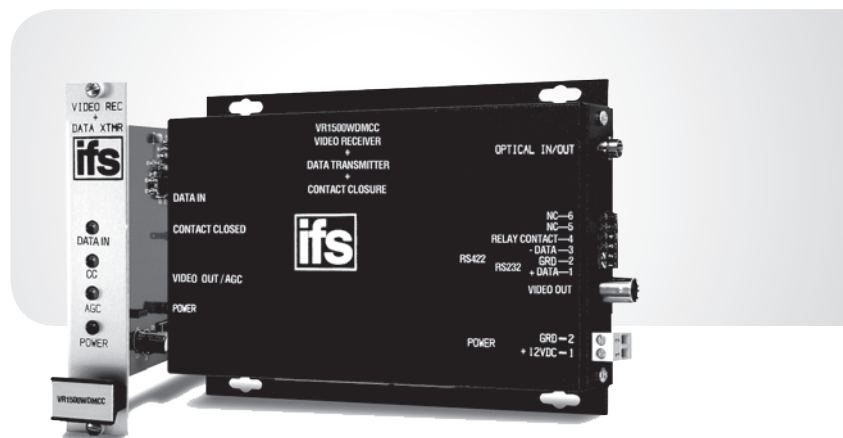


# VT/VR1500WDM Series

IFS FM Video with Return Data



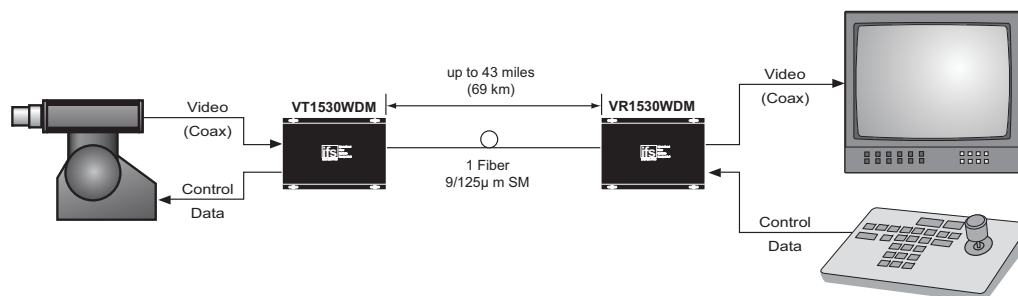
## OVERVIEW

The IFS VT/VR1500WDM Series video and data transmitter/receiver supports the simultaneous transmission of frequency modulation (FM) video and return data over one optical fiber. The modules are universally compatible with major CCTV camera manufacturers and support RS-232 and RS-422 data interfaces and all major data protocols. Modules within the series are available for use with multimode or single mode optical fiber. Plug-and-play design ensures ease of installation requiring no electrical or optical adjustments. The modules incorporate power, and carrier detect status indicating LED's to monitor proper system operation. 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

## SYSTEM DESIGN



## STANDARD FEATURES

- FM Video Transmission reduces ghosting, jitter and cross-talk between channels, providing superior 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
- No In-field Electrical or Optical Adjustments Required
- Power and Carrier Detect Status Indicating LED's to Monitor System Performance
- Hot-Swappable Rack Modules
- Automatic Resettable Fuses
- Distances up to 43 Miles (69 km) Without Repeaters
- Comprehensive Lifetime Warranty

# VT/VR1500WDM Series

North America  
T 855-286-8889

Latin America  
T 561-998-6114

IFS FM Video with Return Data

## Ordering Information

|                        | Part Number   | Description  | Fibers Required | Optical Pwr. Budget | Max. Distance*   |
|------------------------|---|--|-----------------|---------------------|------------------|
| Multimode 62.5/125µm** | VT1520WDM   | Video Transmitter/Data Receiver (1310/1550 nm, Laser)  | 1               | 15 dB               | 9 miles (15 km)  |
|                        | VR1520WDM   | Video Receiver/Data Transmitter (1550/1310 nm, Laser)  | 1               | 15 dB               | 9 miles (15 km)  |
| Single Mode 9/125µm    | VT1530WDM   | Video Transmitter/Data Receiver (1310/1550 nm, Laser)  | 1               | 23 dB               | 43 miles (69 km) |
|                        | VR1530WDM   | Video Receiver/Data Transmitter (1550/1310 nm, Laser)  | 1               | 23 dB               | 43 miles (69 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) |  |                 |                     |                  |

\*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 - 8.0 MHz                              |
| Differential Gain:           | <5%   |
| Differential Phase:          | <5°   |
| Tilt:                        | <1%   |
| Signal-to-Noise Ratio (SNR): | >55 dB @ 10 dB ATTN.<br>>60 dB @ 7 dB ATTN. |

### Data

|                 |                                 |
|-----------------|---------------------------------|
| Data Interface: | RS-232, RS-422, Transformer     |
| Data Format:    | NRZ, NRZI, Manchester, Bi-phase |
| Data Rate:      | DC-50 Kbps (NRZ)                |
| Operating Mode: | Full Duplex                     |

### Wavelength

|              |                           |
|--------------|---------------------------|
| VTVR1520WDM: | 1310/1550 nm, Multimode   |
| VTVR1530WDM: | 1310/1550 nm, Single Mode |

### Number Of Fibers

|                                |
|--------------------------------|
| VTVR1520WDM: 1, VTVR1530WDM: 1 |
|--------------------------------|

### Connectors

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

### Electrical & Mechanical

|                         |   |
|-------------------------|---|
| Power:                  |   |
| Surface Mount:          | 12 VDC @ 300 mA                                   |
| 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



interlogix.com

Specifications subject to change without notice.

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VT/VR1500WDM Series