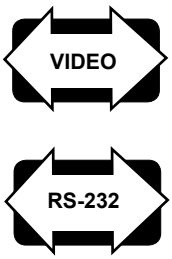
MERIDIAN TECHNOLOGIES

DX-1V1D

DigiFlex™

Digitally-Encoded One Bi-directional 8-Bit Video and One Bi-directional RS-232 Data Channel



FEATURES:

- 8-Bit Video Digital Encoding
- Real Time Video / Data
- RS-232 Data
- 7 MHz Video Bandwidth
- Meets RS-250C Short 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 Data
- DC to 125 Kb/s Data Rate

DESCRIPTION:

The DX-1V1D products incorporate digital encoding technology. This fiber optic module transmits the following bi-directional (full duplex) signals: one real-time, high performance 8-bit digitally encoded Video channel, and one RS-232 data channel over one fiber. 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 DX-1V1D products are enhanced by their compatibility with Meridian's PC based SpectraSmart Network Management&Diagnostic Software system. SpectraSmart 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 SpectraSmart brochure for further details.

CONFIGURATIONS:

The DX-1V1D product is available as rack mount cards and modules 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)

MARKETS:

√ Video conferencing
√ Intelligent transportation systems (ITS)
√ Security and surveillance
√ Access Control

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	<0.3o
SNR	>60 dB (weighted)*
Return Loss	>30 dB
Field Tilt	< 0.5%

Data

Formats	RS-232
Rate	DC to 125Kb/s * (Per Channel)
Bit Error Rate	10-9**

Optical

Fiber Data Rate	500 Mb/s

Connectors

Video.	75 Ohm BNC (Gold Center Pin)
Optical	ST, FC
Power	See SR-1000 Brochure for details
Data	DB9 Female

Power **

Card	9 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
2 - Bi-color	Video Present / Overload
2 - Green	Sync. Present
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	-34oC to +74oC
Storage Temperature	-55oC to +85oC
Relative Humidity	0 to 95% Non-condensing

Quality

MTBF	>240,000 hours @ Ground Fix 35oC per MIL217F

Part Numbers:

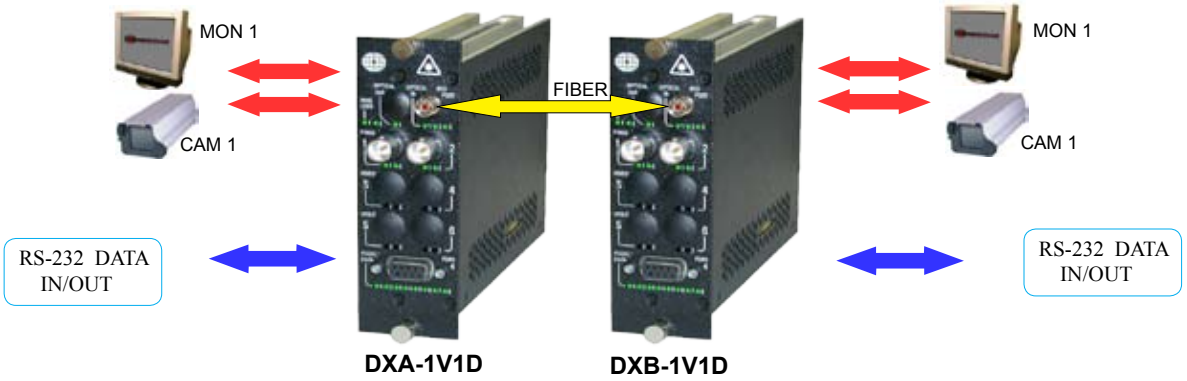
DX ——— 1V1D ———

- A - TRANSCEIVER (850 / 1300nm) (1310 / 1550nm)
- B - TRANSCEIVER (1300 / 850nm) (1550 / 1310nm)

MULTIMODE - 2
SINGLEMODE - 5
SINGLEMODE - DFB LASER 8
MODULE - M
RACK CARD - R
CONFORMAL COATING - C
SpectraSmart ™ DIAGNOSTIC- D

- ST - MULTIMODE CONNECTOR
- FC or ST - SINGLEMODE CONNECTOR

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



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	-24	21	1300 / 850	ST	24
Singlemode (FP Laser) 9 / 125	-3	-24	21	1310 / 1550	ST, FC	24
Singlemode (DFB Laser) 9 / 125	+3	-24	27	1310 / 1550	ST , FC	24

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