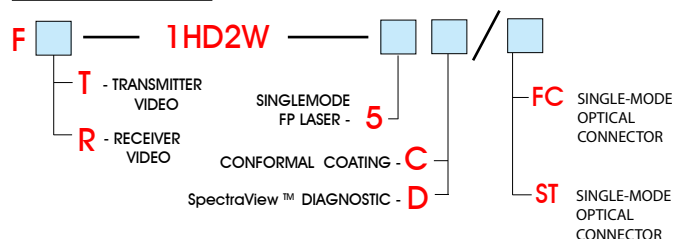
Enviromental

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

Quality

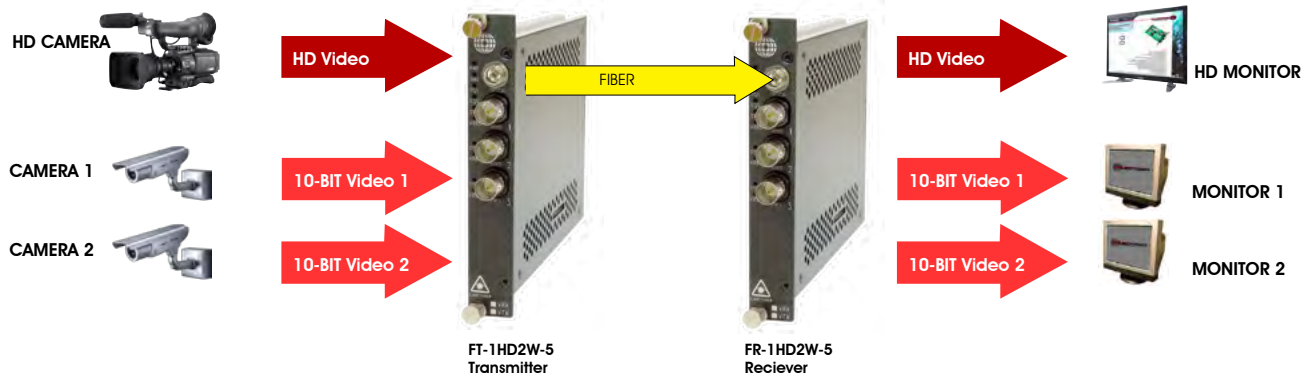
MTBF	>170,000 hours @ Ground Fix 35°C per MIL217F
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Part Numbers:



* measured @ max. optical budget

** Due to variations of drivers and diagnostic options, power shown @ max value



OPTICAL:

Meridian Optical Code	Fiber Type/Size (um)	Optical Output (dBm)	Receiver Sensitivity (dBm)	Optical Budget (dB)	Wavelength (nm)	Optical Connector	Optical Dynamic Range (dB)	Max Distance (Km)
5	Singlemode (FP Laser) 9 / 125	-5	-25	20	1310 / 1550	FC, ST	25	55

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