comnet
Communication Networks

FVT/FVR401(M)(S)1

4-channel digital video multiplexer
10-bit digital/short-haul

Description

The ComNet™ FVT/FVR401 multiplexer simultaneously transmits four 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. These units are interchangeable between stand-alone or card mount configurations.

Applications

- High-Performance CCTV (Fixed Video)

Features

- 10-bit digital video transmission: transmits 4 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
- Lifetime Warranty

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specifications

VIDEO

Video Input:	1V pk-pk (75 ohms)
Overload:	>1.5V pk-pk
# Input/Output Channels:	4
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
- Power

CONNECTORS

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

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
Circuit Board:	Meets IPC Standard
Size (in./cm) (L×W×H)	6.1 x 5.3 x 1.1 in., (15.5 x 13.5 x 2.8 cm)
Shipping Weight:	<2 lb./0.9 kg

ENVIRONMENTAL

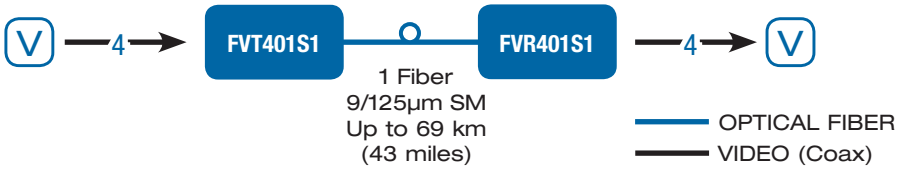
MTBF:	>100,000 hours
Operating Temp:	-40˚ C to +75˚ C
Storage Temp:	-40˚ C to +85˚ C
Relative Humidity:	0% to 95% (non-condensing)*

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

MADE IN THE USA

PART NUMBER	DESCRIPTION	FIBERS REQUIRED	FIBER	OPTICAL PWR BUDGET	MAX. DISTANCE†	# RACK SLOTS
FVT401M1	4-Channel Video Transmitter (1310 nm)	1	Multimode 62.5/125µm	16 dB	2 km (1.2 miles)	1
FVR401M1	4-Channel Video Receiver (1310 nm)					
FVT401S1	4-Channel Video Transmitter (1310 nm)	1	Single Mode 9/125µm	23 dB	69 km (43 miles)	1
FVR401S1	4-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)					

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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