

4-channel digitally encoded video
+ 2 bi-directional data channels
+ 1 bi-directional contact closure



Description

The ComNet™ FVT/FVR412(M)(S)1 Series transmits four (4) channels of video utilizing state of the art digital encoding and decoding for high-quality video transmission, along with two (2) channels of bi-directional data and one (1) bi-directional contact closure over one single mode or multimode optical fiber. This equipment is environmentally hardened and suitable for use in unconditioned roadside or out-of plant installations. The FVT/FVR412 is compatible with NTSC, PAL and SECAM video transmission protocols and supports bi-directional RS232, 422 and 485 (2 & 4 Wire) data. Plug-and-play design ensures ease of installation and no electrical or optical adjustments are required. Bi-Color LED indicators are provided to indicate the status of the system, video and data. Packaged in the exclusive ComNet ComFit housing, these units may be either wall or rack-mounted, or may be DIN-rail mounted by the addition of ComNet model DINBKT1 adaptor plate. No additional parts or power supplies are required.

Applications

- Multiple CCTV with PTZ

Features

- Digitally encoded video transmission: transmits 4 real-time color video signals and 2 bi-directional data signals on one optical fiber
- Supports RS232, RS422, and 2- or 4-wire RS485
- One bi-directional contact closure
- 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
- Hot-swappable rack modules
- Interchangeable between stand-alone or rack mount use
 - ComFit
- Five year warranty

specifications

VIDEO

Video Input:	1 volt pk-pk (75 ohms)
Overload:	>1.5V pk-pk
# Input/Output Channels:	4
Bandwidth (minimum):	10 Hz - 6.5 MHz per channel
Differential Gain:	<4%
Differential Phase:	<0.7°
Tilt:	<1%
Signal-to-Noise Ratio (SNR):	57 dB Typical
Max. RG-59 COAX Distance:	100m (300ft) Camera to Fiber Optic Module to maintain 6Mhz Bandwidth

DATA

Data Channels:	2
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 10 ⁹ @ Maximum Optical Loss Budget
Operating Mode:	Simplex or Full-Duplex

CONTACT

Contact Interface: Response Time	0.5 msec
Input:	Dry Contact Closure
Output:	SPST Relay, 0.5 A Contact Rating – normally open
WAVELENGTH	1310/1550 nm, Multimode and Single Mode
NUMBER OF FIBERS	1
LED INDICATORS	- Video Sync Presence for Each Video Channel - Received Data - Transmitted Data - Optical Carrier Detect

OPTICAL EMITTER CONNECTORS

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

ELECTRICAL & MECHANICAL

Power:	8-15 VDC @ 4W
Surface Mount:	From Rack
Rack Mount:	2
Number of Rack Slots:	Automatic Resettable Solid-State Current Limiters
Current Protection:	Meets IPC Standard
Circuit Board:	6.1 × 5.3 × 3.3 in., (15.5 × 13.5 × 8.3 cm)
Size (in./cm) (L×W×H):	<2 lb./0.9 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.	

AGENCY COMPLIANCE



MADE IN THE
USA

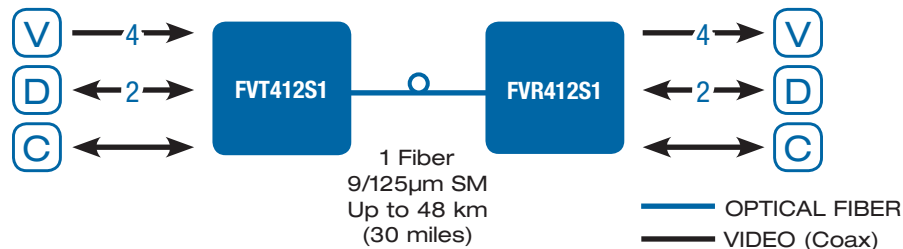
PART NUMBER	DESCRIPTION	FIBERS REQUIRED	FIBER	OPTICAL PWR BUDGET	MAX. DISTANCE**	# RACK SLOTS
FVT412M1	Video Transmitter/Data Transceiver (1310/1550 nm)	1	Multimode 62.5/125µm	16 dB	2 km (1.2 miles)	2
FVR412M1	Video Receiver/Data Transceiver (1550/1310 nm)					
FVT412S1	Video Transmitter/Data Transceiver (1310/1550 nm)	1	Single Mode 9/125µm	23 dB	69 km (43 miles)	2
FVR412S1	Video Receiver/Data Transceiver (1550/1310 nm)					
Accessories	9 Volt DC Plug-in Power Supply, 90-264 VAC, 50/60 Hz (Included)					
Options	Add 'C' for Conformally Coated Circuit Boards (Extra charge, consult factory)					
	DIN-Rail Mounting Adaptor Plate Kit – With mounting hardware (Optional, order model DINBKT1)					

NOTE: This product requires a fiber installation with a minimum 30 dB connector return loss. The use of Super Polish Connectors is recommended.

**Distance may be limited by optical dispersion.

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.



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