

Fiber Transmission Products

(8-Bit) Video Integrated Fiber-Optic Receiver

Overview

The video and data series fiber transmission products support triple independent optical transmission of 8-Bit PCM coded video with bi-directional data through three fibers 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.

A cost-effective system of small scale systems, 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

3-Channel Digital

(8-Bit) Video Integrated Fiber-Optic Receiver

and Duplex Data Integrated Fiber-Optic Transceiver



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

| | | |
|-------------------------|---|--|
| Number of Channels | 3 (1 @ fibers) | |
| 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 | 3 | |
| Tx Output Power: | | |
| Single Mode (40Km) | 1310nm | -9dBm ± 3 dBm |
| | 1550nm | -9dBm ± 3 dBm |
| Multi-mode (4Km) | 1310nm | -7dBm ± 3 dBm |
| | 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 | 25dB (wavelength in 1310nm) | |
| | 19dB (wavelength in 1550nm) | |
| Transmission Distance: | | |
| Multi-Mode (Limited by Fiber Bandwidth) | 4Km | |
| Single-Mode | 40Km | |
| Single-Mode (Long Haul) | 60Km | |
| Fiber Connector (Standard Supply) | ST | |

Power Requirement

| | |
|---------------------|---|
| Supply Voltage | 12V DC <i>(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.)</i> |
| Cord Protection | Poly Fuse (1 A) |
| Current Consumption | Max. 500mA |

Mechanical

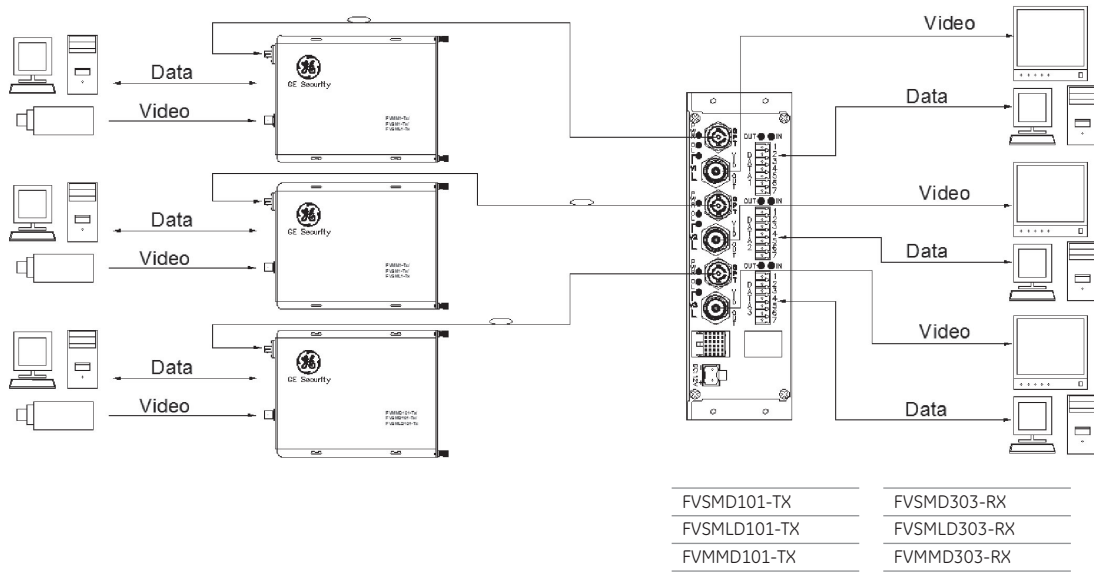
| | |
|--------------------------------------|----------------------|
| Dimensions or Module H x W x D in mm | 50.8 x 158.4 x 231.8 |
| Shipping weight | 1.07 kg |

Environmental

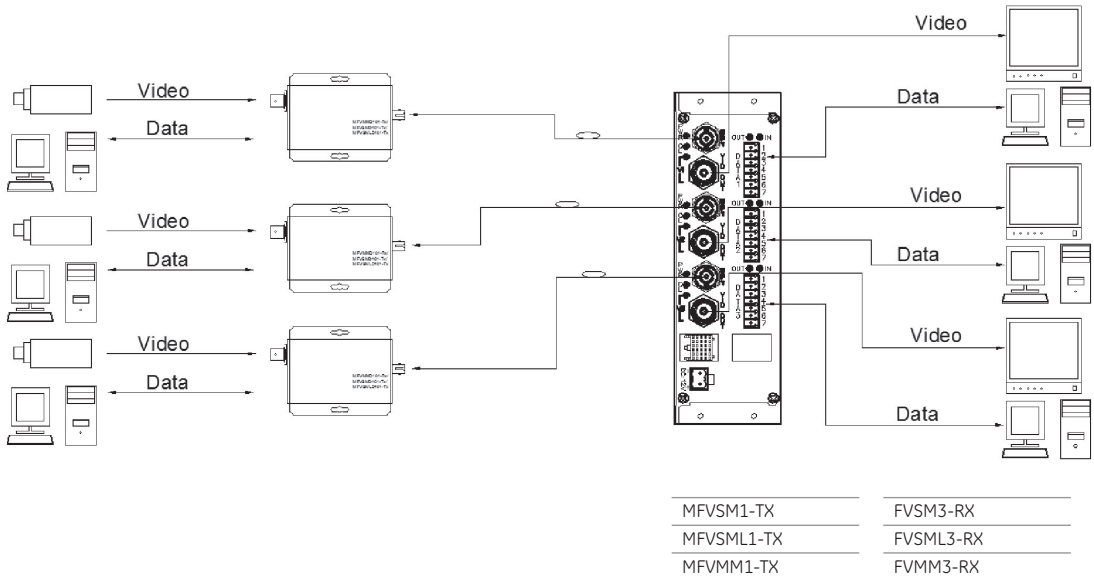
| | |
|-----------------------|-------------------------|
| MTBF | >100,000 hours |
| Operating Temperature | -40° C to +75° C |
| Storage Temperature | -40° C to +85° C |
| Relative Humidity | 0 to 95% non-condensing |

Application Diagrams

Cable connection of FVSMD303-RX, FVSMLD303-RX, FVMMD303-RX
(with FVSMD101-TX, FVSMLD101-TX and FVMMD101-TX)



Cable connection of FVSMD303-RX, FVSMLD303-RX, FVMMD303-RX
(with MFVSMD101-TX, MFVSMLD101-TX and MFVMM101-TX)



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) | FVSM303-RX | 3-Channel Digital (8-Bit) Video Integrated Fiber-Optic Receiver and Duplex Data Integrated Fiber-Optic Transceiver | 14 | 40 | 2 |
| | FVSM(L)303-RX | 3-Channel Digital (8-Bit) Video Integrated Fiber-Optic Receiver and Duplex Data Integrated Fiber-Optic Transceiver | 19 | 60 | 2 |
| | FVMMD303-RX | 3-Channel Digital (8-Bit) Video Integrated Fiber-Optic Receiver and Duplex Data Integrated Fiber-Optic Transceiver | 12 | 4 | 2 |

| | |
|-------------|--|
| 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

FV M(L)D303-RX

