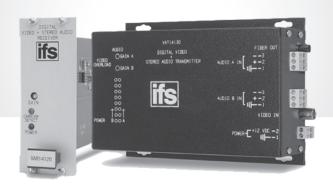


# VAT/VAR14100 Series

IFS 10-Bit Digital Video with Stereo Audio



# OVERVIEW

The IFS VAT/VAR14100 Series video and audio transmitter/receiver supports simultaneous broadcast quality transmission of 10-bit digitally encoded video and 20-bit digitally encoded stereo audio over one multimode or single mode optical fiber and exceeds the requirements of EIA RS-250C for Short-Haul video transmission. Plug-and-play design ensures ease of installation requiring no electrical or optical adjustments. Each module incorporates status indicating LED's for monitoring of proper system operation. The modules are available in either stand-alone or rack mount versions.

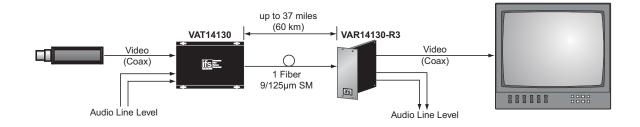
# APPLICATION EXAMPLES

- Broadcast Engineering Facilities
- Professional Audio/Visual Installations

# SYSTEM DESIGN



- 10-Bit Digitally Encoded Video Transmission
- Exceeds RS-250C Short-Haul Transmission
- NTSC, PAL, SECAM Compatible
- Distances up to 48 Miles (78 km)
- 20-Bit Digitally Encoded Stereo Audio
- 600 Ohm Impedance Line-Level Audio
- No In-field Electrical or Optical Adjustments Required
- LED Status Indicators For Monitoring All Critical Operating Parameters
- Hot-Swappable Rack Modules
- Automatic Resettable Fuses on all Power Lines
- Full Color Compatibility
- Comprehensive Lifetime Warranty



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IFS 10-Bit Digital Video with Stereo Audio

### **Ordering Information**

	Part Number	Description	Fibers Required	Optical Pwr. Budget	Max. Distance*
Multimode 62.5/125µm**	VAT14120	Video Stereo Audio Transmitter (1310 nm)	1	20 dB	2 miles (3 km)
	VAR14120	Video Stereo Audio Receiver (1310 nm)	1	20 dB	2 miles (3 km)
Single Mode 9/125µm	VAT14130	Video Stereo Audio Transmitter (1310 nm)	1	20 dB	37 miles (60 km)
	VAR14130	Video Stereo Audio Receiver (1310 nm)	1	20 dB	37 miles (60 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 Output:	1 volt pk-pk		
Bandwidth:	5 Hz - 10 MHz		
Differential Gain:	<2%		
Differential Phase:	<0.7°		
Tilt:	<1%		
Signal-to-Noise Ratio (SNR):	>67 dB		
Audio			
No. of Bits:	20		
Sampling Rate:	52.3 KHz		
Bandwidth:	20 Hz to 18 KHz@ -1 dB		
Max. Input/Output Level:	0 dBm across 600 ohms		
Signal-to-Noise Ratio (SNR)	87 dB, Min.		
Total Harmonic Distortion:	0.01%		
Channel Crosstalk:	-100 dB @ 1 KHz		
Input/Output:	Balanced or Unbalanced, 600 ohms		
Wavelength			
	1310 nm, Multimode or Single Mode		
Number Of Fibers			
	1		
Connectors			
Optical:	ST		
Power and Audio:	Terminal Block with Screw Clamps		
Video:	BNC (Gold Plated Center-Pin)		
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		
MTBF: Operating Temp:	> 100,000 hours -40° C to +74° C		

### 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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VAT/VAR14100 Series