

I. Introduction

The M-SD100A fiber extender transmits 4K/12G SDI signal over long distances via a single fiber, support 16-channel embedded audio synchronization function; The multi-rate 12G-SDI interface is compatible with all SD, HD and Ultra HD formats and devices, up to 2160P@60Hz, including Class A and Class B devices. The transmitter is equipped with an optical fiber expansion slot, which can be installed with any standard 3G, 6G or 12G-SDI SFP optical fiber module, and can adapt to a variety of complex application environments by using the low cost optical cable widely used in computer networks to transmit SDI. The device has excellent image processing and output capabilities, enabling signal transmission smoother and more stable, it is a reliable, high-performance, Efficient 4K/12G-SDI signal extension method.

II. Features

1. Long-distance transmission of 4K/12G-SDI video and audio signals through optical fiber, up to 3-20KM
2. HD video signal resolution up to 2160P@60Hz
3. Support all-digital lossless transmission, 16-channel embedded audio and video synchronous transmission
4. Support local loop output; remote support two ways synchronous output
5. Support PAL/NTSC; Strong compatibility, can automatically identify and configure a variety of display modes
6. Supports plug and play and hot swap
7. Built-in automatic balancing system, the picture is smooth, clear and stable
8. Built-in ESD electrostatic protection circuit, all-round protection system
9. Easy to install, plug and play, no setup require

★ troubleshooting

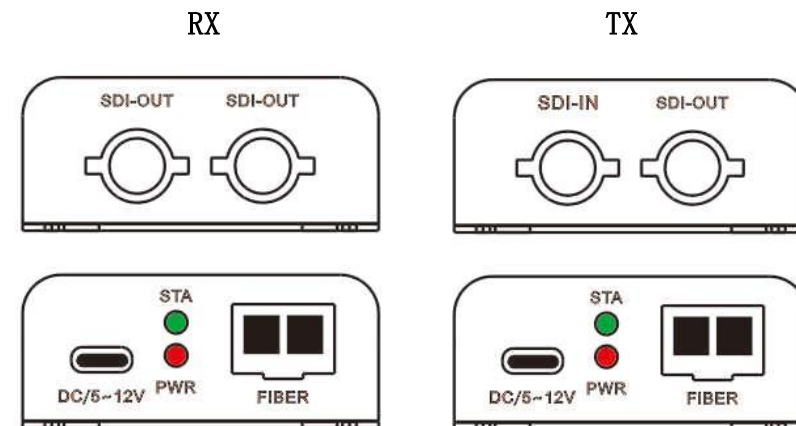
- 1: The red light (PWR) is not on or the brightness is low; Check whether the power adapter works properly.
- 2: When the green light (STA) of the sending end (TX) is not on; Check

whether the signal source is started or has no output; Lighting indicates normal operation.

3: When the green light (STA) at the receiving end (RX) is not on; Check whether the optical fiber module at the sending end (TX) is in normal contact; No signal coming from the sending end (TX) green light (STA) is not on; Long lighting indicates that the sending end and the receiving end work properly.

4: If there is no image display, check whether the display has selected the correct channel input.

III. Product interface pictures



Port name	Description
SDI IN/OUT	SDI signal input/output
Fiber	Fiber Interface (LC)
DC/5~12V	Power adapter socket
LED indicator	Description
PWR	unit power indicato
STA	System status indicator (Lighting:working normally)

IV.Specification

	Parameter	Description
Video	technical specifications	SMPTE Standards
	Video bit rate	Max12 GB/s
	Interface	BNC
	Input/output cable specifications	≤10m (Belden 1694A Cable standard)
	Video input/output impedance	75Ω
	Video input/output voltage	1Vpp,Minimun: 0.5Vpp/Max: 1.5Vpp
	SD Video format	525i59.94NTSC、 625i50PAL
	HD video format	720P50;720P59.94;720P60、 1080P23.98;1080P24;1080P25 1080P29.97;1080P30;1080P50 1080P59.94;1080P60;1080PsF23.98; 1080PsF24;1080PsF25;1080PsF29.97; 1080PsF30;1080i50;1080i59.94;1080i60
	2K and 4K video format	2K DCI 23.98P/24P/25P; 23.98PsF/24PsF/25PsF; 4K 23.98P/24P/25P/29.97P/30P/50P/ 59.94P/ 4K 60P;4K DCI 23.98P/24P/25P
Fiber	Fiber interface	LC interface
	Fiber type	Single mode single fiber
	Wave length	Single mode 1310nm; 1270nm
	Max transmission distance	Max distance up to 20KM
Other	Power supply	DC 5~12V/1A
	Power dissipation	MAX 5W
	Temperature	Operating: -20°C ~ +70°C
	Humidity	Operating: 0 ~ 90%
	Mean time between failures	≥100000 hour
	Size	82*57*27mm

V. Installation Process:

1. Connect the SDI signal source to the SDI extender transmitter; Input port (SDI IN)
2. Connect the SDI extender receiver to a display device (e.g., SDI matrix, live stream, monitor, etc.)
3. Use single-mode optical fiber to connect the optical fiber interface of the sending end and the receiving end
4. Connect the sending end and the receiving end to the power supply. When the indicator lights on normally, the system runs normally

VI. Package

1. SDI Extender transmitter x1 pc
2. SDI Extender receiver x1 pc
3. power adapters x2pcs
4. User manual x 1 pc

