

Fiber Transmission Products (8-Bit) Transmitter/Receiver

Overview

The video and data series fiber transmission products (Micro Type) 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. The Micro Type products feature robust construction well suited for harsh environments and are 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

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

Single-Channel Video

(8-Bit) Transmitter/Receiver

with Single Channel Bi-directional Data



Specifications

Video		
Number of Channels	1	
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

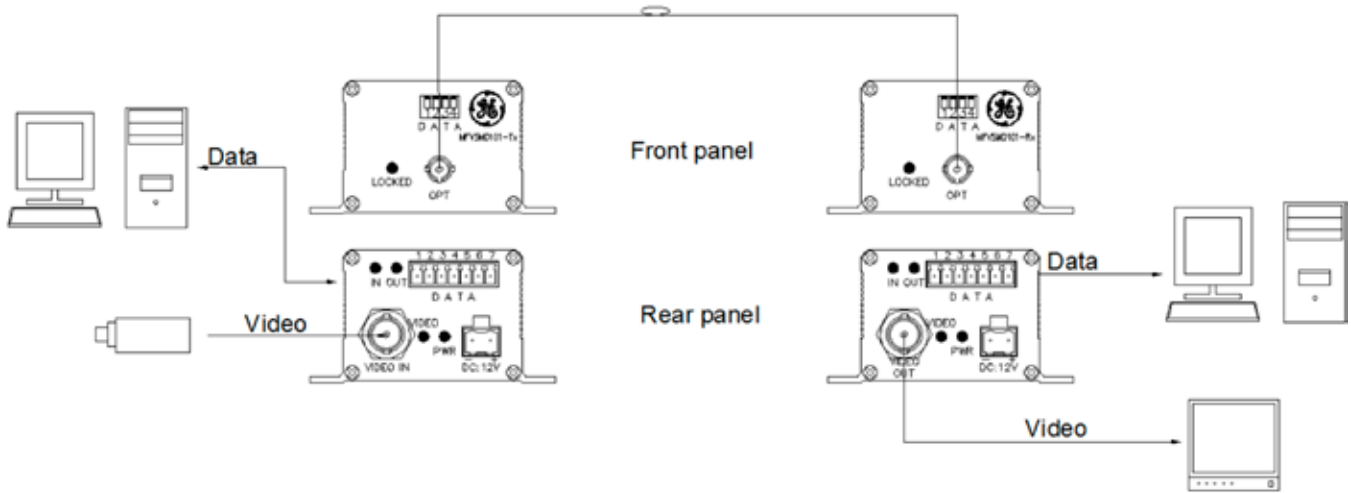
Optical		
Wavelength	1310 and 1550	
Number of Fiber	1	
Tx Output Power:		
Single Mode (40Km)	1310nm & 1550nm	-11dBm± 3 dBm
Multi-mode (4Km)	1310nm & 1550nm	-7dBm ± 3 dBm
Optical Budget:		
Multi-mode (62.5µm/125µm)	12dB	
Single-mode (9µm/125µm)	18dB (wavelength in 1310nm) 14dB (wavelength in 1550nm)	
Single-mode (9µm/125µm) Long Haul	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	

Mechanical	
Dimensions or Module H x W x D in mm	70 x 107 x 38
Shipping weight	70 x 107 x 38

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 Diagram



Model Number Key

DF	10 bit rack/module
F	8 bit rack/module
MF	8 bit module only
V	Video
D	Data
A	Audio
CC	Contact Closure

SM	Single mode
MM	Multimode
L	Long distance
D	Duplex

First digit	Number of video channels
Second digit	Number of audio channels
Third digit	Number of data channels
Forth digit	Number of contact closures
T	Transmitter
R	Receiver

Part Number Key

MFV□M(L)D101-□

Optical type
S Single Mode
M Multi Mode

Data type
T Transmitter
R Receiver

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
			1310nm	1550nm	
(II) Single-mode (9/125µm)	(i) V+D MFVSMD101-TX	1-Ch. Video Transmitter and 1-Ch. Bi-directional Data Transceiver	18	14	40
	MFVSMD101-RX	1-Ch. Video Receiver and 1-Ch. Bi-directional Data Transceiver	18	14	40
(III) Single-mode (9/125µm For Long Distance Transmission)	(i) V+D MFVSMMLD101-TX	1-Ch. Video Transmitter and 1-Ch. Bi-directional Data Transceiver	25	19	60
	MFVSMMLD101-RX	1-Ch. Video Receiver and 1-Ch. Bi-directional Data Transceiver	25	19	60
(III) Multi-mode (62.5/125µm)	(i) V+D MFVMMD101-TX	1-Ch. Video Transmitter and 1-Ch. Bi-directional Data Transceiver	12	12	4
	MFVMMD101-RX	1-Ch. Video Receiver and 1-Ch. Bi-directional Data Transceiver	12	12	4

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

