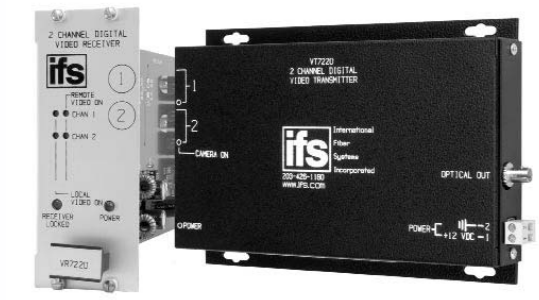
PRODUCT SPECIFICATION VT/VR7200 SERIES
2-CHANNEL DIGITAL VIDEO MULTIPLEXER



DESCRIPTION

The IFS VT/VR7200 series multiplexers simultaneously transmits two channels of video over one optical fiber utilizing 8-bit digital encoding for the high-quality video transmission. These products exceed EIA RS-250C for Medium-Haul Video Transmission performance requirement. The modules are universally compatible with major CCTV camera manufacturers. Plug-and-play design ensures ease of installation requiring no electrical or optical adjustments. The modules incorporate Power, Receiver Locked and Video Presence Status indicating LED's to monitor proper system operation. The modules are available in either stand-alone or rack mount versions.

APPLICATION EXAMPLES

- CCTV

FEATURES

- 8-Bit Digitally Encoded Video Transmission Transmits 2 Real-Time Color Video Signals
- Exceeds RS-250C Medium-Haul Transmission Performance Standard Directly Compatible with All NTSC, PAL, or SECAM CCTV Camera Systems
- LED Status Indicators Provide Indication of Critical Operating Parameters
- 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.
- Solid-State Current Limiters on All Power Lines Provide Equipment Protection
- Exceeds NEMA TS-1/TS-2 and Caltrans Traffic Signal Control Equipment
- Compatible with Major CCTV Camera Manufactures
- No In-field Electrical or Optical Adjustments Required
- Hot-Swappable Rack Modules
- Automatic Resettable Fuses on all Power Lines
- Comprehensive Lifetime Warranty

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**	VT7220 VR7220	2 Channel Video Transmitter (1310 nm) 2 Channel Video Receiver (1310 nm)	1	10 dB	1.2 miles (2 km)▲
SINGLEMODE 9/125µm	VT7230 VR7230	2 Channel Video Transmitter (1310 nm) 2 Channel Video Receiver (1310 nm)	1	20 dB	38 miles (60 km)
ACCESSORIES♦	PS-12VDC 12 Volt DC Plug-in Power Supply (Included) PS-12VDC-230 12 Volt DC Plug-in Power Supply, 230 VAC Input (Included if specified at time of order)				
OPTIONS	Add '-R3' to Model Number for R3 Rack Mount - No Charge (Requires R3 Rack purchased separately) Add '-C' for Conformally Coated Printed Circuit Boards (Extra charge, consult factory) Add -SC for SC connector (Single-mode equipment only) Add -'FC' to model number for FC Optical Connector (Single-mode equipment only) Add -HP for High Power Transmitter				

*** 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.

International Fiber Systems, Incorporated ■ DESIGN CENTER (888) 999-9IFS or (203) 426-1180
FAX (203) 426-3326 ■ sales@ifs.com
Europe, Middle East, Africa TEL +44(0) 1732 522 777 ■ Asia Pacific TEL +65 6235 2661 ■ Latin America TEL (512) 477-8787

TECHNICAL SPECIFICATION VT/VR7200 SERIES
2-CHANNEL DIGITAL VIDEO MULTIPLEXER

SPECIFICATIONS

VIDEO

Video Input:	1 volt pk-pk (75 ohms)
# Input/Output Channels:	2
Bandwidth (minimum):	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

OPTICAL EMITTER
Laser Diode

WAVELENGTH
1310 nm, Multimode
1310 nm, Singlemode

NUMBER OF FIBERS
1

LED INDICATORS

VT Transmitter/ Data Transceiver Unit:
- Video Input Sync Presence for Each Video Channel
- Video Input overload for Each Video Channel
- Operating Power

VR Receiver/ Data Transceiver Unit:
- Video Output Sync Presence for Each Video Channel
- Video Output overload for Each Video Channel
- Optical Carrier Detect/ Link-Lock
- Operating Power

CONNECTORS

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

ELECTRICAL & MECHANICAL

Power:	
Surface Mount:	12 VDC @ 500 mA (Surface Mount)
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 VT:	7.0 x 4.9 x 1.0 in., 17.8 x 12.5 x 5.1 cm
All Others:	7.7 x 5.0 x 2.0 in., 19.6 x 12.7 x 7.6 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)†

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

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

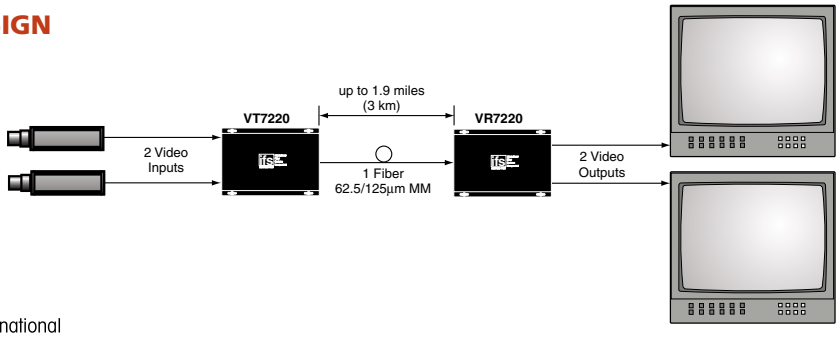
MADE IN THE USA
Complies with FDA Performance Standard for Laser Products, Title 21, Code of Federal Regulations, Subchapter J

OPTICAL POWER BUDGET

FIBER	WAVELENGTH	TRANSMITTER MODEL	RECEIVER MODEL	OPTICAL PWR BUDGET	MAX. DISTANCE*
Multimode 62.5/125µm**	1310 nm	VT7220	VR7220	10 dB	1.2 miles (2 km)▲
Singlemode 9/125µm		VT7230	VR7230	20 dB	38 miles (60 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. ▲ 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.**

SYSTEM DESIGN



International Fiber Systems Incorporated
TEL (203)426-1180 ■ FAX (203)426-3326 ■ www.ifs.com ■ sales@ifs.com
16 Commerce Road ■ Newtown, CT 06470

09/09/04