



# Fiber Transmission 8-bit Digital Video Receivers & Data Transceivers

## Overview

GE's FVD303 Series is now IFS. For use in industrial security and Intelligent Transportation Systems (ITS) applications, the IFS FVD303 Series 3-channel video fiber receiver and data transceiver feature a robust design well suited for harsh environments. The IFS FVD303 Series supports 3 independent channels of 8-bit PCM digital video with bi-directional data that provides no video degradation versus optical path loss. All modules are 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.

# FVD303 Series 3-Ch Independent 8-bit Digital Video Receivers and Data Transceivers

## Standard Features

### Video

- Compatible with NTSC or PAL video standards
- 3 independent channel receiver in one module
- 8-bit digitally encoded (non-compressed) video
- No video degradation over the entire operating distance

### Data

- Meets EIA RS-232/422/485 specifications
- Full RS-485 Tri-state support
- Simplex or full-duplex operation
- Transparent to data encoding
- Data rates up to 115.2Kbps

### Optical

- 3 independent fiber inputs
- 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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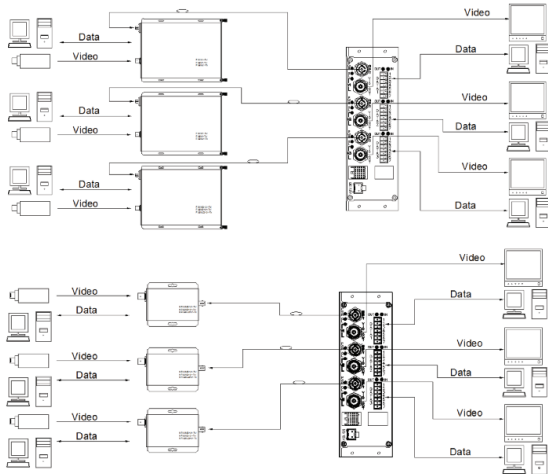
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## Typical Applications



## Specifications

Video	
Number of Channels	3 independent receivers
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

Data	
Number of Channels	3 independent transceivers
Data Interface	RS-232, RS-422, RS-485 (2 or 4-wire) w/Tri-state
Data Format	DIP switch-selectable
Data Rate	0~115.2Kbps
Operating Mode	Simplex or Full Duplex
Data Protocol	Protocol transparent
Line Carrier Detection	RS-485 (2/4-wire) Tri-state output

Optical	
Receiver Type	PIN Diode
Wavelength	1310/1550nm
Number of Fibers	3 independent optical fibers

LED Indicators	
Video Presence	Green/Present; Red/Absent
Data	Green/Present; Red/Absent
Power	Green/On

Connectors	
Video	BNC
Data	7-pin screw terminal
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.) (HxWxD)	2.0 x 6.2 x 9.1 in. (5.08 x 15.84 x 23.18 cm)
Shipping Weight	2.4 lbs. / 1.07kg

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>FVD303 Series 3 Independent Channels - Digital 8-bit Video Receivers / Data Transceivers</b>						
Multi-mode 62.5/125µm	FVMMD303-RX	3 Independent Channels - Digital 8-bit Video RX/Data TCVRs, 1 MM Fiber	1310/1550 nm	12 dB	2.5 miles (4km)	2
Single mode 9/125µm	FVSMD303-RX	3 Independent Channels - Digital 8-bit Video RX/Data TCVRs, 1 SM Fiber	1310/1550 nm	18 dB	25 miles (40km)	2
	FVSMLD303-RX	3 Independent Channels - Digital 8-bit Video RX/Data TCVRs, 1 SM Fiber, LD	1310/1550 nm	25 dB	37 miles (60km)	2

\* 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.

## 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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