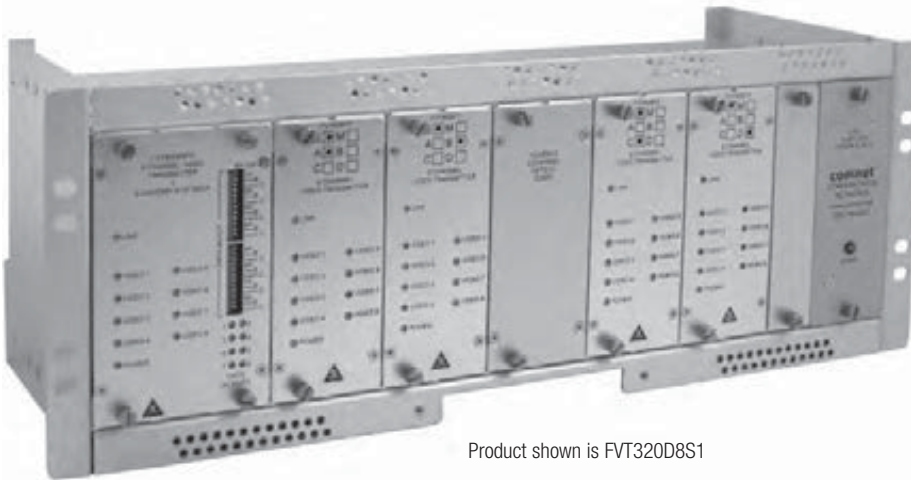
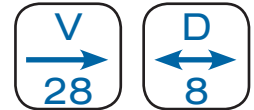


28-channel digital video + 8 bi-directional data channels/
10-bit digital/short-haul video



Product shown is FVT320D8S1



Description

The ComNet™ FVT/FVR280D8S1 video transmitter/data transceiver and video receiver/data transceiver series 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 and eight bi-directional data 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, data channels can be set independently for RS232, RS422 and 2 or 4-wire RS485, Sensornet, Bi-phase and Manchester. 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 and 8 bi-directional data signals on one optical fiber
- Supports RS232, RS422, and 2 or 4-wire RS485, Sensornet, Bi-phase and Manchester
- 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

DATA

Data Channels:	8
Data Interface:	RS232, RS422 and RS485 (2W/4W)
Data Format:	NRZ, NRZI, Manchester, Bi-Phase and Sensornet
Data Rate:	DC-250 Kbps (NRZ)
Bit Error Rate:	<1 in 1010 @ Maximum Optical Loss Budget
Operating Mode:	Simplex or Full-Duplex

WAVELENGTH

NUMBER OF FIBERS

LED INDICATORS

Single Mode 9/125µm
1
- Video Sync Presence for Each Video Channel
- Received Data - Transmitted Data
- Optical Carrier Detect - Power
Laser Diode

OPTICAL EMITTER
CONNECTORS

Optical:	ST
Power:	Terminal Block
Video:	BNC (Gold Plated Center-Pin)
Data:	RJ45 (5 pcs. Included)

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) (L×W×H)	19 × 7.5 × 6 in., (48 × 19 × 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†
FVT280D8S1	Video Transmitter/Data Transceiver	1	Single Mode 9/125µm	18 dB	54 km (35 miles)
FVR280D8S1	Video Receiver/Data Transceiver				

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.

