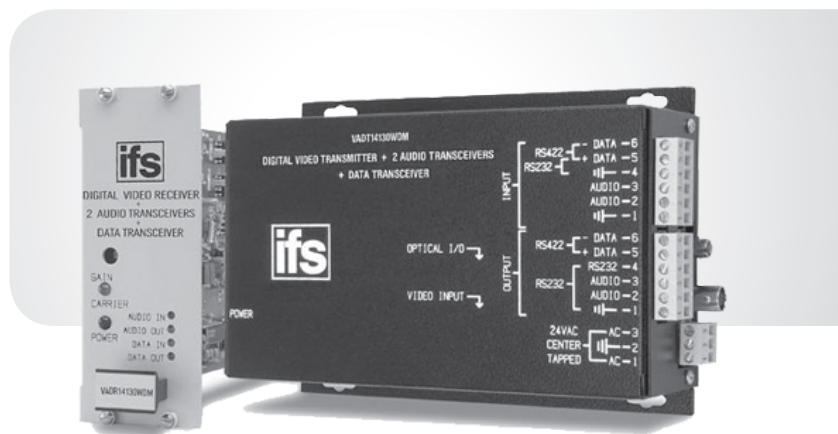


VADT/VADR14100WDM Series

IFS Video with Bi-Directional Stereo Audio, 2 Data Channels & Reverse Sync



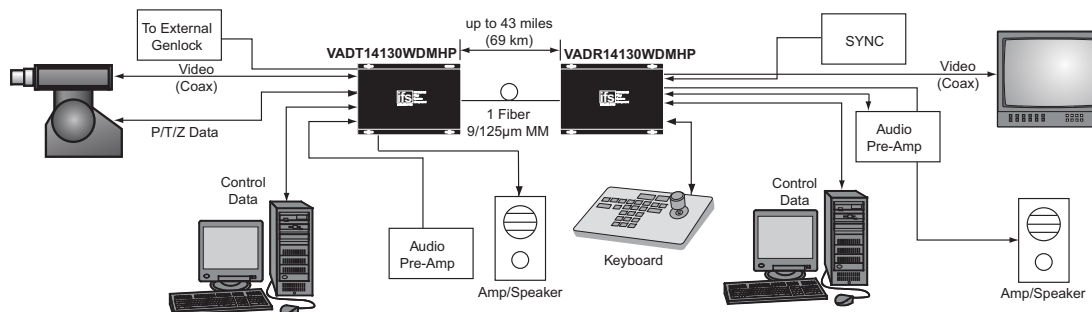
OVERVIEW

The IFS VADT/VADR14100WDM Series video transceivers support simultaneous broadcast quality transmission of 10-bit digitally encoded video, 20-bit digitally encoded stereo audio, bi-directional data transmission, and Genlock over one single mode or multimode optical fiber. The modules are universally compatible with major CCTV camera manufacturers and support RS-232, RS-422, and 2-wire or 4-wire RS-485 data interfaces and all 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

- Distance Learning CCTV with PTZ Control and 2-Way Audio Communications
- ITS (Intelligent Transportation Systems)

SYSTEM DESIGN



STANDARD FEATURES

- 10-Bit Digitally Encoded Video Transmission
- Exceeds RS-250C Short-Haul Transmission
- NTSC, PAL, SECAM Compatible
- Full Color Compatibility
- NTCIP Compatible
- 20-Bit Digitally Encoded Stereo Audio
- 600 Ohm Impedance Line-Level Audio
- No In-field Electrical or Optical Adjustments Required
- Reverse Sync for Genlock
- LED Status Indicators For Monitoring All Critical Operating Parameters
- Hot-Swappable Rack Modules
- Automatic Resettable Fuses on all Power Lines
- 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
- Distances up to 43 Miles (69 km)
- Comprehensive Lifetime Warranty

VADT/VADR14100WDM Series

IFS Video with Bi-Directional Stereo Audio, 2 Data Channels & Reverse Sync

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**	VADT14120WDM	Video Transmitter/Audio & Data Transceiver (1310/1550 nm)	1	10 dB @ 1550 nm	2 miles (3 km)
	VADR14120WDM	Video Receiver/Audio & Data Transceiver (1550/1310 nm)	1	10 dB @ 1310 nm	2 miles (3 km)
Single Mode 9/125µm	VADT14130WDM	Video Transmitter/Audio & Data Transceiver (1310/1550 nm)	1	17 dB	31 miles (51 km)
	VADR14130WDM	Video Receiver/Audio & 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)				

*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		Electrical & Mechanical	
Video Input/Output:	1 volt pk-pk (75 ohms)	Power:	
Bandwidth:	5 Hz - 10 MHz	Surface Mount:	12 VDC @ 500 mA
Differential Gain:	<2%	Rack:	From Rack
Differential Phase:	<0.7°	Number of Rack Slots:	2
Tilt:	<1%	Current Protection:	Automatic Resettable Solid-State Current Limiters
Signal-to-Noise Ratio (SNR):	>67 dB	Circuit Board:	Meets IPC Standard
Data		Size (in./cm.) (LxWxH)	
Data Interface:	RS-232, RS-422, 2 or 4-Wire RS-485 with Tri-State	Surface Mount:	7.0 x 4.0 x 2.0 in., 17.8 x 10.2 x 5.1 cm
Data Format:	NRZ, NRZI, Manchester, Bi-phase	Rack Mount:	7.7 x 5.0 x 2.0 in., 19.6 x 12.7 x 5.1 cm
Data Rate:	DC - 100 kbps (NRZ)	Shipping Weight:	< 2 lbs./0.9 kg
Operation Mode:	Simplex or Full-Duplex	Environmental	
Audio		MTBF:	> 100,000 hours
No. of Bits:	20	Operating Temp:	-40° C to +74° C
Bandwidth:	20 Hz to 18 KHz @ -1 dB	Storage Temp:	-40° C to +85° C
Maximum Input/Output Level:	0 dBm across 600 ohms	Relative Humidity:	0% to 95% (non-condensing)
Total Harmonic Distortion:	0.01% @ 0 dB Output Level		
Input/Output	Balanced or Unbalanced, 600 ohms		
Sampling Rate:	52.3 KHz		
Signal-to-Noise Ration (SNR):	87 dB Minimum		
Channel Crosstalk:	-100 dB @ 1 KHz		
DTE/DCE Interface:	User-Selectable		
Wavelength			
	1310/1550 nm, Multimode or Single Mode		
Number Of Fibers			
	1		
Connectors			
Optical:	ST		
Power:	Terminal Block with Screw Clamps		
Video and Reverse Sync:	BNC (Gold Plated Center-Pin)		
Audio and Data:	DB 25 Connector		

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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VADT/VADR14100WDM Series