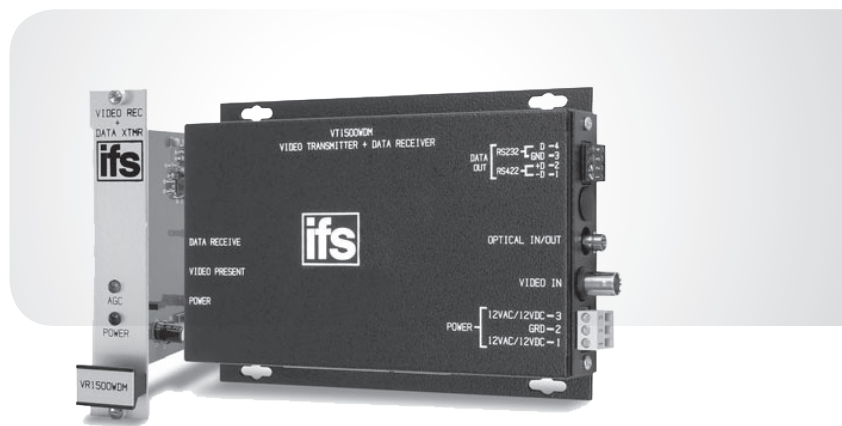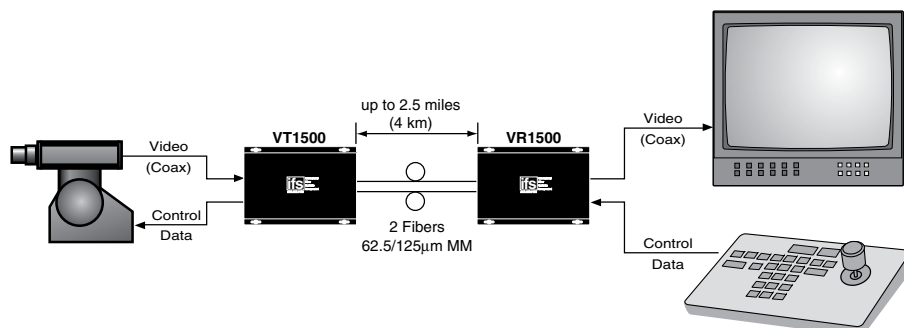# VT/VR1500 Series

IFS Video with One-Way Data

OVERVIEW

The IFS VT/VR1500 Series video and data transceiver supports the simultaneous transmission of video and one-way return data over one or two multimode optical fibers. The module is universally compatible with major CCTV camera manufacturers and supports RS-232 and RS-422 data interfaces and all major data protocols. Plug-and-play design ensures ease of installation requiring no electrical or optical adjustments. The modules incorporate power, video presence, optional contact closure, data out, and AGC status indicating LED's to monitor proper system operation. The VR1500WDM-CC features an optional contact closure input that allows an additional device such as a dome tamper switch or alarm input to be added and its signal transmitted back to the monitoring location. This feature eliminates the need for installing additional wiring to support the alarm contact closure. The modules are available in either stand-alone or rack mount versions.

APPLICATION EXAMPLES

• CCTV with One-Way PTZ Camera Control
• CCTV with Remote Signalization

STANDARD FEATURES

• AM Video Transmission
• NTSC, PAL, SECAM Compatible
• Full Color Compatibility
• Supports RS-232 or RS-422 Data Interfaces
• Transparent to Data Encoding/Compatible with Major CCTV Camera Manufacturers
• Full Range Automatic Gain Control (AGC)
• No In-field Electrical or Optical Adjustments Required
• Power, Video Presence, Data Out, and AGC Status Indicating LED's to Monitor System Performance
• Integrated WDM for Greater Product Reliability
• Distances up to 2.5 miles (4 km) without Repeaters
• 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.
• Hot-Swappable Rack Modules
• Automatic Resettable Fuses on all Power Lines
• Comprehensive Lifetime Warranty

SYSTEM DESIGN

VT/VR1500 Series

IFS Video with One-Way Data

Ordering Information

	Part Number	Description	Fibers Required	Optical Pwr. Budget	Max. Distance*
Multimode 62.5/125μm**	VT1500	Video Transmitter/Data Receiver (850 nm)	2	14 dB	2.5 miles (4 km)
	VR1500	Video Receiver/Data Transmitter (850 nm)	2	14 dB	2.5 miles (4 km)
	VT1500WDM	Video Transmitter/Data Receiver (850/1310 nm)	1	14 dB	2.5 miles (4 km)
	VR1500WDM	Video Receiver/Data Transmitter (1310/850 nm)	1	14 dB	2.5 miles (4 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)				
	Add '-CC' for Contact Closure on Receiver Only				

*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.

Specifications

Video

Video Input:	1 volt pk-pk (75 ohms)
Bandwidth:	5 Hz - 10 MHz
Differential Gain:	<5%
Differential Phase:	<5°
Tilt:	<1%
Signal-to-Noise Ratio (SNR):	>55 dB @ 10 dB ATTN.

Data

Data Interface:	RS-232, RS-422
Data Format:	NRZ, NRZI, Manchester, Bi-phase
Data Rate:	DC-100 Kbps (NRZ)

Loss of Relay

Loss of Video	
Relay (Optional):	SPST Relay 100 v, 0.5 A Contact Rating (Normally Open)

Wavelength

	850/1310 nm, Multimode

Number Of Fibers

	VTVR1500: 2, VTVR1500WDM: 1

Connectors

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

Electrical & Mechanical

Power:	10-12 VDC @ 150 mA
VT:	24 VAC C.T., 11-14 VDC @ 200 mA
VR:	12 VDC @ 200 mA
Rack:	From Rack
Number of Rack Slots:	1
Current Protection:	Automatic Resettable Solid-State Current Limiters
Max. RG59 Cable Length:	750 ft.
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 1.0 in., 19.6 x 12.7 x 2.5 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)

Agency Compliance

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

FCC PART 15 COMPLIANT CE c UL us

interlogix
United Technologies

interlogix.com

Specifications subject to change without notice.

VT/VR1500 Series