



## Overview

GE's FV1 Series is now IFS. For use in industrial security and Intelligent Transportation Systems (ITS) applications, the IFS FV1 Series video fiber transmitters and receivers feature a robust design well suited for harsh environments. The IFS FV1 Series supports 8-bit PCM digital video transmission that provides no video degradation versus optical path loss. All modules are laser-based and optimized for the highest optical performance on either one multi-mode or single-mode fiber.

The plug-and-play design provides broad-range compatibility with major video surveillance manufacturers. The unique unified modular design can easily be deployed in either stand-alone or rack-mount applications. In-field configuration flexibility includes a diverse range of optics and connector choices to meet specific system and connectivity requirements. In addition, remote health and status monitoring can be implemented via the IFS Smart Rack IP Network Module.

# FV1 Series 8-bit Digital Video Transmitters and Receivers

## Standard Features

### Video

- Compatible with NTSC or PAL video standards
- 8-bit digitally encoded (non-compressed) video transmission
- No video degradation over the entire operating distance

### Optical

- One fiber design
- High-performance laser-based optics
- Multi-mode or single mode versions
- Distances up to 60Km

### Robust Design

- Plug-and-play design, no in-field adjustments required
- Unified modular design for stand-alone or rack-mount installation
- Hot-swappable design with solid-state current limiters
- Wide operating temperature range of -40° C to +75° C
- Designed for use in harsh environments

### Local & Remote Diagnostics

- Service-friendly LED status indicators on both front and rear of the module provide for local monitoring
- Remote health and status monitoring via Smart Rack IP Network Module

### Warranty

- Comprehensive Lifetime Warranty



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## Specifications

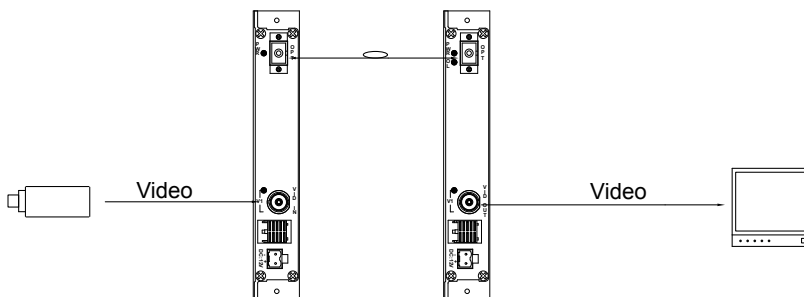
Video	
Video I/O	1 volt pk-pk (75 ohms)
Bandwidth	6 Mhz
Differential Gain	<2%
Differential Phase	<1° Typical
Tilt	1%
SNR-CCIR Weighted	≥ 53dB
Optical	
Emitter Type	Laser diode
Wavelength	1310nm or 1550nm
Number of Fibers	1
LED Indicators	
Video Presence	Green/Present; Red/Absent
Power	Green/On
Connectors	
Video	BNC
Optical	ST (Standard); optional SC or FC connector kits available
Power (surface-mount)	2-pin screw terminal block
Power (rack-mount)	10-pin smart bus connector
Electrical & Mechanical	
Operating Voltage	12VDC
Current Draw	500mA Max.
Current Protection	Automatic resettable fuse
Dimensions (in./cm.) (HwWxD)	1.0 x 6.2 x 9.1 in. / 2.54 x 15.84 x 23.18 cm (1-slot)
Shipping Weight	1.2 lbs. / 0.55kg (1-slot)
Environmental	
MTBF	>100,000 hours
Operating Temperature	-40° C to +75° C
Storage Temperature	-40° C to +85° C
Relative Humidity	0 to 95% non-condensing
Regulatory Compliance	FCC, UL, CE, C-Tick, FDA

## Ordering Information

Fiber	Part Number	Description	Wavelength	Optical Pwr Budget*	Max. Distance**	Rack Slots
<b>FV1 Series Fixed Video Transmission</b>						
Multi-mode 62.5/125µm	FVMM1-TX	Digital 8-bit Video TX, 1 MM Fiber	1310 nm	12 dB	2.5 miles (4km)	1
	FVMM1-RX	Digital 8-bit Video RX, 1 MM Fiber				
Single-mode 9/125µm	FVSM1-TX	Digital 8-bit Video TX, 1 SM Fiber	1310 nm	18 dB	25 miles (40km)	1
	FVSM1-RX	Digital 8-bit Video RX, 1 SM Fiber	1550 nm	25 dB	37 miles (60km)	1
	FVSML1-TX	Digital 8-bit Video TX, 1 SM Fiber, LD				
	FVSML1-RX	Digital 8-bit Video RX, 1 SM Fiber, LD				

\* For 50/125 fiber, subtract 4dB from optical power budget.  
 \*\* Optical transmission distance is limited to optical loss of the fiber and any additional loss introduced by connectors, splices and patch panels.  
 Operating distance for multi-mode is limited by fiber bandwidth due to the inherent characteristic of modal dispersion within MM fiber.  
 Note: Power supply must be ordered separately.

## Typical Application



## Accessories

Connector Kits	
SC/FC-OA	SC to FC Optical Adaptor
SC/SC-OA	SC to SC Optical Adaptor
SC/ST-OA	SC to ST Optical Adaptor
Cable Kits	
SC/LC-MM-FPC	SC to LC MM Fiber Patch Cord
SC/LC-SM-FPC	SC to SC Optical Adaptor
Smart Rack Chassis	
DFR	Smart Rack –Chassis Only

Security Products by GE are now part of the UTC Fire & Security family



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