

Overview

The IFS VT/VR6010DRDT multiplexer simultaneously transmits four channels of real-time video and one channel of bi-directional data over one multimode fiber optic cable. These modules utilize frequency modulation (FM) to reduce ghosting, jitter and cross-talk between channels, thereby providing superior video transmission. The modules are universally compatible with major CCTV and Access Control manufacturers and support bi-directional transmission of RS-232, RS-422, or 2 or 4-wire RS-485 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, Carrier Detect, Data Transmit and Data Receive status indicating LED's. The modules are available in either stand-alone or rack mount version.

Application Examples

- CCTV with PTZ Control in Installations with Limited Fiber
- Integration of Fixed CCTV and Access Control Systems on One Fiber

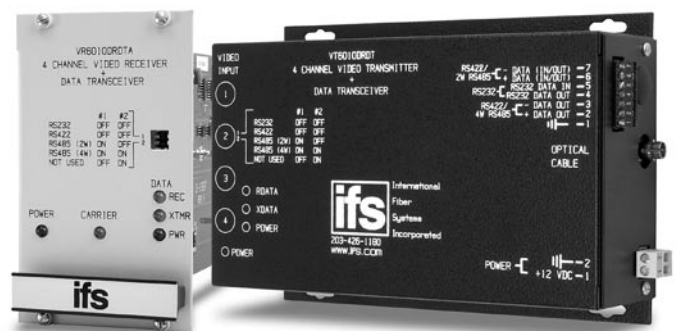
4-Channel Video Multiplexer with Bi-Directional Data

Simultaneously transmits four channels of real-time video and one channel of bi-directional data over one multimode fiber optic cable.



Standard Features

- Transmits Four Real-Time Video Signals over Multimode Fiber
- Automatic Resettable Fuses on all Power Lines
- 10 Mhz Bandwidth per Individual Channel
- NTSC, PAL, SECAM Compatible
- No In-field Electrical or Optical Adjustments Required
- Power, Carrier Detect, Data Transmit and Data Receiver Status Indicating LED's
- Meets EIA RS-232, RS-422, RS-485 (2-wire/4-wire) Specifications
- NTCIP Compatible
- Bi-Directional Data Rates up to 100 kbps
- Transparent to Data Encoding/Compatible with Major Data Protocols
- FM Design
- Full Color Compatibility
- Hot-Swappable Rack Modules
- Comprehensive Lifetime Warranty



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Specifications subject to
change without notice

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Agency compliance



Made in the USA

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

Specifications

Video

Video Input: 1 volt pk-pk (75 ohms)
Input/Output Channels: 4
Bandwidth (typical): 10 Hz - 10 MHz
Differential Gain: <5%
Differential Phase: <5°
Tilt: <1%
Signal-to-Noise Ratio (SNR): 55 dB (typical)

Data

Data Interface: RS-232 (data lines only) or RS-422, RS-485 2-w/4-w
Data Format: Manchester, Bi-phase
Data Rate: DC 50 Kbps (NRZ)

Wavelength

850/1310 nm, Multimode

Number of fibers

1

Connectors

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

Electrical & Mechanical

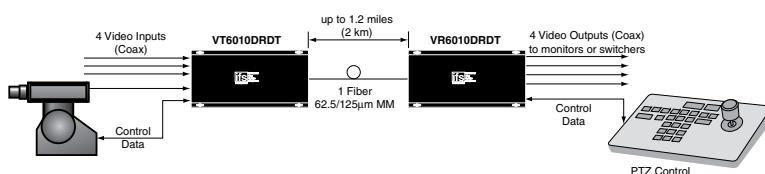
Power:
Surface Mount: VT: 12 VDC @ 500 mA
VR: 12 VDC @ 350 mA
From Rack
Rack:
Number of Rack Slots: 3
Current Protection: Automatic Resettable Solid-State Current Limiters
Max. RG59 Cable Length: 750 ft.
Circuit Board: Meets IPC Standard
Size (in./cm.) (LxWxH)
Surface Mount (Transmitter): 7.0 x 4.9 x 2.0 in., 17.8 x 12.5 x 5.1 cm
Surface Mount (Receiver): 7.0 x 4.9 x 3.0 in., 17.8 x 12.5 x 7.5 cm
Rack Mount: 7.7 x 5.0 x 3.0 in., 19.6 x 12.7 x 7.5 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)†

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

System Design



Ordering Information

	Part Number	Description	Fibers Required	Optical Pwr. Budget	Max. Distance*
Multimode 62.5/125µm**	VT6010DRDT	4 Channel Video Transmitter/Multiplexer (850/1310 nm)	1	7 dB	1.2 miles (2 km)***
	VR6010DRDT	4 Channel Video Receiver/Demultiplexer (850/1310 nm)			
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)				

* 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 62.5 µm graded index multimode fiber having a maximum run length of 2 km and/or a maximum optical loss budget of 10 dB.

*All accessories are third party manufactured.



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