ANGUSTOS

HDMI 18Gbps Extender with one-way IR (50M)

User Manual

VER 1.0

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, lighting strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment.

Table of Contents

1. Introduction

The HDMI 18Gbps Extender can extend high definition video / audio signal and one-way IR, and the distance is up to 164ft / 50 meters between transmitter and receiver over a single Cat5e/6 cable. It supports resolution up to 4K2K@60Hz 4:4:4, 18Gbps and HDCP 2.2. In addition, the extender is equipped with one-way IR pass-through which allows for source control and one HDMI loop output.

The extender includes two units: transmitter unit and receiver unit. The transmitter unit is responsible for capturing HDMI input signal and carries the signal via one cost effective Cat6 cable, and emitting IR control signals. The receiver unit is responsible for receiving the HDMI signal and transmitting IR control signal.

The extender offers the most convenient solution for HDMI extension over a single Cat5e/6 with long distance capability, and is the perfect solution for any application.

2. Features

☆ HDMI 2.0, HDCP 2.2 / HDCP 1.4 and DVI 1.0 compliant
☆ Supports 18Gbps bandwidth
☆ Supports input and output video resolution up to 4k2k@60Hz 4:4:4, extends distance up to 164ft / 50 meters
☆ Supports one HDMI loop output
☆ Supports one-way IR pass-through
☆ Supports HDR function
☆ Supports PoC (Power over Cable) function, it means that either transmitter or receiver is powered supply by 12V/1A power adapter, the other doesn't need power supply.)
☆ Supports automatic copy EDID function
☆ Compact design for easy and flexible installation.

3. Package Contents

① 1× HDMI 18Gbps Extender (Transmitter)
② 1× HDMI 18Gbps Extender (Receiver)
③ 1× IR Blaster cable (1.5 meters)
④ 1× 20~60KHz IR Receiver cable (1.5 meters)
⑤ 1× 12V/1A Locking Power adapter
⑥ 4× Mounting Ears
⑦ 1× User Manual

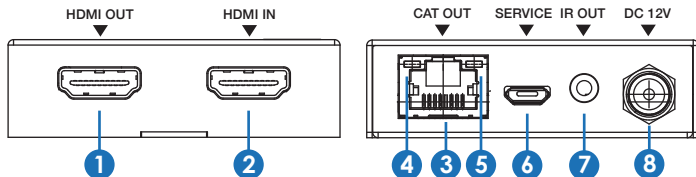# 4. Specifications

Technical	
HDMI Compliance	HDMI 2.0
HDCP Compliance	HDCP 2.2 / HDCP 1.4
Video Bandwidth	18Gbps
Video Resolution	Up to 4K60Hz 4:4:4
Color Space	RGB / YCbCr 4:4:4, YCbCr 4:2:2/4:2:0, YUV 4:4:4
Color Depth	8/10/12-bit (1080P60Hz, 4K30Hz, 4K60Hz YCbCr 4:2:2/4:2:0) 8-bit (4K60Hz 4:4:4)
HDMI Audio Formats	LPCM 2.0/2.1/5.1/6.1/7.1, Dolby Digital, Dolby TrueHD, Dolby Digital Plus(DD+), DTS-ES, DTS HD Master, DTS HD-HRA, DTS-X
ESD Protection	Human body model — ±8kV (Air-gap discharge) & ±4kV (Contact discharge)
Connections	

Transmitter	Inputs: 1x HDMI Type A [19-pin female]
	           1x SERVICE [Micro USB, Update port]
	Outputs: 1x HDMI Type A [19-pin female]
	           1x IR OUT [3.5mm Stereo Mini-jack]
	           1x CAT OUT [RJ45, 8-pin female]

Receiver	Inputs: 1x IR IN [3.5mm Stereo Mini-jack]
	           1x CAT IN [RJ45, 8-pin female]
	           1x SERVICE [Micro USB, Update port]
	Outputs: 1x HDMI Type A [19-pin female]

Mechanical	
Housing	Metal Enclosure
Color	Black
Dimensions	Transmitter / Receiver: 61mm [W] x 88mm [D] x 18mm [H]
Weight	Transmitter: 160g, Receiver: 155g
Power Supply	Input: AC 100 - 240V 50/60Hz Output: DC 12V/1A
Power Consumption	3.84 W
Operating Temperature	32 - 104°F / 0 - 40°C
Storage Temperature	-4 - 140°F / -20 - 60°C
Relative Humidity	20 - 90% RH (no condensation)

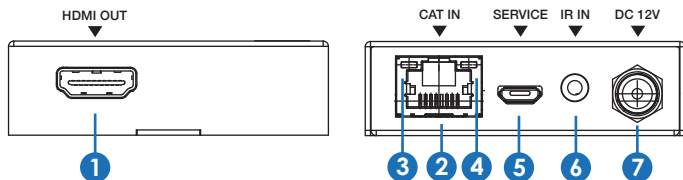| Resolution / Distance	4K60 - Feet / Meters	4K30 / 1080P - Feet / Meters
CAT5e	164ft / 50M	164ft / 50M
CAT6/6a/7	197ft / 60M	230ft / 70M
HDMI IN/OUT	10ft / 3M	30ft / 10M
The use of "Premium High Speed HDMI" cable is highly recommended.		

5. Operation Controls and Functions

5.1 Transmitter Panel

HDMI OUT   HDMI IN   CAT OUT   SERVICE   IR OUT   DC 12V

① ②   ④ ③ ⑤   ⑥   ⑦   ⑧

Number	Name	Function description
1	HDMI OUT	HDMI loop output port, connect to HDMI display device such as TV or Projector with an HDMI cable.
2	HDMI IN	HDMI input port, connect to HDMI source device such as DVD or PS4 player with an HDMI cable.
3	CAT OUT	Connect to CAT IN port on the receiving end with a CAT6 cable.
4	Power Indicator Lamp (Green)	The lamp will illuminate when the transmitter is powered on.
5	Data signal Indicator Lamp (Orange)	The lamp will illuminate when the transmitter and the receiver have signal transmission.
6	SERVICE port	For firmware updated use.
7	IR OUT	Connect to wideband IR Blaster cable. The IR signal is from the IR IN port of the receiver.
8	DC 12V	Plug DC 12V/1A power supply into the unit and connect the adapter to an AC outlet. (**Note:** The extender supports PoC function, it means that either transmitter or receiver is powered supply by 12V/1A power adapter, the other doesn't need power supply.)

5.2 Receiver Panel

HDMI OUT

CAT IN   SERVICE   IR IN   DC 12V

1

3 2 4   5   6   7

Number	Name	Function description
1	HDMI OUT	HDMI output port, connect to HDMI display device such as TV or Projector with an HDMI cable.
2	CAT IN	Connect to CAT OUT port on the transmitter end with a CAT6 cable.
3	Power Indicator Lamp (Green)	The lamp will illuminate when the receiver is powered on.
4	Data signal Indicator Lamp (Orange)	The lamp will illuminate when the transmitter and the receiver have signal transmission.
5	SERVICE port	For firmware updated use.
6	IR IN	Connect to wideband IR Receiver cable. The IR signal will send to the IR OUT port of the transmitter.
7	DC 12V	Plug DC 12V/1A power supply into the unit and connect the adapter to an AC outlet. (**Note:** The extender supports PoC function, it means that either transmitter or receiver is powered supply by 12V/1A power adapter, the other doesn't need power supply.)

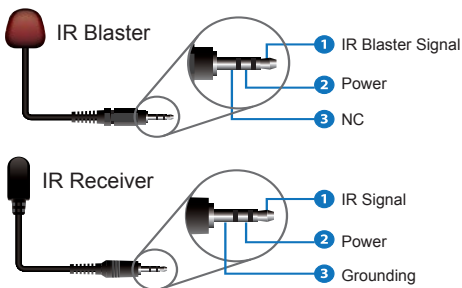### 5.3 IR Pin Definition

IR Receiver and Blaster pin's definition as below:
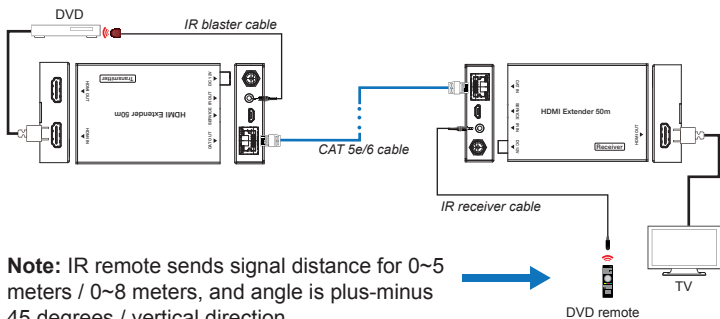

IR RECEIVER   IR BLASTER

The following is IR system diagram about IR cable use method.

Note: IR remote sends signal distance for 0~5 meters / 0~8 meters, and angle is plus-minus 45 degrees / vertical direction .

6. Application Example

HDMI OUT **HDMI IN**

CAT OUT **SERVICE** **IR OUT** **DC 12V**

Transmitter

UHDTV

DVD or Blu-ray Player

Cat 5e/6

Power Supply

IR blaster

HDMI OUT

SERVICE **IR IN** **DC 12V**

Receiver

UHDTV

IR Extender