

## Mini 3G-SDI Video to Fiber Optical Converter, 1080P

### ➤ Features

- SDI video support maximum resolution 1920\*1080@60Hz backward compatibility;
- Support backward compatibility with HD-SDI and SD-SDI;
- Support re-timing function;
- Support video loop out function;
- Support one channel reverse RS485 data;
- Support multi-mode transmission distance 500M, single mode 20KM;
- Delay<2ms;
- Plug and play, no setup required;
- Devices are used in pairs which including transmitter and receiver;
- Wide range of operational temperature (-20°C ~75°C);
- Warranty: 3 years;



### ➤ Introduction

UPCOM Mini 3G-SDI video to fiber optical converter adopts international advanced all-digital gigabit optical fiber transmission technology, the 3G-SDI video signal can be transmitted through one fiber with non-distortion, high-quality, long-distance transmission. This series of video to fiber optical converter has stable performance, clear picture quality, and high stability with LED status indication on the body of device. The working status of devices can be visually observed. Besides, the switch value, voltage, working status and other reverse useful signal information can be controlled by RS485 or RS232. This ensures our devices more flexible when meet different customer requirements.

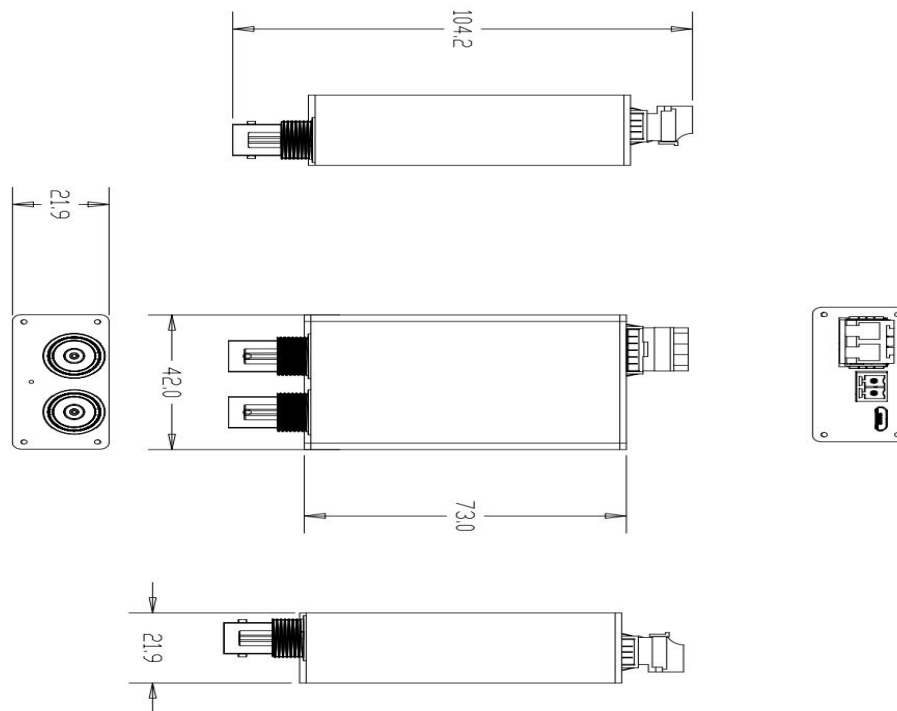
### ➤ Application

- HD monitor transmission and power supply
- Security protection system, TV medical treatment
- Network telephone transmission, Intelligent house and home system
- Intelligent transportation supervisory system (ITS)
- High-speed Way supervisory/Tele-Communication System
- Long-distance Multi-media Schooling, Campus monitoring
- Long-distance broadcast television transmission system
- High-building Security Protection, Military Tele-Com project
- Smart City

## ➤ Specification

Fiber Optical	
Wavelength	1550-1310nm
Rate	3G bps
Tx power	> -5db
Rx sensitivity	> -14db
Optical connector	LC
Video	
Standard	SMPTE 424M, SMPTE 292M, SMPTE 259M, DVB-ASI
Input/Output rate	2.97Gbit/s
Support resolution	1080P60Hz, 1080P59.94Hz, 1080P30Hz
	1080P25Hz, 1080P24Hz, 1080i60Hz
	1080i50Hz, 1080P50Hz, 720P60Hz,
	720P50Hz, PAL (576i50Hz), NTSC (480i60Hz)
Alternating-current impedance	75 Ohm
The signal swing	800mV±10%
Physical interface	(-75 BNC connector)
Data	
Level type	RS485 (2-wire system)
Bit error rate	<10 <sup>-9</sup>
Rate	0-400Kbps
Physical interface	Phoenix terminal
Other	
Power supply	5V
Power dissipation	<1.5W
Power physical interface	micro-USB
Working Temperature	-20 °C ~75°C
Storage Temperature	-40°C ~85°C
Relative Humidity	0%~95% ( no condensation)
MTBF	100,000 hours
Warranty	3 Years

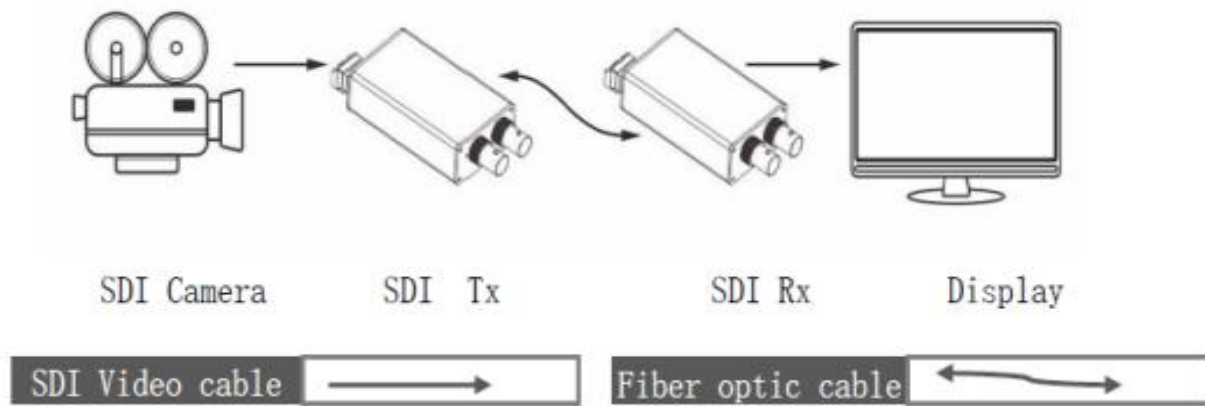
## ➤ Dimension



### Panel Indicator:

Indicator status	
PWR	On: the device is powered on
	Off: the device is power off
FIBER	Light on: fiber signal
	Light off: no fiber signal
V1	Light on: video signal
	Light of: no video signal
DATA	Blinking: data signal
	Off: no data signal
Transmitter Panel description (TX)	
SDI IN	Video input
SDI LOOP	Video loop out
RS485+ OUT	Data output
RS485- OUT	Data output
Receiver Panel description (RX)	
SDI OUT	Video output
SDI LOOP	Video loop out
RS485+ IN	Data input
RS485- IN	Data input

## ➤ Connection



### Equipment and installation procedures:

1. Connect the 3GSDI optical transmitter to the signal source;
2. Insert the LC fiber optical into the 3GSDI optical transmitter;
3. Insert the 5V power supply to USB power port of the 3GSDI optical transmitter;
4. Insert the 3GSDI optical receiver into the display;
5. Insert the LC fiber cable into the 3GSDI optical receiver;
6. Insert the 5V power supply to USB power port of the 3GSDI optical receiver;

## Attention

### Lightning protection, static electricity and grounding:

It is recommended that when install the device, consideration should be given to the impact of grounding by lightning, and take prevention measures. Strong static electricity will damage the optical device and data chip in the equipment. It is recommended that when plug/unplug the data port of the optical converter, please disconnect the power supply of the optical converter first.

### Fiber and optical components:

Be careful when plugging the optical fiber as optical components of the optical converter is very fragile, and it should avoid causing damage to the optical components. It should be noted that the light source produced by the optical components of the optical converter will be harmful to eyes, so do not have direct eye contact with the optical components of optical converter. If you need to detect the optical power of the optical converter, please use the optical power meter.

## ➤ Ordering Information

Model NO.	Description
3G-SDI0101	1 channel forward 3G-SDI video +1-channel Reverse RS485, 1080P, DC5V
3G-SDI0201	2 channel forward 3G-SDI video +1-channel Reverse RS485, 1080P, DC5V
3G-SDI0401	4 channel forward 3G-SDI video +1-channel Reverse RS485, 1080P, DC5V
3G-SDI0801	8 channel forward 3G-SDI video +1-channel Reverse RS485, 1080P, DC5V
3G-SDI1601	16 channel forward 3G-SDI video +1-channel Reverse RS485, 1080P, DC5V
MN-3G-SDI0101	Mini 1 channel 3G-SDI video +1-channel Reverse RS485, 1080P, DC5V
MN-12G-SDI0101	Mini 1 channel 12G-SDI video +1-channel Reverse RS485, 1080P, DC5V

## ➤ Packing List

- Mini 3G SDI Video Over Fiber Converter \*1
- Micro-usb cable + 5V adapter \*2
- User manual \* 1
- Certificate of quality \* 1
- Warranty card \* 1