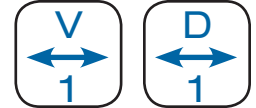


10-bit digital bi-directional video or video sync  
+ bi-directional data



## Description

The ComNet™ FVTRD(M)(S)1 series video transmitter/receiver and data transceiver supports simultaneous transmission of short-haul quality 10-bit bi-directional digital video or video sync plus bi-directional data over one multimode or single mode optical fiber. The module is universally compatible with major CCTV camera manufacturers and supports RS232, RS422 and 2 or 4-wire RS485 data interfaces, and most major data protocols. 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.

## Features

- 10-bit digital bi-directional video transmission or video sync + bi-directional data
- Exceeds all requirements for RS-250C short-haul transmission: True broadcast video performance
- Supports RS232, RS422 or RS485 (2 or 4-wire) data interfaces
- Compatible with all NTSC, PAL, or SECAM CCTV camera systems
- 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.
- Automatic resettable fuses on all power lines
- Hot-swappable rack modules
- Interchangeable between stand-alone or rack mount use - ComFit
- Distances up to 30 miles (48 km)
- Bi-color (Red/Green) LED status indicators provide rapid indication of critical operating parameters
- Lifetime Warranty

## Applications

- High-Performance CCTV with PTZ Control



specifications

VIDEO

Video Input: 1 volt pk-pk (75 ohms)  
 Overload: >1.5V pk-pk  
 Bandwidth: 5 Hz - 10 MHz  
 Differential Gain: <2%  
 Differential Phase: <0.7°  
 Tilt: <1%  
 Signal-to-Noise Ratio (SNR): 67 dB @ Maximum  
 Optical Loss Budget  
 Max. RG-59 COAX Distance: 100m (300ft) Camera to Fiber Optic Module to maintain 6Mhz Bandwidth

DATA

Data Format: RS232, RS422, 2 or 4-wire RS485 w/Tri-State, Manchester and bi-phase DC-115 Kbps (NRZ)  
 Data Rate: 1310/1550 nm, MM and SM  
 WAVELENGTH: 1  
 NUMBER OF FIBERS: Laser Diode  
 OPTICAL EMITTER: - Video - Received Data  
 LED INDICATORS: - Transmitted Data  
 - Optical Carrier Detect

CONNECTORS

Optical: ST (Standard)  
 SC or FC (Optional)  
 Power: Terminal Block  
 Video: BNC (Gold Plated Center-Pin)  
 Data: Terminal Block

ELECTRICAL & MECHANICAL

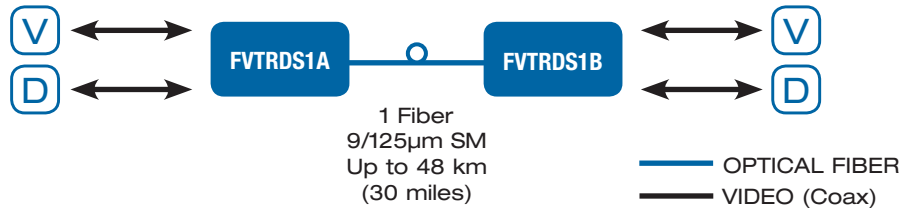
Power: 8-15 VDC @ 2W  
 Surface Mount: From Rack  
 Rack Mount: 1  
 Number of Rack Slots: Automatic Resettable Solid-State Current Limiters  
 Current Protection: Meets IPC Standard  
 Circuit Board: 6.1 x 5.3 x 1.1 in., (15.5 x 13.5 x 2.8 cm)  
 Size (in./cm) (LxWxH): <2 lb./0.9 kg  
 Shipping Weight: >100,000 hours  
 ENVIRONMENTAL: MTBF: -40° C to +75° C  
 Operating Temp: -40° C to +85° C  
 Storage Temp: 0% to 95% (non-condensing)†  
 Relative Humidity:



† 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
FVTRDM1A	Video Transmitter/Data Transceiver	1	Multimode 62.5/125µm	16 dB	3 km (2 miles)	1
FVTRDM1B	Video Receiver/Data Transceiver					
FVTRDS1A	Video Transmitter/Data Transceiver	1	Single Mode 9/125µm	16 dB	48 km (30 miles)	1
FVTRDS1B	Video Receiver/Data Transceiver					
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) Add '/SC' for SC Connectors Add '/FC' for FC Connectors 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. Check with control system manufacturer for distance limits on up-the-coax systems.  
 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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