

28-channel digital video 10-bit digital/short-haul video



Product shown is FVT120



### Description

The ComNet™ FVT/FVR280S1 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 28 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 28 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: 28  
 Bandwidth (minimum): 10 Hz - 6.5 MHz per channel  
 Differential Gain: <2%  
 Differential Phase: <0.7°  
 Tilt: <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**

Single Mode 9/125µm

**NUMBER OF FIBERS**

1

**LED INDICATORS**

- Video Sync Presence for Each Video Channel  
 - Optical Carrier Detect - Power

**OPTICAL EMITTER**

Laser Diode

**CONNECTORS**

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

**ELECTRICAL & MECHANICAL**

Power:  
 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  
 Circuit Board: Meets IPC Standard  
 Size (in./cm) (LxWxH): 19 x 7.5 x 6 in., (48 x 19 x 15 cm)  
 Shipping Weight: <8 lbs./3.6 kg

**ENVIRONMENTAL**

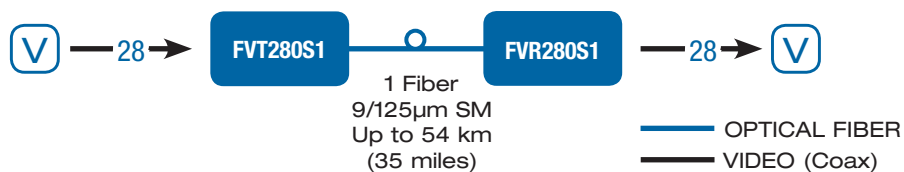
MTBF: >100,000 hours  
 Operating Temp: -40° C to +75° C  
 Storage Temp: -40° C to +85° C  
 Relative Humidity: 0% to 95% (non-condensing)\*

\* 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†
FVT280S1	Video Transmitter	1	Single Mode 9/125µm	18 dB	54 km (35 miles)
FVR280S1	Video Receiver				

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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