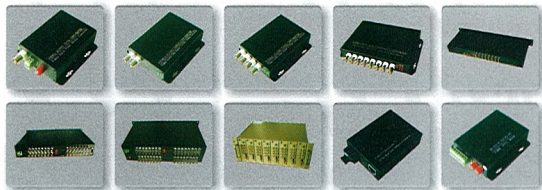


## HD digital video optical transceiver products

### User Manual

## Fiber Optic Video Transmission Experts

### Digital video optical converter

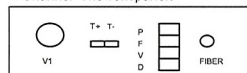


## Company products

Product Image	Product Name	Size	Power	Remarks
	1 Channel Series	11.5cm X 9cm X 3cm	AC/220V DC/5V1A	Two kinds of stand-alone and rack, 2U rack on the rack can
	14-slot 2U rack	48.5cm X 24cm X 4.5cm	AC/220V DC/5V1A	Up on 14 receiver, dual power, 1 Channel dedicated rack
	2 Channel Series	11.5cm X 9cm X 3cm	AC/220V DC/5V1A	Two kinds of stand-alone and rack, 4U rack on the rack can
	4 Channel Series	11.5cm X 9cm X 3cm	AC/220V DC/5V1A	Two kinds of stand-alone and rack, 4U rack on the rack can
	8 Channel Series	19cm X 13cm X 3cm	AC/220V DC/5V2A	Two kinds of stand-alone and rack, 4U rack on the rack can
	16-slot 4U rack	48.5cm X 24cm X 9cm	AC/220V DC/5V20A	Aluminum, dual power, 8 Channel can be received on 8, Or 1 TO 4 Channel can be 16 to receive
	16 Channel Series	stand-alone 24 X 17cm X 4.5cm rack 48.5 X 20cm X 4.5cm	AC/220V DC/5V2A	Two kinds of stand-alone and 1U rack
	32 Channel Series	48.5cm X 25.5cm X 4.5cm	AC/220V DC/5V5A	1U rack, Standard 19-inch
	64 Channel Series	48.5cm X 25.5cm X 9cm	AC/220V DC/5V8A	2U rack, Standard 19-inch

## 1 Channel Series Installation Show:

1 Channel The front panel:



1 Channel Backpanel:



1 Channel panel Indicator Meaning:

V1	Represents video access port
T+ .T-	Representative data Positive and negative access port 1. T+ connect Decoder Positive, T- connect Decoder negative a 2. Set up the camera address code, Address code of each camera is unique, can not be repeated. 3. Confirm the camera control keyboard baud rate and set the baud rate consistent, 2400bps or 4800bps
P	Represents POWER
F	Represents FIBER
V	Represents VIDEO
D	Represents DATA
FIBER	Representative fiber access port

1 Channel video LED working state of normal operation

Status	Energized state	Connected to the fiber optic status	Connected to the fiber optic, connected to the state of the video
Equipment			
Transmitter	P F D Always lit	P F D Always lit	P F V D Always lit
Receiver	P Always lit	P F Always lit	P F V Always lit

## 8 Channel panel Indicator Meaning :

V1-V8	Represents video access port
T+ ,T- GND	Representative data Positive and negative access port,GND representatives Ground 1.T+ connect Decoder Positive , T-connect Decoder negative a 2. Set up the camera address code, Address code of each camera is unique,can not be repeated . 3. Confirm the camera control keyboard baud rate and set the baud rate consistent, 2400bps or 4800bps
P	Represents POWER
F	Represents FIBER
D	Represents DATA
V1-V8	Represents VIDEO
FIBER	Representative fiber access port

## 8 Channel video LED working state of normal operation :

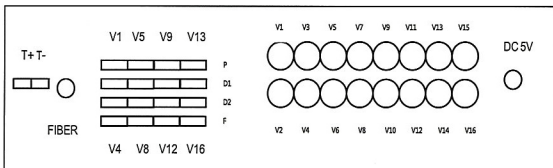
Status Equipment	Energized state	Connected to the fiber optic status	Connected to the fiber optic, connected to the state of the video
Transmitter	P F D Always lit	P F D Always lit	P F D V1-V8 Always lit
Receiver	P Always lit	P F Always lit	P F Always lit

## 8 Channel video+1 channel Reverse Data ( LED working state of normal operation)

Status Equipment	Energized state	Connected to the fiber optic status	Connected to the fiber optic, connected to the state of the video	Control Keyboard Control Status
Transmitter	P Always lit	P F Always lit	P F V1-V8 Always lit	D Blinking
Receiver	P Always lit	P F Always lit	P F V1-V8 Always lit	D Blinking

## 16 Channel Series Installation Show :

### 16 Channel The front panel :



## 16 Channel panel Indicator Meaning :

V1-V16	Represents video access port
T+ ,T- GND	Representative data Positive and negative access port 1.T+ connect Decoder Positive , T-connect Decoder negative a 2. Set up the camera address code, Address code of each camera is unique,can not be repeated . 3. Confirm the camera control keyboard baud rate and set the baud rate consistent, 2400bps or 4800bps
P	Represents POWER
F	Represents FIBER
V1-V16	Represents VIDEO
D1 D2	Represents DATA
FIBER	Representative fiber access port

## 16 Channel video LED working state of normal operation :

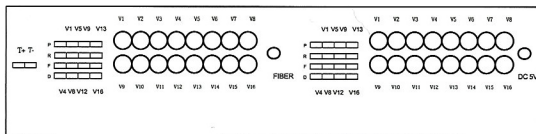
Status Equipment	Energized state	Connected to the fiber optic status	Connected to the fiber optic, connected to the state of the video
Transmitter	P D1 D2 Always lit	P D1 D2 F Always lit	P D1 D2 F V1-V16 Always lit
Receiver	P Always lit	P F Always lit	P F V1-V16 Always lit

## 16 Channel video+1 channel Reverse Data ( LED working state of normal operation)

Status Equipment	Energized state	Connected to the fiber optic status	Connected to the fiber optic, connected to the state of the video	Control Keyboard Control Status
Transmitter	P Always lit	P F Always lit	P F V1-V16 Always lit	D1 D2 Blinking
Receiver	P Always lit	P F Always lit	P F V1-V16 Always lit	D1 D2 Blinking

## 32 Channel Series Installation Show :

### 32 Channel The front panel :



## 32 Channel panel Indicator Meaning :

V1-V32	Represents video access port
T+ ,T- GND	Representative data Positive and negative access port 1.T+ connect Decoder Positive , T-connect Decoder negative a 2. Set up the camera address code, Address code of each camera is unique,can not be repeated . 3. Confirm the camera control keyboard baud rate and set the baud rate consistent, 2400bps or 4800bps
P	Represents POWER
R	Represents FIBER
V1-V32	Represents VIDEO
D	Represents DATA

## 32 Channel video LED working state of normal operation :

Status Equipment	Energized state	Connected to the fiber optic status	Connected to the fiber optic, connected to the state of the video
Transmitter	P D Always lit	P D Always lit	P D V1-V32 Always lit
Receiver	P D Always lit	P R D Always lit	P R D V1-V32 Always lit

## 32 Channel video+1 channel Reverse Data ( LED working state of normal operation)

Status Equipment	Energized state	Connected to the fiber optic status	Connected to the fiber optic, connected to the state of the video	Control Keyboard Control Status
Transmitter	P D Always lit	P R D Always lit	P R D V1-V32 Always lit	D Blinking
Receiver	P D Always lit	P R D Always lit	P R D V1-V32 Always lit	D Blinking

## 2U and 4U rack chassis introduced :

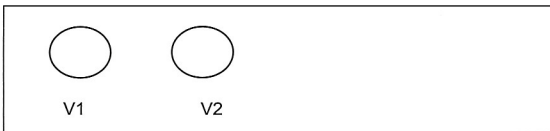
Product Name	picture	Application	Feature	Cardnumber
14-slot2U rack		1 Channel Optical dedicated Rack	Dual power supply, centralized management, elegant, small footprint and low power outlet	Can last 14 Sheet 1 Channel Receiver
16-slot4U rack		1-8Channel mixed interpolation	Dual power supply, centralized management, elegant, small footprint and low power outlet	1-4Channel accounted for a slot, available on the 1-4 Channel 16 Sheet received, 8 Channel occupies two slots that can last 8 Sheet

#### 1 channel video + 1 channel Reverse Data ( LED working state of normal operation)

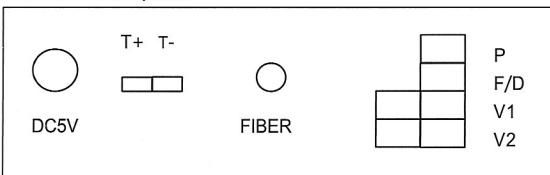
Status Equipment	Energized state	Connected to the fiber optic status	Connected to the fiber optic connected to the state of the video	Control Keyboard Control Status
Transmitter	P Always lit	P F D Always lit	P F V D Always lit	D Blinking
Receiver	P D Always lit	P F D Always lit	P F V D Always lit	D Blinking

#### 2 Channel Series Installation Show :

2 Channel The front panel :



#### 2 Channel Backpanel:



#### 2 Channel panel Indicator Meaning :

V1 V2	Represents video access port
T+ .T-	Representative data Positive and negative access port 1.T+connect Decoder Positive , T- connect Decoder negative a 2. Set up the camera address code, Address code of each camera is unique, can not be repeated . 3. Confirm the camera control keyboard baud rate and set the baud rate consistent, 2400bps or 4800bps
P	Represents POWER
F/D	Represents FIBER/DATA
V1 V2	Represents VIDEO
FIBER	Representative fiber access port

#### 2 Channel video LED working state of normal operation :

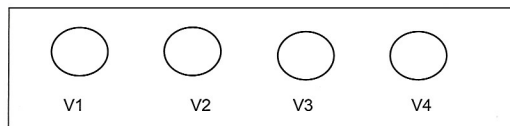
Status Equipment	Energized state	Connected to the fiber optic status	Connected to the fiber optic, connected to the state of the video
Transmitter	P F/D Always lit	P F/D Always lit	P F/D V1 V2 Always lit
Receiver	P Always lit	P F/D Always lit	P F/D V1 V2 Always lit

#### 2 Channel video+1 channel Reverse Data ( LED working state of normal operation)

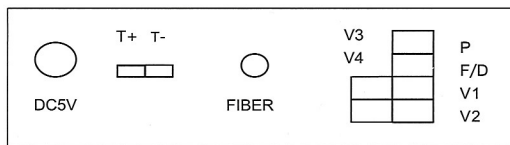
Status Equipment	Energized state	Connected to the fiber optic status	Connected to the fiber optic, connected to the state of the video	Control Keyboard Control Status
Transmitter	P F/D Always lit	P F/D Always lit	P F/D V1 V2 Always lit	F/D Blinking
Receiver	P Always lit	P F/D Always lit	P F/D V1 V2 Always lit	F/D Blinking

#### 4 Channel Series Installation Show

4 Channel The front panel :



#### 4 Channel back panel :



#### 4 Channel panel Indicator Meaning :

V1 V2 V3 V4	Represents video access port
T+ .T-	Representative data Positive and negative access port 1.T+connect Decoder Positive , T- connect Decoder negative a 2. Set up the camera address code, Address code of each camera is unique, can not be repeated . 3. Confirm the camera control keyboard baud rate and set the baud rate consistent, 2400bps or 4800bps
P	Represents POWER
F/D	Represents FIBER/DATA
V1 V2 V3 V4	Represents VIDEO
FIBER	Representative fiber access port

#### 4 Channel video LED working state of normal operation :

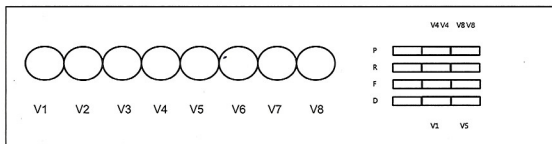
Status Equipment	Energized state	Connected to the fiber optic status	Connected to the fiber optic, connected to the state of the video
Transmitter	P F/D Always lit	P F/D Always lit	P F/D V1 V2 V3 V4 Always lit
Receiver	P Always lit	P F/D Always lit	P F/D V1 V2 V3 V4 Always lit

#### 4 Channel video+1 channel Reverse Data ( LED working state of normal operation)

Status Equipment	Energized state	Connected to the fiber optic status	Connected to the fiber optic, connected to the state of the video	Control Keyboard Control Status
Transmitter	P F/D Always lit	P F/D Always lit	P F/D V1 V2 V3 V4 Always lit	F/D Blinking
Receiver	P Always lit	P F/D Always lit	P F/D V1 V2 V3 V4 Always lit	F/D Blinking

#### 8 Channel Series Installation Show :

8 Channel The front panel :



#### 8 Channel back panel :



Common Troubleshooting :

Data can not be controlled	<p>1. Optical is not recognized with 485 data capabilities.</p> <p>2. Confirm the camera's data is not transparent to the 485 standard protocol.</p> <p>3. Confirm decoder and control keyboard positive and negative sign, positive and negative 485 with Optical connection right there is no.</p> <p>4. Confirm set up the camera address code, address code of each camera is unique, can not be repeated.</p> <p>5. Confirm the camera control keyboard baud rate and set the baud rate consistent, 2400bps or 4800bps</p> <p>6. These are well recognized, connect fiber optic transmitter and receiver, the look of the transmitter lights are lit fiber optic lights F, F if the lamp is not lit the transmitter, indicating that the data did not return to the reverse side of the transmitter. Can diagnose the fiber link attenuation is too large.</p> <p>F lights lit still can not control, take a look at the receiver when the control keyboard control is blinking, if you do not blink, the diagnosis is the back-end control of the keyboard and the control line connection issue.</p> <p>If the receiver flashes when the transmitter control then look at whether the flashing if the transmitter is not blinking</p> <p>Indicating Optical transmitters have problems if flashing still can not control, that is, the preceding decoder connection problems, check the front end.</p> <p>7. The easiest way is to put the transmitter and receiver, the direct use of the root FC-FC jumpers linking can be controlled if the short distance, long distance is possible, because we have every right through 20KM Optical fiber optic cable tested, does not control optical fiber link attenuation is too large.</p> <p>8. Test the size of the fiber link attenuation method: General fiber attenuation per km at 0.3 DB, 20KMx0.3=6DB, add coupler, welding, jumpers attenuation, the maximum attenuation of the fiber link in nine DB, if more than this value, video, and data there is no way to return.</p> <p>Optical transmitter power test light emission power is much, generally ~8 to ~10DB. Jumpers and cables connected to the transmitter, the power meter connected to the rear end with a jumper (not connected Optical receiver, optical power meter directly connected to the back-end jumpers), the test results are generally in about ~17 to ~19DB. Entire fiber link calculations : 19-10= 9DB</p> <p>Test results such as a back-21DB, 21-10= 10DB, 10DB links the attenuation exceeded the maximum 9DB, indicating excessive attenuation of the fiber link.</p> <p>9. The method of reducing the attenuation of the fiber link: Using carrier-class jumpers (attenuation in 0.3~0.5DB), Use good cable, good coupler (attenuation 0.1DB), Welding to weld when welding cut surface is good, bad re-weld welding.</p>
No picture	<p>1. Look connect fiber optic transmitter and receiver, the receiver F lamp is lit, if not light, indicating that the fiber link attenuation is too large, or the Optical itself a problem.</p> <p>2. F lights lit or not the video out to see behind the line corresponding to the transmitter connected to the video transmitter video light is lit, if not bright, with a total engineering treasure tests over the video camera video cable is over, if the project Bao tests out the video, and that is to ask questions Optical transmitter itself. If the transmitter video lights, see the corresponding video receiver indicator is lit, if not light, indicating Optical receiver itself has a problem, if not bright or video, that is the back-end monitor, video cable and hard drive VCR issue.</p> <p>3. The simplest way is to put the transmitter and receiver, the direct use of the root FC-FC jumpers connected, if the video can be a short distance, long distance is possible, because we have every right through 20KM Optical fiber optic cable tested, the image is not too much fiber link attenuation.</p>
There snowflakes image	<p>1. Confirm all images or parts of the image there is snow snowflake.</p> <p>2. If there is snow all, must verify fiber is a single mode or multi-mode, if the multi-mode transmission can not exceed 500 meters if it is single-mode, or there is snow, indicating excessive attenuation of the fiber link, the size of the test link attenuation.</p> <p>3. If it is part of a snow it would have to change what video cable, the good transposed to the video port on a snowflake, snowflakes observed that there are images that way if there is snow. If there is no snow, indicating the front over the signal that there is snow, the front camera video cable or a problem. If there is snow, and that is the video chip to Optical burned out, replace it.</p> <p>4. The simplest way is to put the transmitter and receiver, the direct use of the root FC-FC jumpers connected, if the video can be a short distance, long distance is possible, because we have every right through 20KM Optical fiber optic cable tested, image has snowflakes fiber link attenuation is too large. If the test still has some short distance there is snow, it PDH itself that several video chips have a problem.</p>

Product warranty card

Product Name : \_\_\_\_\_

Product Type : \_\_\_\_\_

Factory number : \_\_\_\_\_

Date of purchase : \_\_\_\_\_

User Name : \_\_\_\_\_

Vendors : \_\_\_\_\_

The warranty records : \_\_\_\_\_

Product conformity

Product Name : \_\_\_\_\_

Product Type : \_\_\_\_\_

Product Qty : \_\_\_\_\_

The inspector : \_\_\_\_\_

Date of purchase : \_\_\_\_\_

Product advantages:

1. Industrial design. SMT manufacturing process
2. Studio class, carrier-class transmission quality
3. The United States imports original ALTERA main chip, the data three lightning protection
4. Using the new chip and module production technology to ensure stable and reliable products