HDMI over Optical Fiber Extender

VER:1.4

Thank you for purchasing this product

For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

Surge protection device recommended

This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, lightning strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment.

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1. Introduction

The HDMI over Optical Fiber Extender can extend HDMI signal up to 4K Ultra HD over 3300 feet/1000 meters (Single-mode cable) or 1000 feet/ 300 meters (Multi-mode cable) to an HDMI compatible display. It also supports bi-directional infrared control and RS-232 signals transmission. It can allow you to easily control your DVD player at TV side or control your TV at the DVD player side when using this extender.

2. Features

- ◇ HDMI 2.0b (18Gbps), HDCP 2.2 and DVI compliant
- ◇ Video resolutions up to 4K2K@50/60Hz (YUV444)
- ◇ Audio supports LPCM2/5.1/7.1 CH, Dolby Digital, DTS, Dolby True HD, DTS-HD Master Audio
- ◇ Long distance transmission up to 3300 feet/1000 meters over single-mode fiber cable and up to 1000 feet/300 meters over multi-mode fiber cable (50/125µm/OM3)
- ◇ Bi-directional wideband infrared control and RS-232 transmission
- ◇ Locking power supply

3. Package Contents

- ✧ 1 x HDMI over Optical Fiber Transmitter
- ✧ 1 x HDMI over Optical Fiber Receiver
- ✧ 1 x Fiber Transmitter Module
- ✧ 1 x Fiber Receiver Module
- ✧ 2 x Wideband IR Blaster cable
- ✧ 2 x Wideband IR Receiver cable
- ✧ 2 x 5V/1A Power Adaptor
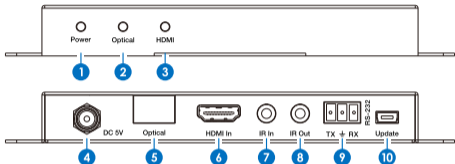- ✧ 2 x Phoenix Male Jack
- ✧ 1 x User Manual

4. Specifications

Technical	
HDMI Compliance	HDMI 2.0b
HDCP Compliance	HDCP 2.2 and HDCP 1.4
Video Bandwidth	18 Gbps
Video Resolutions	Up to 4K2K@50/60Hz(YUV4:4:4),4K2K@30Hz,1080P@120Hz, and 1080P 3D@60Hz
Color Space	RGB, YCbCr 4:4:4, YCbCr 4:2:2
Color Depth	8-bit, 10-bit, 12-bit
HDMI Audio Formats	LPCM 2/5.1/7.1CH, Dolby Digital, DTS 5.1, Dolby Digital+, Dolby TrueHD, DTS-HD Master Audio, Dolby Atmos, DTS:X

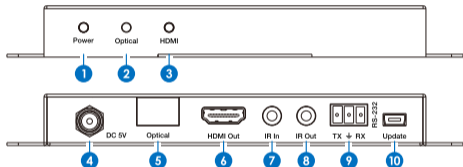|	
Operation Range	Up to 3300 feet/1000 meters over single-mode fiber cable Up to 1000 feet/300 meters over multi-mode fiber cable
IR Frequency	20KHz - 60KHz
RS-232 Baud Rate	4800-115200bps
ESD Protection	Human body model — ±8kV (air-gap discharge) & ±4kV (contact discharge)
Connections	
Transmitter	Inputs: 1x HDMI Type A [19-pin female] 1x IR In [3.5mm Stereo Mini-jack] 1x RS-232 [3.81mm Phoenix connector] Outputs: 1x Optical Fiber Out [LC female] 1x IR Out [3.5mm Stereo Mini-jack]
Receiver	Inputs: 1x Optical Fiber In [LC female] 1x IR In [3.5mm Stereo Mini-jack] Outputs: 1x HDMI Type A [19-pin female] 1x IR Out [3.5mm Stereo Mini-jack] 1x RS-232 [3.81mm Phoenix connector]
Mechanical	
Housing	Metal Enclosure
Color	Black
Dimensions	100mm [W] x 65mm [D] x 25.6mm [H]
Weight	TX: 256g RX: 260g
Power Supply	Input: AC100 - 240V 50/60Hz Output: DC 5V/1A (US/EU standards, CE/FCC/UL certified)
Power Consumption	3W (Max)
Operation Temperature	32 -104°F / 0 - 40°C
Storage temperature	-4 -140°F / -20 - 60°C
Relative Humidity	20 - 90% RH (no condensation)

5. Operation Controls and Functions

5.1 Transmitter Panel

1. **Power LED:** System power indicator.
2. **Optical LED:** Optical link indicator, illuminates when transmitter and receiver establish optical link.
3. **HDMI LED:** HDMI input signal indicator, illuminates when HDMI input has an active signal.
4. **DC 5V:** Connect 5V/1A adaptor for power supply.
5. **Optical:** Connect to receiver with a single or multi-mode fiber cable.
6. **HDMI In:** Connect to an HDMI source device.
7. **IR In:** Connect to an IR receiver cable and put IR receiver header close to display device's IR receiver window.

8 **IR Out:** Connect to an IR emitter cable and put IR emitter header close to source device's IR receiver window.

9 **RS-232:** RS-232 commands will pass through this extender.

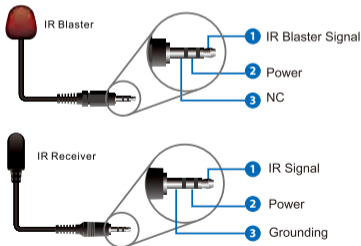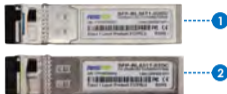**10** **Update:** Firmware updating port.

5.2 Receiver Panel

1 **Power LED:** System power indicator.

2 **Optical LED:** Optical link indicator, illuminates when transmitter and receiver establish optical link.

3 **HDMI LED:** HDMI output connecting indicator, illuminates when HDMI output has an active TV be connecting.

4 **DC 5V:** Connect 5V/1A adaptor for power supply.

5 **Optical:** Connect to transmitter with a single or multi-mode fiber cable.

6 **HDMI Out:** Connect to an HDMI display device.

7 **IR In:** Connect to an IR receiver cable and put IR receiver header close to display device's IR receiver window.

8 **IR Out:** Connect to an IR emitter cable and put IR emitter header close to source device's IR receiver window.

9 **RS-232:** RS-232 commands will pass through this extender.

10 **Update:** Firmware updating port.

5.3 IR Cable Pin Assignments

IR Blaster

1 IR Blaster Signal

2 Power

3 NC

IR Receiver

1 IR Signal

2 Power

3 Grounding

5.4 Optical module instruction

1. SFP-BL35T1-02DC is TX optical module.
2. SFP-BL531T-02DC is RX optical module.

6.Connection Diagram

TX

Power supply

Notebook

DVD Or Blu-ray Player

RX

Power supply

Projector