VL Vi-Link
Fiber Optic Communications

1 Channel Analog HD Video 1~5MPX TVI/CVI/AHD & PTZ Control Data Over Fiber Optic Cable

HDccTV Equipment Series   Model   HL1D

Product Description

VILINK new High Definition Analog HD Video equipment: The VILINK HL1D series is a fiber optic digital transmitter/multiplexer for transmitting new Analog HD 5MPX, 4MPX, 3MPX, 2MPX, 1MPX, TVI/CVI/AHD video signals with PTZ data (Uni-directional) over a single mode fiber optic cable. This robust transmission platform utilizes the exiting Coaxial and Fiber Optic cables in the exiting system, it is a very cost effective solution for upgrading the old CCTV Analog Video System to the today HDccTV High Definition Analog Video System.

The HL1D series is fully recognized all high definition analog video input formats including 25/30/50/60 fps @720P and 25/30 fps @ 1080P, its BNC interface can support up to 500m @ 720P and 300m @1080P. The Multiplexer/De-Multiplexer also offers a fully serial digital video encoding/decoding of real time TVI/CVI/AHD video (10 bits sampling rate at 108 Mhz) providing adjustment free operation over a wide operational range. Utilizing fiber optic AGC receiver techniques for distances from back-to-back to 40 Km, our digital signaling offers superior receiver output stability, which is unaffected by changes in fiber path attenuation due to aging or splicing points.

The HL1D Series rack cards can plug-in to the Vilink's VL1600 chassis which can accommodate up to 16 hot-swappable HL1&HL1D modules with dual AC or DC 100 watts power supplies.

The extended temperature capability of the HL1D satisfies very critical applications requiring high quality video performance with high reliability. In addition, the HL1D provides Auto Signal Compensation (ASC) allowing low signal distortion compensation over long distance transmission. The transmitter is a rugged standalone compact unit and the receiver is also a rugged standalone or a plug-in card for the rack version.

Applications include City and Highway Traffic Monitoring, METRO and Railroad Monitoring, Oil & Gas Monitoring, campus Security Monitoring, Airport Security System, Military Security Systems or any application requiring HD quality video performance.

Features

- High Definition HD Analog (TVI/CVI/AHD) signals
- Real Time Digital Video Transmission
- *Up to 5 MPX @ 1080P, 2560 x 1920P*
- Sampling Rate 108 Mhz @ 10 Bits
- Supports 25/30/50/60 fps @ 720P and 25/30 fps @ 1080P, 1520p, 1960p
- Coax Cable supports 300m @ 1080P
- RS-232/422 PTZ Control Data Interface up to 9.6 Kbps
- AGC Single mode Transmission of 0 to 40 Km
- Standalone & Plug-in Rack Card
- NEMA Temperature

Applications

- City and Highway Monitoring
- Metro and Railroad Monitoring
- Oil & Gas Pipeline Monitoring
- Airport Security Systems
- Utility Systems
- Military Applications
- Premise Networks
- Any Digital HD Video Monitoring Requirement

Ordering Information

Model	Descriptions
HL1DTST03	1-ch HD Analog 5PMX TVI/CVI/AHD (Video **Tx**), Uni-Directional PTZ Data, 1550/1310nm SM ST, 40Km, +5 VDC
HL1DRST03	1-ch HD Analog 5MPX TVI/CVI/AHD (Video **Rx**), Uni-Directional PTZ Data, 1310/1550nm SM ST, 40Km, +5 VDC
HL1DRRST03	1-ch HD Analog 5MPX TVI/CVI/AHD (Video **Rx**), Uni-Directional PTZ Data, 1310/1550nm SM ST, 40Km, Rack Card
	*** Please Consult Factory for Additional Model Numbers***

HDccTV Equipment Series

System:

Error Rate	1 in 10^{12} or Better
Indicators	PWR, Video Active, Data

Optical:

Transmitter	Lasers
Tx	1550nm @ 3Gbps
Rx	1310nm
Receiver	PIN
Tx	1310nm @ 125 Mbps
Rx	1550nm
Power Budget	20 dB @ SM
Connector	ST

Environment:

Operating	-34^0 C to $+74^0$C
Storage	-40^0C to $+95^0$C
Humidity	98% Non-Condensing

Power:

Standalone	+5 VDC
Rack Chassis	90~240 VAC

TVI/CVI/AHD Video Interface:

Channel	1
Video Bandwidth	75 MHz
Full HD Revolution	720P @ 25/30/50/60fps 1080P, 1520P, 1960P @ 25/30fps
Sampling Frequency	108 MHz @ 10 bits
Signal Level	1Vp-p +/-10%
Connector	BNC
Impedance	75 Ohms
Coaxial Distance	300m@1080P
Indicator	TX/RX

PTZ Data:

Channel	1 (Uni-Directional)
Format	IEA RS-232/422/485
Speed	DC to 9.6 Kbps
Connector	Terminal Block

Physical:

Dimensions	
Standalone	1" x 4" x 3"
Rack	19" x 10" x 3.5"

Application

HD-PTZ DOME Camera

Video →
← **Data**

HL1DT

1M, 2M, 3M, 4M, 5MPX
TVI/CVI/AHD Video TX
with Uni-Directional Data

Up to 40 Km SM Fiber

HDTV Monitor

Video →
← **Data**

HL1DRR

1M, 2M, 3M, 4M, 5MPX
TVI/CVI/AHD Video RX
with PTZ Data

PTZ Camera Control

**Typical HL1DT & HL1DRR
HD Video Transmission Application**