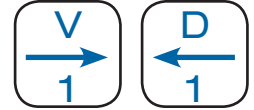


## 10-bit digital video with return data



### Description

The ComNet™ FVT/FVR1021 series video transmitter/receiver and data transmitter/receiver supports the simultaneous transmission of short-haul quality 10-bit digital video and return data over one multimode or single mode optical fiber. This module is universally compatible with major CCTV camera manufacturers and supports RS-232 and RS-422 data interfaces. The FVT/FVR1021 allows the user to set the data through a switch on the unit. 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 Video Transmission
- Compatible with all NTSC, PAL, or SECAM CCTV camera systems
- Full Color Compatibility
- Exceeds RS-250C Short-Haul quality
- Supports RS-232 and RS-422 data interfaces
- Supports Manchester and bi-phase data
- No In-field electrical or optical adjustments
- Bi-color (Red/Green) LED status indicators provide rapid indication of critical operating parameters
- Integrated WDM for greater product reliability
- Voltage transient protection on all power and signal input/output lines provides unconditional protection from power surges and other voltage transient events.
- Distances up to 69 km (43 miles) without repeaters
- 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.
- Hot-swappable rack modules
- Interchangeable between stand-alone or rack mount use - ComFit
- Automatic resettable fuses on all power lines
- Lifetime Warranty

### Applications

- CCTV with one-way PTZ Camera Control
- CCTV with Remote Signalization



specifications

VIDEO

Video Input: 1 volt pk-pk (75 ohms)  
 Overload: >1.5V pk-pk  
 Bandwidth: 5 Hz - 6.5 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, Manchester and bi-phase  
 Data Rate: DC-115 Kbps (NRZ)  
 Bit Error Rate (BER): <1 in 10<sup>9</sup> @ Maximum Optical Loss Budget

WAVELENGTH

1310/1550 nm, Multimode and Single Mode

NUMBER OF FIBERS 1

LED INDICATORS

- Video Present - Data Present  
 - Power - Optical

CONNECTORS

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

ELECTRICAL & MECHANICAL

Power: 8-15 VDC @ 2 W  
 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 × 5.3 × 1.1 in., (15.5 × 13.5 × 2.8 cm)  
 Size (in./cm) (L×W×H)  
 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)\*



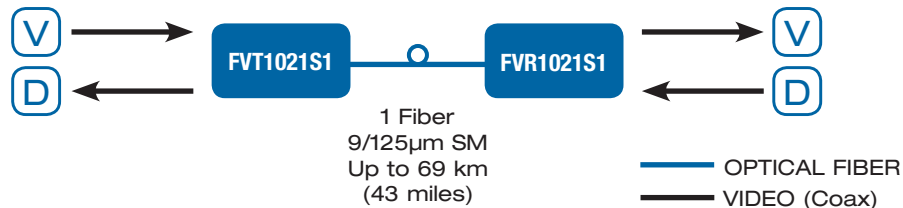
\* May be extended to condensation conditions by adding suffix '/C' to model number for conformal coating.

PART NUMBER	DESCRIPTION	FIBERS REQ'D	FIBER	OPTICAL PWR BUDGET	MAX. DISTANCE†	MAX. UTC DISTANCE†	# RACK SLOTS
FVT1021M1	Video Transmitter/Data Transceiver (1310/1550 nm)	1	Multimode 62.5/125µm	16 dB	3 km (2 mi)	1 km (0.6 mi)	1
FVR1021M1	Video Receiver/Data Transceiver (1550/1310 nm)						
FVT1021S1	Video Transmitter/Data Transceiver (1310/1550 nm)	1	Single Mode 9/125µm	23 dB	69 km (43 mi)	1 km (0.6 mi)	1
FVR1021S1	Video Receiver/Data Transceiver (1550/1310 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)  
 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.



3 CORPORATE DRIVE | DANBURY, CT 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