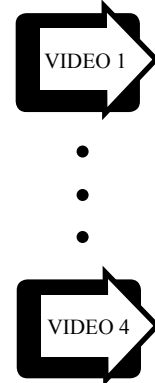


## Digital 4 Channel Video Multiplexer

**FEATURES:**

- Standard 8 Bit Video Digital Encoding
- Transmits 4 Real-Time Video Signals Over One Optical Fiber
- 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
- 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

**DESCRIPTION:**

The DT/DR-4V series is a reliable, cost effective, state-of-the-art, one fiber one wavelength Digital Video transmission system. This fiber optic system transmits four channels of real-time 8 bit Video over one Singlemode or Multimode fiber. The DT/DR-4V accepts PAL, SECAM, or NTSC formats. The functionality of DT/DR-4V 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, etc., and external equipment which are attached to the Meridian equipment. See the SpectraSmart™ brochure for more details.

NOTE: A 10 bit system is also available, see DT/DR-4W series.

**CONFIGURATIONS:**

The DT/DR-4V product family is available as rack mount cards that can be installed in all of Meridian's card chassis. This system can be configured in either star (module to rack) or trunking (rack to rack) configurations. These products can be easily converted to a Standalone module with the SR-1000/S - 2 Slot Chassis (87-264VAC). See SR-1000 brochure for further details

**MARKETS:**

- √ Security and Surveillance
- √ Intelligent Transportation System (ITS)
- √ 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                | <0.3°                         |
| Return Loss        | >62 dB (weighted)*            |
| Field Tilt         | >30 dB                        |
|                    | <0.5%                         |

### Optical

|                 |          |
|-----------------|----------|
| Fiber Data Rate | 500 Mb/s |
|-----------------|----------|

### Connectors

|         |                              |
|---------|------------------------------|
| Video   | 75 Ohm BNC (Gold Center Pin) |
| Optical | ST, FC                       |

### Power \*\*

|      |         |
|------|---------|
| Card | 8 Watts |
|------|---------|

### Quality

|       |   |
|-------|---|
| MTBF. | >210,000 hours @ Ground Fix<br>35°C per MIL217F |
|-------|---|

### Model No.

|         |  |
|---------|--|
| DT-4V-0 | Transmitter, 850nm, MM, Laser              |
| DT-4V-1 | Transmitter, 1300nm, MM, Laser             |
| DT-4V-3 | Transmitter, 1310nm, SM, Laser             |
| DT-4V-4 | Transmitter, 1550nm, SM, Laser             |
| DT-4V-6 | Transmitter, 1310nm, SM, High output Laser |
| DT-4V-7 | Transmitter, 1550nm, SM, DFB Laser         |

### 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- Green     | Sync. Present                        |
| 4 -Bi-color  | Video Present / Overload             |

### Physical

|             |  |
|-------------|--|
| Dimensions: |  |
| Card        | 160 mm (6.3") L, 100 mm (4") W<br>44 mm (1.7") H |

|              |                 |
|--------------|-----------------|
| Weight:      |                 |
| Card         | 450 gms (16 Oz) |
| 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<br>(98% with conformal coating,<br>with min. condensation) |

\* measured @ max. optical budget

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

|         |                      |
|---------|----------------------|
| DR-4V-0 | Receiver, 850nm, MM  |
| DR-4V-1 | Receiver, 1300nm, MM |
| DR-4V-3 | Receiver, 1310nm, SM |
| DR-4V-4 | Receiver, 1550nm, SM |

ADD THE SUFFIX "C" FOR CONFORMAL COATING AND "D" FOR DIAGNOSTICS AT THE END OF THE PART NUMBER FOR THESE OPTIONS



## OPTICAL:

| Fiber Type/Size (um)            | Optical Output (dBm) | Receiver Sensitivity (dBm) | Optical Budget (dB) | Wavelength (nm) | Optical Connector | Optical Dynamic Range (dB) |
|---------------------------------|----------------------|----------------------------|---------------------|-----------------|-------------------|----------------------------|
| Multimode (Laser)<br>62.5 / 125 | -3                   | -23                        | 20                  | 850             | ST                | 23                         |
| Multimode (Laser)<br>62.5 / 125 | -3                   | -23                        | 20                  | 1300            | ST                | 23                         |
| Singlemode (Laser)<br>9 / 125   | -3                   | -23                        | 20                  | 1310            | ST, FC            | 23                         |
| Singlemode (Laser)<br>9 / 125   | +2                   | -23                        | 25                  | 1310 DFB        | ST, FC            | 23                         |
| Singlemode (Laser)<br>9 / 125   | +3                   | -23                        | 26                  | 1550 DFB        | ST, FC            | 23                         |