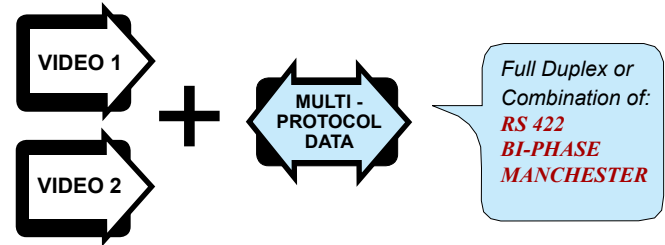


Digital 4 Channel Video Multiplexer with One Full Duplex RS-422, Manchester or Bi-Phase



FEATURES:

- Standard 8 Bit Video Digital Encoding
- 4 Real-Time Video Signals with Full Duplex Data Channel
- 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 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
- 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)
- Meets EIA RS-170, RS-343A formats
- DC to 1 Mb/s data rate

DESCRIPTION:

The DT/DR-4V1F/1F series is a reliable, cost effective, state-of-the-art, one fiber, Bi-directional Digital Video and Data transmission system. This fiber optic system transmits four channels of real-time 8 bit video with one full duplex channel of RS 422, Manchester or Bi-phase data over one Singlemode or Multimode fiber. The DT/DR-4V1F/1F accepts PAL, SECAM, or NTSC formats. The functionality of DT/DR-4V1F/1F 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-4W1F/ F series.

CONFIGURATIONS:

The DT/DR-4V1F/1F 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-1000/s, 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 * |

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 |
|------|---------|

Part Numbers:

DT-4V1F / 1F-2... Transmitter, 850nm/ 1300nm, MM, Laser
 DR-4V1F / 1F-2... Receiver, 1300nm/ 850nm, MM, Laser
 DT-4V1F / 1F-5... Transmitter, 1310nm/1550nm, SM, Laser
 DR-4V1F / 1F-5... Receiver, 1550nm/1310nm, SM, Laser
 DT-4V1F / 1F-8... Transmitter, 1310nm/1550nm, SM, DFB Laser
 DR-4V1F / 1F-8... Receiver, 1550nm/1310nm, SM, DFB Laser

* measured @ max. optical budget

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

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 |
| 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 |

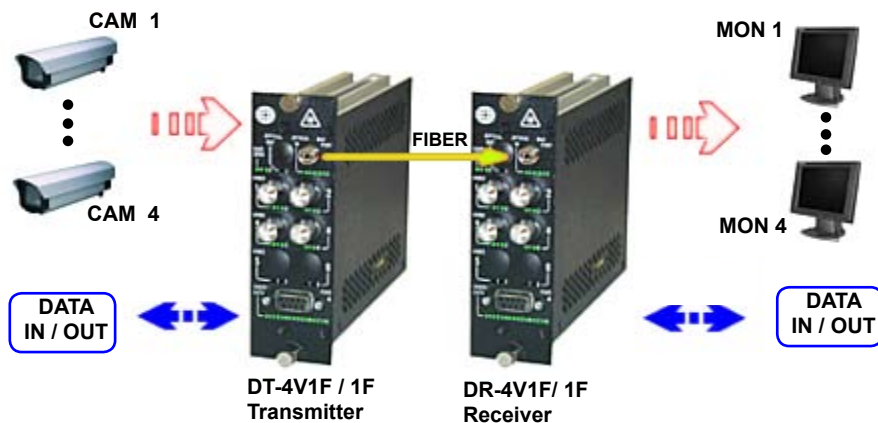
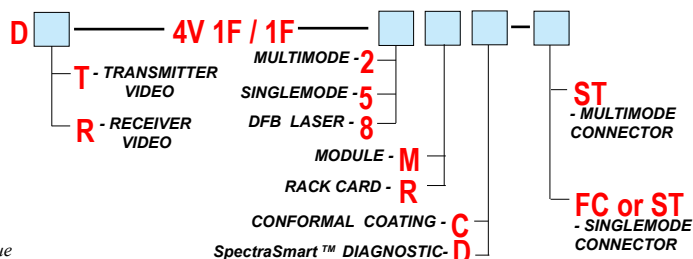
Environmental

| | |
|-----------------------|-------------------------|
| 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 |
|------|---|

Part Numbers:



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 / 850 | ST | 23 |
| Singlemode (FP Laser) 9 / 125 | -3 | -23 | 20 | 1310 / 1550 | ST, FC | 23 |
| Singlemode (DFB Laser) 9 / 125 | +3 | -23 | 26 | 1310 / 1550 | ST, FC | 23 |

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