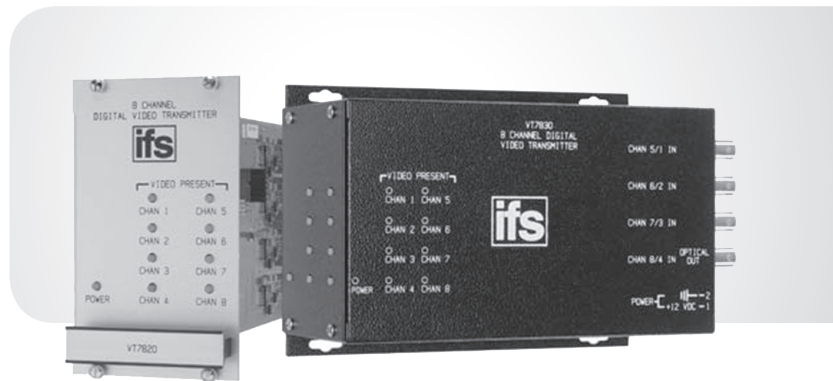


VT/VR7800 Series

IFS 8-Channel Digitally Encoded Video Multiplexer



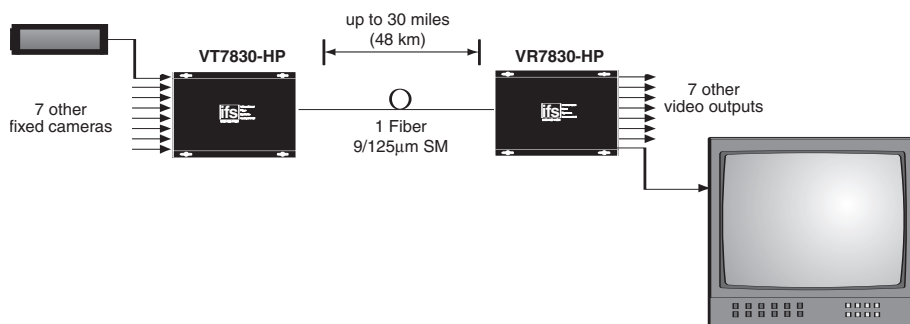
OVERVIEW

The IFS VT/VR7800 Series Video Transmitter/Multiplexer and Video Receiver/Demultiplexer series utilize 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 provide transmission of eight independent video channels over one multi-mode or singlemode optical fiber and are ideal for use in unconditioned road-side 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 provided in either a stand alone or a rack-mount configuration.

APPLICATION EXAMPLES

- High-Performance Multiple-Channel CCTV Transmission
- Installations with Limited Fiber
- Conduit with Limited Space for Additional Cabling

SYSTEM DESIGN



STANDARD FEATURES

- 8-Bit Digitally Encoded Video Transmission Transmits 8 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
- 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 NEMATS-1/TS-2 and the Caltrans Specification for Traffic Signal Control Equipment.
- 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
- Wide Optical Dynamic Range: Optical Attenuators are Never Required
- LED Status Indicators Provide Rapid Indication of Critical Operating Parameters
- Solid-State Current Limiters on All Power Lines Provide Unconditional Equipment Protection
- Comprehensive Lifetime Warranty

VT/VR7800 Series

IFS 8-Channel Digitally Encoded Video Multiplexer

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**	VT7820	8-Channel Video Transmitter/Multiplexer (1310 nm)	1	7 dB	1.2 miles (2 km) ▲
	VR7820	8-Channel Video Receiver/Demultiplexer (1310 nm)	1		
Single Mode 9/125µm	VT7830	8-Channel Video Transmitter/Multiplexer (1310 nm)	1	12 dB	22 miles (36 km)
	VR7830	8-Channel Video Receiver/Demultiplexer (1310 nm)	1		
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.

▲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.

♦ All accessories are third party manufactured.

Specifications

Video

Video Input:	1 Volt pk-pk (75 ohms)
Input/Output Channels:	8
Bandwidth:	5 Hz - 6.5 MHz
Differential Gain:	<2%
Differential Phase:	<0.7°
Tilt:	<1%
Signal-to-Noise Ratio (SNR):	60 dB @ Maximum Optical Loss Budget

Optical Emitter:

Laser Diode (All Models)

Wavelength

1310 nm, Multimode
1310 or 1550 nm, Singlemode

Number of Fibers

1

LED Indicators

VT Multiplexer Unit:	<ul style="list-style-type: none">• Video Sync Presence for Each Video Input Channel• Video Input Overload for Each Video Channel• Operating Power
VR Demultiplexer Unit:	<ul style="list-style-type: none">• Video Sync Presence for each Output Channel on Receiver• Video Output Overload for Each Video Channel• Optical Carrier Detect/Link-Lock w/Solid State Relay• Operating Power

Remote Sensing

Closed with Carrier Detect, 24VAC/VDC @ 100 mA

Connectors

Optical:	ST
Power:	Terminal Block with Screw Clamps
Video:	BNC (Gold Plated Center-Pin)

Electrical & Mechanical

Power:	12 VDC @ 500 mA (stand-alone)
Surface Mount:	+12 VDC @ 500 mA
Rack:	From Rack
Number of Rack Slots:	3
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 3.0 in., 17.8 x 12.5 x 7.5 cm
Rack Mount:	7.7 x 5.0 x 3.0 in., 19.6 x 12.7 x 7.5 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 -30dB.

Agency Compliance

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



interlogix.com

Specifications subject to change without notice.

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VT/VR7800 Series