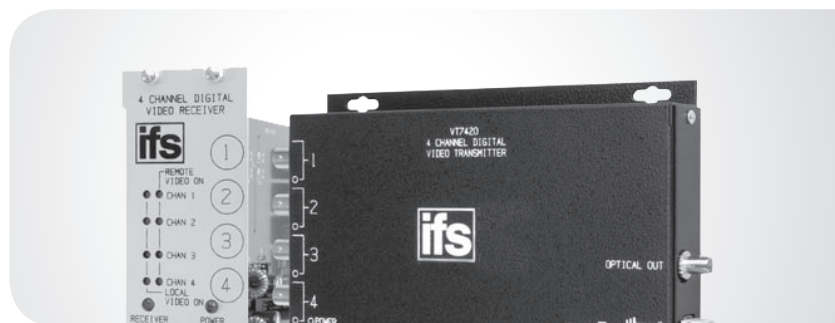


# VT/VR7400 Series

## IFS 4-Channel Digitally Encoded Video Multiplexer



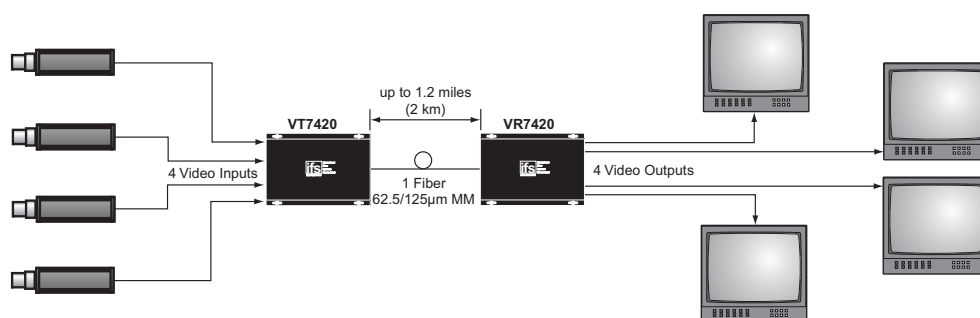
### OVERVIEW

The IFS VT/VR7400 Series multiplexers simultaneously transmit four channels of video over one optical fiber utilizing 8-bit digital encoding for high-quality video transmission. State-of-the-art 8-bit digital encoding and decoding for high-quality video transmission that exceeds the requirements of EIA RS-250C for Medium-Haul Video Transmission. These environmentally hardened units are ideal for use in unconditioned roadside or out-of-plant installations. 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 these units are available in either stand-alone or rack mount configurations.

### APPLICATION EXAMPLES

- High Performance CCTV (Fixed Video)

### SYSTEM DESIGN



### STANDARD FEATURES

- 8-Bit Digitally Encoded Video Transmission Transmits 4 Real-Time Color Video Signals on One Optical Fiber
- Exceeds All Requirements for RS-250C Medium-Haul Transmission: Extremely High 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
- Compatible with all NTSC, PAL, or SECAM CCTV Camera Systems
- Wide Optical Dynamic Range: Optical Attenuators are Never Required
- NTCIP Compatible
- 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.
- Robust Design Ensures Extremely High Reliability In Unconditioned Out-of-Plant Environments
- LED Status Indicators Provide Rapid Indication of Critical Operating Parameters
- Solid-State Current Limiters on All Power Lines Provide Equipment Protection
- Comprehensive Lifetime Warranty

# VT/VR7400 Series

IFS 4-Channel Digitally Encoded Video Multiplexer

North America  
T 855-286-8889

Latin America  
T 561-998-6114

## Ordering Information<sup>▲</sup>

	Part Number	Description	Fibers Required	Optical Pwr. Budget	Max. Distance*
Multimode 62.5/125µm**	VT7420	4-Channel Video Transmitter (1310 nm)	1	18 dB	1.2 miles (2 km)
	VR7420	4-Channel Video Receiver (1310 nm)	1	18 dB	1.2 miles (2 km)
Single Mode 9/125µm	VT7430	4-Channel Video Transmitter (1310 nm)	1	17 dB	31 miles (51 km)
	VR7430	4-Channel Video Receiver (1310 nm)	1	17 dB	31 miles (51 km)
	VT7450	4-Channel Video Transmitter (1550 nm)	1	17 dB	31 miles (51 km)
	VR7450	4-Channel Video Receiver (1550 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.

\*\* This product may be used with 62.5µm graded index multimode fiber having a maximum run length of 2 km and/or a maximum optical loss of 10 dB

## Specifications

### Video

Video Input:	1 Volt pk-pk (75 ohms)
Input/Output Channels:	4
Bandwidth:	10 Hz - 6.5 MHz
Differential Gain:	<2%
Differential Phase:	<0.7°
Tilt:	<1%
Signal-to-Noise Ratio (SNR):	60 dB @ Maximum Optical Loss Budget

### Wavelength

1315 nm Multimode
1310/1550 nm Single Mode

### Optical Emitters

Laser Diode (all models)
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### Number Of Fibers

1
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### Connectors

Optical:	ST
Power:	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 4.9 x 1.0 in., 17.8 x 12.5 x 2.5 cm
Rack Mount:	7.7 x 5.0 x 2.0 in., 19.6 x 12.7 x 5.0 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)

▲ NOTE: All optical terminations need to be epoxy polished with a minimum back reflection of -30 dB

## 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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