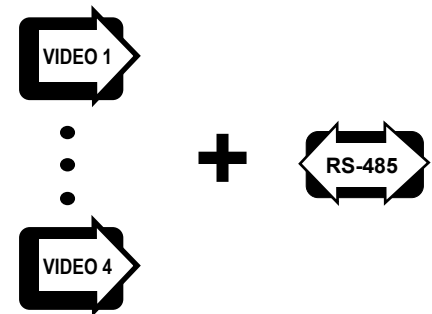


Digital 4 Channel Video Multiplexer with One Full Duplex Channel of RS 485 (4 Wire)



FEATURES:

- Standard 10-Bit Video Digital Encoding
- 4 Real-Time Video Signals with Full Duplex RS 485 (4 Wire) Data.
- 1 Channel of RS 485 (4 Wire) data supported
- 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
- 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
- DB 9 Type Connector for Data

DESCRIPTION:

The DT/DR-4V1K/1K 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 10-bit, real-time Video with One full-duplex RS 485 (4 Wire) data over one Singlemode or Multimode fiber. The DT/DR-4V1K/1K accepts PAL, SECAM, or NTSC video formats. The functionality of the DT/DR-4V1K/1K series is 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.

CONFIGURATIONS:

The DT/DR-4V1K/1K product family is available as rack mount cards and modules that can be installed in all of 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:

- ✓ 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 | >63 dB (weighted)* |
| Return Loss | >30 dB |
| Field Tilt | < 0.5% |

Data

| | |
|----------------|--------------------|
| Formats | RS-485 (4 Wire) |
| Rate | DC to 250Kb/s |
| Bit Error Rate | 10 ⁻⁹ * |

Optical

| | |
|-----------------|-------|
| Fiber Data Rate | 1Gb/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 |
|------|---------|

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 |
| 4-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 |

Enviromental

| | |
|-----------------------|-------------------------|
| Operating Temperature | -34°C to +74°C |
| Storage Temperature | -55°C to +85°C |
| Relative Humidity | 0 to 95% Non-condensing |

Quality

| | |
|------|---|
| MTBF | >180,000 hours @ Ground Fix 35°C per MIL217F |
|------|---|

* measured @ max. optical budget

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

Part Numbers:

DT-4V1K/1K-2. . . Transmitter, 850nm/ 1300nm, MM, Laser
DT-4V1K/1K-5. . . Transmitter, 1310nm/1550nm, SM, Laser
DT-4V1K/1K-8. . . Transmitter, 1310nm/1550nm, SM, DFB Laser

DR-4V1K/1K-2. . . Receiver, 1300nm/ 850nm, MM, Laser
DR-4V1K/1K-5. . . Receiver, 1550nm/1310nm, SM, Laser
DR-4V1K/1K-8. . . Receiver, 1550nm/1310nm, SM, DFB Laser

NOTE: ADD THE SUFFIX "D" AT THE END OF THE PART NUMBER FOR DIAGNOSTICS



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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