PRODUCT SPECIFICATION VT/VR71230-R3
12-CHANNEL DIGITALLY ENCODED VIDEO MULTIPLEXER

DESCRIPTION

The IFS VT/VR71230-R3 video transmitter and video receiver 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 twelve independent video channels over one singlemode or multimode optical fiber and are ideal for use in unconditioned roadside or out-of-plant installations. 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, available in rack-mount configuration only.

FEATURES

- 8-Bit Digitally Encoded Video Transmission Transmits 12 Real-Time Color Video Channels on One Singlemode 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.
- 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

12 V

Available at: www.ifs.com

- A & E Specifications, (CSI)
- AutoCAD Drawings
- Operation Manuals
- Technical Bulletins

▲ORDERING INFORMATION

	PART NUMBER	DESCRIPTION	FIBERS REQUIRED	OPTICAL PWR BUDGET	MAX. DISTANCE*
MULTIMODE 62.5/125µm**	VT71220-R3	12 Channel Video Transmitter-Multiplexer (1310/1550 nm)	1	6 dB	1.2 miles (2 km)
	VR71220-R3	12 Channel Video Receiver-Demultiplexer (1310/1550 nm)			
SINGLEMODE 9/125µm	VT71230-R3	12 Channel Video Transmitter-Multiplexer (1310/1550 nm)	1	12 dB	22 miles (36 km)
	VR71230-R3	12 Channel Video Receiver-Demultiplexer (1310/1550 nm)			
OPTIONS	Add '-C' 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.**

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

International Fiber Systems, Incorporated ■ DESIGN CENTER (888) 999-9IFS or (203) 426-1180
FAX (203) 426-3326 ■ sales@ifs.com ■ For an office near you go to: www.ifs.com
With Offices in Asia Pacific ■ Australia ■ Europe ■ Latin America

TECHNICAL SPECIFICATION VT/VR71230-R3
12-CHANNEL DIGITALLY ENCODED VIDEO MULTIPLEXER

SPECIFICATIONS

VIDEO

Video Input:	1 volt pk-pk (75 ohms)
# Input/Output Channels:	12
Bandwidth (minimum):	10 Hz - 6.5 MHz per channel
Differential Gain:	<2%
Differential Phase:	<0.7°
Tilt:	<1%
Signal-to-Noise Ratio (SNR):	60 dB @ Maximum Optical Loss Budget

WAVELENGTH
1310/1550 nm,
Singlemode or Multimode

OPTICAL EMITTER
Laser Diode

NUMBER OF FIBERS
1

LED INDICATORS

VT Transmitter:
- Video Sync Presence for Each Input Channel
- Operating Power

VR Receiver:
- Video Sync Presence for Each Output Channel on Receiver
- Video Sync Presence for Each Input Channel onTransmitter
- Optical Carrier Detect/ Link-Lock
- Operating Power

CONNECTORS

Optical:	ST, SC, or FC (See ordering information)
Power:	Terminal Block with Screw Clamps
Video:	BNC (Gold Plated Center-Pin)

ELECTRICAL & MECHANICAL

Power:	115/230 VAC
Number of Racks Slots:	6
Current Protection:	Automatic Resettable Solid-State Current Limiters
Circuit Board: Size (in./cm.) (LxWxH)	Meets IPC Standard
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 -30dB.

AGENCY COMPLIANCE
FCC PART 15 COMPLIANT CE cULus GSA
Federal Supply Schedule Contract No. GS-07F-0049M

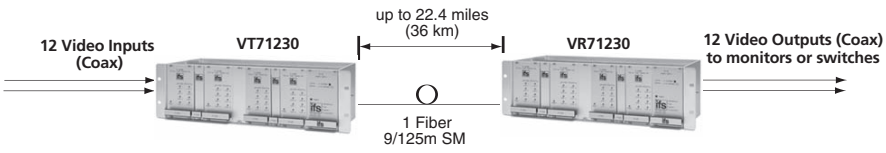
MADE IN THE USA
Complies with FDA Performance Standard for Laser Products, Title 21, Code of Federal Regulations, Subchapter J

OPTICAL POWER BUDGET

FIBER	WAVELENGTH	TRANSMITTER MODEL	RECEIVER MODEL	OPTICAL PWR BUDGET	MAX. DISTANCE*
Multimode 62.5/125µm**	1310/1550 nm	VT71220-R3	VR71220-R3	6 dB	1.2 miles (2 km)
Singlemode 9/125µm		VT71230-R3	VR71230-R3	12 dB	22 miles (36 km)

*** 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.**

SYSTEM DESIGN



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