4 channel USB3.2 Fiber Optical Converter

➢ Features

- Complies with the general serial bus 3.2 specification;
- Complies with USB power delivery 3.2 Gen 1 specification;
- Supports Super Speed Plus (10G bps),Super Speed (5G bps) rate;
- Meet the USB Type-C ® standard;
- Internal USB PHY adopts advanced CMOS process to achieve low power consumption;
- Support 4 channels independent configuration of USB3.2 signal input;
- Support Single-fiber or dual-fiber (optional) ;
- Support PWM LED status indicator;
- Downward compatible with USB3.2 Gen 1 (3.0),not compatible with USB2.0 and USB1.1;
- Plug and play,no driver;
- Wide range of operational temperature (-20°C ~75°C)；
- Warranty: 3 years;

➢ Introduction

UPCOM USB3.2 fiber optical converter is developed to transmit 4-channel Super Speed Plus ultra-high speed signal extension of 250 meters through one-core optical fiber.

USB3.2 fiber optical converter uses a special USB PHY to meet the requirements of USB3.2 protocol,and uses 10Gbps SFP to complete the photoelectric conversion and realize the stable transmission of USB3.2 Super Speed Plus ultra-high-speed signal.

USB3.2 fiber optical converter consists of a transmitter and a receiver that provides 5V power through the host USB 3.2 type A connector,the transmitter is powered by an external power supply and supplies power to the USB3.2 device through the USB3.2 A type connector.

Note that the bandwidth of 10Gbps is not 10Gbps divided by 8 to get 1250MB/s,it uses the same 10-bit transmission mode as SATA,so its full speed is only 1000MB/s,10Gbps is the theoretical transmission value.If several devices share a USB channel,the master control chip will allocate and control the bandwidth available to each device.

USB-IF released the latest USB naming specification,the original USB 3.0 and USB 3.1 will no longer be used,all USB 3.0 standards will be called USB 3.2,consider compatibility issues,USB 3.0/USB 3.1/USB 3.2 are called USB 3.2 Gen 1 (5G bps)/USB 3.2 Gen 2 (10G bps)/USB 3.2 Gen 2x2 (20G bps).
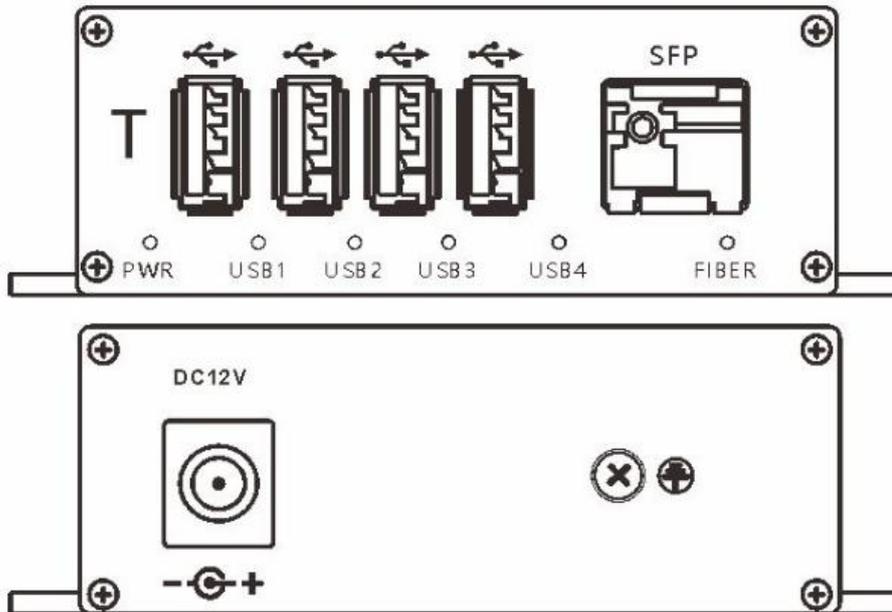
➢ Application

- Industrial video transmission
- HD video surveillance system;
- High-speed data acquisition system
- Digital signage and TV wall
- Industrial printer system

➢ Specification

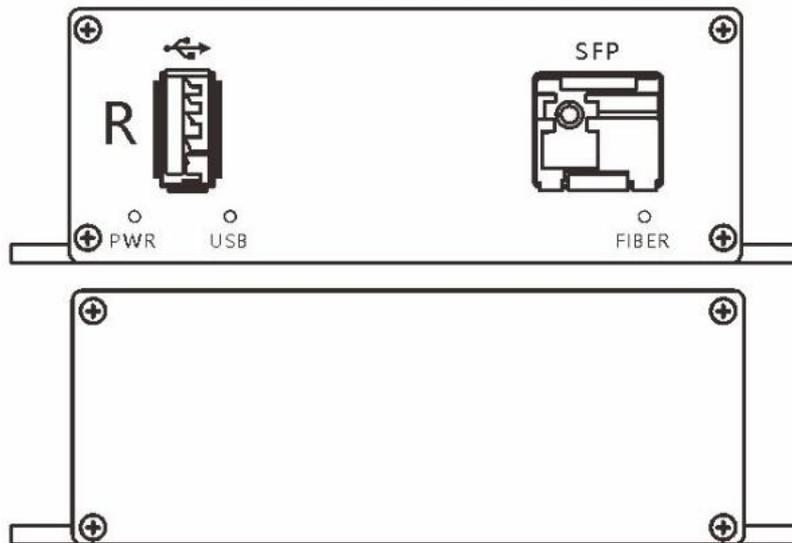| Fiber Optical	
Wavelength	1270-1330nm
Rate	10Gbps
Tx power	＞-3db
Rx sensitivity	＞-10db
Fiber connector	LC
USB	
Version	Universal Serial Bus 2.0
Transmission rate	10Gbps（1000MB/s）
USB total load current	≤2A
Power supply voltage of the transmitter	5V
Single USB port supply current	>900mA
Physical interface	USB3.2 Type A connector
Power	
Transmitter input voltage	DC 12V
Transmitter power consumption	1.2W
Receiver input voltage	DC 5V
Receiver power consumption	1.2W
Other	
The shell metal	Aluminium alloy
Product size	104*104*28mm
Net weight	0.35KG
Way to install	Wall-mounted type (desktop type)
Color	Black
Material of Packing	Kraft paper
Package size	275*220*55mm
Gross weight	0.7kg
Working temperature	-20°C ~75°C
Storage temperature	-40°C ~85°C
Relative humidity	From 5 to 95% (non-condensing)
Warranty	3 Years

➢ Dimension

Transmitter Indicator status description

Indicator silk-screen printing	Description
PWR	On: The device is powered on
	Off: The device is powered off
FIBER	On: fiber signal
	Off: no fiber signal
USB 1	Slow flash: The USB device is recognized
	Off: The USB device is not recognized
USB 2	Slow flash: The USB device is recognized
	Off: The USB device is not recognized
USB 3	Slow flash: The USB device is recognized
	Off: The USB device is not recognized
USB 4	Slow flash: The USB device is recognized
	Off: The USB device is not recognized

Panel printed description

Panel printed	Function description
SFP	1.25G SFP fiber module
DC 12V	DC 12V power supply input

Receiver indicator status description

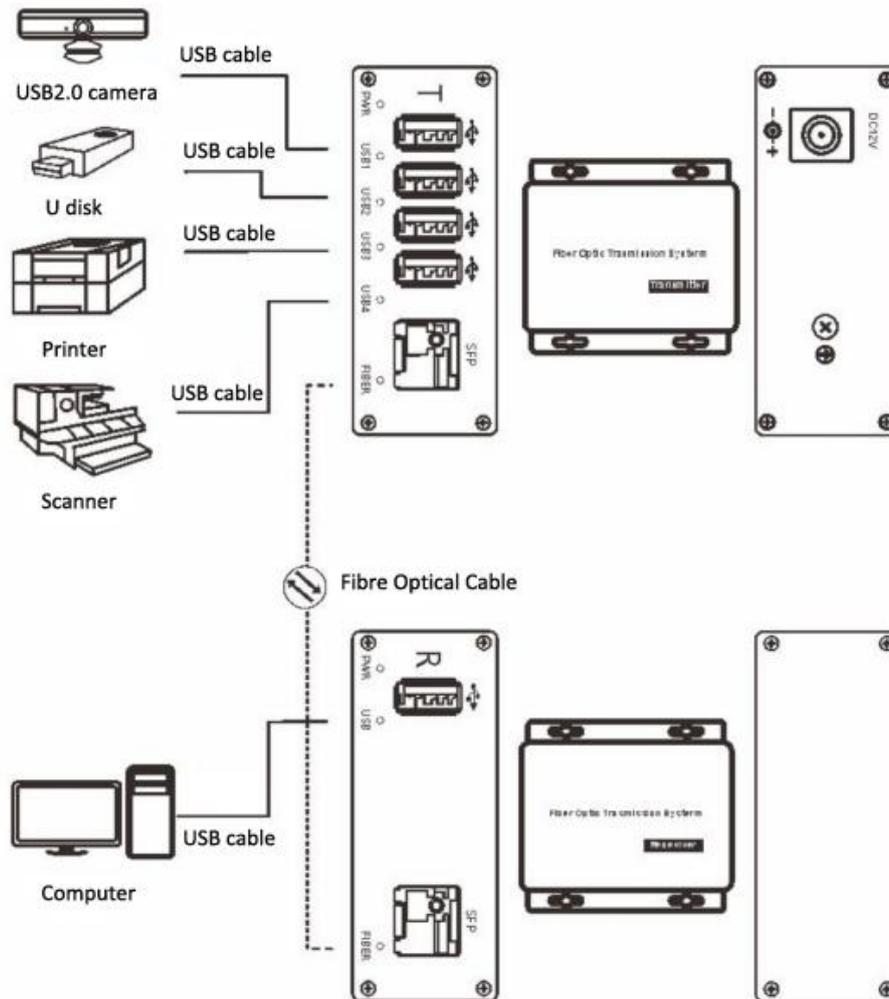| Indicator silk-screen printing	Function description
PWR	On: The device is powered on
	Off: The device is powered off
USB	Slow flash: The USB device is recognized
	Off: The USB device is not recognized
FIBER	On: fiber signal
	Off: no fiber signal

Panel printed description

Panel printed	Function description
SFP	1.25G SFP module

➢ Application

➢ Ordering Information

Model NO.	Description
USB204	4-channel USB2.0 Fiber Optical Converter
USB324	4-channel USB3.2 Fiber Optical Converter

➢ Packing List

- Transmitter (slave T) *1
- Receiver (host R) *1
- 12V power adapter *1
- USB2.0 wire material
- User manual * 1
- Certificate of quality * 1
- Warranty card * 1

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.Equipment housing is not waterproof,equipment installation box should be fully considered waterproof.

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.

Equipment and installation procedures:

- Optical fiber installation:please carefully insert the optical fiber into the optical fiber interface of the optical terminal after confirming that the optical fiber link meets the installation requirements.
- Power amplifier audio signal cannot be directly sent to the transmitter,which will cause burn-in.
- Equipment installation:The equipment is used in pairs, which include a transmitter and a receiver,this information is clearly stated on the label and printed on the chassis of the equipment.