

Overview

The *ViLink ML10DI* is a Fiber Optic Digital Add Drop Fault Tolerant Self-Healing Multiplexer for transmitting up to 10 channels of uncompressed digital video and 10 channels of bi-directional data over one fiber optic cable. It allows the users the ability to transmit video and data signals from multiple locations to the command center, and transmit PTZ control data signals from the command center to multiple locations over a single mode fiber optic cable. This fully redundant and self-healing robust transmission platform additionally offers a full (NMS) monitoring capability at each node.

The *ML10DI* Series is compatible with NTSC (medium haul), PAL and CCIR video, and standard data interfaces such as EIA-RS-232 and EIA-RS-422. Video transmission signals uses of the uncompressed analog to digital modulation techniques provides for adjustment free operation over a wide dynamic range. This digital signaling also offers superior receiver output stability, which is unaffected by changes in fiber path attenuation due to aging or splicing points.

The *ML10DI* multiplexers provide several advance features in the master receiver unit, including a **“Build-in 10 to 1 Matrix Switch”** function in channel 1, allowing the users to reduce the number of monitors in the control center. This unique feature may be further maintained with the *VILINK Plus+ (NMS) Network Management & (GUI) Interface Software* Package. The **“NMS”** also permits users the ability of monitoring the entire system for status alarms, such as loss of signal or optical signal, on any one of the system channels.

In addition, the *ML10DI* multiplexers can also provide up to 90 video and bi-directional data channels in a fully redundant, self-healing single fiber ring by combining the optical repeaters CWDM technologies with its unique “add & Drop“ digital modulation scheme.

Applications for the ML Series include long haul CCTV, campus fiber networks, ITS traffic surveillance, homeland security, SCADA systems, and military applications.

Ordering Information:

Model	Description
ML10DIVTBDN2ST1	1-Channel Add/Drop Video & Bi-Directional Data Self Healing Transmitter Slave Multiplexer, 1310/1550nm, SM, Dual Optic, One Fiber System, ST connectors, 90-240 VAC
ML10DIVTBDN2ST4	4-Channel Add/Drop Video & Bi-Directional Data Self Healing Transmitter Slave Multiplexer, 1310/1550nm, SM, Dual Optic, One Fiber System, ST connectors, 90-240 VAC
ML10DIVRBDN2ST	10 Channel Add/Drop Video & Bi-Directional Data Self Healing Receiver Master Multiplexer, 1310/1550nm, SM, Dual Optic, One Fiber System, ST connectors, 90-240 VAC

** Please consult factory for additional models and specifications*



Features

- ◆ *Add/Drop Video and PTZ Controlled Data*
- ◆ *Compatible with NTSC, RS-170, RS-250, PAL, and CCIR Video-Formats*
- ◆ *Build-in 10 to 1 Video Matrix Switch*
- ◆ *Adjustment Free Uncompressed Digital Transmission up to 50 Km between nodes*
- ◆ *More Than 90 Nodes Can Be Connected In One Fiber Ring*
- ◆ *Redundant & Self-healing Video/Data System*
- ◆ *NMS (GUI) Monitor Package*
- ◆ *TCP/IP Software Package Option*

Applications

- ◆ *ITS Traffic Surveillance*
- ◆ *Homeland Security*
- ◆ *Long Distance CCTV*
- ◆ *Railway System Surveillance*
- ◆ *Video Conferencing*
- ◆ *Utility SCADA Network*

ML10DI SERIES

Specifications

System:

Error Rate	1 in 10^9 or Better
NMS	GUI RS-232 ports
Indicators	PWR, LINK1, LINK2
NMS Connector	RJ12
Matrix Switch	10:1 on Video Receiver Channel 1

Optical:

Transmitter	Lasers
Receiver	PINs
Power Budget	20 dB SM
Connectors	ST, FC, SC

Environment:

Operating	-34°C to 74°C
Storage	-40°C to 95°C
Humidity	98% Non-Condensing

Physical:

Dimension	19" x 1.75" x 10"
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Power:

Stand alone	90-240 VAC / 47-63 Hz
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Video:

Channel	1 to 10
Format	NTSC, RS-250C, PAL, CCIR
Signal Level	1 Vp-p
Video Digitization	8 bits, 13 Mega Samples
Bandwidth	6.5 MHz
Differential Gain	<2 %
Differential Phase	<1.3°
SNR	> 60 dB (weighted)
Connector	BNC

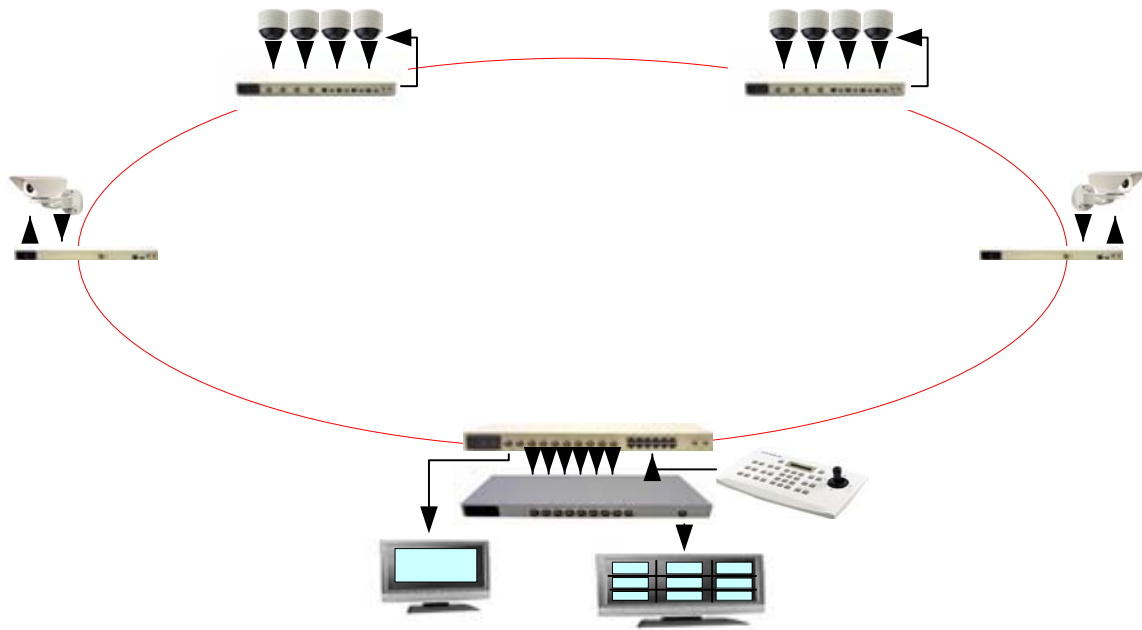
Data:

Channel	1 to 10
Rate	19.2 Kbps
Format	RS-232, RS-422
Connector	RJ45

Add/Drop Channels:

Transmitter	1 to 4
Receiver	10

Example Applications



Typical ML10DI Ring Application


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