Vicon In-Dome Transmitter and Receiver with 10-Bit Digitally Encoded Video with "Up-The-Coax" or Bi-Directional Data (Rs232, RS422, RS485 2/4W)

FVTVCND Series

The ComNet™ FVTVCND and FVR109A are a video transmitter/data transceiver and video receiver/data transceiver series 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 FVTVCND is designed to be internally mounted in and powered by the Vicon Dome camera. It supports Vicon Vicoax™ "up-the-coax" data transmission, achieving distances of 600 meters. It also supports bi-directional serial camera control. Packaged in the exclusive ComNet ComFit housing, the full-size FVR109A receiver units may be either wall or rack-mounted, or may be DIN-rail mounted by the addition of ComNet model DINBKT1 or DINBKT4 adaptor plate.

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

› Designed for installation in harsh out-of-plant/unconditioned industrial or roadside operating environments (-40° to +75°C ambient). Fully compliant with the environmental requirements of NEMA TS-2 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 30 mi (48 km)

› Bi-color LED status indicators confirm operating status

› Hot-swappable rack modules

› FVR109A receiver is interchangeable between stand-alone or rack mount use – ComFit

› Lifetime warranty

› Made in the USA

APPLICATIONS

› High-Performance CCTV with PTZ Control

Vicon In-Dome Transmitter and Receiver with 10-Bit Digitally Encoded Video with "Up-The-Coax" or Bi-Directional Data (Rs232, RS422, RS485 2/4W)

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 6Mhz 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

Indicating LEDs
› Video › Received Data › Transmitted Data › Optical Carrier Data

Connectors

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

Power (FVR109A Receiver)

Operating Voltage Range	8 to 15 VDC
Power Consumption	2W
Rack Mount Power	Supplied From Rack

Electrical & Mechanical (FVR109A Receiver)

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]

AGENCY COMPLIANCE
PART 15 COMPLIANT · E322911 · N24621

MADE IN THE USA

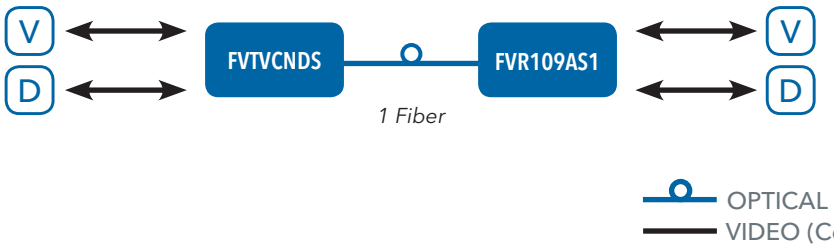
ORDERING INFORMATION

Part Number	Description	Fibers Required	Fiber	Optical PWR Budget	Max Distance[2]	# Rack Slots
FVTVCNDM	Mini Video Transmitter/Data Transceiver	1	Multimode 62.5/125µm	16 dB	3 km (2 mi)	(in-dome)
FVR109AM1	Video Receiver/Data Transceiver					1
FVTVCNDS	Mini Video Transmitter/Data Transceiver	1	Single Mode 9/125µm	16 dB	48 km (30 mi)	(in-dome)
FVR109AS1	Video Receiver/Data Transceiver					1
Accessories	DC Plug-in Power Supply, 90-264 VAC, 50/60 Hz (Included with FVR109A Receiver only)					
Options	[1] Add suffix '/C' for Conformally Coated Circuit Boards to extend to condensation conditions (Extra charge, consult factory) DIN-Rail Mounting Adaptor Plate Kit for FVR109A – 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.

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