

# **DESCRIPTION**

The IFS VT/VR1530WDM 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

### **FEATURES**

- FM Video Transmission reduces ghosting, jitter and cross-talk between channels, providing superior video transmission
- NTSC, PAL, SECAM Compatible
- Full Color Compatibility

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- Supports RS-232 and RS-422 Data Interfaces
- Transparent to Data Encoding/Compatible with Major CCTV Camera Manufactures



- No In-field Electrical or Optical Adjustments Required
- Power and Carrier Detect Status Indicating LED's to Monitor System Performance
- Integrated WDM for greater Product Reliability
- Hot-Swappable Rack Modules
- Automatic Resettable Fuses
- Distances up to 43 Miles (69 km) Available at: Without Repeaters WWW. IS.com
- Without Repeaters

   Comprehensive Lifetime Warranty
- 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**	VT1520WDM VR1520WDM	Video Transmitter/Data Receiver (1310/1550 nm, L Video Receiver/Data Transmitter (1550/1310 nm, L	, -	15 dB	6.2 miles (10 km)		
SINGLEMODE 9/125µm	VT1530WDM VR1530WDM	Video Transmitter/Data Receiver (1310/1550 nm, L Video Receiver/Data Transmitter (1550/1310 nm, L	/	23 dB	43 miles (69 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)						

<sup>\*</sup> 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.

<sup>♦</sup> All accessories are third party manufactured.

# TECHNICAL SPECIFICATION VT/VR1530WDM SERIES FM VIDEO WITH RETURN DATA

# **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.

### **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

VT/VR1520WDM: 1310/1550 nm, Multimode VT/VR1530WDM 1310/1550 nm, Single-mode

### NUMBER OF FIBERS

VT/VR1520WDM: 1 VT/VR1530WDM: 1

### CONNECTORS

Optical: ST

Power and Data: Terminal Block with Screw Clamps
Video: 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 750 ft.

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**

 $\begin{array}{ll} \mbox{MTBF:} & > 100,000 \ \mbox{hours} \\ \mbox{Operating Temp:} & -40^{\circ} \ \mbox{C to } +74^{\circ} \ \mbox{C} \\ \mbox{Storage Temp:} & -40^{\circ} \ \mbox{C to } +85^{\circ} \ \mbox{C} \end{array}$ 

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

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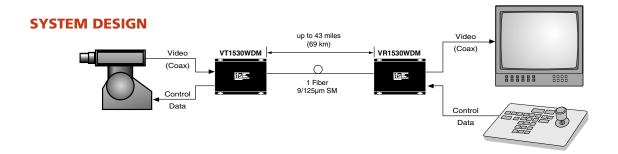
MADE IN THE USA

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

# **OPTICAL POWER BUDGET**

FIBER	WAVELENGTH	TRANSMITTER	RECEIVER	OPTICAL	MAX.
TIDEK		MODEL	MODEL	PWR BUDGET	DISTANCE*
Multimode 62.5/125µm**	1310/1550 nm	VT1520WDM	VR1520WDM	15 dB	6.2 miles (10 km)
Singlemode 9/125µm	1310/1550 nm	VT1530WDM	VR1530WDM		43 miles (69 km)

<sup>\*</sup> 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.





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