AHD-801HP

Quick Installation Guide

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Hoatech AHD/TVI/CVI/CVBS over Fiber Converter

Edition 1.0, September 2020

Overview

AHD-801HP fiber converters adopt the advanced uncompressed HD composite video and high velocity digital optical transmission technologies which convert the hybrid video includes AHD, HDTVI, or HDCVI composite signals to optical signals to achieve long distance (can up to 20Km) transmission through fibers. This series can support the latest 2MP, 4MP, and 5MP resolution cameras, and can be used compatible with previous camera signals, i.e. 960H and D1.
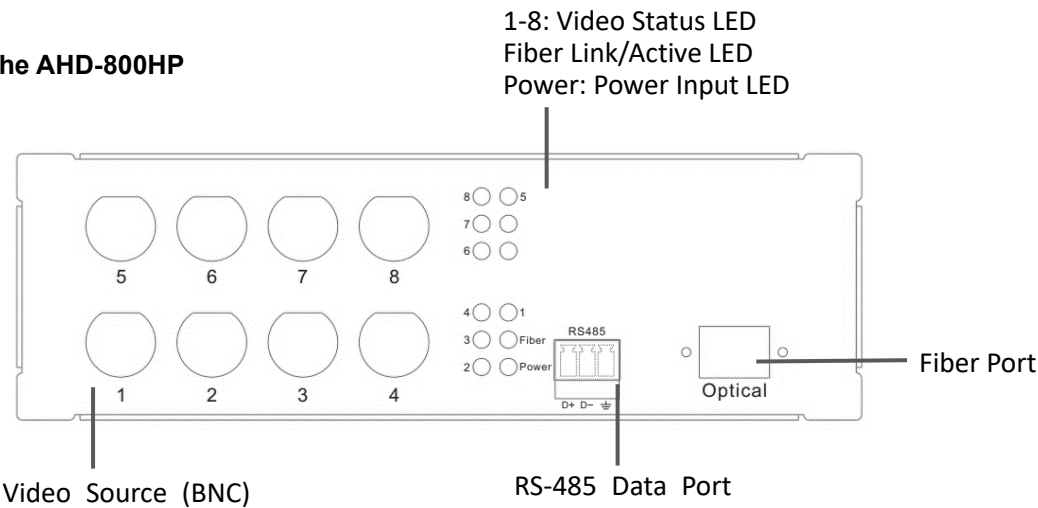
Package Checklist

- AHD-801HP Transmitter
- AHD-801HP Receiver
- Quick Installation Guide (printed)
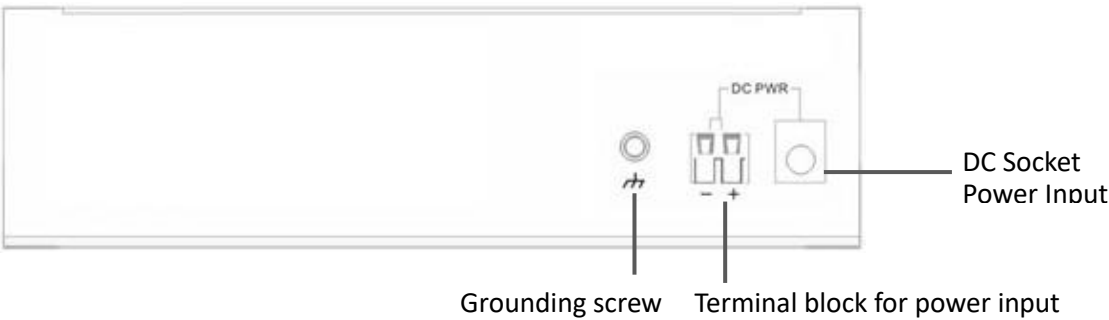- Rack Ears

Features

- Plug and play, easy to install, compatible with 4U 19-inch OVC series chassis.
- Each set of AHD-801HP contains RX (receiving side) and TX (transmitting side).
- Support 2MP, 4MP, 5MP analog HD camera signal transmission.
- Support for 9/125um single mode fiber type
- Supports fiber transmission rates of 3G.
- Supports both card and box types.
- With power polarity reverse protection.
- Lightning protection level boost with 4KV surge protection.
- Support industrial wide temperature operating temperature -40 ° C to 75 ° C.
- MTBF (mean time between failures) > 50,000 hours.

Panel Layout of the AHD-800HP

Front Panel View

1-8: Video Status LED
Fiber Link/Active LED
Power: Power Input LED

8 ◯ ◯5
7 ◯ ◯
6 ◯ ◯

5   6   7   8

4 ◯ ◯1
3 ◯ ◯Fiber   RS485
2 ◯ ◯Power
D+ D-

1   2   3   4

Optical

Fiber Port

Video Source (BNC)

RS-485 Data Port

Rear Panel View

DC PWR

DC Socket
Power Input

Grounding screw   Terminal block for power input

Dimension Diagram (Units: mm)

160.0

52.0

154.0
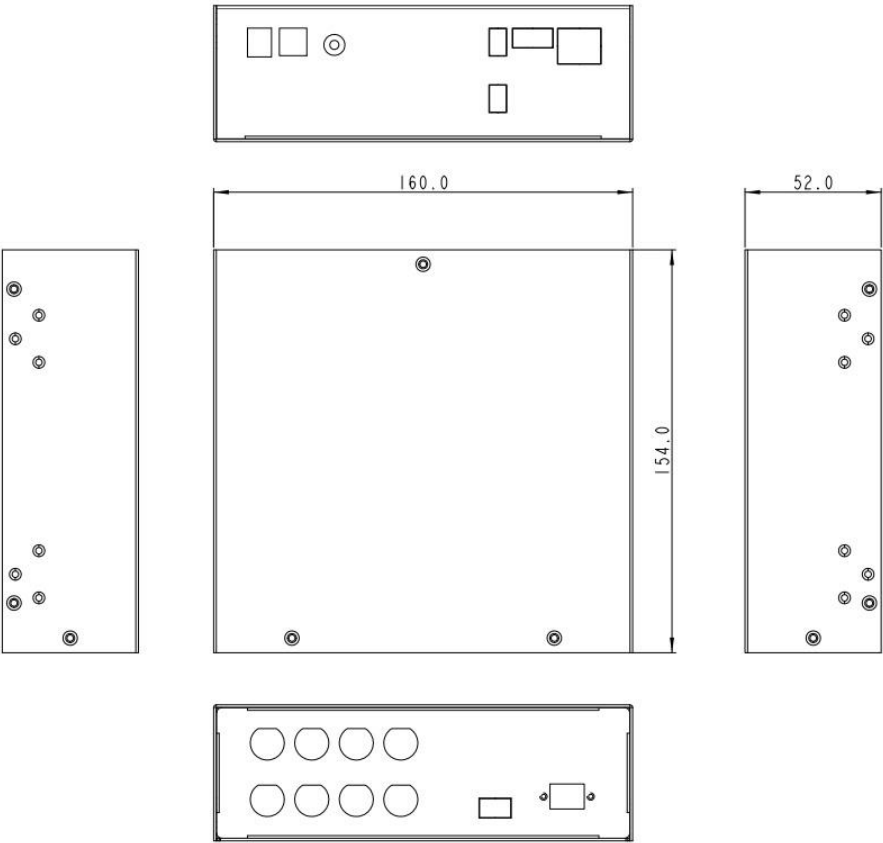
Grounding the Hoatech Industrial Video over Fiber Converter

Grounding and wire routing help limit the effects of noise due to electromagnetic interference (EMI). Run the ground connection from the ground screw to the grounding surface prior to connecting devices.

ATTENTION

This product is intended to be mounted to a well-grounded mounting surface such as a metal panel.

Redundant Power Inputs

Both power inputs can be connected simultaneously to live DC power sources. If one power fails, the other live source acts as a backup, and automatically supplies all of Video over Fiber Converter's power needs.

Wiring the Redundant Power Inputs

Besides the DC Jack socket, you can insert the negative/positive DC wires into the V-/V+ terminals. To keep the DC wires from pulling loose, use a small flat-blade screwdriver to tighten the wire-clamp screws on the front of the terminal block connector. Last, insert the plastic terminal block connector prongs into the terminal block receptor, which is located on the rear panel.

ATTENTION

Before connecting the AHD-801HP to DC power inputs, make sure the DC power source voltage is stable.

LED Indicators

The front panel of Hoatech Industrial Video over Fiber Converter contains several LED indicators. The function of each LED is described in the table below.

LED		Color	State	Description
TX	Power	Green	ON	Power is being supplied to power input.
			OFF	Power is not being supplied to power input.
	Video 1~8	Green	ON	Video is received
			OFF	Video is not received/No video source
	Fiber	Not applicable		
LED		Color	State	Description
RX	Power	Green	ON	Power is being supplied to power input.
			OFF	Power is not being supplied to power input.
	Video 1~8	Green	ON	Video is received
			OFF	Video is not received/No video source

		Green	ON	Fiber is being transmitted or received
	Fiber	Red	OFF	Fiber is not being transmitted or received

Specifications

Feature		Description	
Optical Interface	Fiber Type	Single mode fiber (9/125μm)	
	Fiber Connector	SC/ST/FC	
	Distance	0km~20km	
	Fiber Speed	3Gbps	
	Wavelength	Transmitter	Receiver
		Tx:1310nm, Rx:1550nm	Tx:1550nm, Rx:1310nm
	Launch Power (dBm)	Max.: 0, Min: -9	
	Receive Sensitivity (dBm)	-21	
	Max. Input Power (dBm)	-3	
Video Characteristics	Video Channel	4 channels	
	Signal Mode	NTSC/PAL/SECAM	
	Supported Video Type	AHD, HD-TVI, HDCVI,960H, D1, CVBS	
	Supported Resolution	2.0MP, 4.0MP, 5.0MP	
	Input /Output Impedance	75 Ω unbalanced	
	Input /Output level (Voltage)	1Vp-p (Typical)/500mVp-p	
	Video Bandwidth	60MHz	
	Video Digital Bit Width	8bit	
	Video Connector	BNC	
Serial Data Interface	Data Channel	1 channel	
	Signal	RS485 (reversed async data)	
	Protocol	Unidirectional	
	Data rate	>128Kbps	
	Transmission distance	0 ~ 1200m	
	Connector Type	3-pin terminal block with screw clamps	
	Bit Error Rate (BER)	<10-9s	
General	LED Indicators	Power/Video/Fiber (Fiber transmission status)	
	Power Requirement	12VDC, 1A	
	Power Consumption	≤ 5W	
	Unit Weight	Box: 960g ; Module: 440g	
	Dimension	Box: 160x52x155mm ; Module: 177x52x152mm	
	Mechanical	Metal	
	Installation	Desktop, Wall mount, Chassis with optional chassis installation	
	Compatible Chassis	OVC-4U18	
Conformance	Operating Temperature	-40 ° C ~75 ° C	
	Storage Temperature	-40 ° C ~ 85 ° C	
	Humidty	0~95% (Non-condensing)	
	MTBF	> 50,000 hours	
	Compliance	FCC, CE	
Accessories	Pakage Contants	AHD-800HP TX x1 AHD-800HP RX x1 12V, 1A power adapter x2 Quick Installation Guide x1	