**Overview**

Vi-Link High Definition Analog HD Video equipment: The HL2D is a fiber optic digital transmitter/multiplexer for transmitting 2 channels of Analog HD 5MPX, 4MPX, 3MPX, 2MPX, 1MPX, TVI/CVI/AHD video signals with PTZ data 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 HL2D 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 50 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 HL2D rack cards can plug-in to the Vi-Link’s VL1600 chassis which can accommodate up to 16 hot-swappable HL1D modules with dual AC or DC 100 watts power supplies. The extended temperature capability of the HL2D satisfies very critical applications requiring high quality video performance with high reliability.

In addition, the HL2D 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.


**Features**

- **High Definition HD Analog (TVI/CVI/AHD) signals**
- **PTZ Camera Control Data**
- **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-485 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**

**Order Information**

<table>
<thead>
<tr>
<th>Model</th>
<th>Descriptions</th>
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<tbody>
<tr>
<td>HL2DST03</td>
<td>2-ch HD Analog 5MPX TVI/CVI/AHD (Video Tx), Uni-Directional RS-485 Data, 1550/1310nm SM ST, 40Km, +5 VDC</td>
</tr>
<tr>
<td>HL2DRS03</td>
<td>2-ch HD Analog 5MPX TVI/CVI/AHD (Video Rx), Uni-Directional RS-485 Data, 1550/1310nm SM ST, 40Km, +5 VDC</td>
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<tr>
<td>HL2DRRST03</td>
<td>2-ch HD Analog 5MPX TVI/CVI/AHD (Video Rx), Uni-Directional RS-485 Data, 1310/1550nm SM ST, 40Km, Rack Card</td>
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***add -420 for RS-422 interface***
HL2D

Technical Specifications

HL Series

Specifications

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° C to +74° C
- Storage: -40° C to + 95° C
- Humidity: 98% Non-Condensing

Power:
- Standalone: +5 VDC
- Rack Chassis: 90~240 VAC

TVI/CVI/AHD Video Interface:
- Channel: 2
- Video Bandwidth: Up to 5 MPX
- 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-485
- Speed: DC to 9.6 Kbps
- Connector: Terminal Block

Physical:
- Dimensions:
  - Standalone: 1” x 5” x 4”
  - Rack: 19” x 12” x 4”

Application

Analog HD Video
AHD/CVI/TVI Cameras
With PTZ

Analog HD Monitor

PTZ Data

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