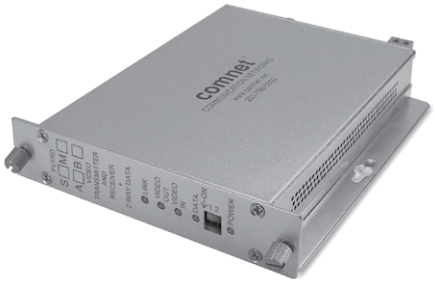
comnet
Communication Networks

Bi-Directional Digitally Encoded (10-Bit) Video or Sync with Bi-Directional Data

FVTRD(M,S)1

POWER SUPPLY	HARDENED	DATA	VIDEO
INCLUDED	-40° TO +75°	1	1



The ComNet FVTRD(M,S)1 series video transmitter/ receiver and data transceiver supports simultaneous transmission of short-haul quality 10-bit bi-directional digitally encoded 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.

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

› Automatic resettable fuses on all power lines

› Distances up to 30 miles (48 km)

› 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.

› LED status indicators confirm operating status

› Plug-and-play design ensures ease of installation and no electrical or optical adjustments are ever required.

› ComFit form factor allows the unit to be Interchangeable between stand-alone or rack mount use, or it can be DIN-rail mounted with optional DINBKT1 or DINBKT4 mounting kit.

› Hot-swappable rack modules

› Lifetime Warranty

APPLICATIONS

› High-Performance CCTV with PTZ Control

Bi-Directional Digitally Encoded (10-Bit) Video or Sync with Bi-Directional Data

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	100 m (300 ft) Camera to Fiber Optic Module to maintain 6 Mhz Bandwidth

Data

Data Format	RS232, RS422, 2 or 4-wire RS485 w/Tri-State, Manchester and bi-phase
Data Rate	DC-115 Kbps (NRZ)

Wavelength
1310/1550 nm, MM and SM

Number of Fibers
1

Optical Emitter
Laser Diode

LED Indicators
› Video › Received Data › Transmitted Data › Optical Carrier Data

Connectors

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

Electrical & Mechanical

Power	
Surface Mount	8-15 VDC @ 2W
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 × 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)†

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

AGENCY COMPLIANCE FC PART 15 COMPLIANT CE cULus RoHS

MADE IN THE USA

ORDERING INFORMATION

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	DC Plug-in Power Supply, 90-264 VAC, 50/60 Hz (Included, for benign 0° to 50°C applications only. Hardened power supply available, consult factory)					
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.

TYPICAL APPLICATION

comnet Communication Networks
3 CORPORATE DRIVE | DANBURY, CONNECTICUT 06810 | USA | T: 203.796.5300 | F: 203.796.5303 | TECH SUPPORT: 1.888.678.9427 | INFO@COMNET.NET
8 TURNBERRY PARK ROAD | GILDERSOME | MORLEY | LEEDS, UK LS27 7LE | T: +44 (0)113 307 6400 | F: +44 (0)113 253 7462 | INFO-EUROPE@COMNET.NET