## I. Introduction

This fiber extender transmits 3G/HD-SDI video signals over a long distance through a single fiber cable, and supports 8-channel embedded audio synchronization function; It can adapt to a variety of complex application environments.

The equipment has excellent image processing and transmission capabilities, making the signal transmission more smooth and stable. It is a reliable, high performance and efficient 3G/HD-SDI signal extension mode.

## II. Features

1. Long distance transmission of 3G/HD-SDI video and audio signals through optical fiber, up to 3-20KM (default 3KM)

2. HD video signal resolution up to 1920*1080P@60Hz

3. Support all digital lossless transmission, 8-channel embedded audio and video synchronous transmission

4. Support local output, the remote end support two-way synchronous output

5. Support PAL/NTSC, strong compatibility, able to automatically identify and configure various display modes

6. Support plug and play and hot plug

7. Built-in automatic adjustment system, make the image smooth, clear and stable

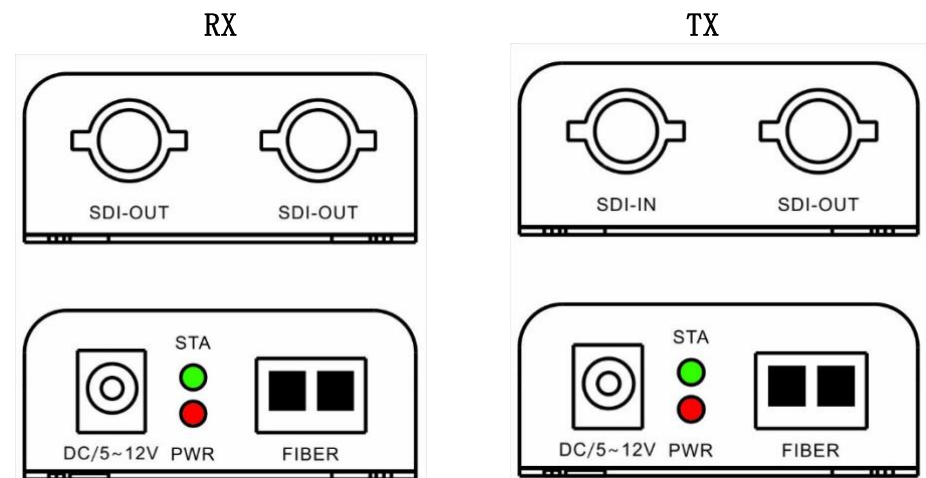8. Built-in ESD protection system

9. Simple to install, plug and play

⭐ **Troubleshooting**

1. The red light (PWR) is not bright or the brightness is low, Check whether the power adapter is normal

2. When TX green light (STA) is not on; Check the signal source; The green light stays on indicates regular work.

3. RX green light (STA) is not on, check whether the optical fiber module of the TX contacts normally; The green light (STA) is not on when there is no signal from the TX; Long light indicates that TX and RX work normally.

4. If there is no image on the display, check whether the display selects 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 indicator |
| STA | SDI signal indicator |

## IV. Specification

| Parameter | | Description |
|---|---|---|
| Video | Technical Norms | SMPTE standard |
| | Video bit rate | MAX 3.2 GB/Second |
| | Interface | BNC |
| | Input/output cable specification | ≤150m（Belden 1694A cable standard） |
| | Video input/output impedance | 75Ω |
| | Video input / output voltage | 1Vpp; Min: 0.5Vpp/ Max: 1.5Vpp |
| | Differential gain (10% ~ 90% APL) | <1% |
| | SDI resolution | 625/25 PAL<br><br>525/29.97NTSC, 525/23.98 NTSC<br><br>720P@50, 720P@59.94<br><br>1080i@23/24/30/50/59.94,<br><br>1080P@23.98/24/30/50/60 |
| | Support SDI specification | 270Mbps(SD-SDI),   1.485Gbps/M(HD-SDI)<br><br>SMPTE425M3Gb/s Mapping(3G-SDI）<br><br>SMPTE424M 3Gb/s serial<br><br>interface(3G-SDI) |
| Fiber | Optical fiber interface | LC |
| | Fiber type | Single mode single fiber |
| | wavelength | Single mode 1310nm；1550nm |
| | Max transmission distance | Default: 3KM；Max: 20KM |
| Other | Power | DC 5~12V/1A |
| | Power Consumption | MAX 5W |
| | Temperature | Operating temperature: -20℃ ~ +70℃ |
| | Humidity | Operating humidity: 0 ~ 90% |
| | Mean time between failures | ≥100000hours |
| | Size | 82*57*27mm |

## V. Installation Process:

1. Connect the SDI signal source to the input(SDI IN) of the TX
2. Connect the RX to the display device (such as SDI matrix, live broadcast, monitor, etc.)
3. Connect the optical fiber interface between the TX and the RX with single mode fiber cable
4. Connect the provided DC/5V(12V) power supplies to the power socket of the TX and the RX

## VI. Package

1. SDI extender TX      x1pcs
2. SDI extender RX      x1pcs
3. Power adapter x2pcs
4. User manual x1 pcs