

# 16-channel digital video 10-bit digital/short-haul video





## Description

The ComNet™ FVT/FVR160 series video transmitter and video receiver utilize 10-bit digital encoding and decoding for high-quality video transmission that exceeds the requirements of EIA RS-250C for short-haul video transmission. These environmentally hardened units provide transmission of 16 independent video channels over one optical fiber and are ideal for use in unconditioned roadside or out-of-plant installations. These units are completely transparent to and universally compatible with any NTSC, PAL, or SECAM CCTV camera systems. Plug-and-play design ensures ease of installation and no electrical or optical adjustments are ever required. Bi-color (Red/Green) LED indicators are provided for rapidly ascertaining equipment operating status.

### **Applications**

- High-Performance CCTV Systems

#### **Features**

- 10-Bit digitally encoded video transmission, transmits 16 real-time/full frame color video signals
- Exceeds all requirements for EIA RS-250C short-haul transmission: Extremely high video performance
- Exceptionally low video distortion with zero Performance Variation vs. Optical Path Loss
- 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.
- Voltage transient protection on all power and signal input/output lines provides unconditional protection from power surges and other voltage transient events.
- Robust design ensures extremely high reliability in unconditioned out-of-plant environments
- Bi-color (Red/Green) LED status indicators provide rapid indication of critical operating parameters
- Lifetime Warranty

## specifications

#### **VIDEO**

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

Overload: >1.5V pk-pk

# Input/Output Channels:

Bandwidth (minimum): 10 Hz - 6.5 MHz per channel

Differential Gain: <2% Differential Phase: <0.7° <1%

Signal-to-Noise Ratio (SNR): 67 dB Typical

Max. RG-59 COAX Distance: 100m (300ft) Camera to Fiber Optic Module to

maintain 6Mhz Bandwidth

**WAVELENGTH** Multimode and Single Mode

NUMBER OF FIBERS

LED INDICATORS - Video Sync Presence for Each Video Channel

- Optical Carrier Detect - Power

OPTICAL EMITTER Laser Diode

**CONNECTORS** 

ST Optical:

Power: **Terminal Block** 

Video: **BNC (Gold Plated Center-Pin)** 

### **ELECTRICAL & MECHANICAL**

Input Voltage: 90-264 VAC @ 70 W Maximum Output Voltage: 9 VDC +/- 5% @ 6.5 Amps @ 75°C

**FUSING** 1.25 A slow blow (rack power supply)

(plug-in modules individually

electronically fused)

**Current Protection:** Automatic Resettable Solid-State

**Current Limiters** 

Meets IPC Standard Circuit Board: Size (in./cm) (L×W×H)  $19 \times 7.5 \times 6$  in.,  $(48 \times 19 \times 15 \text{ cm})$ 

<8 lbs./3.6 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.











PART Number	DESCRIPTION	FIBERS Required	FIBER	OPTICAL PWR BUDGET	MAX. DISTANCE <sup>†</sup>
FVT160(M)1 FVR160(M)1	Video Transmitter Video Receiver	1	Multimode 62.5/125µm	18 dB	1 km (.621 miles)
FVT160(S)1 FVR160(S)1	Video Transmitter Video Receiver	1	Single Mode 9/125µm	18 dB	54 km (35 miles)

NOTE: This product requires a fiber installation with a minimum 30 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.





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