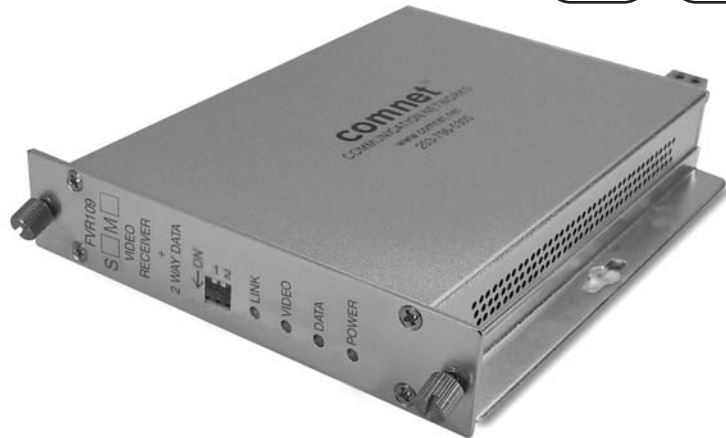
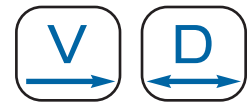


10-bit digital video with one bi-directional data channel



Description

The ComNet™ FVT/FVR109 series is a video transmitter/receiver and data transceiver that supports the simultaneous transmission of short haul quality 10-bit EIA RS-250C digital 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 RS-232, RS-422 and 2 or 4-wire RS-485 data interfaces and most data protocols. It also supports “up-the-coax” data transmission from all major manufacturers.

Applications

- High-Performance CCTV with PTZ Control

Features

- 10-bit digitally encoded video transmission
- 1 bi-directional data channel
- Exceeds all requirements for RS-250C short-haul transmission: True broadcast video performance
- 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. (In Process)
- 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
- Distances up to 30 miles (48 km)
- Bi-color (Red/Green) LED status indicators provide rapid indication of critical operating parameters
- Lifetime Warranty

PART NUMBER	FIBERS REQUIRED	FIBER
FVT109M1-M	1 (1310/1550 nm)	Multimode 62.5/125µm
FVT109M1		
FVR109M1		
FVT109S1-M	1 (1310/1550 nm)	Single Mode 9/125µm
FVT109S1		
FVR109S1		

FVT109(M)(S)1-M FVT/FVR109(M)(S)1

10-bit digital video with one bi-directional data channel

specifications

VIDEO

Video Input:	1 volt pk-pk (75 ohms)
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

DATA

Data Interface:	RS-232, RS-422 and RS-485 (2W/4W), up-the-coax
Data Format:	NRZ, NRZI, Manchester, Bi-phase and Sensornet
Data Rate:	DC-250 Kbps (NRZ)

WAVELENGTH

1310/1550 nm, MM and SM

NUMBER OF FIBERS

1

OPTICAL EMITTER

Laser Diode

LED INDICATORS

FVT Transmitter/Data Transceiver Unit:	FVR Receiver/Data Transceiver Unit:
- Link	- Link
- Transmitted Video	- Received Video
- Transmitted/Received Data	- Received/Transmitted Data

CONNECTORS

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

ELECTRICAL & MECHANICAL

Power:	8-15 VDC @ 350 mA
Surface Mount:	From Rack
Rack Mount:	1
Rack Slots:	Automatic Resettable Solid-State Current Limiters
Current Protection:	Meets IPC Standard
Circuit Board:	3.3 x 2.5 x 1.1 in., (8.4 x 6.4 x 2.8 cm)
Size (in./cm) (LxWxH) - Mini	6.1 x 5.3 x 1.1 in., (15.5 x 13.5 x 2.8 cm)
Size (in./cm) (LxWxH) - Full Size	<2 lb./0.9 kg
Shipping Weight:	

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



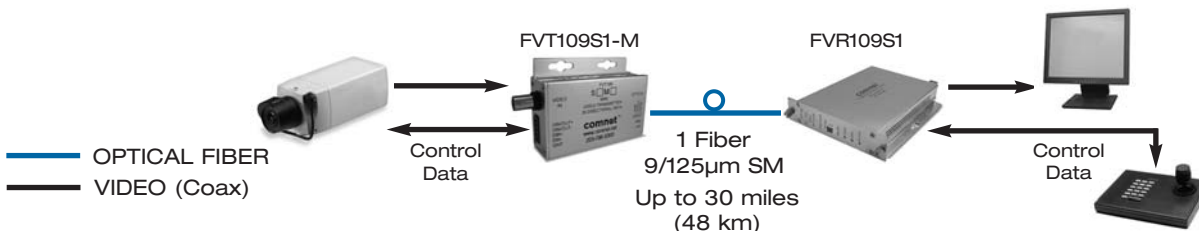
PART NUMBER	DESCRIPTION	FIBERS REQUIRED	FIBER	OPTICAL PWR BUDGET	MAX. DISTANCE**
FVT109M1-M	Video Transmitter/Data Transceiver	1	Multimode 62.5/125µm	16 dB	3 km (2 miles)
FVT109M1	Video Transmitter/Data Transceiver				
FVR109M1	Video Receiver/Data Transceiver				
FVT109S1-M	Video Transmitter/Data Transceiver	1	Single Mode 9/125µm	16 dB	48 km (30 miles)
FVT109S1	Video Transmitter/Data Transceiver				
FVR109S1	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)				

NOTE: This product requires a fiber installation with a minimum 35 dB connector return loss. The use of Super Polish Connectors is recommended.

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.

Distance may be limited by optical dispersion. **Check with control system manufacturer for distance limits on up-the-coax systems.



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