GE
Security

Overview

The IFS VDT/VDR14330WDM series video transmitter/ receiver and data transceiver supports the simultaneous broadcast quality transmission of 10-bit digitally encoded video and three channels of bi-directional data over one single mode optical fiber. As the level of video performance is so high, the modules are ideally suited to networks employing multiple physical layers where video degradation may be a problem. The modules are universally compatible with major CCTV camera manufacturers and support all major data protocols. Each data channel can be set up independently to support RS-232, RS-422, 2-wire or 4-wire RS-485 data interfaces. Plug-and-play design ensures ease of installation requiring no electrical or optical adjustments. Each transceiver incorporates LED status indicating LED's for monitoring of proper system operation. The modules are available in either stand-alone or rack mount versions.

Application Examples

- High Performance CCTV with PTZ Control plus two additional data channels for traffic signalization applications

Standard Features

- 10-Bit Digitally Encoded Video Transmission

- Exceeds RS-250C Short-Haul Transmission

- Ideally Suited to Networks Requiring Multiple Physical Layers Where Video Degradation May be a Problem

- Three Independent Full-Duplex Data Channels Supporting RS-232, RS-422, or RS-485 (2-wire or 4-wire) Data Interfaces

- No In-field Electrical or Optical Adjustments Required

- Integrated WDM for Greater Reliability

- 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.

- LED Status Indicators for Monitoring all Critical Operating Parameters

- NTCIP Compatible

- Hot-Swappable Rack Modules

- Automatic Resettable Fuses on all Power Lines

- Distances up to 43 Miles (69 km)

- Comprehensive Lifetime Warranty

Digitally Encoded Video with 3 Duplex Data Channels

Broadcast quality transmission of 10-bit digitally encoded video and 3 channels of bi-directional data over one single mode optical fiber.
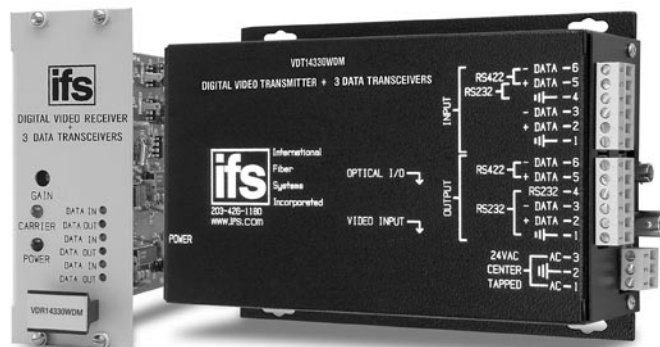
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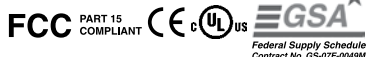T 44-113-238-1668
F 44-113-253-8121

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F 305-593-4300

gesecurity.com/ifs

Specifications subject to
change without notice

Agency compliance

FCC PART 15 COMPLIANT   CE c(UL)us   ≡GSA★
Federal Supply Schedule
Contract No. GS-07F-0049M

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)
Bandwidth:	5 Hz - 10.0 MHz
Differential Gain:	<2%
Differential Phase:	<0.7°
Tilt:	<1%
Signal-to-Noise Ratio (SNR):	>67 dB @ Maximum Optical Loss Budget

Data

Data Interface:	RS-232. RS-422, Sensormatic "Sensornet", 2 and 4-wire RS-485 w/Tri-State
Data Format:	NRZ, NRZI, Manchester, Bi-phase (data channels independently configurable)
Data Rate:	DC-100 Kbaud (NRZ)
Bit Error Rate (BER):	>1 in 10^9 @ Maximum Optical Loss Budget
Operating Mode:	Simplex or Full Duplex

Wavelength
1310/1550 nm, Single Mode

Optical emitter
Laser Diode

Number of fibers
1

Connectors

Optical:	ST, SC or FC (see ordering information)
Power:	Terminal Block with Screw Clamps or Type DB-9P Connector (specify at time of order)
Video:	BNC (Gold Plated Center-Pin)
Data:	Type 3 DB-9S

Electrical & Mechanical

Power:	
Surface Mount:	+12 VDC @ 700 mA (stand alone)
Rack:	From Rack
Number of Rack Slots:	2
Current Protection:	Automatic Resettable Solid-State Current Limiters
Circuit Board:	Meets IPC Standard
Size (in./cm.) (LxWxH)	
Surface Mount:	7.0 x 4.0 x 2.0 in., 17.8 x 10.2 x 5.1 cm
Rack Mount:	7.7 x 5.0 x 2.0 in., 19.6 x 12.7 x 5.1 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.

Ordering Information

	Part Number	Description	Fibers Required	Optical Pwr. Budget	Max. Distance*
Single Mode 9/125μm	VDT14330WDM	Video Transmitter/Data Transceiver (1310/1550 nm)	1	20 dB	37 miles (60 km)
	VDR14330WDM	Video Receiver/Data Transceiver (1550/1310 nm)			
	VDT14330WDM-HP	Video Transmitter/Data Transceiver, High Power		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 '-SC' to Model Number for SC Optical Connector - (For Single Mode Equipment and Rack Mount only)				
	Add '-FC' to Model number for FC Optical Connector (Single Mode Equipment only)				
	Add '-C' for Conformally Coated Printed Circuit Boards (Extra charge, consult factory)				
	Add '-HP' to Model Number for 26 dB Single Mode Optical Power Budget				

*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.

System Design

imagination at work