

Fiber Transmission Products

(8-Bit) Video Integrated Fiber-Optic Receiver

Overview

The video and data series fiber transmission products deliver optical transmission of 8-Bit PCM coded video with bi-directional data through one fiber either in multi-mode or single-mode for convenience and flexibility. Adjustment and maintenance free, these modules are universally compatible with major CCTV camera manufacturers and support data interface.

The unit's unique modular design for in field configuration also accommodates installation and system growth and delivers long operating distances of up to 60 Km. Featuring robust construction well suited for harsh environments, the unit is available in wall mount configuration. Plug-and-Play design ensures ease of installation requiring no electrical or optical adjustments.

Standard Features

Video

- Non-compressed 8-Bit Digitally Encoded Video Transmission
- Support NTSC & PAL video systems
- No video degradation over max. operating distance

Data

- Supports bi-directional data
- Supports multi-protocol data in RS232, RS422 & RS485 2 or 4-Wire Tri-state formats
- External access for data format selection via DIP switches

LEDs

- Duplicated LED indicators on the front and rear of the unit for the convenience of observation

Optical

- Recover three separate channels of non-compressed 8-bit digital video and bi-directional data in one module

Network management system for rack communications

- Web browser support
- Systems video, audio, data and contact closure performance monitoring
- System devices and components Transmitters, Receivers, Modules, etc. status monitoring and operational management
- LAN, Ethernet networking capabilities
- IP addressable
- Alarm activation, execution, message responding and reporting
- Operational level determination and access control
- Network ready for health and connection monitoring

Single-Channel Video

(8-Bit) Transmitter/Receiver

with Single Channel Bi-directional Data

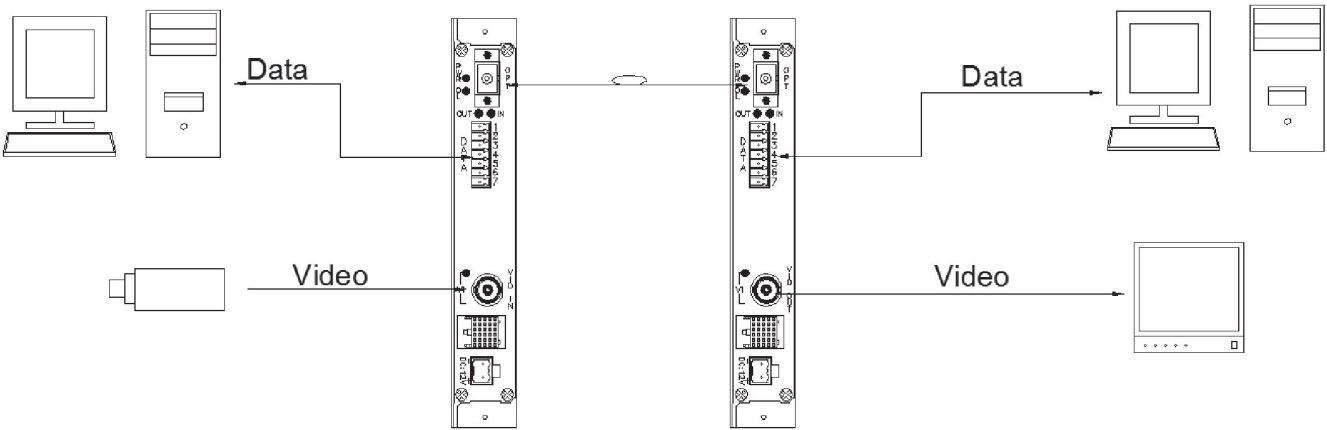


Specifications

Video		
Number of Channels	3 (1 @ fibers)	
Color Systems	NTSC	PAL
I/O Impedance	75 Ohm	75 Ohm
I/O Composite Video Level	1Vp-p ± 5.5 IRE	700mVp-p ± 40 IRE
Sync Amplitude	40± 4 IRE	300± 30 IRE
Burst Amplitude	40± 4 IRE	300± 30 IRE
Bandwidth	≥4.6MHz	≥5.8MHz
Differential Gain	<2%	<2%
Differential Phase	<1 Degree Typical	<1 Degree Typical
SNR-CCIR weighted	≥ 53dB	≥ 53dB
Tilt	<1 %	<1 %
K-factor	1%	1.5%
Signal Indication (Video Presence/ Absence)	Green/Red LED lit	Green/Red LED lit
Input/output Connectors	BNC	BNC
Data		
Data Direction	Bi-directional Duplex	
Data Interface	RS232, RS422, RS485 2 or 4-wire Tri-state	
Selection Method	DIP switch-selectable	
Data Rate	0~115,200bps	
Data Protocol	Protocol transparency	
Line Carrier Detection	RS485 (2/4-wire) Tri-state output	
Data Tx & Rx Status:	Green/Red LED lit	
Input/output Connectors	7-pin screw terminals	
Optical		
Wavelength	1310 and 1550	
Number of Fiber	1	
Tx Output Power:		
Single Mode (40Km)	1310nm & 1550nm	-9dBm± 3 dBm
Multi-mode (4Km)	1310nm & 1550nm	-7dBm ± 3 dBm
Optical Budget:		
Multi-mode (62.5µm/125µm)	12dB	
Single-mode (9µm/125µm)	18dB (wavelength in 1310nm) 14dB (wavelength in 1550nm)	
Single-mode (9µm/125µm) - Long Haul	19dB (wavelength in 1550nm)	
Transmission Distance:		
Multi-Mode (Limited by Fiber Bandwidth)	4Km	
Single-Mode	40Km	
Single-Mode (Long Haul Version)	60Km	
Fiber Connector (Standard Supply)	ST	
Mechanical		
Dimensions or Module H x W x D in mm	25.4 x 158.4 x 231.8	
Shipping weight	0.55 kg	
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	
Power Requirement		
Supply Voltage	12V DC (Standalone: derived from an external adaptor via the 2-pin connector at rear of the module. Rack chassis: derived from the chassis PSU via the 30-pin connector at rear of the module.)	
Card Protection	Poly Fuse (1 A)	
Current Consumption	Max. 500mA	

Application Diagrams

Cable connection of FVSMD101, FVSMLD101 and FVMMD101



For DC rated Units: This product is intended to be supplied by a UL Listed Direct Plug-In Power Unit marked “Class 2” or “LPS” and output rated 12 VDC, 1 Amp minimum.

FVSMD101-TX	FVSMD101-RX
FVSMLD101-TX	FVSMLD101-RX
FVMMD101-TX	FVMMD101-RX

North America
T 888-GE-SECURITY
888-437-3287
F 503-691-7566

Asia
T 852-2907-8108
F 852-2142-5063

Australia and New Zealand
T 613-9239-1200
F 613-9239-1299

Europe
T 32-2-719-98-47
F 32-2-719-98-46

Latin America
T 305-593-4301
F 305-593-4300

Specifications subject to
change without notice.

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Ordering information

Fiber Type		Part Number	Description	Opt. PWR. Budget dB	Max. Distance Km	No. of slots
(i) Single-mode (9/125µm)	(i) V+D	FVSMD101-TX	1-Ch. Video Transmitter and 1-Ch. Bi-directional Data Transceiver	14	40	1
		FVSMD101-RX	1-Ch. Video Receiver and 1-Ch. Bi-directional Data Transceiver	14	40	1
(ii) Single-mode (9/125µm For Long Distance)	(i) V+D	FVSMLD101-TX	1-Ch. Video Transmitter and 1-Ch. Bi-directional Data Transceiver	19	60	1
		FVSMLD101-RX	1-Ch. Video Receiver and 1-Ch. Bi-directional Data Transceiver	19	60	1
(iii) Multi-mode (62.5/125µm)	(i) V+D	FVMMD101-TX	1-Ch. Video Transmitter and 1-Ch. Bi-directional Data Transceiver	10	4	1
		FVMMD101-RX	1-Ch. Video Receiver and 1-Ch. Bi-directional Data Transceiver	10	4	1

Accessories DFR. 19' Rack mount chassis purchased separately for housing modules

Options ST type connector is standard

Notes: Transmission distance will suffer if additional losses are introduced by the optical connectors, fusions, splices and the fibers within the network. Operating distance of multimode is limited by the characteristics of the fiber bandwidth

Model Number Key

DF	10 bit rack/module	SM	Single mode	First digit	Number of video channels
F	8 bit rack/module	MM	Multimode	Second digit	Number of audio channels
MF	8 bit module only	MF	8 bit module only	Third digit	Number of data channels
V	Video	L	Long distance	Forth digit	Number of contact closures
D	Data	D	Duplex	T	Transmitter
A	Audio			R	Receiver
CC	Contact Closure				

Part Number Key

