

# AUDIO VIDEO SYSTEM

## 1Ch (2) SDI digital video and Max4 (8) Ch analog audio or AES/EBU fiber system

Lightem Systems LDMB series digital video and analog audio or AES/EBU digital audio fiber optic transmission system transmits X SD-SDI(143M/177M/270M/360M/540Mbps) standard definition digital video and up to X analog audio or AES/EBU digital audio over one single mode fiber or multimode fiber.

Lightem Systems LDMB series transmitter provides X SDI and X analog audio or X AES/EBU digital audio input, and one SDI loop-through for local monitoring. The receiver outputs two 2-way parallel SDI digital video and X analog audio or X AES/EBU digital audio.

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

- Compliant with the standards of SMPTE259M, SMPTE297M, SMPTE310M, SMPTE305M (SDTI), SMPTE344M
- Compliant with the standard of DVB-ASI(EN50083-9)
- Auto adaption to the speed of SDI 143M,177M,270M,360M,540Mbps
- With automatic cable equalization function, compensation for cable transmission loss
- X SDI digital video, up to 8 analog audio channels, or up to 8 channels AES/EBU digital audio
- Convenient instructions of LED status, data rate, optical signal, power etc.
- A variety of installation options: 15-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

<i>HD-SDI input</i>	
<i>Signal standard</i>	SMPTE292M, SMPTE259M, SMPTE297M, SMPTE305M, SMPTE310M, DVB-ASI
<i>Channel</i>	1 plus 1 loop-through
<i>Data rate</i>	19.4Mbps to 1485Mbps
<i>Resolution</i>	10Bit
<i>Signal level</i>	>380mVp-p
<i>Auto-cable equalization</i>	>200m@1.485Gbps, (Belden 1694A cable)
	>350m@270Mbps, (Belden 1694A cable)
<i>Input return loss</i>	>10dB@1485Mbps
<i>Impedance</i>	75Ω
<i>Connector</i>	BNC
<i>HD-SDI output</i>	
<i>Channel</i>	2
<i>Signal level</i>	800mVp-p±10%
<i>Rise/Fall time</i>	<0.8ns
<i>HD-SDI jitter</i>	<0.2UI(134ps)@100KHz
	<1.0UI(673ps)@10Hz
<i>SDI jitter</i>	<0.2UI(740ps)@10Hz
	<0.2UI(740ps)@1KHz
<i>Impedance</i>	75Ω
<i>Connector</i>	BNC

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<i>Audio input</i>	
<i>Channel</i>	2
<i>Signal resolution</i>	20bits
<i>Frequency response</i>	20Hz-20KHz@-0.5dB
<i>Operating mode</i>	Balanced or unbalanced
<i>Max input level</i>	17.4Vp-p(+18dBm)
<i>Audio output</i>	
<i>Channel</i>	2
<i>Signal resolution</i>	20 bits
<i>Frequency response</i>	20Hz-20KHz@-0.5dB
<i>Operating mode</i>	Balanced or unbalanced
<i>Max output level</i>	17.4Vp-p(+18dBm)
<i>SNR(weighted)</i>	>90dB
<i>THD</i>	<0.2%
<i>Physical</i>	
<i>Dimension(H×W×D, mm)</i>	44×433×340(mm)
<i>Dual power supply</i>	130-260VAC, 50/60Hz
<i>Power consumption</i>	<10W
<i>Operating temperature</i>	0 ~ 50°C
<i>Relative humidity</i>	0-95%, Non-condensing
<i>LED status indicator</i>	Power, optical link, video activity
<i>Fiber optic link</i>	
<i>Fiber type</i>	Single mode
<i>Number of fiber</i>	1
<i>Wavelength</i>	1310nm/1550nm
<i>Distance</i>	0-40km, or 0-80km, or 0-100km optional
<i>Connector</i>	FC/PC, or SC/PC

## ORDERING INFORMATION

P/N	Description
LDMB-1	Lightem Systems 1 SDI Digital Video +2 or 4 analog audio /AES/EBU digital audio fiber optic Transmission System