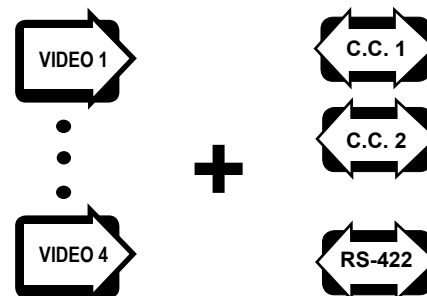


Digital 4 Channel Video Multiplexer with
 One Full Duplex RS-422, Manchester
 or Bi-Phase and Two Bi-Directional
 Contact Closure Channels



FEATURES:

- Standard 8 Bit Video Digital Encoding
- 4 Real-Time video signals w/ One full duplex data channels and Two Bi-directional Contact Closures
- Supports RS-422, Manchester or Bi-Phase
- 7 MHz video bandwidth
- Meets RS-250C transmission specifications
- NTSC, PAL, SECAM compatible
- Wide Optical Dynamic Range: Eliminates need for optical attenuators
- Laser based systems for Multimode and Single-mode
- Surface Mount Technology (SMT) for high reliability and repeatability
- SpectraSmart™ Network Management compatible
- Local LED status indicators to monitor critical system parameters
- Hot swappable cards
- Laser Back - Biased Photo Detector Circuitry for stable optical output over full temperature range
- Meets NEMA TS1 / TS2 & CALTRANS Specifications
- 75 Ohm BNC video connector (gold center pin)
- DB9 connector for Data, DB15HD connector for Contacts
- Meets EIA RS-170, RS-343A formats
- DC to 1 Mb/s data rate

DESCRIPTION:

The DT/DR-4V2C1F/2C1F series is a reliable, cost effective, state-of-the-art, one fiber transmission system. This fiber optic system transmits four channels of real-time 8 bit video with one full duplex channels of RS 422, Manchester or Bi-phase data and Two Bi-directional Contact Closure Channels over one Single-mode or Multimode fiber.

These Contact Closure channels can be individually configured as either Normally Open (N.O.) or Normally closed (N.C.).

The DT/DR-4V2C1F/2C1F accepts PAL, SECAM, or NTSC formats.

The functionality of DT/DR-4V2C1F/2C1F series are further enhanced by their compatibility with Meridian's PC based SpectraSmart, Network Management and Remote Diagnostic Software System. SpectraSmart supervises the operating parameters of the transmission system such as status on video levels, sync, carrier detect, voltage, temperature, optical levels, data activity etc. See the SpectraSmart brochure for more details.

Note: 10 bit version available. See DT/DR-4W2C1F/2C1F series. System Shipped from the factory is configured as Normally Open.

CONFIGURATIONS:

The DigiFlex™ product family is available as rack mount cards and modules that can be installed in all of 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-1002, 2 slot desk / wall mount chassis (87VAC-264VAC)

MARKETS:

- ✓ Security and Surveillance
- ✓ Intelligent Transportation System (ITS)
- ✓ Access Control Systems
- ✓ Campus Lecture Networks
- ✓ Pro. Video / Audio

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-422, Manchester, Bi-Phase
Data Rate	DC to 1Mb/s
Bit Error Rate	10 ⁻⁹ *

Contact Closure

Contact Type	Normally Open (N.O.) or Normally closed (N.C.) - jumper selectable
Rate	10 Hz.(Per Channel)
Contact Rating	0.3A, 30V AC / DC
Contact Bounce Time	5 ms

Optical

Fiber Data Rate	1 Gb/s
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Connectors

Video	75 Ohm BNC (Gold Center Pin)
Optical	ST - MM (default), FC - SM (default)
Power	See SR-1000 Brochure for details
Contact Closure	DB15 Female
Data	DB9 Female

Part Numbers:

DT-4V2C1F/ 2C1F-2. . Transmitter, 850nm/ 1300nm, MM, Laser
 DT-4V2C1F/ 2C1F-5. . Transmitter, 1310nm/1550nm,SM, Laser

Power **

Card	9 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
4 - Bi-color	Video Present / Overload
4 - Green	Sync. Present
2 - Green	Data Present
4 - Green	Tx/Rx Contact Closure

Physical

Dimensions:	
Card	160 mm (6.3") L, 127 mm (5") H 44mm (1.7") W
Weight:	
Card	600 g (1.32 lb)
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

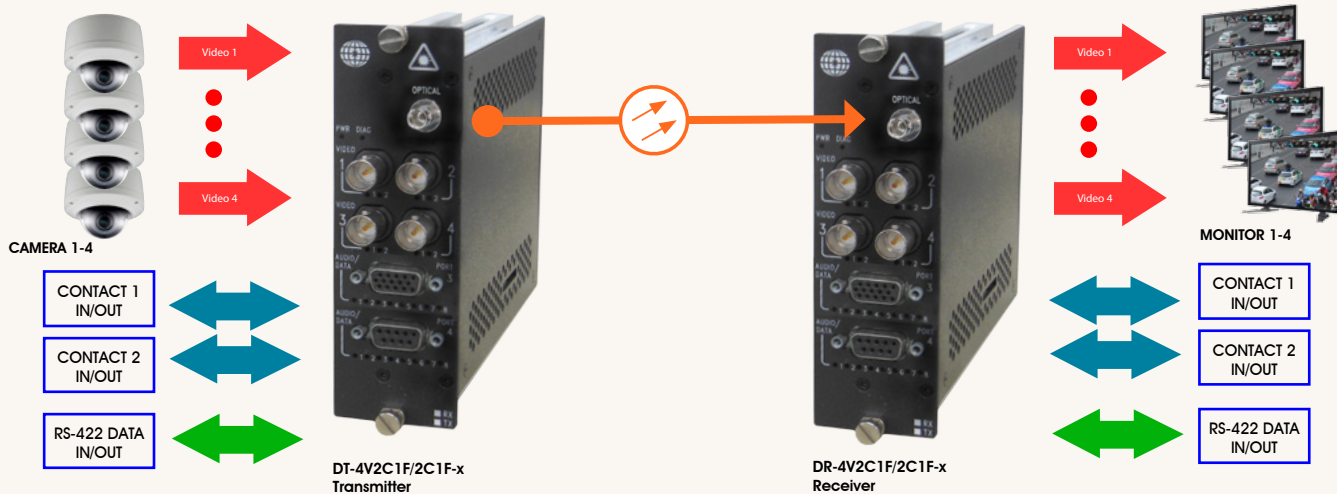
Quality

MTBF	>240,000 hours @ Ground Fix 35°C per MIL217F
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* measured @ max. optical budget

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

NOTE: Add the suffix "F" for enviromental conformal coating and the suffix "D" for PC based Diagnostic options at the end of the part number.



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)
2	Multimode (FP Laser) 62.5 / 125	-3	-23	20	1300/850	ST	23	1
5	Single-mode (FP Laser) 9 / 125	-3	-23	20	1310/1550	FC, ST	23	55

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