

Overview

The IFS VT/VR4930WDM video transmitter/data transceiver and video receiver/data transceiver units utilize frequency modulation for high video transmission quality. These environmentally hardened units provide the simultaneous transmission of video and full-duplex data over one single mode optical fiber and are ideal for use in unconditioned out-of-plant or roadside installations. Completely transparent to and universally compatible with any NTSC, PAL, or SECAM CCTV camera system. All standard pan-tilt-zoom control signals including RS-232, RS-422, and 2-wire RS-485 data are supported. Plug-and-play design ensures ease of installation and no electrical or optical adjustments are ever required. LED indicators are provided for rapidly ascertaining equipment operating status, and these units are available in either stand-alone or rack mount configurations.

Application Examples

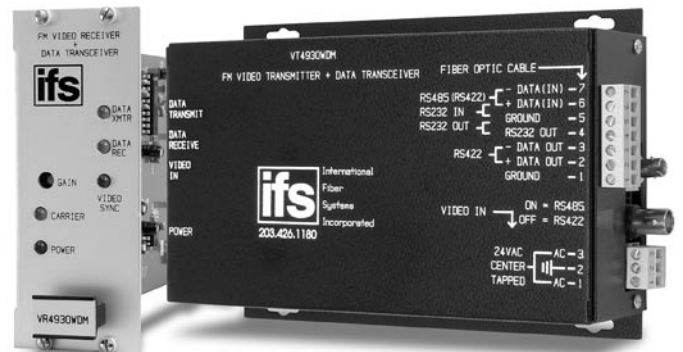
- CCTV with PTZ Control

Standard Features

- Frequency Modulation for High Quality Video Transmission
- Directly Compatible with All NTSC, PAL, or SECAM CCTV Camera Systems
- LED Status Indicators Provide Rapid Indication of Critical Operating Parameters
- Integrated WDM for Greater Reliability
- Solid-State Current Limiters on All Power Lines Provide Equipment Protection
- Wide Optical Dynamic Range: Optical Attenuators are Never Required
- Robust Design Ensures Extremely High Reliability In Unconditioned Roadside Environments
- 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.
- NTCIP Compatible
- Comprehensive Lifetime Warranty

FM Video with Bi-Directional Data

Video and data units
designed for FM high quality
video transmission.



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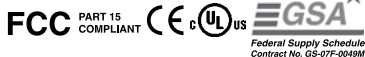
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gesecurity.com/ifs

Specifications subject to change without notice

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Agency compliance



Made in the USA

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

Specifications

Video	
Video Input:	1 volt pk-pk (75 ohms)
Bandwidth:	5 Hz - 6.5 MHz
Differential Gain:	<3%
Differential Phase:	<3°
Tilt:	<1%
Signal-to-Noise Ratio (SNR):	60 dB Minimum @ Maximum Optical Power Budget
Data	
Data Interface:	RS-232, RS-422, 2-Wire RS-485
Data Format:	NRZ, NRZI, Manchester, Bi-phase
Data Rate:	DC-100 Kbps (NRZ)
Operating Mode:	Simplex or Full Duplex
Wavelength	
1310/1550 nm, Single Mode	
Optical emitter	
Laser Diode	
Number of fibers	
1	
Led indicators	
VT: Video Input Sync Presence, Transmitted Data, Received Data, Optical Carrier Detect, Operating Power VR: Video Output Sync Presence, Transmitted Data, Received Data, Optical Carrier Detect, Operating Power	
Connectors	
Optical:	ST, SC, or FC (see ordering information)
Power and Data:	Terminal Block with Screw Clamps
Video and Sync:	BNC (Gold Plated Center-Pin)
Electrical & Mechanical	
Power:	
Surface Mount:	VT: 24 VAC C.T. @ 300 mA VR: 24 VAC C.T. @ 600 mA
Rack:	From Rack
Number of Rack Slots:	2
Current Protection:	Automatic Resettable Solid-State Current Limiters
Max. RG59 Cable Length:	750 ft.
Circuit Board:	Meets IPC Standard
Size (in./cm.) (LxWxH)	
Surface Mount:	7.0 x 4.9 x 2.0 in., 17.8 x 12.5 x 5.1 cm
Rack Mount:	7.7 x 5.0 x 2.0 in., 19.6 x 12.7 x 5.1 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)†

†May be extended to condensation conditions by adding suffix '-C' to model number for conformal coating.

Ordering Information

	Part Number	Description	Fibers Required	Optical Pwr. Budget	Max. Distance*
Single Mode 9/125µm	VT4930WDM VR4930WDM	Video Transmitter/Data Transceiver (1310/1550 nm) Video Receiver/Data Transceiver (1550/1310 nm)	1	23 dB	43 miles (69 km)
Accessories*	PS-24 VAC C.T. 24 Volt AC Center Tap Power Supply (Included) PS-24 VAC C.T.-230 24 Volt AC CenterTap Power Supply, 230 VAC Input (Included if specified at time of order)				
Options	Add '-R3' to Model Number for R3 Rack Mount - No Charge (Requires R3 Rack purchased separately) Add '-SC' to Model Number for SC Optical Connector (For Single Mode equipment only) Add '-FC' to Model Number for FC Optical Connector (For Single Mode equipment only) Add '-C' for Conformally Coated Printed Circuit Boards (Extra charge, consult factory)				

*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.

System Design

