



The ComNet™ FVT81M1 and FVR81M1 multiplexers simultaneously transmit eight 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.

FEATURES

- › Digitally-encoded video transmission, transmits 8 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
- › Designed to meet 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 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
- › Hot-swappable rack modules
- › Interchangeable between stand-alone or rack mount use - ComFit
- › May be DIN-rail mounted with the ComNet model DINBKT4 adaptor (sold separately)
- › Lifetime Warranty

APPLICATIONS

- › High-Performance CCTV (Fixed Video)

SPECIFICATIONS

Video

Video Input	1 volt pk-pk (75 ohms)
Overload	>1.5V pk-pk
# Input/Output Channels	8
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)

Indicating LEDs

- Video Present
- Optical Carrier Detect
- Power

Power

Surface Mount	8-15 VDC
Power Consumption	5W

Electrical & Mechanical

Number of Rack Slots	2
Current Protection	Automatic Resettable Solid-State Current Limiters
Circuit Board	Meets IPC Standard
Size	6.1 × 5.3 × 2.2 in (15.5 × 13.5 × 5.6 cm)
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) ¹



INCLUDED IN KIT

Part Number	Description	Fiber	Optical Pwr Budget	Max. Distance ²
FVT81M1	Video Transmitter	Multimode 62.5/125µm	16 dB	3 km (2 mi)
FVR81M1	Video Receiver	Multimode 62.5/125µm	16 dB	3 km (2 mi)
Accessories	2 × DC Power Supply (included)			
Options	[1] Add suffix 'C' for Conformally Coated Circuit Boards to extend to condensation conditions (Extra charge, consult factory)			

[2] Distance may be limited by optical dispersion.
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.

TYPICAL APPLICATION

