# S PRODUCT SPECIFICATION VT1001 SERIES



## DESCRIPTION

The IFS VT1001 series dual video transmitter provides transmission of two independent fixed video signals in one module utilizing AM modulation on two independent multimode fiber optic cables. The module is not a multiplexer. The module is ideal for smaller CCTV installations and the rack-mount version can be used to double the fixed video capacity of the R3 rack for up to 28 independent video channels per card cage. The VT1001 is compatible with the IFS VR1000, VR1001, VR1100, and VR2100 series receivers. Plug-andplay design ensures ease of installation requiring no electrical or optical adjustments. The module incorporates a power and channel A and B sync detect status indicating LED's for monitoring proper system operation. The module is available in either stand-alone or rack mount version.

## **APPLICATION EXAMPLES**

• CCTV (Fixed Video)

## **FEATURES**

- AM Video Transmission
- NTSC, PAL, SECAM Compatible
- Full Color Compatibility
- Two Independent Transmitters in One Module
- Can be Used to Double the Fixed Video Capacity of an R3 Card Cage
- No In-field Electrical or Optical Adjustments Required
- Power and Sync Detect Status Indicating LED's to Monitor System Performance
- Distances up to 2.5 miles (4 km) Without Repeaters
- Automatic Resettable Fuses on all Power Lines
- Hot-Swappable Rack Modules
- Comprehensive Lifetime Warranty



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

# **ORDERING INFORMATION**

|                           | PART<br>NUMBER  | DESCRIPTION                     | FIBERS<br>REQUIRED | OPTICAL<br>PWR BUDGET | MAX.<br>DISTANCE* |  |
|---------------------------|---|---------------------------------|--------------------|-----------------------|-------------------|--|
| MULTIMODE<br>62.5/125µm** | VT1001  | Dual Video Transmitter (850 nm) | 2                  | 14 dB                 | 2.5 miles (4 km)  |  |
|                           | VT1001 Series is compatible with:<br>VR1000, VR1001, VR1100 & VR2100 Series Receivers   |                                 |                    |                       |                   |  |
| ACCESSORIES*              | PS-12VDC 12 Volt DC Plug-in Power Supply (Included)<br>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)<br>Add '-C' for Conformally Coated Printed Circuit Boards (Extra charge, consult factory) |                                 |                    |                       |                   |  |

\* 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.



# VT1001 SERIES **TECHNICAL SPECIFICATION** DUAL INDEPENDENT AM VIDEO TRANSMITTER

Powe

# 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): | 60 dB typical, 54 dB minimum |
|                              |                              |

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#### WAVELENGTH

850 nm. Multimode

#### NUMBER OF FIBERS

#### **CONNECTORS**

| Optical: |  |
|----------|--|
| Power:   |  |
| Video:   |  |

ST Terminal Block with Screw Clamps BNC (Gold Plated Center-Pin)

### **ELECTRICAL & MECHANICAL**

| Power:                |   |
|-----------------------|---|
| Surface Mount:        | 12 VDC @ 150 mA                           |
| Rack:                 | From Rack                                 |
| Number of Rack Slots: | 1   |
| Current Protection:   | Automatic Resettable Solid-State Current  |
|                       | Limiters                                  |
| Circuit Board:        | Meets IPC StandardSize (in./cm.) (LxWxH   |
| Surface Mount:        | 7.0 x 4.9 x 1.0 in., 10.7 x 8.9 x 2.5 cm  |
| Rack Mount:           | 7.7 x 5.0 x 1.0 in., 17.8 x 12.5 x 2.5 cm |
| Shipping Weight:      | < 2 lbs./0.9 kg                           |
|                       |   |
|                       |   |

## **ENVIRONMENTAL**

| MTBF:              | > 100,000 |
|--------------------|-----------|
| Operating Temp:    | -40° C to |
| Storage Temp:      | -40° C to |
| Relative Humidity: | 0% to 959 |
|                    |           |

00 hours o +74° C o +85° C % (non-condensing)†

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



**MADE IN THE USA** 



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

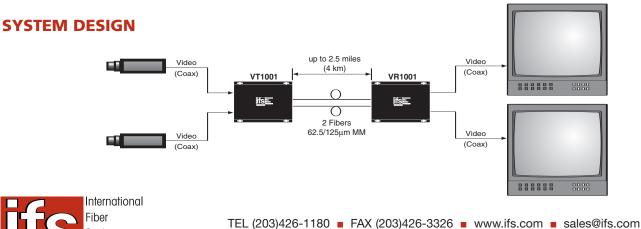
## **OPTICAL POWER BUDGET**

Systems

ncorporated

| WAVELENGTH | TRANSMITTER |                   | RECEIVER                             |                   | OPTICAL           | MAX.             |
|------------|-------------|-------------------|--------------------------------------|-------------------|-------------------|------------------|
|            | MODEL       | OUTPUT            | MODEL SENSITIVITY                    |                   | <b>PWR BUDGET</b> | DISTANCE*        |
| 850 nm     | VT1001      | 25μw<br>(-16 dBm) | VR1000<br>VR1001<br>VR1100<br>VR2100 | 1 μw<br>(-30 dBm) | 14 dB             | 2.5 miles (4 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.



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Due to our continued effort to advance technology, product specifications are subject to change without notice.