

Overview

The IFS VT/VR71600-R3 video transmitter/multiplexer and video receiver/demultiplexer series utilizes 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 sixteen independent video channels over one multimode or single mode optical fiber and 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 provided in a rack-mount configuration only.

16-Channel Digitally Encoded Video Multiplexer

Utilizing state-of-the-art 8-bit digital encoding and decoding for high-quality video transmission.



Standard Features

- 8-Bit Digitally Encoded Video Transmission
Transmits 16 Real-Time Color Video Channels 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
- 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.
- Wide Optical Dynamic Range: Optical Attenuators are Never Required
- Directly Compatible with All NTSC, PAL, or SECAM CCTV Camera Systems
- 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



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Specifications subject to change without notice

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Specifications

Video	
Video Input:	1 volt pk-pk (75 ohms)
Input/Output Channels:	16
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
Wavelength	
	1310/1550 nm, Single Mode or Multimode
Opticalemmitter	
	Laser Diode
Numberoffibers	
	1
Connectors	
Optical:	ST, SC or FC (see ordering information)
Video:	BNC (Gold Plated Center-Pin)
Electrical&Mechanical	
Power:	115/230 VAC
Number of Rack Slots:	7
Current Protection:	Automatic Resettable Solid-State Current Limiters
Circuit Board:	Meets IPC Standard
Size (in./cm.) (LxWxH)	
Rack Mount:	19.0 x 7.0 x 5.3 in., 48.3 x 17.8 x 13.3 cm
Shipping Weight:	< 12 lbs./5.4 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)†

†May be extended to condensation conditions by adding suffix '-C' to model number for conformal coating.

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

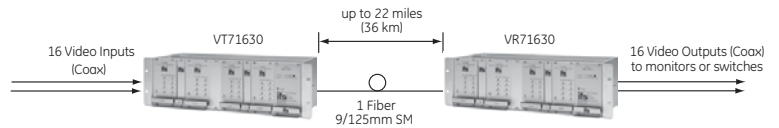
Agency compliance



Made in the USA

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

System Design



Ordering Information

	PartNumber	Description	FibersRequired	OpticalPwr.Budget	Max.Distance*
Multimode 62.5/125µm**	VT71620-R3	16 Channel Video Transmitter/Multiplexer (1310/1550 nm)	1	7 dB	1.2 miles (2 km)
	VR71620-R3	16 Channel Video Receiver/Demultiplexer (1310/1550 nm)			
Single Mode 9/125µm	VT71630-R3	16 Channel Video Transmitter/Multiplexer (1310/1550 nm)	1	12 dB	22 miles (36 km)
	VR71630-R3	16 Channel Video Receiver/Demultiplexer (1310/1550 nm)			
	VT71630-HP-R3***	16 Channel Video Transmitter/Multiplexer (1310/1550 nm)	1	15 dB	28 miles (45 km)
	VT71630-HP1-R3***	16 Channel Video Transmitter/Multiplexer (1310/1550 nm)			
	VR71630	16 Channel Video Receiver/Demultiplexer (1310/1550 nm)		20 dB	37 miles (60 km)

Options
 Add '-C' to Model Number for Conformally Coated Printed Circuit Boards (Extra charge, consult factory)
 Add '-SC' to Model Number for SC Connector
 Add '-FC' to Model Number for FC Optical Connector

* 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.

