

4-channel digitally encoded video multiplexer





Description

The ComNet™ FVT/FVR41 multiplexer simultaneously transmits 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 realtime 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
- Five year warranty

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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 and Single Mode

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:

Surface Mount: 8-15 VDC @ 3W Rack Mount: From Rack

Number of Rack Slots: 1

Current Protection: Automatic Resettable Solid-State

Current Limiters

(15.5 \times 13.5 \times 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)[†]

[†] 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 FVR41M1	4-Channel Video Transmitter (1310 nm) 4-Channel Video Receiver (1310 nm)	1	Multimode 62.5/125µm	16 dB	2 km (1.2 miles)	1
FVT41S1 FVR41S1	4-Channel Video Transmitter (1310 nm) 4-Channel Video Receiver (1310 nm)	1	Single Mode 9/125µm	23 dB	69 km (43 miles)	1

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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