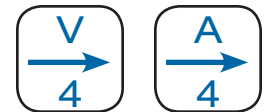


4-channel 10-bit digitally encoded video + 4-channel 24-bit digitally encoded audio multiplexer



Description

The ComNet™ FVT/FVR40A4 series video/audio multiplexer utilizes 10-bit video encoding for true EIA/TIA RS-250C Short-Haul broadcast quality transmission, and 24-bit encoding at a 96 KHz sampling rate for the highest possible audio fidelity. Digitally encoded transmission ensures that the video and audio performance remain completely unaffected up to the maximum usable optical transmission distance or optical path loss. These environmentally hardened units provide the transmission of four independent simplex video and four independent simplex line-level audio channels over one multimode or single mode optical fiber. The FVT/FVR40A4 series is completely transparent to and universally compatible with any NTSC, PAL, or SECAM camera system. Plug-and-play design ensures ease of installation, and no electrical or optical adjustments are ever required. Bi-color (red/green) LED indicators confirm equipment operating status. Packaged in the exclusive ComNet ComFit housing, these units may be either shelf or rack-mounted, or may be DIN-rail mounted by the addition of the ComNet model DINBKT1 adaptor plate.

Applications

- Highest Performance/True Broadcast Quality Multi-Channel Video & Audio Transmission Systems
- Television Broadcast Plants, Audio/Video Production & Post-Production Facilities
- Hi-Resolution Video/Audio Security & Surveillance Installations
- Factory Floor Monitoring of Critical Manufacturing Processes & Operations
- Complete Elimination of EMI/RFI in Electrically Noisy Environments
- Optical Transmission Eliminates Troublesome & Frequently Encountered Ground Loop Issues in Broadcast Facilities

Features

- 4 channels of real-time 10-bit digitally encoded EIA/TIA RS-250C Short-Haul quality video on one optical fiber
- 4 channels of 24-bit/96 KHz sampling rate digitally encoded audio for the highest possible audio quality
- Digitally Encoded Transmission: No video or audio performance degradation up to the maximum usable optical transmission distance or optical path loss
- 20Hz to 18KHz audio frequency response
- Line-Level 600 ohm balanced audio input and audio output at a maximum level of +6dBm
- Directly compatible with all NTSC, PAL, and SECAM CCTV camera systems
- Fully compliant with the environmental requirements of NEMA TS-1/TS-2 and the Caltrans Specification for Traffic Signal Control Equipment
- Bi-color (red/green) LED status indicators confirm equipment operating status
- Wide optical dynamic range: optical attenuators are never required
- Optical transmission distances of up to 48 km (30 miles)
- Hot-swappable rack modules
- Automatic resettable fuses provide unconditional equipment protection
- Unique ComFit package provides field interchangeability for stand-alone/shelf or rack-mount installations
- Lifetime Warranty

FVT/FVR40A4(M)(S)1

4-channel 10-bit digitally encoded video + 4-channel 24-bit digitally encoded audio multiplexer

specifications

VIDEO

Input:	1 volt pk-pk (75 ohms)
Overload:	>1.5V pk-pk
# Input/Output Channels:	4
Bandwidth (minimum):	10Hz - 6.5MHz
Differential Gain:	<2%
Differential Phase:	<0.7°
Tilt:	<1%
Signal-to-Noise Ratio (SNR):	67dB (Typical)
Max. RG-59 COAX Distance:	100m (300ft) Camera to Fiber Optic Module to maintain 6Mhz Bandwidth

AUDIO

# Input/Output Channels:	4 (balanced)
Audio Input/Output Signal:	4.4 volt pk-pk (+6dBm)
Bandwidth:	20Hz - 18kHz
Total Harmonic Distortion:	<0.02%
Signal-to-Noise Ratio (SNR):	85dB (minimum)

WAVELENGTH

1310 nm/1550 nm, Multimode & Single Mode

NUMBER OF FIBERS

1

LED INDICATORS

- Video CH 1-4 - Audio CH 1-4
- Link - Power

CONNECTORS

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

ELECTRICAL & MECHANICAL

Power:	8-15 VDC @ 5 W
Surface Mount:	From Rack
Rack Mount:	2
Number of Rack Slots:	Automatic Resettable
Current Protection:	Solid-State Current Limiters
Circuit Board:	Meets IPC Standard
Size (in./cm) (L×W×H):	6.1 × 5.3 × 2.2 in., (15.5 × 13.5 × 5.6 cm)
Shipping Weight:	<2 lb./0.9 kg

ENVIRONMENTAL

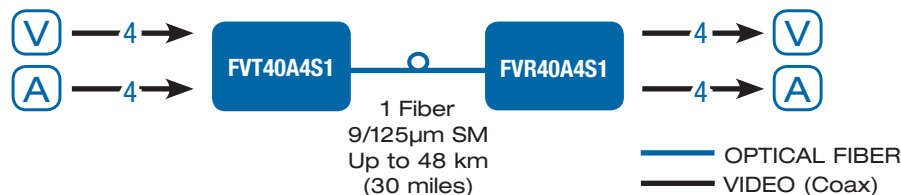
MTBF:	>100,000 hours
Operating Temp:	-40° C to +75° C
Storage Temp:	-40° C to +85° C
Relative Humidity:	0% to 95% (non-condensing)†
† May be extended to condensation conditions by adding suffix '/C' to model number for conformal coating.	



PART NUMBER	DESCRIPTION	FIBERS REQUIRED	FIBER	OPTICAL PWR BUDGET	MAX. DISTANCE‡	# RACK SLOTS
FVT40A4M	4 Channel Video/Audio Transmitter (1310/1550 nm)	1	Multimode 62.5/125µm	16 dB	2 km (1.2 miles)	2
FVR40A4M	4 Channel Video/Audio Receiver (1310/1550 nm)					
FVT40A4S	4 Channel Video/Audio Transmitter (1310/1550 nm)	1	Single Mode 9/125µm	16 dB	48 km (30 miles)	2
FVR40A4S	4 Channel Video/Audio Receiver (1310/1550 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) 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. ‡ Distance may be limited by optical dispersion. 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.



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