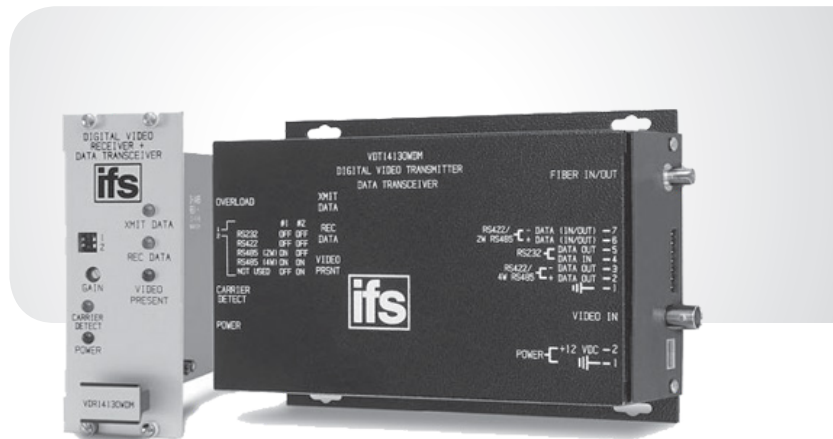


VDT/VDR14100WDM Series

IFS Digitally Encoded Video with Bi-Directional Data



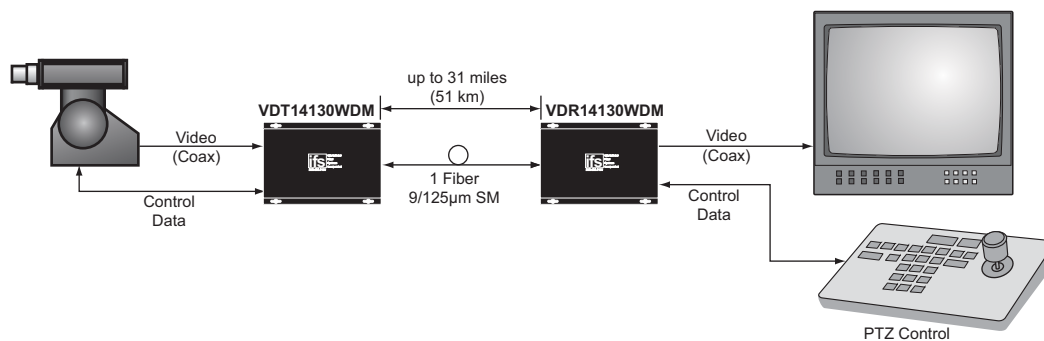
OVERVIEW

The IFS VDT/VDR14100WDM Series video transmitter/receiver and data transceiver support simultaneous broadcast quality transmission of 10-bit digitally encoded video and bi-directional data over one multimode or single mode optical fiber. The modules are universally compatible with major CCTV camera manufacturers and support RS-232, RS-422, Sensormatic "Sensornet" and 2-wire or 4-wire RS-485 data interfaces, and most major data protocols. Plug-and-play design ensures ease of installation requiring no electrical or optical adjustments. Each transceiver incorporates status indicating LED's for monitoring of proper system operation. The modules are available in either stand-alone or rack mount versions.

APPLICATION EXAMPLES

- High Performance CCTV with PTZ Control

SYSTEM DESIGN



STANDARD FEATURES

- 10-Bit Digitally Encoded Video Transmission
- Exceeds RS-250C Short-Haul Transmission
- NTSC, PAL, SECAM Compatible
- Full Color Compatibility
- Supports RS-232, RS-422, Sensormatic "Sensornet" or RS-485 (2-wire or 4-wire) Data Interfaces
- No In-field Electrical or Optical Adjustments Required
- LED Status Indicators For Monitoring All Critical Operating Parameters
- 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
- Integrated WDM for Greater Reliability
- Hot-Swappable Rack Modules
- Automatic Resettable Fuses on all Power Lines
- Distances up to 31 Miles (51 km)
- Comprehensive Lifetime Warranty

VDT/VDR14100WDM Series

North America
T 855-286-8889

Latin America
T 561-998-6114

IFS Digitally Encoded Video with Bi-Directional Data

Ordering Information

	Part Number	Description	Fibers Required	Optical Pwr. Budget	Max. Distance*
Multimode 62.5/125µm**	VDT14120WDM	Video Transmitter/Data Transceiver (1310/1550 nm)	1	7 dB	1.9 miles (3 km)
	VDR14120WDM	Video Receiver/Data Transceiver (1550/1310 nm)	1	7 dB	1.9 miles (3 km)
Single-Mode 9/125µm	VDT14130WDM	Video Transmitter/Data Transceiver (1310/1550 nm)	1	17 dB	31 miles (51 km)
	VDR14130WDM	Video Receiver/Data Transceiver (1550/1310 nm)	1	17 dB	31 miles (51 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)				
	Add '-25' to Model Number for Type DB-25S Data Channel Connector				

*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 - 10 MHz
Differential Gain:	<2%
Differential Phase:	<0.7°
Tilt:	<1%
Signal-to-Noise Ratio (SNR):	>67 dB @ Maximum Optical Loss Budget

Data

Data Interface:	RS-232, RS-422, Sensormatic "Sensornet", 2 and 4-wire RS-485 w/Tri-State
Data Format:	NRZ, NRZI, Manchester, Bi-phase
Data Rate:	DC-512 Kbps
Bit Error Rate (BER):	<1 in 10 ⁹ @ Maximum Optical Loss Budget
Operating Mode:	Simplex or Full Duplex

Wavelength

1310/1550 nm, Multimode or Single Mode

Optical Emitter

Laser Diode

Number Of Fibers

1

Connectors

Optical:	ST
Power:	Terminal Block with Screw Clamps
Video:	BNC (Gold Plated Center-Pin)
Data:	Terminal Block with Screw Clamps (optional type DB-25 connector)

Electrical & Mechanical

Power:	
Surface Mount:	12 VDC @ 500 mA
Rack:	From Rack
Number of Rack Slots:	2
Current Protection:	Automatic Resettable Solid-State Current Limiters
Circuit Board:	Meets IPC Standard
Size (in./cm.) (LxWxH)	
Surface Mount:	7.0 x 4.0 x 2.0 in., 17.8 x 10.2 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)

Agency Compliance

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



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Specifications subject to change without notice.

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VDT/VDR14100WDM Series