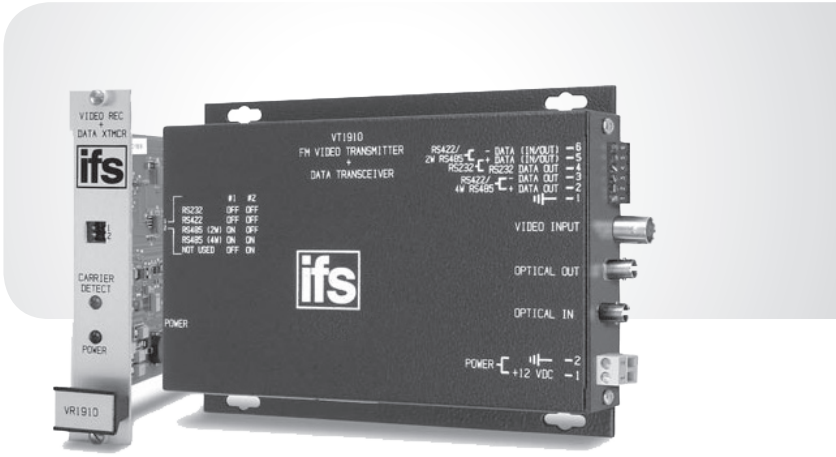
VT/VR1900 Series

IFS FM Video with Bi-Directional Data and Tamper Switch



OVERVIEW

The IFS VT/VR1900 Series video transmitter/receiver and data transceiver supports the simultaneous transmission of frequency modulation (FM) video, contact closure and bi-directional data over one or two optical fibers. The modules are universally compatible with major CCTV camera manufacturers and support RS-232, RS-422, RS-485 (Tri-State 2 or 4-wire). Modules within the series are available for use with multimode or single mode optical fiber. Plug-and-play design ensures ease of installation requiring no electrical or optical adjustments. The modules incorporate power, and carrier detect status indicating LED's to monitor proper system operation. The modules are available in either stand-alone or rack mount versions.

Function of tamper switch:
The tamper switch terminals on the VR will open upon one of the following conditions; loss of carrier, loss of video, switching of SW3 on the VT to the ON position.

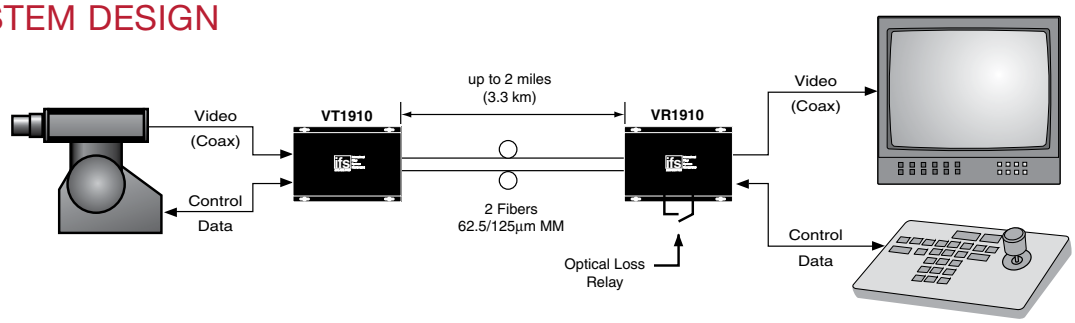
APPLICATION EXAMPLES

- CCTV with Bi-Directional PTZ Camera Control
- CCTV with Access Control Communication
- CCTV with Remote Signalization
- CCTV with Remote Keyboard Control

STANDARD FEATURES

- FM Video Transmission reduces ghosting, jitter and cross-talk between channels, providing superior video transmission
- NTSC, PAL, SECAM Compatible
- NTCIP Compatible
- Supports Contact Closures, 24V AC/DC, 170ma - Optically Isolated
- Optical Loss Relay Output
- Supports RS-232, RS-422, RS-485 (Tri-State 2 or 4-Wire)
- Transparent to Data Encoding/Compatible with Major CCTV Camera Manufacturers
- Power and Carrier Detect Status Indicating LED's to Monitor System Performance
- Integrated WDM for Greater Product Reliability
- No In-field Electrical or Optical Adjustments Required
- Tested and Certified by an Independent Testing 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.
- Hot-Swappable Rack Modules
- Tamper Switch
- Automatic Resettable Fuses
- Full Color Compatibility
- Distances up to 43 Miles (69 km) Without Repeaters
- Comprehensive Lifetime Warranty

SYSTEM DESIGN



VT/VR1900 Series

IFS FM Video with Bi-Directional Data and Tamper Switch

North America
T 855-286-8889

Latin America
T 561-998-6114

Ordering Information

	Part Number	Description	Fibers Required	Optical Pwr. Budget	Max. Distance*
Multimode 62.5/125µm**	VT1910	Video Transmitter/Data Transceiver (850 nm)	2	13 dB	2 miles (3 km)
	VR1910	Video Receiver/Data Transceiver (850 nm)	2	13 dB	2 miles (3 km)
	VT1910WDM	Video Transmitter/Data Transceiver (1310/850 nm)	1	14 dB	2.5 miles (4 km)
	VR1910WDM	Video Receiver/Data Transceiver (850/1310 nm)	1	14 dB	2.5 miles (4 km)
	VT1920WDM	Video Transmitter/Data Transceiver (1310/1550 nm, Laser)	1	15 dB	9 miles (15 km)
	VR1920WDM	Video Receiver/Data Transceiver (1550/1310 nm, Laser)	1	15 dB	9 miles (15 km)
Single Mode 9/125µm	VT1930WDM	Video Transmitter/Data Transceiver (1310/1550 nm, Laser)	1	23 dB	43 miles (69 km)
	VR1930WDM	Video Receiver/Data Transceiver (1550/1310 nm, Laser)	1	23 dB	43 miles (69 km)
Accessories ♦	PS12VDC1.5A-U	12VDC, 1.5A Plug-in Power supply (110/220VAC) with Universal power plug adapter kit (Included)			
Options	Add '-R3' to Model Number for R3 Rack Mount - No Charge (Requires R3 Rack purchased separately				

*Optical transmission distance is limited to optical loss of the fiber and any additional loss introduced by connectors, splices and patch panels. Distance can also be limited by fiber bandwidth. **For 50/125 Fiber, subtract 4 dB from Optical Power Budget.

♦ All accessories are third party manufactured.

Specifications

Video	
Video Input:	1 volt pk-pk (75 ohms)
Bandwidth:	5 Hz - 6.0 MHz
Differential Gain:	<5%
Differential Phase:	<5°
Tilt:	<1%
Signal-to-Noise Ratio (SNR):	>55 dB @ 10 dB ATTN.
Wavelength	
	VTVR1910: 850 nm MM, VTVR1910WDM: 1310/850 nm MM
	VTVR1920WDM: 1310/1550 nm MM, VTVR1930WDM: 1310/1550 nm SM
Contact Closure	
Contacts:	24v AC/DC, 170 mA, Optically Isolated Tamper/Optical Loss Relay Output
Number Of Fibers	
	VTVR1910: 2, VTVR1910WDM: 1, VTVR1920WDM: 1, VTVR1930WDM: 1
Connectors	
Optical:	ST
Power:	Terminal Block with Screw Clamps
Video:	BNC (Gold Plated Center-Pin)
Electrical & Mechanical	
Power:	
Surface Mount:	12 VDC @ 300 mA
Rack:	From Rack
Number of Rack Slots:	1
Current Protection:	Automatic Resettable Solid-State Current Limiters
Circuit Board:	Meets IPC Standard
Size (in./cm.) (LxWxH)	
Surface Mount:	7.0 x 4.9 x 1.0 in., 17.8 x 12.5 x 2.5 cm
Rack Mount:	7.7 x 5.0 x 1.0 in., 19.6 x 12.7 x 2.5 cm
Shipping Weight:	< 2 lbs./0.9 kg
Environmental	
MTBF:	> 100,000 hours
Operating Temp:	-40° C to +74° C
Storage Temp:	-40° C to +85° C
Relative Humidity:	0% to 95% (non-condensing)

Agency Compliance

Complies with FDA Performance Standard for Laser Products, Title 21, Code of Federal Regulations, Subchapter J

FCC PART 15 COMPLIANT CE cULus

interlogix
United Technologies

interlogix.com

Specifications subject to change without notice.

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