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The ComNet™ FVT/FVR110 series is a video transmitter/receiver and data transceiver that supports the simultaneous transmission of short haul quality 10-bit EIA RS-250C digitally encoded video and 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 data protocols. It also supports "up-the-coax" data transmission from all major manufacturers, utilizing time-base correction these units can achieve distances of 48km. The FVT/FVR110 supports Panasonic Proteus™, Pelco Coaxitron™ and Bosch Bilinx™ Up-the-Coax systems. The FVT110 also transmits a single bi-directional contact closure signal. Packaged in the exclusive ComNet ComFit housing, the full-size units may be either wall or rack-mounted, or may be DIN-rail mounted by the addition of ComNet model DINBKT1 adaptor plate.

## FEATURES

- › Supports Panasonic Proteus™, Pelco Coaxitron™ and Bosch Bilinx™ Up-the-Coax systems
- › 1 Full Duplex Data channel
- › 1 Full Duplex Contact Closure
- › Distances up to 30 miles (48 km)
- › Exceeds all requirements for RS-250C short-haul transmission: True broadcast video performance
- › Time-Based Corrected Up-the-Coax Data
- › Compatible with all NTSC, PAL, or SECAM CCTV camera systems
- › 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
- › Bi-color (Red/Green) LED status indicators provide rapid indication of critical operating parameters
- › FVT/FVR110(M,S)1 is a hot-swappable rack module
- › FVT/FVR110(M,S)1 is interchangeable between stand-alone or rack mount use - ComFit
- › 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 Interface:	RS232, RS422, RS485 (2/4W), UTC (Up-the-Coax)
Data Format:	NRZ, NRZI Manchester, Bi-phase and SensorNet
Data Rate:	DC-250 Kbps (NRZ)

## Contact

Input:	Dry Contact Closures
Output:	SPST Relay 0.5 Contact Rating

## Wavelength

1310/1550 nm, MM and SM

## Optical Emitter

Laser Diode

## LED Indicators

- Link - Video - Data  
- Contact In - Contact Out - Power

## Connectors

Optical:	1 ST connector
Power:	Terminal Block
Video:	BNC (Gold Plated Center-Pin)
Data:	Terminal Block
Contact:	Terminal Block

## Power

Operating Voltage:	8 to 15 VDC
Power Consumption:	5.25W

## Electrical &amp; Mechanical

Current Protection:	Automatic Resettable Solid-State Current Limiters
Circuit Board:	Meets IPC Standard
Size (in./cm) (L×W×H)	
FVT/FVR110(M,S)1/M (Mini)	3.3 × 2.5 × 1.46 in (8.4 × 6.4 × 3.7 cm)
FVT/FVR110(M,S)1 (ComFit)	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) <sup>1</sup>

AGENCY COMPLIANCE

MADE IN THE  
**USA**

## ORDERING INFORMATION

Part Number	Description	Fibers Required	Fiber	Optical Power Budget	Maximum Distance	# Rack Slots
FVT110M1/M	Mini Video Transmitter/Data Transceiver	1	Multimode <sup>±</sup> - 62.5/125µm	16 dB	3 km (2 mi)	N/A
FVT110M1	Video Transmitter/Data Transceiver	1	Multimode <sup>±</sup> - 62.5/125µm	16 dB	3 km (2 mi)	1
FVR110M1	Video Receiver/Data Transceiver	1	Multimode <sup>±</sup> - 62.5/125µm	16 dB	3 km (2 mi)	1
FVT110S1/M	Mini Video Transmitter/Data Transceiver	1	Single Mode <sup>±</sup> - 9/125µm	16 dB	48 km (30 mi)	N/A
FVT110S1	Video Transmitter/Data Transceiver	1	Single Mode <sup>±</sup> - 9/125µm	16 dB	48 km (30 mi)	1
FVR110S1	Video Receiver/Data Transceiver	1	Single Mode <sup>±</sup> - 9/125µm	16 dB	48 km (30 mi)	1
Accessories Options	DC Plug-in Power Supply, 90-264 VAC, 50/60 Hz (Included) [1] Add 'C' for Conformally Coated Circuit Boards (Extra charge, consult factory) DIN-Rail Mounting Adaptor Plate Kit - With mounting hardware (Optional, order model DINBKT1 or DINBKT4)					

## TYPICAL APPLICATION



Low Power Consumption