



# EE-HF-TR

**18Gbps HDMI fiber extender  
with HDMI loop out, audio in/out, EDID  
management, RS232 & IR control**

## User Manual

V1.1



## **1. Introduction**

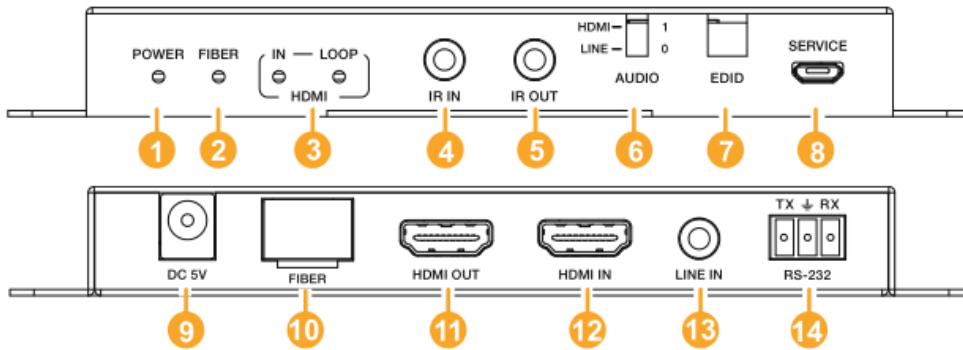
The HDMI fiber extender can extend the HDMI signal up to 300 meters with multi-mode fiber and up to 1000 meters with single-mode fiber, and the maximum video resolution is up to 4K60Hz 4:4:4. The sender end has the functions of loop output, audio insertion and EDID management, and the receiver end has the function of audio out. This product supports bidirectional infrared control, which enables the user to control the display device at the signal source end or to control the signal source device at the display end, and the user can also use RS-232 interface to transmit commands between the transmitter and the receiver. This product has strong anti-interference capability, high safety performance, small size, light weight for easy installation and the incomparable advantages in long-distance transmission.

## **2. Features**

- comply with HDMI 2.0, HDCP 2.2 and DVI 1.0 specifications
- video resolution up to 4K60Hz 4:4:4
- support 18gbps video bandwidth
- HDMI audio format: lpcm2/5.1/7.1ch, Dolby digital/plus/ex, Dolby true HD, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio, DSD
- support 3D, HDR format video
- transmission distance up to 300 meters with multi-mode fiber and up to 1000 meters with single-mode fiber
- support bidirectional infrared control, RS-232 and EDID management which is making the control simple and convenient
- the transmitter has loop output interface (sharing local HD video and audio) and audio insertion function
- the receiver has audio stripping output function.

### 3. Function and panel description

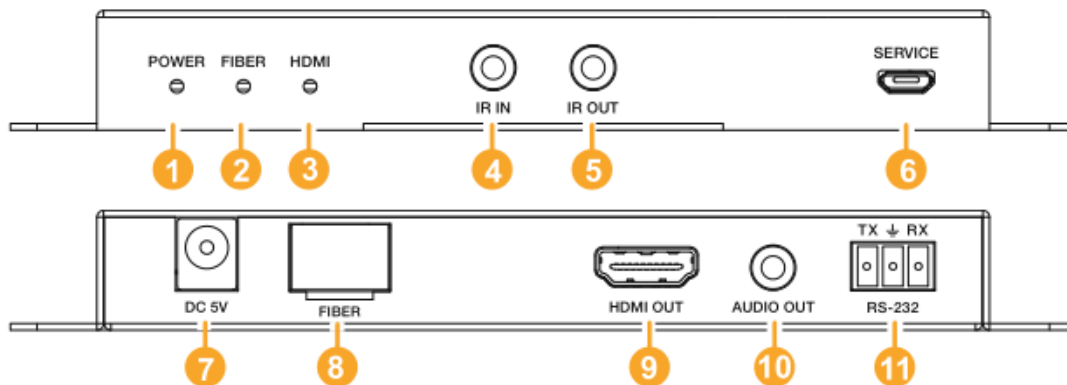
Sender:



1	Power	When the equipment is powered on, the LED light is always on
2	Fiber	The optical fiber connection indicator is always on when the transmitter and receiver establish a normal optical fiber signal connection
3	HDMI	in: HDMI signal input indicator. When HDMI in input port has  When the signal is input, the indicator light is always on.  Loop: HDMI loop output indicator. When the HDMI loop output port transmits a signal to the HDMI display device, the indicator is always on.
4	IR IN	Connect the IR receiving line, and this IR signal will be sent to the IR out of the receiver  The remote controller can be used at the transmitting end to control the display device at the receiving end.
5	IR OUT	Connect the IR transmission line, and the IR transmission signal comes from the IR in of the receiver  Mouth. Remote control can be used at the receiving end to control the signal source equipment at the sending end
6	AUDIO	Select the audio signal source HDMI in or line in to insert the signal,  When there is no video input, the audio signal can be transmitted separately.
7	EDID	Use the EDID switch to set the EDID: Set 11 to copy the HDMI out at receiver; Set 10 to copy the HDMI loop out at sender; Set 01: 4K60_2CH;

		Set 00: 1080P_2CH
8	SERVICE	Firmware upgrade port
9	DC 5V	DC 5V/1A power interface。
10	FIBER	Connect the optical fiber module of the transmitter and transmit the signal to the receiving end through the optical fiber line.
11	HDMI OUT	HDMI video loop output port is connected to HDMI display equipment to share local HD video and audio signals, such as HDTV, projector, etc
12	HDMI IN	HDMI signal input port, connecting HDMI signal source equipment, such as PC, Blu ray DVD, etc.
13	LINE IN	Audio signal input port, connecting audio source equipment, such as MP3, etc.
14	RS232	RS-232 signal transmission interface, which transmits RS-232 command signal between transmitter and receiver.

**Receiver:**



1	Power	When the equipment is powered on, the LED light is always on
2	Fiber	The optical fiber connection indicator is always on when the transmitter and receiver establish a normal optical fiber signal connection
3	HDMI	in: HDMI signal input indicator. When HDMI in input port has  When the signal is input, the indicator light is always on.  Loop: HDMI loop output indicator. When the HDMI loop output port transmits a signal to the HDMI display device, the indicator is always on.
4	IR IN	Connect the IR receiving line, and the IR signal will be sent to the IR out port of the receiver. You can use the

		remote control at the transmitting end to control the display device at the receiving end.
5	IR OUT	Connect the IR transmission line, and the IR transmission signal comes from the IR in port of the receiver. Remote control can be used at the receiving end to control the signal source equipment at the sending end
6	SERVICE	Firmware upgrade port
7	DC 5V	DC 5V/1A Power interface。
8	FIBER	Connect the optical fiber module of the receiver and receive the signal from the transmitting end through the optical fiber line。
9	HDMI OUT	HDMI video signal output port, connected to HDMI display devices, such as HDTV, projector, etc.
10	AUDIO OUT	Separate the audio signal output port, peel off the HDMI out audio signal, and connect the audio output equipment, such as power amplifier, audio, etc
11	RS232	RS-232 signal transmission interface, which transmits RS-232 command signal between transmitter and receiver.

#### 4. Product technical parameters

HDMI	HDMI 2.0
HDCP	HDCP 2.2/HDCP 1.4
Video bandwidth	18Gbps
Video resolution	Up to 4K60 4:4:4
color space	RGB, YCbCr 4:4:4 / 4:2:2, YUV 4:2:0
color depth	8/10/12-bit (1080P60Hz); 8-bit (4K60Hz)
HDMI Audio format	LPCM2/5.1/7.1CH, Dolby Digital/Plus/EX, Dolby True HD, DTS, DTS-EX,DTS-96/24, DTS High Res, DTS-HD Master Audio, DSD
transmission distance	reaches 300 meters with Multi-mode fiber reaches 1000 meters with single-mode fiber
IR	20KHz~60KHz
RS-232 Baud rate	4800~115200bps
ESD	±8kV (Air discharge) , ±4kV (Contact discharge)
connect	

<b>Sender</b>	IN: 1×HDMI IN [Type A 19-pin female] 1×LINE IN [3.5mm Stereo Mini-jack] 1×IR IN [3.5mm Stereo Mini-jack] 1×RS-232 [3.81mm phoenix connector] 1×SERVICE [Micro USB] OUT: 1×HDMI OUT [Type A 19-pin female] 1×Optical Fiber Out [LC female] 1×IR Out [3.5mm Stereo Mini-jack]
<b>Receiver</b>	OUT: 1×Optical Fiber In [LC female] 1×IR In [3.5mm Stereo Mini-jack] 1×SERVICE [Micro USB] OUT: 1×HDMI OUT [Type A 19-pin female] 1×RS-232 [3.81mm phoenix connector] 1×IR Out [3.5mm Stereo Mini-jack] 1×AUDIO OUT [3.5mm Stereo Mini-jack]
Power supply	IN: AC 100~240V 50/60Hz OUT: DC 5V/1A (US/EU, CE/FCC/UL)
Power consumption	<b>Sender: 3.85W (MAX), Receiver: 2.7W(MAX)</b>
working temperature	0°C ~ 40°C / 32°F ~ 104°F
relative humidity	20~90% RH
weight	<b>Sender: 280g, receiver: 278g</b>
size	134mm[L]×68mm[W]×18mm[H]