Core Product

GE Interlogix
Fiber Options

9902VMPD-9910VMPD

VIDEO

DATA

Video Multiplexer With Two-Way Multi-protocol Data

Product Specification

Features

- **2 to 10 Channels of video**
- **Two-way multi-protocol data**
- ***SMARTS™* Diagnostics**
- **Optical budget: 10 - 20 dB**
- **Digital multiplexing technology**
- **Extended temperature range**
- **Optical automatic gain control**
- **NTSC and PAL video formats**
- **Forever Warranty™**

Description

Fiber Options' 9900VMPD Video With Multi-protocol Data Multiplexers represent a technological breakthrough in the simultaneous transmission of multiple full-frame, real-time video signals (color or monochrome) over one or two single-mode optical fibers combined with two-way transmission of multi-protocol data.

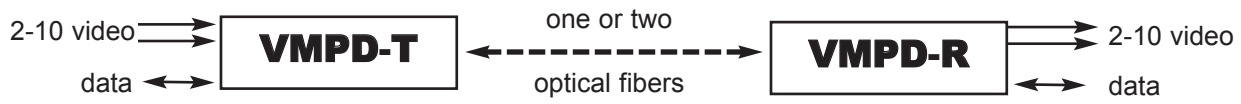
The 9900VMPD series multiplexers feature a 6.5 MHz per channel bandwidth, optical automatic gain control (OAGC), and ***SMARTS™*** (Status Monitoring And Reliability Test System) diagnostics.

Supported data formats include RS-232 3- and 5-wire, RS-422, RS-485 2- and 4-wire, TTL, Manchester, Biphase, and SensorNet™.

Basic Models

9902VMPD1-9910VMPD1	1-Fiber link, 1310/1550 nm
9902VMPD2-9910VMPD2	2-Fiber links, 1310 nm
9902VMPD2L-9910VMPD2L	2-Fiber links, 1550 nm.

SYSTEM DIAGRAM



VIDEO

Number of Channels:	2, 4, 6, 8, or 10	Video Bandwidth:	6.5 MHz/channel
Standards Supported:	NTSC, PAL	Video Resolution:	520 TV lines
Video Input/Output Signal:	1.0 V p-p composite, min. 200 mV sync	Differential Phase:	<2.5°
		Differential Gain:	<3%
Input/Output Impedance:	75 Ω		
Signal-to-Noise Ratio:	>57 dB at max. atten.		

DATA

Number of Channels:	1, bidirectional
I/O Data Formats:	RS-232, 5-wire and 3-wire (w/ & w/out handshake); TTL; RS-422; Manchester; Biphase; Sensornet™; RS-485, 2-wire and 4-wire, with 200 mV, 1 and 2 V offsets
Baud Rate:	
RS-232, Manchester, Biphase:	250 kbps
RS-422, RS-485, TTL:	512 kbps
Bit Error Rate:	$<10^{-9}$

Maximum Distance: The maximum distance from the CCTV control system components to the fiber units is governed by the control system.

ELECTRICAL

99XXVMPD units are supplied with a 613P separate power supply:

Input Voltage:	100 - 240 VAC, 60/50 Hz
Output Voltage:	13.5 VDC, regulated
Power Consumption:	50 W
Protection:	Solid-state short circuit protection (no fuse required)

OPTICAL

Wavelength:	1310/1550 nm
Optical Mode:	Single Mode
Data Rate:	1.5 Gbps
Optical Budget:	
1-Fiber Units:	10 dB
2-Fiber 1310 Units:	13 dB
2-Fiber 1550 Units:	20 dB
Operating Distance*:	
1-Fiber Units:	15 mi (25 km)
2-Fiber 1310 Units:	20 mi (32 km)
2-Fiber 1550 Units:	41 mi (66 km)
Emitter Type:	Laser
Fiber Type:	8.3 µm
Gain Control:	Optical automatic (OAGC)

*Operating distance is approximate and assumes best fiber. It will be affected by the type and number of splices in the fiber. Refer to update no. TB00-005, which can be found at www.fiberoptions.com.

ENVIRONMENTAL

Temperature Range
in Operation:-40° to +167° F (-40° to +75° C)
in Storage: -40° to +185° F (-40° to +85° C)
Humidity Range in Operation and Storage:
0 to 95% relative, noncondensing

MECHANICAL

Dimensions:	Width: 19.0 in (483 mm) Depth: 11.7 in. (297 mm) Height: 1.72 in (44 mm)
Weight:	Transmitter: 5.47 lb (2.49 kg) Receiver: 5.16 lb (2.35 kg)
Construction:	Aluminum
Finish:	Black semigloss paint
Mounting Method:	May be rack mounted, wall mounted, or desktop mounted.

SMARTS™ INDICATORS

Level/Loss™, Link Ready, Data In, Data Out, Enable, Video Status

AGENCY COMPLIANCE AND MTBF

Emissions:	FCC Part 15, ICES-003, AS/NZS 3548, EN55022
Immunity:	ENV50204, EN61000-4-2,3,4,5,6,11
Safety:	UL1950, CAN/CSA 22.2, NO.950-95
Laser Safety:	21CFR1040; EN 60825-1, 2
MTBF:	>100,000 hours

FCC PART 15 COMPLIANT

For additional information about this product, refer to the Fiber Options Web site at www.fiberoptions.com.