



FOR BOSCH BILINX™ DOME CAMERAS



The ComNet™ FVT110(M,S)1/BO is a video and data transmitter that, when paired with the FVR110(M,S)1, 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. It is for use in Bosch Bilinx™ dome cameras, utilizing time-based correction these units can achieve distances of 48km. The module also supports Bosch Bi-Phase operation, which transmits camera control information over a simplex RS-422 connection. The FVT110(M,S)1/BO is designed to plug directly into the Bosch dome, and connects with power, video input and two way data via the Bosch electrical connector.

## FEATURES

- › Supports Bosch Bilinx™ and Bosch Bi-phase telemetry systems
- › One Data channel
- › Distances up to 30 miles (48 km)
- › Exceeds all requirements for RS-250C short-haul transmission: True broadcast video performance
- › Time-Base Corrected Up-the-Coax Data
- › Compatible with all NTSC or PAL 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
- › Lifetime Warranty

## APPLICATIONS

- › High-Performance CCTV with PTZ Control for Bosch In Dome Cameras

SPECIFICATIONS

Video

Video Input	1 V pk-pk (75 Ω)
Overload	>1.5 V 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	100 m (300 ft) Camera to Fiber Optic Module to maintain 6 Mhz Bandwidth

Data

Data Interface	Bosch BiLinX™ and Bi-phase
Data Format	NRZ, NRZI Manchester and Bi-phase
Data Rate	DC-250 Kbps (NRZ)

Wavelength

1310/1550 nm, MM and SM

Optical Emitter

Laser Diode

LED Indicators

> Link > Video > Data > Power

Connectors

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

Power

Operating Power	Supplied from Dome
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Electrical & Mechanical

Current Protection Circuit Board	Automatic Resettable Solid-State Current Limiters Meets IPC Standard
Shipping Weight	<1 lb / 0.45 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



ORDERING INFORMATION

Part Number	Description	Fibers Required	Fiber	Optical PWR Budget	Maximum Distance <sup>2</sup>
FVT110M1/BO	Bosch In Dome Video/Data Transmitter	1	Multimode - 62.5/125µm	16 dB	3 km (2 miles)
FVR110M1 <sup>3</sup>	Video Receiver/Data Transceiver	1	Multimode - 62.5/125µm	16 dB	3 km (2 miles)
FVT110S1/BO	Bosch In Dome Video/Data Transmitter	1	Single Mode - 9/125µm	16 dB	48 km (30 mi)
FVR110S1 <sup>3</sup>	Video Receiver/Data Transceiver	1	Single Mode - 9/125µm	16 dB	48 km (30 mi)
Options	[1] Add '/C' for Conformally Coated Circuit Boards to extend to condensation conditions (Extra charge, consult factory) DIN-Rail Mounting Adaptor Plate Kit - With mounting hardware (Optional, order model DINBKT1 or DINBKT4)				

[2] Optical transmission distance is limited to optical loss of the fiber and any additional loss introduced by connectors, splices and patch panels. Distance can also be limited by fiber bandwidth. For 50/125 Fiber subtract 4 dB from Optical Power Budget.

[3] See FVT/FVR110(M,S)1[/M] Data Sheet for receiver specifications.

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

