Product Datasheet

HDMI Extender (70m)with PoC

AHDEX-V2070

Features

- HDCP 2.2 compliant
- Support 18Gbps video bandwidth
- Support video resolution up to 4K2K@60Hz RGB/YCBCR 4:4:4, as
- specified in HDMI 2.0b
- The transmission distance can be extended up to 230ft / 70m via asingle CAT6/6a cable
- Support HDR, HDR10, HDR10+, Dolby Vision, HLG
- Support bi-directional IR control signal pass-through
- Audio formats: LPCM 7.1, Dolby True HD, DTS HD Master
- EDID copy pass-through function between the source device and
- display device
- Support ARC and audio de-embedding, audio is output through the opticalfiber port of the receiver
- Support bi-directional PoC (Power over Cable) function
- Compact design for easy and flexible installation

Package Contents

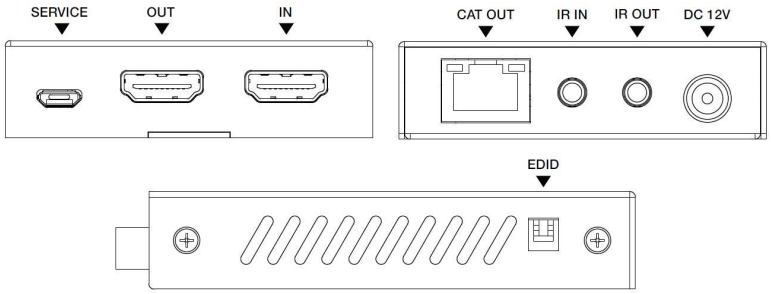
1. 1 x 18Gbps HDMI Extender (Transmitter)
2. 1 x 18Gbps HDMI Extender (Receiver)
3. 1 x IR Blaster cable (1.5 meters)
4. 1 x IR Wideband Receiver cable (1.5 meters)
5. 4 x Mounting Ears
6. 8 x Machine Screws (KM3*4)
7. 1 x 12V/1A Locking Power Adapter

Specifications

Technical	
HDMI Compliance	HDMI 2.0b
HDCP Compliance	HDCP 2.2
Video Bandwidth	18Gbps
Video Resolution	Up to 4K2K@60Hz RGB/YCBCR 4:4:4
IR Level	5Vp-p
IR Frequency	Wideband 20K-60KHz
Transmission Distance	4K2K@60Hz 4:4:4--70m, 1080P--70m (CAT6/6a cable)
Color Space	RGB 4:4:4, YCbCr 4:4:4, YCbCr 4:2:2, YCbCr 4:2:0
Color Depth	8/10/12bit
HDR	HDR, HDR10, HDR10+, Dolby Vision, HLG
Audio Formats	**HDMI:** LPCM 7.1CH, Dolby True HD, DTS-HD Master **Optical:** Dolby 5.1, DTS 5.1, PCM 2.0
ESD Protection	IEC 61000-4-2: ±8kV (Air-gap discharge), ±4kV (Contact discharge)
Connection	
Transmitter	Input: 1×IN [HDMI Type A, 19-pin female] Output: 1× OUT [HDMI Type A, 19-pin female] 1× CAT OUT [RJ45] Control: 1× SERVICE [Micro-USB jack] 1× IR IN [3.5mm Stereo Mini-jack] 1× IR OUT [3.5mm Stereo Mini-jack]
Receiver	Input: 1× CAT IN [RJ45] Output: 1× OUT [HDMI Type A, 19-pin female]1× TOSLINK Control: 1× SERVICE [Micro-USB jack] 1× IR IN [3.5mm Stereo Mini-jack] 1× IR OUT [3.5mm Stereo Mini-jack]
Mechanical	
Housing	Metal Enclosure
Color	Black
Dimensions	Transmitter / Receiver: 90mm (W)×68mm (D)×18mm (H)
Weight	Transmitter: 160g, Receiver: 155g
Power Supply	DC 12V/1A; Support bi-directional PoC function
Power Consumption	3.36 W (max)
Operating Temperature	0°C ~ 40°C / 32°F ~ 104°F
Storage Temperature	-20°C ~ 60°C / -4°F ~ 140°F
Operating Humidity	20%~80% (relative humidity, non-condensing)
Storage Humidity	10%~90% (relative humidity, non-condensing)

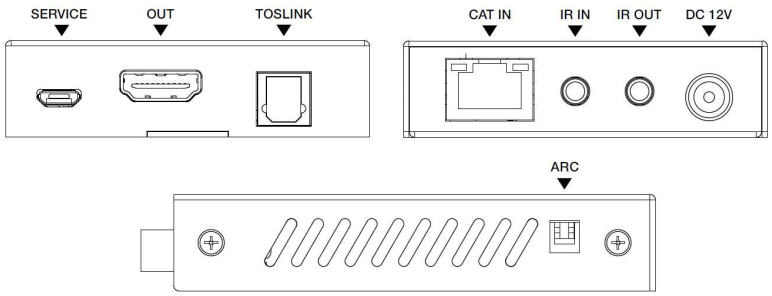
Operation Controls and Functions

Transmitter Panel



No.	Name	Function Description
1	SERVICE	Firmware update port.
2	OUT	HDMI signal loop output port. Connect to HDMI displaydevices with HDMI cable.
3	IN	HDMI signal input port. Connect to HDMI source device withHDMI cable.
4	CAT OUT	RJ45 connector for connecting the CAT IN port of theReceiver with CAT6/6a cable.
5	Link Signal Indicator (Green)	▪ Illuminating: Transmitter and Receiver are in good connectionstatus. ▪ Flashing: Transmitter and Receiver are in poor connection status. ▪ Dark: Transmitter and Receiver are not connected.
6	Data Signal Indicator (Orange)	▪ Illuminating: HDMI signal with HDCP. ▪ Flashing: HDMI signal without HDCP. ▪ Dark: No HDMI signal.
7	IR IN	Connect to IR receiver cable, the IR receive signal will emitto the IR OUT port of the Receiver.
8	IR OUT	Connect to IR blaster cable, the IR emit signal is from the IRIN port of the Receiver.
9	DC 12V	DC 12V/1A power input port. Note that the extender supports POC function, it means that either Transmitter or Receiver is connected to 12V/1A power supply, the other doesn't need power supply.
10	EDID DIP switch	Use the DIP switch to set EDID. (Switching to the upper end indicates 1; switching to the lower end indicates 0.) 11 - EDID information is copied from the display at the RX. 10 - EDID is preset to 4K@60Hz Stereo 01 - EDID is preset to 1080p Stereo 00 - EDID information is copied from the HDMI OUT at the TX.

Receiver Panel



No.	Name	Function Description
1	SERVICE	Firmware update port.
2	OUT	HDMI signal output port. Connect to HDMI display deviceswith HDMI cable.
3	TOSLINK	Optical fiber audio output port. Connect to amplifier withoptical cable.
4	CAT IN	RJ45 connector for connecting the CAT OUT port of theTransmitter with CAT6/6a cable.
5	Link Signal Indicator (Green)	▪ Illuminating: Transmitter and Receiver are in good connectionstatus. ▪ Flashing: Transmitter and Receiver are in poor connection status. Dark: Transmitter and Receiver are not connected.
6	Data Signal Indicator (Orange)	▪ Illuminating: HDMI signal with HDCP. ▪ Flashing: HDMI signal without HDCP. Dark: No HDMI signal.
7	IR IN	Connect to the IR receiver cable. The IR signal will sendto the IR OUT port of the Transmitter.
8	IR OUT	Connect to the IR blaster cable, the IR signal is from IRIN port of the Transmitter.
9	DC 12V	DC 12V/1A power input port. *Note that the extender supports POC function, it means that either Transmitter or Receiver is connected to 12V/1A power supply, the otherdoesn't need power supply.*
10	ARC DIP switch	Use the DIP switch to control ARC function. (Switching to theupper end indicates 1; switching to the lower end indicates 0. Note that only the left switch is valid, the right switch isinvalid.) 1X - Disable the ARC function0X - Enable the ARC function

Note:

When the ARC function is enabled, the audio returned from the ARC supported TV connected to the Receiver will be output through the TOSLINK port (not the HDMI INport or HDMI OUT port of the Transmitter);

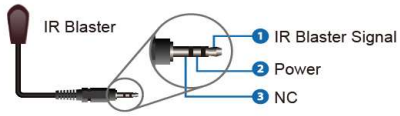
When the ARC function is disabled, the audio extracted from the HDMI IN port of theTransmitter will be output through the TOSLINK port.

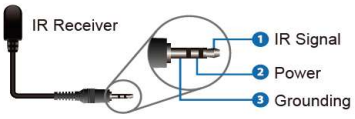
IR Pin Definition

IR Receiver and Blaster pin's definition is as below:

IR RECEIVER

IR BLASTER

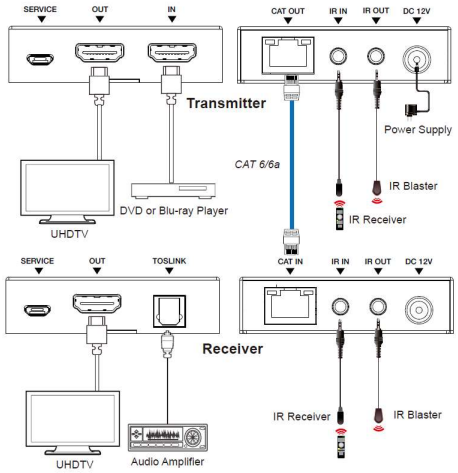




Note:

When the angle between the IR receiver and the remote control is ± 45 °, the transmissiondistance is 0-5 meters;
When the angle between the IR receiver and the remote control is ± 90 °, the transmissiondistance is 0-8 meters.

Application Example



HDMI™
HIGH-DEFINITION MULTIMEDIA INTERFACE

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