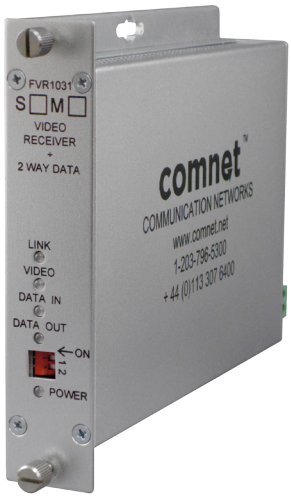
10-Bit Digital Video with Bi-Directional Data (RS232, RS422 and RS485 2 & 4 Wire) Pelco and Panasonic "Up-The-Coax"

FVT/FVR1031(M,S)1



The ComNet™ FVT/FVR1031 transmits 10 bit digital video and full duplex data over one Singlemode or Multimode fiber. The video supports NTSC, PAL and SECAM CCTV camera systems. The data supports RS232, RS422 and RS485 (2W & 4W) at data rates up to 115 Kbps (NRZ). The FVT/FVR1031 series also supports "UP-THE-COAX" control signals for Pelco and Panasonic cameras with a maximum distance of 1500 feet (590 meters). The product is "Plug-and-Play" with no electrical or optical adjustments.

FEATURES

› 10-bit digitally encoded video transmission

› Supports RS232, RS422 or RS485 (2 or 4-wire) data interfaces

› Compatible with all NTSC, PAL, or SECAM CCTV camera systems

› Supports Pelco and Panasonic "UP-THE-COAX" control signals for a distance up to 1500 feet (590 meters).

› Exceeds all requirements for RS-250C short-haul transmission: True broadcast video performance

› 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.

› Automatic resettable fuses on all power lines

› Distances up to 43 mi (69 km)

› Hot-Swappable Modules

› Interchangeable between stand-alone or rack mount use – ComFit

› May be DIN-rail mounted by the addition of ComNet model DINBKT1 or DINBKT4 adaptor plate.

› Bi-color (Red/Green) LED status indicators provide rapid indication of critical operating parameters

› Lifetime Warranty

APPLICATIONS

› High Performance CCTV with PTZ Camera Control

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SPECIFICATIONS

Video

Video Input	1 volt pk-pk (75 ohms)
Overload	>1.5 V 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	RS-232, RS-422, 2 or 4-wire RS-485 w/Tri-State, Manchester, bi-phase and up-the-coax data
Data Rate	DC-115 Kbps (NRZ)

Wavelength
1310/1550 nm, MM and SM

Number of Fibers
1

Optical Emitter
Laser Diode

LED Indicators
› Video Sync Presence › Received Data
› Transmitted Data › Optical Carrier Detect

AGENCY COMPLIANCE
PART 15 COMPLIANT E322911 N24621

MADE IN THE USA

Connectors

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

Power

Operating Voltage Range	8 to 15 VDC (or from C1 Rack, sold separately)
Power Consumption	2 W

Electrical & Mechanical

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)[1]

ORDERING INFORMATION

Part Number	Description	Fiber	Optical PWR Budget	Max. Distance[2]	Max. UTC Distance[2]
FVT1031M1	Video Transmitter/Data Transceiver	Multimode 62.5/125µm	16 dB	3 km (2 mi)	1 km (0.6 mi)
FVR1031M1	Video Receiver/Data Transceiver	Multimode 62.5/125µm	16 dB	3 km (2 mi)	1 km (0.6 mi)
FVT1031S1	Video Transmitter/Data Transceiver	Single Mode 9/125µm	23 dB	69 km (43 mi)	1 km (0.6 mi)
FVR1031S1	Video Receiver/Data Transceiver	Single Mode 9/125µm	23 dB	69 km (43 mi)	1 km (0.6 mi)
Accessories	DC Plug-in Power Supply, 90-264 VAC, 50/60 Hz (Included)				
Options	[1] Add suffix '/C' for Conformally Coated Circuit Boards to extend to condensation conditions (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 or DINBKT4)				

NOTE: This product requires a fiber installation with a minimum 30 dB connector return loss. The use of Super Polish Connectors is recommended.
[2] 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

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