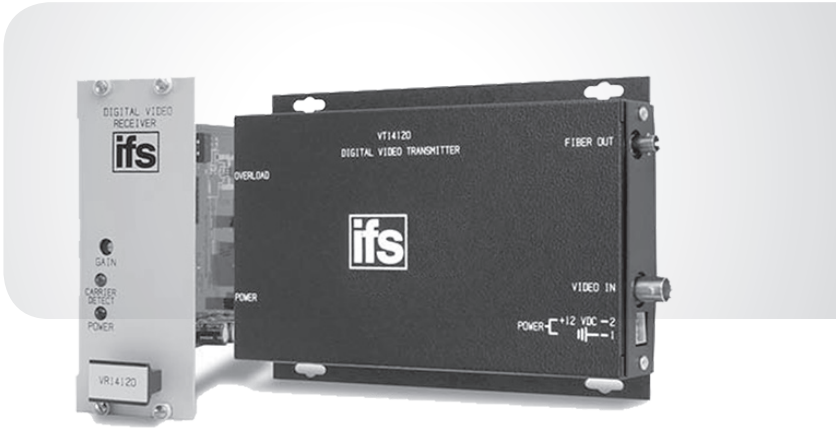
VT/VR14100 Series

IFS 10 Bit Digitally Encoded Video Transmitter and Receiver



OVERVIEW

The IFS VT/VR14100 Series video transmitter and video receiver units utilize state-of-the-art 10-bit digital encoding and decoding for true broadcast-quality video transmission that exceeds the requirements of EIARS-250C for Short-Haul Video Transmission. These environmentally hardened units provide transmission of video over one singlemode or multimode fiber optic cable and are ideal for use in unconditioned road side or out-of-plant installations. As the level of video performance is so high, the VT/VR14100 Series is ideally suited to networks employing multiple physical layers where video degradation may be problem, such as FDM or digitally encoded video multiplexing links, T-1 or fractional T-1 codecs, and SONET or ATM backbones. These units are completely transparent to and universally compatible with any NTSC, PAL, or SECAM CCTV camera system. 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 this equipment is available in either stand-alone or rack mount configurations.

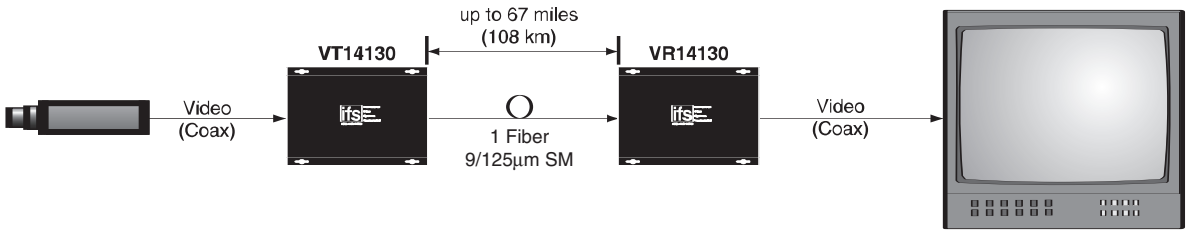
STANDARD FEATURES

- State-of-the-Art 10-Bit Digitally Encoded Video Transmission
- Exceeds All Requirements for RS-250C Short-Haul Transmission: True Broadcast Video Performance
- Exceptionally Low Video Distortion with Zero Performance Variation vs. Optical Path Loss
- Ideally Suited to Networks Requiring Multiple Physical Layers Where Video Degradation May Be a Problem
- Directly Compatible with All NTSC, PAL, or SECAM CCTV Camera Systems
- LED Status Indicators Provide Rapid Indication of Critical Operating Parameters
- Solid-State Current Limiters on All Power Lines Provide Equipment Protection
- Wide Optical Dynamic Range: Optical Attenuators are Never Required
- Exceeds NEMATS-1/TS-2 and Caltrans Traffic Signal Control Equipment Environmental Specifications for Operating Temperature, Shock, Vibration, Humidity, and Voltage Transient Protection
- Robust Design Ensures Extremely High Reliability In Unconditioned Roadside Environments
- Comprehensive Lifetime Warranty

APPLICATION EXAMPLES

- High Performance CCTV (Fixed Video)

SYSTEM DESIGN



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IFS 10 Bit Digitally Encoded Video
Transmitter and Receiver

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**	VT14120	Video Transmitter/Stand-alone module (1310 nm)	1	10 dB	2 miles (3 km)
	VR14120	Video Receiver/Stand-alone module (1310 nm)	1	10 dB	2 miles (3 km)
Singlemode 9/125µm	VT14130	Video Transmitter/Stand-alone module (1310 nm)	1	23 dB	43 miles (69 km)
	VR14130	Video Receiver/Stand-alone module (1310 nm)	1	23 dB	43 miles (69 km)
	VT14150	Video Transmitter/Stand-alone module (1550 nm)	1	27 dB	67 miles (108 km)
	VR14150	Video Receiver/Stand-alone module (1550 nm)	1	27 dB	67 miles (108 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 - 10 MHz
Differential Gain:	<2%
Differential Phase:	<0.7°
Tilt:	<1%
Signal-to-Noise Ratio (SNR):	>67 dB @ Maximum Optical Loss Budget
Wavelength	
	1310 nm, Multimode
	1550 nm, Singlemode
Optical Emitter	
	Laser Diode (all models)
Number Of Fibers	
	1
LED Indicators	
VT Transmitter Unit:	Video Input Sync Presence
	Video Input Overload
	Operating Power
VR Receiver Unit:	Video Output Sync Presence
	Video Output Overload
	Optical Carrier Detect/ Link-Lock
	Operating Power
Connectors	
Power:	Terminal block with screw clamps
Video:	BNC (Gold Plated Center-Pin)
Optical:	ST, SC, or FC (see ordering information)
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

FCC PART 15 COMPLIANT CE c UL us

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United Technologies

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Specifications subject to change without notice.