



MUXLAB

INFINITE CONNECTIONS

HDMI 2.0 Extender Kit, 50M

User Manual

100504-V2



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1 Safety Precautions

To ensure the best performance from the product, please read all instructions carefully before using the device. Save this manual for future reference.

- Follow basic safety precautions to reduce the risk of fire, electrical shock, and injury.
- Do not dismantle the housing or modify the module. It may result in electrical shock or burns.
- Do not open or remove the housing of the device as you may be exposed to dangerous voltage or other hazards.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture and do not install this product near water. Keep the product away from liquids.
- Spillage into the housing may result in fire, electrical shock, or equipment damage. If an object or liquid falls or spills on the housing, unplug the module immediately.
- Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.
- Using supplies or parts not meeting the product specifications may cause damage, deterioration or malfunction.
- Refer all servicing to qualified service personnel.
- Install the device in a place with adequate ventilation to avoid damage caused by overheat.
- Unplug the power when left unused for a long period of time.
- Information on disposal of devices: do not burn or mix with general household waste, please treat them as normal electrical waste.

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2 Introduction

The HDMI 2.0 Extender Kit, 50m (Model: 500408) allows extend a high-definition video/ audio signals and one-way IR commands up to 164ft/50m between the transmitter and receiver over a single Cat5e/6 cable. This extender supports up to 4K/60Hz 4:4:4 video resolution, 18Gbps bandwidth, HDCP 2.2., HDMI Loop-out on the Transmitter, and one-way IR pass-through enabling source control.

The extender includes one Transmitter unit and Receiver unit. The Transmitter unit is responsible for capturing HDMI input signal and carries the signal via one Cat5e/6 cable, and emitting IR control signals. The Receiver unit is responsible for receiving the HDMI signal and capturing IR control signals.

3 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 4K/60Hz 4:4:4, extends distance up to 164ft /50m
- 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 12VDC/1A power adapter, the other doesn't need power supply
- Supports automatic copy EDID function
- Compact design for easy and flexible installation

4 Package Contents

- One (1) HDMI 2.0 Extender (Transmitter)
- One (1) HDMI 2.0 Extender (Receiver)
- One (1) IR Blaster cable (1.5 meters)
- One (1) 20~60KHz IR Receiver cable(1.5 meters)
- One (1) 12VDC/1A Locking Power adapter
- Four (4) Mounting Ears
- One (1) User manual (available via download)

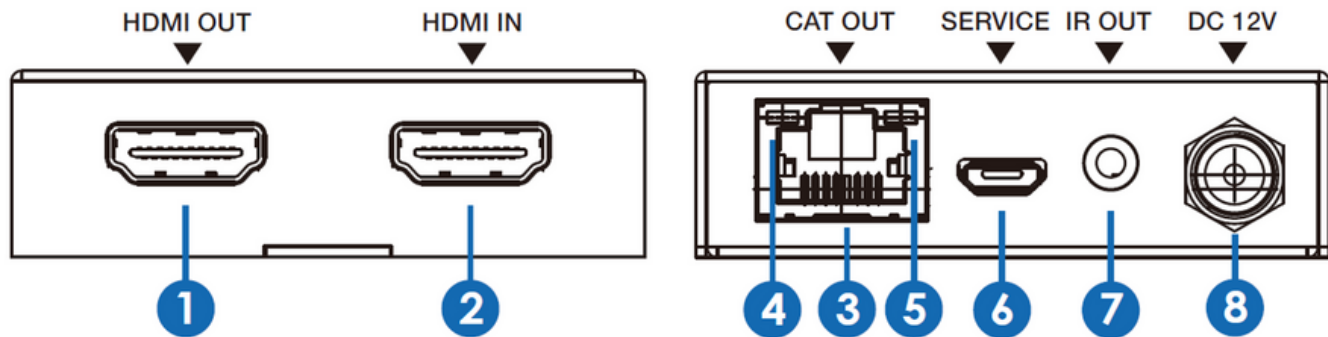
Notes: Confirm that the product and accessories are all included. If not, please contact the supplier from which you purchased the unit.

5 Specifications

Technical	
HDMI Compliance	HDMI 2.0
HDCP Compliance	HDCP 2.2 / HDCP 1.4
Video Bandwidth	18Gbps
Video Resolution	Up to 4K/60Hz 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 (1080P/60Hz, 4K/30Hz, 4K/60Hz YCbCr 4:2:2/4:2:0) 8-bit (4K/60Hz 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)
Connection	
Transmitter	Inputs: 1 x HDMI Type A [19-pin male] 1 x SERVICE [Micro USB, Update port] Outputs: 1 x HDMI Type A [19-pin female] 1 x IR OUT [3.5mm Stereo Mini-jack] 1 x CAT OUT [RJ45, 8-pin female]
Receiver	Inputs: 1 x IR IN [3.5mm Stereo Mini-jack] 1 x CAT IN [RJ45, 8-pin female] 1 x SERVICE [Micro USB, Update port] Outputs: 1 x 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: 100 - 240VAC 50/60Hz Output: 12VDC/1A
Power Consumption	3.84W
Operating Temperature	32 - 104°F / 0 - 40°C
Storage Temperature	-4 - 140°F / -20 - 60°C
Relative Humidity	20 - 90% RH (no condensation)
Generic Specification	
Warranty	2 years
Order Information	100504-V2 HDMI 2.0 Extender Kit, 50M (UPC: 627699515044)

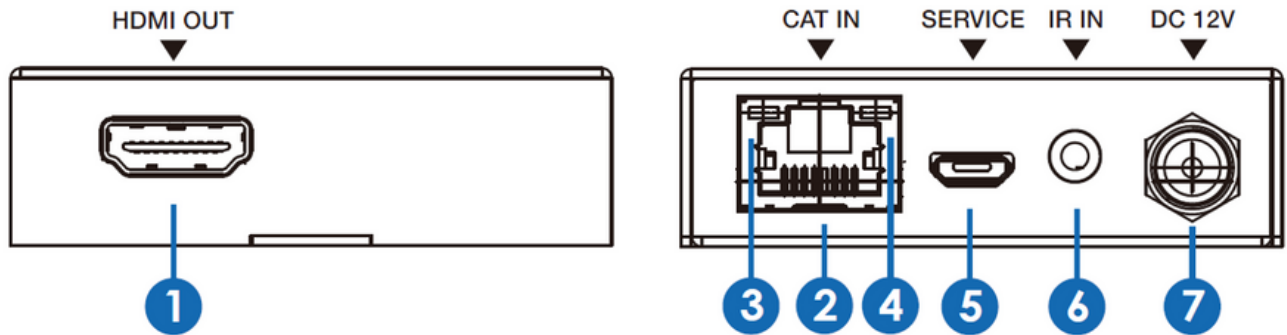
6 Operation Controls and Functions

6.1 Transmitter Panel



No	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 LED will illuminate when the transmitter is powered on
5	Data signal Indicator Lamp (Orange)	The LED will illuminate when the transmitter and the receiver have signal transmission
6	Service port	Firmware update port
7	IR OUT	Connect to wideband IR Blaster cable. The IR signal is from the IR IN port of the receiver
8	12VDC	Plug 12VDC/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 on by the 12VDC/1A power adapter, the other doesn't need power supply)

6.2 Receiver Panel



No	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 LED will illuminate when the receiver is powered on
4	Data signal Indicator Lamp (Orange)	The LED will illuminate when the transmitter and the receiver have signal transmission
5	Service port	Firmware update port
6	IR IN	Connect to wideband IR Receiver cable. The IR signal will send to the IR OUT port of the transmitter
7	12VDC	Plug 12VDC/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 on by the 12VDC/1A power adapter, the other doesn't need power supply)

6.3 IR Pin Definition

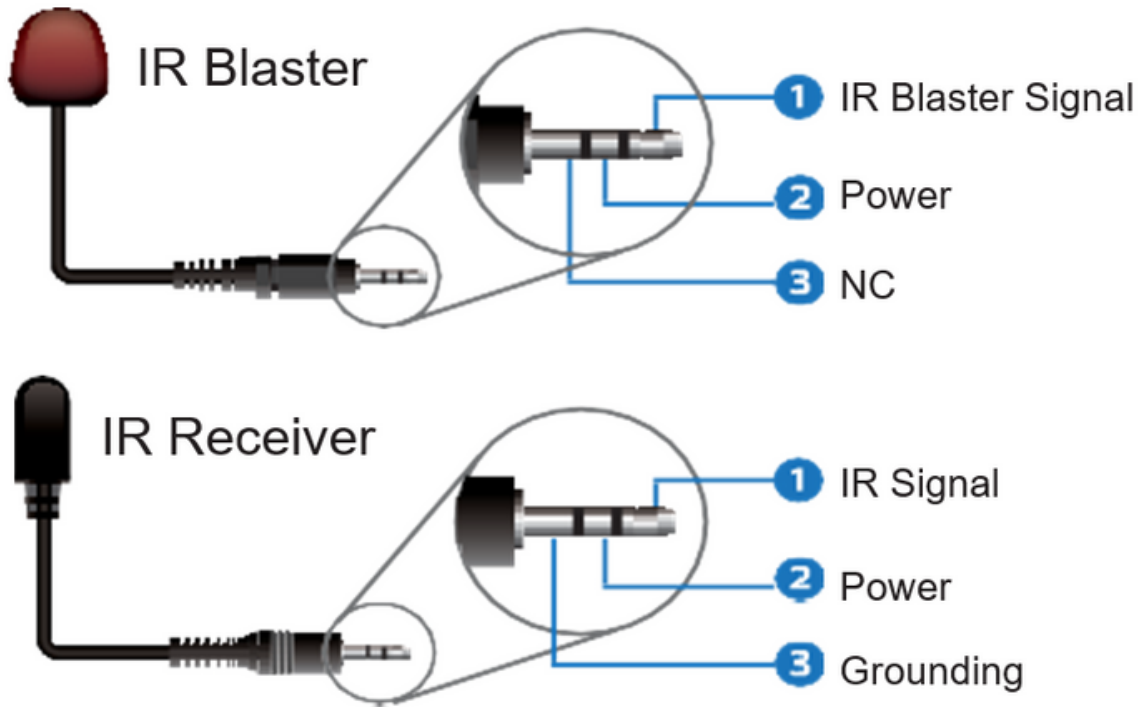
IR Receiver and Blaster pin's definition as below:



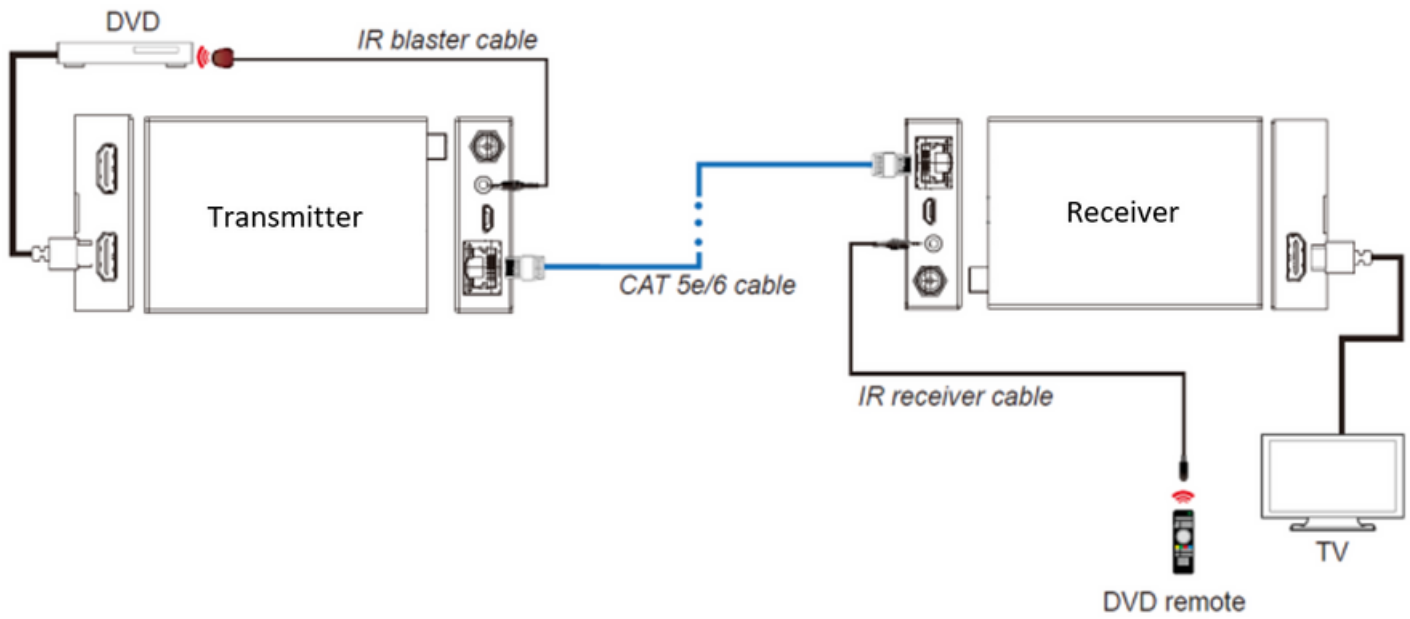
IR Receiver



IR Blaster



The following is a diagram about the use method of IR cable.



7 Application Example

