



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.

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
- › 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	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)

Indicating LEDs

- Video Present
- Optical Carrier Detect
- Power

Power

Surface Mount	8-15 VDC
Power Consumption	3W

Electrical & Mechanical

Number of Rack Slots	1
Current Protection	Automatic Resettable Solid-State Current Limiters
Circuit Board	Meets IPC Standard
Size	6.1 × 5.3 × 1.1 in (15.5 × 13.5 × 2.8 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

[1] May be extended to condensation conditions by adding suffix '/C' to model number for conformal coating.

AGENCY COMPLIANCE



INCLUDED IN KIT

Part Number	Description	Fiber	Optical Pwr Budget	Max. Distance ²
FVT41M1	Video Transmitter	Multimode 62.5/125µm	16 dB	3 km (2 mi)
FVR41M1	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



LEGEND

— VIDEO (COAX)

—○— OPTICAL FIBER

Low Power Consumption