8-CH HDCVI Fiber Transceiver

User’s Manual

V1.0.0

Important Safeguards and Warnings

Please read the following safeguards and warnings carefully before using the product in order to avoid damages and losses.

Note

- Do not expose the device to lampblack, steam or dust. Otherwise it may cause fire or electric shock.
- Do not install the device at position exposed to sunlight or in high temperature. Temperature rise in device may cause fire.
- Do not expose the device to humid environment. Otherwise it may cause fire.
- The device must be installed on solid and flat surface in order to guarantee safety under load and earthquake. Otherwise, it may cause device to fall off or turnover.
- Do not place the device on carpet or quilt.
- Do not block air vent of the device or ventilation around the device. Otherwise, temperature in device will rise and may cause fire.
- Do not place any object on the device.
- Do not disassemble the device without professional instruction.

Warning

- Please use battery properly to avoid fire, explosion and other dangers.
- Please replace used battery with battery of the same type.
- Do not use power line other than the one specified. Please use it properly. Otherwise, it may cause fire or electric shock.

Special Announcement

- This manual is for reference only.
- All the designs and software here are subject to change without prior written notice.
- All trademarks and registered trademarks are the properties of their respective owners.
- If there is any uncertainty or controversy, please refer to the final explanation of us.
- Please visit our website for more information.

Table of Contents

1 Product Overview

1.1 Product Model

The manual is designed for two products which are eight-channel standard HDCVI fiber transceiver and eight-channel multi-function HDCVI fiber transceiver.

1.2 Features

Common features are as follows:

- High definition, lossless, real time, non-compression.
- Metal plate or proximate matter is used for the structure, fully enclosed dustproof design.
- Temperature design：－40℃-75℃
- UPnP with simple installation.
- LED status indicator shows the working condition of optical transceiver.
- Support video format720p/25, 720p/30, 720p/50, 720p/60, 1080p/25, and 1080p/30.

Unique features for eight-channel multi-function HDCVI fiber transceiver:

- Support audio input/output.
- Support on-off signal input/output.
- Support 1*10/100Mbps RJ 45 port.

1.3 Typical Application

The typical application of HDCVI fiber transceiver is shown in Figure 1-1.

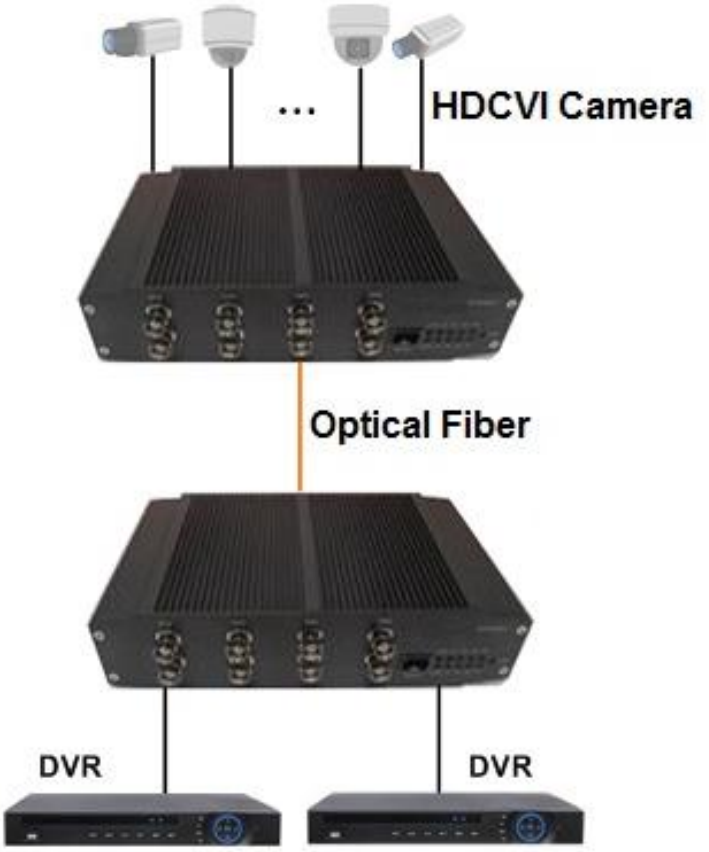

Figure 1- 1

2 Device Structure

2.1 Front Panel

This section will take eight-channel standard HDCVI fiber transceiver as an example to introduce the front panel. Both eight-channel multi-service HDCVI fiber transceiver and eight-channel standard HDCVI fiber transceiver have the same front panel. The only difference is the product model; please refer to the sheet 2-1 for more information.

Silk Print	Device
OTC802T	8-CH Standard HDCVI Fiber Transceiver Sender
OTC802R	8-CH Standard HDCVI Fiber Transceiver Receiver
OTC805T	8-CH Multi-Function HDCVI Fiber Transceiver Sender
OTC805R	8-CH Multi-Function HDCVI Fiber Transceiver Receiver

Sheet 2-1

2.1.1 Sender

The front panel of sender is shown in Figure 2- 1.

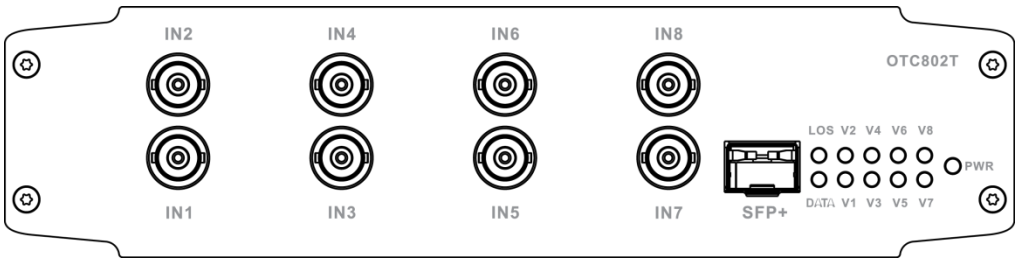

Figure 2- 1

For indicator, please refer to Sheet 2-2. For other ports, please refer to Sheet 2-3.

Indicator	Description	Color	Status
PWR	Power status indicator	Green	Power connection is normal
V1/V2/V3/V4/V5/V6/V7/V8	BNC video input indicator	Green	Video input is normal
LOS	Optical link status indicator	Green	Fiber connection is normal

Indicator	Description	Color	Status
DATA	RS485 data transmission indicator	Flashing green	Transmitting RS485 data

Sheet 2-2

Port	Description
IN1/IN2/IN3/IN4/IN5/IN6/IN7/IN8	Video input port
SFP+	SFP+ optical module port

Sheet 2-3

2.1.2 Receiver

The front panel of receiver is shown in Figure 2- 1

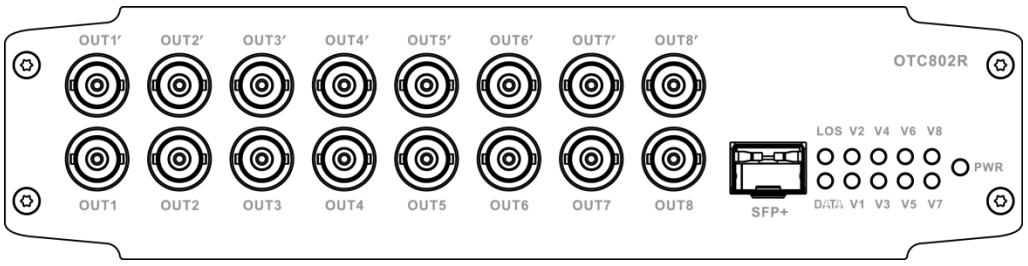

Figure 2- 1

For indicator, please refer to Sheet 2-4. For other ports, please refer to Sheet 2-5.

Indicator	Description	Color	Status
PWR	Power status indicator	Green	Power connection is normal
LOS	Fiber status indicator	Green	Fiber connection is normal
V1/V2/V3/V4/V5/V6/V7/V8	Fiber video signal indicator	Green	Fiber video signal is normal, that is to say sender IN1/IN2/IN3/IN4/ IN5/IN6/IN7/IN8 video signal is normal.
DATA	RS485 data transmission indicator	Flashing green	Transmitting RS485 data

Sheet 2-4

Port	Description
SFP+	SFP+ optical module port
OUT1/OUT2/OUT3/OUT4/ OUT5/OUT6/OUT7/OUT8	HDCVIV video output port
OUT1 ´ /OUT2 ´ /OUT3 ´ /OUT4 ´ /OUT5 ´ /OUT6 ´ /OUT7 ´ /OUT8 ´	HDCVI video loop output port

Sheet 2-5

2.2 Rear Panel

The rear panel of eight-channel standard/multi-function HDCVI fiber transceiver sender and receiver is shown in figure 2-3 and 2-4.

2.2.1 Sender

The rear panel of standard HDCVI fiber transceiver sender is shown in Figure 2- .

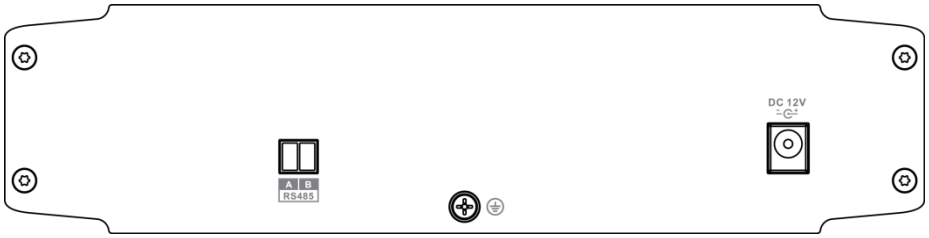

Figure 2- 3

For ports, please refer to sheet 2-6

Port	Description
DC12V	Power port，DC12V 1A
RS485	RS485 control data

Sheet 2-6

The rear panel of eight-channel multi-function HDCVI fiber transceiver sender is shown in Figure 2- .

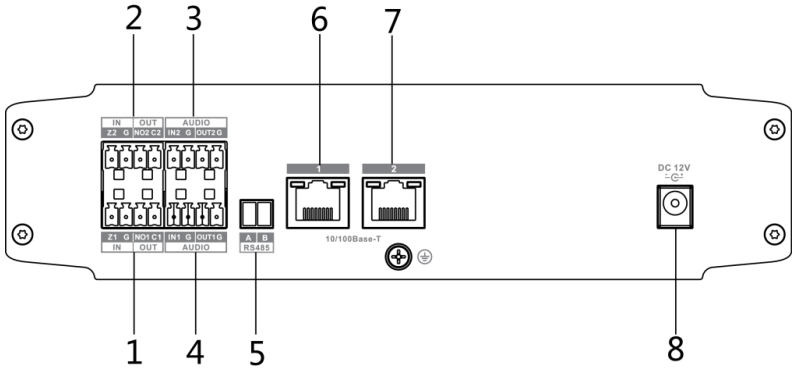

Figure 2-

For ports, please refer to sheet 2-7

SN	Name	Description
1	IN/OUT	On-off in/out
2	IN/OUT	On-off in/out
3	AUDIO	Audio in/out
4	AUDIO	Audio in/out
5	RS485	RS485 control data
6	10/100 Base-T	One 100Mbps RJ45 port
7	10/100 Base-T	One 100Mbps RJ45 port
8	DC 12V	Power port，DC12V 1A

Sheet 2-7

2.2.2 Receiver

The rear panel of eight-channel standard HDCVI fiber transceiver receiver is shown in Figure 2-5.

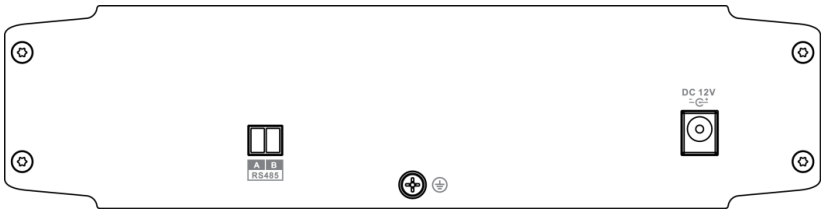

Figure 2-5

For ports, please refer to sheet 2-8

Port	Description
DC12V	Power port，DC12V 1A
RS485	RS485 control data

The rear panel of eight-channel multi-function HDCVI fiber transceiver receiver is shown in Figure 2-6.

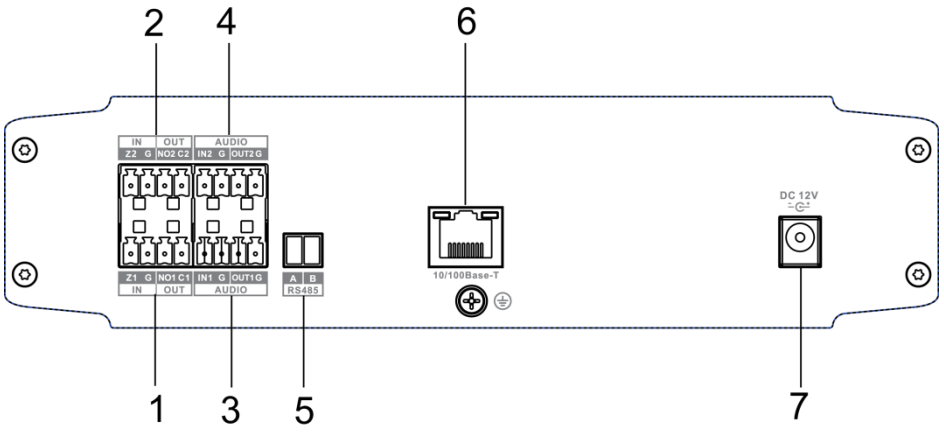

Figure 2-6

For ports, please refer to sheet 2-9

SN	Name	Description
1	IN/OUT	On-off in/out
2	IN/OUT	On-off in/out
3	AUDIO	Audio in/out
4	AUDIO	Audio in/out
5	RS485	RS485 control data
6	10/100 Base-T	One 100Mbps RJ45 port
7	DC 12V	Power port，DC12V 1A

Appendix 1 Technical Specifications

Product Model	OTC802T/R(Standard version)	OTC805T/R（Multi-function）
Optical Index		
Physical Port	SFP+ Port	
Transmission Distance	0km～20km	
Input/output Wave Length	Sender（OTC802T/OTC805T）：1550nm send1310nm receive； Receiver（OTC802R/OTC805R）：1310nm send 1550nm receive	
HDCVI Video Index		
Physical Port	Sender（OTC802T）：4*BNC, 1*RS485 Receiver（OTC802R）：8*BNC,1*RS485	Sender（OTC805T）：8*BNC, 1*RS485, 2* audio input, 2* audio output, two- channel on-off signal input, two- channel on-off signal output, 2*RJ45 10/100Mbps Receiver（OTC805R）：16*BNC、1*RS485、1* audio input, 2*audio output, two- channel on-off signal input, two- channel on-off signal output, 1*RJ45 10/100Mbps
Sender Input Electrical Level	>500mVp-p	
Receiver Output Electrical Level	1Vp-p	
Input Auto Cable Balance	1080p：75-5 coaxial cable support 300m 720p ：75-5coaxial cable support 500m	
Sender Input Reflection Loss	>15dB	
Input/Output Impedance	75Ohm	
Video Bandwidth	45MHz	
Sampling Bandwidth	10bit	
Sampling Frequency	108MHz	
HDCVI Audio Index		
Sampling Bandwidth	N/A	16bit
Audio Sampling Frequency	N/A	48KHz
HDCVI Coaxial Control Data Index		
Work Mode	Half-duplex	
Error Rate	$<10^{-9}$	
Baud Rate	1200-9600bps	
Other		
Indicator	Light linker indicator, power indicator, RS485 data transmission indicator, video indicator	

Power	DC12V 1A
Power Consumption	Sender <8.5W，receiver <11.5W
Humidity	10%～90%
Temperature	－40℃～75℃
Unit Weight	500g
Dimension	210mm×142.15mm×52mm
Installation	Wall mount

Appendix 2 Toxic or Hazardous Materials or Elements

Component Name	Toxic or Hazardous Materials or Elements					
	Pb	Hg	Cd	Cr VI	PBB	PBDE
Circuit Board Component	○	○	○	○	○	○
Device Case	○	○	○	○	○	○
Wire and Cable	○	○	○	○	○	○
Packing Components	○	○	○	○	○	○
Accessories	○	○	○	○	○	○

O: Indicates that the concentration of the hazardous substance in all homogeneous materials in the parts is below the relevant threshold of the SJ/T11363-2006 standard.

X: Indicates that the concentration of the hazardous substance of at least one of all homogeneous materials in the parts is above the relevant threshold of the SJ/T11363-2006 standard. During the environmental-friendly use period (EFUP) period, the toxic or hazardous substance or elements contained in products will not leak or mutate so that the use of these (substances or elements) will not result in any severe environmental pollution, any bodily injury or damage to any assets. The consumer is not authorized to process such kind of substances or elements, please return to the corresponding local authorities to process according to your local government statute.

Note

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