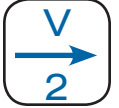


## 2-channel digital video multiplexer 10-bit digital/short-haul



### Description

The ComNet™ FVT/FVR2001 multiplexer simultaneously transmits two channels of video over one optical fiber utilizing state-of-the-art 10-bit digital encoding and decoding for high-quality video transmission that meets the requirements of EIA RS-250C for short-haul video transmission. These environmentally hardened units are ideal for use in unconditioned roadside or out-of-plant installations. These units are completely transparent to and universally compatible with any NTSC, PAL, or SECAM CCTV camera systems. Plug-and-play design ensures ease of installation and no electrical or optical adjustments are ever required. Bi-color (Red/Green) LED indicators are provided for rapidly ascertaining equipment operating status. Packaged in the exclusive ComNet ComFit housing, these units may be either wall or rack-mounted, or may be DIN-rail mounted by the addition of ComNet model DINBKT1 adaptor plate.

### Features

- 10-bit digital video transmission: transmits 2 real-time color video signals on one optical fiber
- Exceeds all requirements for EIA RS-250C short-haul transmission: Extremely high video performance
- Exceptionally low video distortion with zero Performance Variation vs. Optical Path Loss
- Ideally suited to networks requiring multiple physical layers where video degradation may be a problem
- Compatible with all NTSC, PAL, or SECAM CCTV camera systems
- Wide optical dynamic range: optical attenuators are never required
- NTCIP compatible
- Tested and certified by an independent laboratory for full compliance with the environmental requirements (ambient operating temperature, mechanical shock, vibration, humidity with condensation, high-line/low-line voltage conditions and transient voltage protection) of NEMA TS-1/TS-2 and the Caltrans Specification for Traffic Signal Control Equipment.
- Voltage transient protection on all power and signal input/output lines provides unconditional protection from power surges and other voltage transient events.
- Robust design ensures extremely high reliability in unconditioned out-of-plant environments
- Bi-color (Red/Green) LED status indicators provide rapid indication of critical operating parameters
- Automatic resettable solid-state current limiters
- Interchangeable between stand-alone or rack mount use
  - ComFit
- Hot-swappable rack modules
- Lifetime Warranty

### Applications

- High-Performance CCTV (Fixed Video)



# 2-channel digital video multiplexer 10-bit digital/short-haul

## FVT/FVR2001(M)(S)1

### specifications

#### VIDEO

|                              |  |
|------------------------------|--|
| Video Input:                 | 1 volt pk-pk (75 ohms)   |
| Overload:                    | >1.5V pk-pk  |
| # Input/Output Channels:     | 2  |
| Bandwidth (minimum):         | 10 Hz - 6.5 MHz  |
| Differential Gain:           | <2%  |
| Differential Phase:          | <0.7°  |
| Tilt:                        | <1%  |
| Signal-to-Noise Ratio (SNR): | 67 dB Typical  |
| Max. RG-59 COAX Distance:    | 100m (300ft) Camera to Fiber Optic Module to maintain 6Mhz Bandwidth |

**WAVELENGTH** 1310 nm, Multimode and Single Mode

**NUMBER OF FIBERS** 1

**LED INDICATORS**

- Video Sync Presence for Each Video Channel
- Link
- Power

#### CONNECTORS

|          |                              |
|----------|------------------------------|
| Optical: | ST                           |
| Power:   | Terminal Block               |
| Video:   | BNC (Gold Plated Center-Pin) |

#### ELECTRICAL & MECHANICAL

|                        |   |
|------------------------|---|
| Power:                 | 8-15 VDC @ 3W                                     |
| Surface Mount:         | From Rack   |
| Rack Mount:            | 1   |
| Number of Rack Slots:  | Automatic Resettable Solid-State Current Limiters |
| Current Protection:    | Meets IPC Standard                                |
| Circuit Board:         | 6.1 × 5.3 × 1.1 in., (15.5 × 13.5 × 2.8 cm)       |
| Size (in./cm) (L×W×H): | <2 lb./0.9 kg                                     |
| Shipping Weight:       |   |

#### ENVIRONMENTAL

|                    |                             |
|--------------------|-----------------------------|
| MTBF:              | >100,000 hours              |
| Operating Temp:    | -40° C to +75° C            |
| Storage Temp:      | -40° C to +85° C            |
| Relative Humidity: | 0% to 95% (non-condensing)* |

\* May be extended to condensation conditions by adding suffix '/C' to model number for conformal coating.

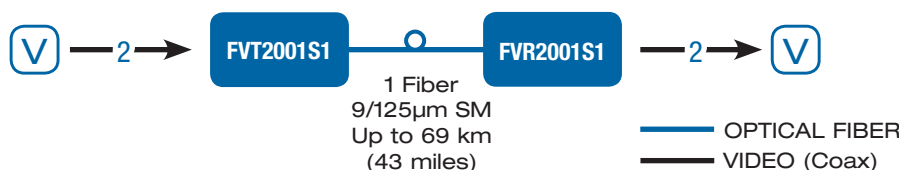


| PART NUMBER | DESCRIPTION                           | FIBERS REQUIRED | FIBER                   | OPTICAL PWR BUDGET | MAX. DISTANCE†   | # RACK SLOTS |
|-------------|---------------------------------------|-----------------|-------------------------|--------------------|------------------|--------------|
| FVT2001M1   | 2-Channel Video Transmitter (1310 nm) | 1               | Multimode<br>62.5/125µm | 16 dB              | 3 km (2 miles)   | 1            |
| FVR2001M1   | 2-Channel Video Receiver (1310 nm)    |                 |                         |                    |                  |              |
| FVT2001S1   | 2-Channel Video Transmitter (1310 nm) | 1               | Single Mode<br>9/125µm  | 23 dB              | 69 km (43 miles) | 1            |
| FVR2001S1   | 2-Channel Video Receiver (1310 nm)    |                 |                         |                    |                  |              |

|             |  |
|-------------|--|
| Accessories | 9 Volt DC Plug-in Power Supply, 90-264 VAC, 50/60 Hz (Included)  |
| Options     | Add '/C' for Conformally Coated Circuit Boards (Extra charge, consult factory)<br>DIN-Rail Mounting Adaptor Plate Kit – With mounting hardware (Optional, order model DINBKT1) |

NOTE: This product requires a fiber installation with a minimum 30 dB connector return loss. The use of Super Polish Connectors is recommended.

Complies with FDA Performance Standard for Laser Products, Title 21, Code of Federal Regulations, Subchapter J  
In a continuing effort to improve and advance technology, product specifications are subject to change without notice.  
† Distance may be limited by optical dispersion.



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