

Fiber Transmission Digital Video & Contact Closure Multiplexer

Overview

GE's VC8001 Series is now IFS. For use in industrial security and Intelligent Transportation Systems (ITS) applications, the IFS VC8001 Series video and contact closure fiber transceivers feature a robust design well-suited for harsh environments. The IFS VC8001 Series supports 10-bit PCM digital video transmission that provides no video degradation versus optical path loss, as well as, bi-directional contact closure. All modules are laser-based and optimized for the highest optical performance on either one multi-mode or single mode fiber.

The plug-and-play design provides broad-range compatibility with major video surveillance manufacturers. The unique unified modular design can easily be deployed in either stand alone or rack-mount applications. In-field configuration flexibility includes a diverse range of optics and connector choices to meet specific system and connectivity requirements. In addition, remote health and status monitoring can be implemented via the IFS Smart Rack IP Network Module.

VC8001 Series 8-Channel 10-bit Digital Video & Contact Closure Multiplexer

Standard Features

Video

- Compatible with NTSC or PAL video standards
- 10-bit digitally encoded (non-compressed) video transmission
- No video degradation over the entire operating distance

Contact Closure

- · Bi-directional contact closure
- 2ms response time
- Default state normally open
- Relay contact rating of 110 VDC/30W; 125 VAC/ 62.5VA max.

Optical

- One fiber design
- High performance laser-based optics
- Multi-mode or single mode versions
- Distances up to 60Km

Robust Design

- Plug-and-play design, no in-field adjustments required
- Unified modular design for stand alone or rack-mount installation
- Hot-swappable design with solid-state current limiters
- Wide operating temperature range of -40° C to +75° C
- Designed for use in harsh environments

Local & Remote Diagnostics

- Service-friendly LED status indicators on both front and rear of the module provide for local monitoring and diagnostics
- Remote health and status monitoring via Smart Rack IP Network Module

Warranty

Comprehensive Lifetime Warranty



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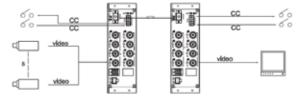
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Specifications subject to change without notice.

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Typical Application



Specifications

Video	
Video I/O	1 volt pk-pk (75 ohms)
Bandwidth	6 Mhz
Differential Gain	<2%
Differential Phase	<1° Typical
Tilt	0.01
SNR-CCIR Weighted	> 55 dB
Contact Closure	
Operating Mode	Bi-directional (Duplex)
Input Type	TTL Logic (positive)/Dry Contact
Output Type	Default: Logic Low/Normally Open
Dry Contact Output Rating	110 VDC/30W, 125VAC/62.5VA max.
Contact Output Response Time	2 mSec.
Optical	
Emitter Type	Laser diode
Wavelength	1310/1550nm
Number of Fibers	1
LED Indicators	
Video Presence	Green/Present; Red/Absent
Contact Status	Open/Off; Closed/On (Blinking Green LED)
Power	Green/On
Connectors	
Video	BNC
Contact Closure	5-pin screw terminal
Optical	ST (Standard); optional SC or FC connector kits available
Power (surface-mount)	2-pin screw terminal block
Power (rack-mount)	30-pin smart bus connector
Electrical & Mechanical	
Operating Voltage	12VDC
Current Draw	500mA Max.
Current Protection	Automatic resettable fuse
Dimensions (in./cm.) (HxWxD)	2.0 x 6.2 x 9.1 in. (5.08 x 15.84 x 23.18 cm)
Shipping Weight	2.4 lbs. / 1.07kg (2-slot)
Environmental	
MTBF	>100,000 hours
Operating Temperature	-40° C to +75° C
Storage Temperature	-40° C to +85° C
Relative Humidity	0 to 95% non-condensing
Regulatory Compliance	FCC, UL, CE, C-Tick, FDA
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Ordering Information

Fiber	Part Number	Description	Wavelength	Optical Pwr Budget*	Max. Distance**	Rack Slots	
VC8001 Series 8-Ch Video Mux/1-Ch Contact Closure Transceiver							
Multi-mode 62.5/125µm	DFVMMD8001-T DFVMMD8001-R	8-Ch Digital Video Mux TX/1-ch Contact Closure TCVR, 1 MM Fiber 8-Ch Digital Video Mux RX/1-ch Contact Closure TCVR, 1 MM Fiber	1310/ 1550 nm	6 dB	.62 miles (1km)	2	
Single mode 9/125µm	DFVSMD8001-T DFVSMD8001-R	8-Ch Digital Video Mux TX/1-ch Contact Closure TCVR, 1 SM Fiber 8-Ch Digital Video Mux RX/1-ch Contact Closure TCVR, 1 SM Fiber	1310/ 1550 nm	14 dB	25 miles (40km)	2	
	DFVSMLD8001-T DFVSMLD8001-R	8-Ch Digital Video Mux TX/1-ch Contact Closure TCVR, 1 SM Fiber, LD 8-Ch Digital Video Mux RX/1-ch Contact Closure TCVR, 1 SM Fiber, LD	1310/ 1550 nm	19 dB	37 miles (60km)	2	

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Accessories

Connector Kits	
SC/FC-OA	SC to FC Optical Adaptor
SC/SC-OA	SC to SC Optical Adaptor
SC/ST-OA	SC to ST Optical Adaptor
Cable Kits	
SC/LC-MM-FPC	SC to LC MM Fiber Patch Cord
SC/LC-SM-FPC	SC to SC Optical Adaptor
Smart Rack Chassis	
DFR	Smart Rack -Chassis Only

^{*} For 50/125 fiber, subtract 4dB from 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.
Operating distance for multi-mode is limited by fiber bandwidth due to the inherent characteristic of modal dispersion within MM fiber.
Note: Power supply must be ordered separately.