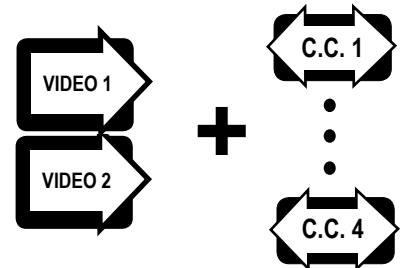


Digitally-Encoded Two Channel Video Multiplexer with Four Bi-directional Contact Closure Channels



FEATURES:

- 10 Bit Video Digital Encoding
- Transmits 2 Real-Time Video With 4 Bi-directional Contact Closures
- 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
- SpectraSmart™ 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
- Meets NEMA TS1 / TS2 & CALTRANS Specs.
- 75 Ohm BNC Video Connector (Gold Center Pin)
- Meets EIA RS-170, RS-343A Formats
- High Density DB9 (15 Pin) for Contact Closure

DESCRIPTION:

The DT/DR-2W 4C / 4C series products incorporate digital encoding technology. This fiber optic module transmits Two real-time, high performance 10-bit digitally-encoded video signal with Four Bi-directional Contact Closure Channels over one fiber. These Contact Closure channels can be individually configured as either Normally Open (N.O.) or Normally closed (N.C.). These contacts reverts to N.O. state in case of a Fiber break, but can be configured individually as per clients needs . 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-2W 4C / 4C series 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.

Note: System Shipped from the factory is configured as Normally Open.

CONFIGURATIONS:

The DT/DR-2W 4C / 4C 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:

- ✓ 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	<0.3°
SNR	>67 dB (weighted)*
Return Loss	>30 dB
Field Tilt	< 0.5%

Data

Formats	Contact Closure
Contact Rating	0.3 A, 30 V AC/DC
Contact BounceTime	5 ms
Rate C.C.	10 Hz
Bit Error Rate	10 ⁻⁹

Optical

Fiber Data Rate	500 Mb/s
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Connectors

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

Power **

Card	10 Watts
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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 - Bi-color	Video Present / Overload
1 - Green	Sync. Present
8 - Green	Data Present

Physical

Dimensions (Card)	160 mm (6.3") L, 127 mm (5") H 44mm (0.80")W
Weight (Card)	450 gms (16 Oz)
No. of Slots	2

Enviromental

Operating Temperature	-40°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 35oC per MIL217F
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* measured @ max. optical budget

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

Part Numbers:

DT-2W4C/4C-2... Transmitter, 1300nm/ 850nm, MM, Laser
DT-2W4C/4C-5... Transmitter, 1550nm/1310nm,SM, Laser
DT-2W4C/4C-8... Transmitter, 1550nm/1310nm,SM, DFB Laser

DR-2W4C/4C-2... Receiver, 850nm/ 1300nm, MM, Laser
DR-2W4C/4C-5... Receiver, 1310nm/1550nm,SM, Laser
DR-2W4C/4C-8... Receiver, 1130nm/1550nm,SM, DFB Laser



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