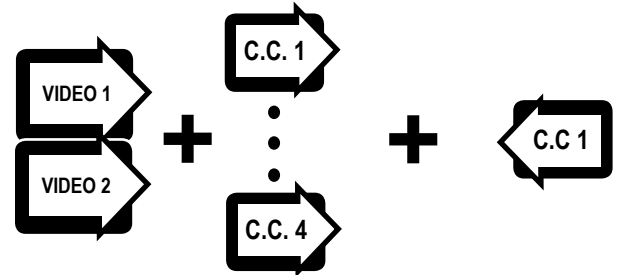


Digitally-Encoded 10-Bit Two Channel Video,  
Four Channel Contact Closure with One  
Return Contact Closure Channel



### FEATURES:

- 10 Bit Video Digital Encoding
- Transmits 2 Real-Time Video and 4 Real Time Contact Closure Channel with One Return Channel of Contact Closure
- 7 MHz Video Bandwidth
- Meets RS-250C Short Haul Transmissions 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
- DB15 Type Connectors for Contact Closure



### DESCRIPTION:

The DT/DR-2W 4C / 1C series products incorporate digital encoding technology. This fiber optic module transmits Two real-time, high performance 10-bit digitally-encoded video signal, Four Channels of Contact Closure with One Return Channel back 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 DT/DR-2W 4C / 1C 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.

### CONFIGURATIONS:

The DT/DR-2W 4C / 1C product family 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:

- ✓ 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 <sup>-9</sup>

### 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
5 - 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/1C-2. Transmitter, 850nm/ 1300nm, MM, Laser	DR-2W4C/1C-2. . Receiver, 1300nm/ 850nm, MM, Laser
DT-2W4C/1C-5. Transmitter, 1310nm/1550nm,SM, Laser	DR-2W4C/1C-5. . Receiver, 1550nm/1310nm,SM, Laser
DT-2W4C/1C-8. Transmitter, 1310nm/1550nm,SM, DFB Laser	DR-2W4C/1C-8. .Receiver, 1550nm/1310nm,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

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