

# AUDIO VIDEO SYSTEM

## HD Video + RS232 fiber system

Lightem Systems LHD series digital video fiber optic transmission system transmits one HD-SDI (1483.5M/1485Mbps) high definition digital video, or one SD-SDI (143M/177M/270M/360M/540Mbps) standard definition digital video or one DVB-ASI stream and one reverse control data RS232 through one single mode fiber or multimode fiber with the standards of SMPTE259M, SMPTE297M, SMPTE310M, SMPTE305M (SDTI). Lightem Systems HD series transmitter provides one HD-SDI input, and one loop-through for local monitoring. The receiver outputs 2-way parallel HD-SDI digital video.

Lightem Systems HD series transmitter equipped with auto-cable equalization circuit, and cable driver circuit available at receiver. Thanks for the auto-cable equalization, cable driver circuit and signal jitter elimination circuit, high quality signal transmission over long distance fiber cable is realized.



## FEATURES

- HD-SDI/SDI/ASI signal auto recognition
- Compliant with the standards of SMPTE292M, SMPTE259M, SMPTE297M, SMPTE310M, SMPTE305M (SDTI), SMPTE344M
- Compliant with the standard of DVB-ASI(EN50083-9)
- Auto adaption to the speed of HDSDI/SDI 143M,177M,270M,360M,540M,1483.5M,1485Mbps, or DVB-ASI
- A variety of installation options: 16-slot rack, particularly suitable for large volume optical transmission platform construction, and also available for 4-slot rack, 2-slot rack and single-slot rack, fixed 1RU 19-inch enclosure box.

## SPECIFICATIONS

HD-SDI Input	
Signal Standard	SMPTE292M, SMPTE259M, SMPTE297M, SMPTE310, SMPTE305(SDTI), DVB-ASI(EN50083-9)
Channel	1 plus 1 loop-through
Data Rate	19.4Mbps to 1485Mbps
Resolution	10 Bit
Signal Level	>380mVp-p
Auto-Cable Equalization	>200m@1.485Gbps, (Belden 1694A cable) >350m@270Mbps, (Belden 1694A cable)
Input Return Loss	>10dB @ 1485Mbps
Impedance	75Ω
Connector	BNC
HD-SDI Output	
Channel Capacity	2
Signal Level	800mVp-p±10%
Rise/Fall time	<0.8ns
HD-SDI Jitter	<0.2UI(134ps)@100KHz <1.0UI(673ps)@10Hz
SDI Jitter	0.2UI(740ps)@10Hz <0.2UI(740ps)@1kHz
Impedance	75Ω
Connector	BNC

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<i>Control data</i>	
<i>Data format</i>	RS232/422/485
<i>Work</i>	Full-duplex
<i>Connector</i>	DB9 or terminal block
<i>Physical</i>	
<i>Dimension(HxWxD)</i>	44×433×340(mm)
<i>Power Supply</i>	130 - 260VAC, 50-60Hz
<i>Power Consumption</i>	<10W
<i>Temperature</i>	0 to +50 °C
<i>Humidity</i>	0 to 95% RH Non-condensing
<i>LED Status Indicator</i>	Power, Optical Link, Video Activity
<i>Optical</i>	
<i>Fiber Type</i>	Single mode or multimode
<i>Number of fiber</i>	1
<i>Wavelength</i>	1310nm/1550nm
<i>Distance</i>	0 to 40km, or 0-80km, or 0-100km
<i>Connector</i>	FC/PC or SC/PC

## ORDERING INFORMATION

P/N	Description
LHDVD-RS-a	Lightem Systems LHDVD series HD Video + RS232 / RS422+RS485 fiber optic Transmission System
a	20- RS232
	44- RS422/485