MERIDIAN TECNOLOGIES

DT/DR-1V1D/1D-9/10 DigiFlex™

Digitally-Encoded One Channel Video with Full-Duplex Rs-232 Data Channel over Two Fibers

FEATURES:

- Digital Video Encoding
- 1 Channel of Real-Time Video with 1 Full-Duplex RS-232 Channel over Two Fibers
- 7 MHz Video Bandwidth
- Meets RS-250C Medium Haul Transmission Specifications
- NTSC, PAL, SECAM Compatible
- 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
- SpectraSmartTM 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
- 75 Ohm BNC Video Connector (Gold Center Pin)
- Meets EIA RS-170, RS-343A Formats
- DB 9 Type Connectors for RS-232 data

DESCRIPTION:

The DT/DR-1V1D/1D-9/10 series products incorporate digital encoding technology. This fiber optic module transmits 1 real-time, high performance digitally-encoded Video signal and 1 full-duplex RS-232 data channel over two fibers. Both multimode and singlemode fiber versions are available. Meridian's digital product line incorporates plug-in personality signal cards to easily configure a wide variety of module types. The functionality of the DT/DR-1V1D/1D-9/10 series products is enhanced by its compatibility with Meridian's PC based SpectraSmart Network Management & Diagnostic Software system. Spectra Smart supervises the operating parameters of the transmission system such as the status on Video levels, Sync, Digital carrier detect, Voltages, Temperatures, Optical levels etc. See Spectra Smart brochure for further details.

CONFIGURATIONS:

The DT/DR-1V1D/1D-9/10 product family is available as rack mount cards and modules that can be installed in Meridian's card chassis, desk chaises 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).

MARKETS:

√ Pro Video
√ Distance Learning
√ Editing Studios
√ Tele-Conferencing

SPECIFICATIONS:

Video

Format	NTSC, PAL, SECAM
Voltage/Impedance	1 Vp-p, 75 Ohm, 1.5 Vp-p max.
Bandwidth	5 Hz to 6.8 MHz @ -3 dB
Differential Gain	<0.6%
Differential Phase	<0.3°
SNR	>60 dB (weighted)*
Return Loss	>30 dB
Field Tilt	< 0.5%

Data

Formats	RS-232
Rate RS-232	DC to 125 Kb/s
Bit Error Rate	10^{-9*}

Optical

Fiber Data Rate	250 Mb/s

Connectors

Video	75 Ohm BNC (Gold Center Pin)
Optical	ST, FC
Data	DB9 Female

Power **

Card	7 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	RX optical signal - Present / Absent
1 - Green	Sync. Present
1 - Bi-color	Video Present / Overload
2 - Green	Data Present

Physical

Dimensions:	
Card	160 mm (6.3") L, 100 mm (4") W
	44 mm (1.7") H
Weight:	
Card	450 gms (16 Oz)
No. of Slots	2

Enviromental

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

Quality

MTBF	>220,000 hours @ Ground Fix 35°C per MIL217F

* *measured @ max. optical budget*

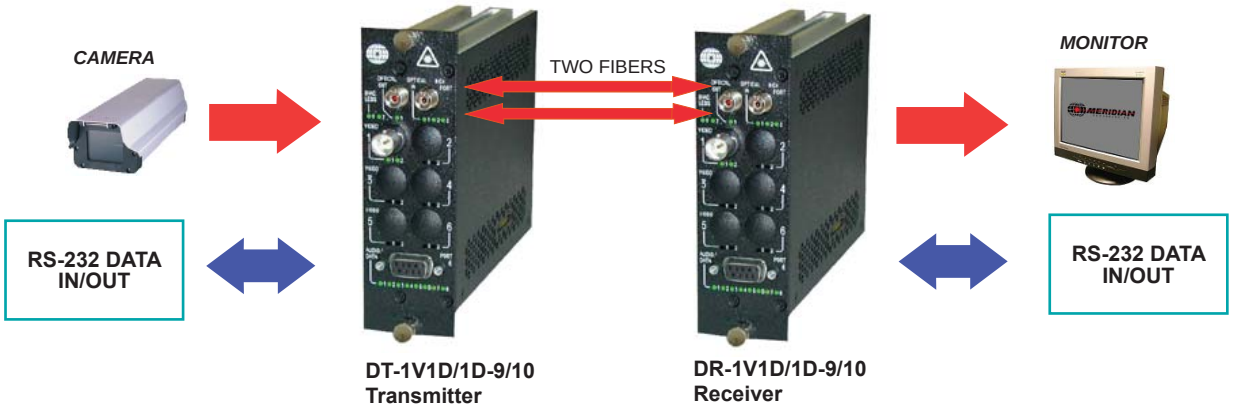
** *Due to variations of drivers and diagnostic options, power shown @ max value*

Model No.

DT-1V1D/1D-2. Transmitter, 1300/850 nm, MM, Laser
DT-1V1D/1D-5. Transmitter, 1310/1550 nm, SM, Laser
DT-1V1D/1D-8. Transmitter, 1310/1550 nm, SM, DFB Laser
DT-1V1D/1D-9/10. Transmitter, 1310/1310 nm, SM, DFB Laser

DR-1V1D/1D-2. . . . . Receiver, 805/1300nm, MM, Laser
DR-1V1D/1D-5. . . . . Receiver, 1550/1310nm, SM, Laser
DR-1V1D/1D-8. . . . . Receiver, 1550/1310nm, SM, DFB Laser
DR-1V1D/1D-9/10... Receiver, 1310/1310nm, SM, APD Detector

NOTE: ***ADD THE SUFFIX "D" AT THE END OF THE PART NUMBER FOR DIAGNOSTICS AND SuFFIX "C" FOR CONFORMAL COATING.***



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	-3	-23	20	1300	ST	24
Singlemode (FP Laser) 9 / 125	-3	-23	20	1310	ST, FC	24
Singlemode (DFB Laser) 9 / 125	+3	-23	26	1550	ST , FC	24
Singlemode (DFB Laser) APD Receiver 9/125	+3	-30	33	1310 or 1550	ST , FC	27

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