

4-channel digitally-encoded video multiplexer transmitter and receiver



Description

The ComNet™ FVT41M1 and FVR41M1 multiplexers simultaneously transmit four channels of video over one optical fiber utilizing state-of-the-art digital encoding and decoding for high-quality 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.

Applications

- High-Performance CCTV (Fixed Video)

Features

- Digitally-encoded video transmission, transmits 4 real-time color video signals on one optical fiber
- Exceptionally low video distortion with zero Performance Variation vs. Optical Path Loss
- 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
- Lifetime Warranty



specifications

VIDEO

Video Input: 1 volt pk-pk (75 ohms)
 Overload: >1.5V pk-pk
 # Input/Output Channels: 4
 Bandwidth (minimum): 10 Hz - 6.5 MHz
 Differential Gain: <4%
 Differential Phase: <0.7°
 Tilt: <1%
 Signal-to-Noise Ratio (SNR): 57 dB Typical
 Max. RG-59 COAX Distance: 100m (300ft) Camera to Fiber Optic Module to maintain 6Mhz Bandwidth

WAVELENGTH 1310 nm, Multimode

NUMBER OF FIBERS 1

CONNECTORS

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

LED INDICATORS - Video Present
 - Optical Carrier Detect
 - Power

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)
 Shipping Weight: <2 lb./0.9 kg

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)†

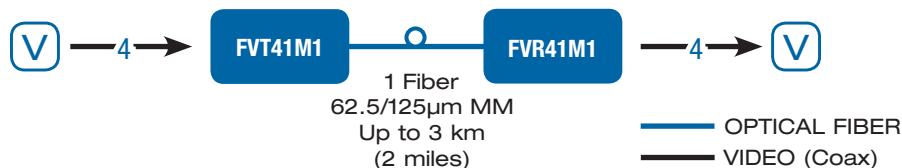
† May be extended to condensation conditions by adding suffix 'C' to model number for conformal coating.



| PART NUMBER | DESCRIPTION | FIBERS REQUIRED | FIBER | OPTICAL PWR BUDGET | MAX. DISTANCE** | # RACK SLOTS |
|-------------|---------------------------------------|-----------------|----------------------|--------------------|-----------------|--------------|
| FVT41M1 | 4-Channel Video Transmitter (1310 nm) | 1 | Multimode 62.5/125µm | 16 dB | 3 km (2 miles) | 1 |
| FVR41M1 | 4-Channel Video Receiver (1310 nm) | | | | | |

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|-------------|---|--|--|--|--|--|
| 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) 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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