



## INSTALLATION AND OPERATION MANUAL

# **FVT110(M,S)1/BO** IN-DOME 10-BIT DIGITAL VIDEO TRANSMITTER WITH BOSCH BIPHASE AND BILINX CAMERA CONTROL

The FVT110/BO is a video transmitter and data transceiver that supports the simultaneous transmission of short haul quality 10-bit EIA RS250C digital video and Bosch Biphase and Bilinx camera control signals over one single mode or multimode optical fiber.

The FVT110/BO in-dome module supports Bosch Bilinx up-the-coax camera control over its entire specified fiber distance. The series features a unique time-base correction algorithm that removes the usual distance limitations associated with up-the-coax control.

Bi-color (Red/Green) LED indicators are provided for rapidly ascertaining equipment operating status. **Figure 2** on **Page 3** describes the LED indicators for each light on the receiver unit.

The FVT110/BO is intended for mounting within the Bosch dome. See **Page 2** for mounting instructions.

## FIGURE 1 - FVT110/BO TRANSMITTER



### CONNECTIONS FOR BOSCH CAMERA FIBER MODULE:

IN-DOME VIDEO TRANSMITTER MODULE (FVT110 / PCA1144):



1. Install provided accessory mounting kit as shown. Secure the insert into camera with screws.



 2 Connect power and data from the camera to the module at J5 (8-pin male connector with white plastic shroud) with Bosch's 5-pin to 8-pin cable assembly.
Video LED D1 should illuminate red.
Data LED D2 should stay off\*.
Link LED D3 should illuminate red.



 Connect video to module at J4 (2-pin male connector with white plastic backing) with ComNet's 2-pin to BNC cable, connecting the other end to the Dome BNC. Video LED D1 should illuminate green.



 Connect Single mode or Multimode fiber to U11 (single ST fiber optic connector). Link LED should illuminate green once receiver is powered on and link is established over the fiber.



5. Attach the FVT110/BO module to the accessory insert with white plastic stand-offs. The stand-offs will snap into the gold mounting holes in the module as shown.

\* NOTE: Data LED D2 will flash green when Bosch Biphase data is received.

#### **CONNECTIONS FOR BOSCH CAMERA FIBER MODULE (continued):**

#### EXTERNAL VIDEO RECEIVER MODULE (FVR110):

 Connect power to module: Use +9 VDC adapter included with module, or insert into ComNet rack. POWER LED should illuminate green. LINK LED should illuminate red. VIDEO LED should illuminate red. DATA LED should stay off.

- 2. Connect video output to monitor: Attach to BNC connector labeled VIDEO OUT
- 3. Connect fiber to module: Attach Single mode or Multimode fiber to ST fiber optic connector labeled OPTICAL.
- If Biphase data is used to control the camera then connect data to screw terminal block on module: Biphase CODE+ should be connected to DIN+. Biphase CODE- should be connected to DIN-. Shield should be connected to GND.
- NOTE: LINK LED will illuminate green once a link is established over optical fiber with the In-Dome Transmitter module. VIDEO LED will illuminate green when active signal is detected at the BNC. DATA LED will flash green when Biphase commands are detected at the data connector.

#### FIGURE 2 - LED INDICATORS (FVR110 RECEIVER)

	LINK	VIDEO	DATA IN	POWER
GREEN	Communication link	An active video signal	An active data signal is	Unit powered up
	has been established	is present on the BNC	present on the pins of	
	over optical fiber	connector.	the data connector.	
RED	Communication link has not been established.	-	-	-
OFF	Unit powered down.			

## FIGURE 3 - BIPHASE DATA SWITCH POSITIONS (FVR110)

The mode for each data channel is configured using a pair of switches on the front panel of the receiver unit. The 2 position CC Contact Switch is not used when connected to an FVT110/BO in-dome module.



## FIGURE 4 - DATA CONNECTIONS



#### INSTALLATION CONSIDERATIONS

This fiber-optic link is supplied as an in-dome module. Units should be installed in dry locations protected from extremes of temperature and humidity.

#### CAUTION: Take care not to press on any of the LEDs.

#### **IMPORTANT SAFEGUARDS:**

- A) Elevated Operating Ambient Consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (Tma) specified by the manufacturer.
- B) Reduced Air Flow Installation of the equipment should be such that the amount of air flow required for safe operation of the equipment is not compromised.





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