![BZB GEAR logo]

BZB-EXH-50

HDMI2.0 Extender over Single CAT6 with IR Control

User Manual

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 BZB-EXH-50 extends high definition video and audio signals and one-way IR, at a distance of up to 164ft/50m over a single Cat6 cable. With only one cost effective Cat6 cable, high definition sources with HDMI outputs can be connected to high definition displays with HDMI inputs over long distances. DTS-HD or Dolby TrueHD audio is supported and compatible with the extender. In addition, the extender is also equipped with one-way pass-through IR which allows for source control and one HDMI loop output. The extender includes two units: transmitting unit and receiving unit. The Transmitting unit is responsible for capturing the HDMI input and carries the signals via one cost effective Cat6 cable, and reconstructing IR control signals. The receiving unit is responsible for equalizing the transmitted HDMI signal and transmitting IR control signals. The extender can copy the EDID signal from transmitter's or receiver's display device to source device by dip switch with the transmitter end. The extender offers the most convenient solution for HDMI extension over a single Cat6 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 resolutions the maximum up to 4k2k@60Hz

RGB/Ycbcr 4:4:4/Ycbcr 4:2:2, extends distance the furthest up to 164ft/50m

☆ Supports one route HDMI loop output

☆ Supports one-way IR control

☆ Supports HDR function

☆ Supports copy the EDID signal from transmitter's or receiver's display

device

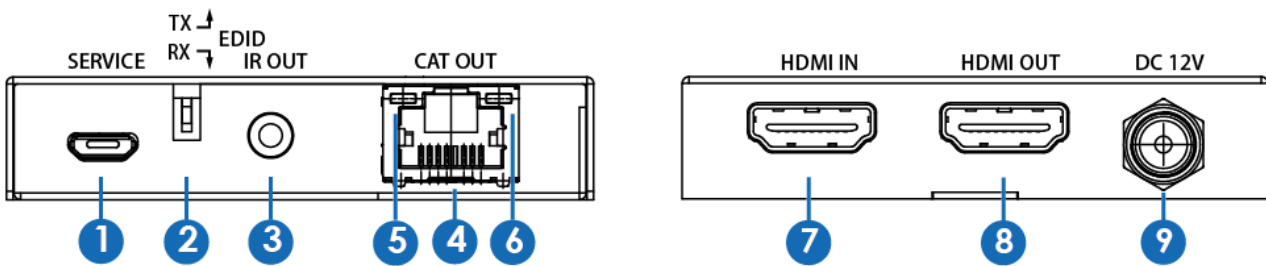☆ Compact design for easy and flexible installation.

3. Package Contents

① 1✕ HDMI2.0 Extender Transmitter

② 1✕ HDMI2.0 Extender Receiver

③ 1✕ Wideband IR Blaster cable

④ 1✕ Wideband IR Receiver cable

⑤ 1✕ 12V/1A Locking Power adapter

⑥ 1✕ User Manual

4. Specifications

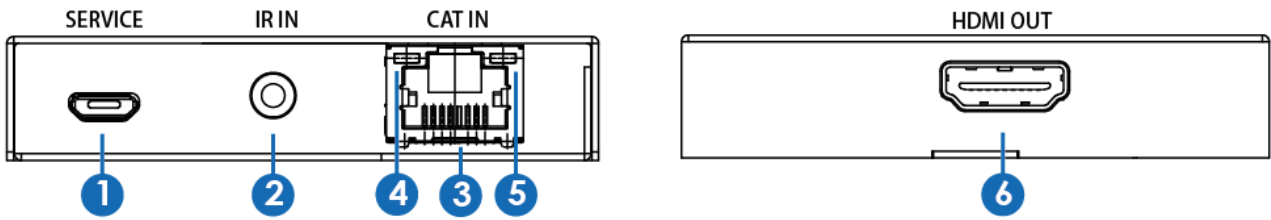| Technical	
HDMI Compliance	HDMI 2.0
HDCP Compliance	HDCP 2.2/HDCP 1.4
Video Bandwidth	18Gbps
Video Resolution	Up to 4K60Hz 4:4:4
Color Space	RGB/YCbCr 4:4:4, YCbCr 4:2:2, YUV 4:2:0
Color Depth	8/10/12-bit
HDMI Audio Formats	LPCM, Dolby Digital/Plus/EX, Dolby True HD, DTS, DTS-EX, DTS-96/24, DTS High Res, DSD-HD Master Audio, DSD
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
Silkscreen Color	Black
Dimensions	101.5mm [W] x 69.3mm [D] x 13.3mm [H]
Weight	Transmitter: 150g, Receiver: 144g
Power Supply	Input: AC100 - 240V 50/60Hz, Output: DC 12V/1A (US/EU standards, CE/FCC/UL certified)
Power Consumption	6.36W
Operation Temperature	32 - 104° F / 0 - 40° C
Storage Temperature	-20° C ~ 60° C / -4° F ~ 140° F
Relative Humidity	20~90% RH (non-condensing)

5. Operation Controls and Functions

5.1 Transmitter Panel

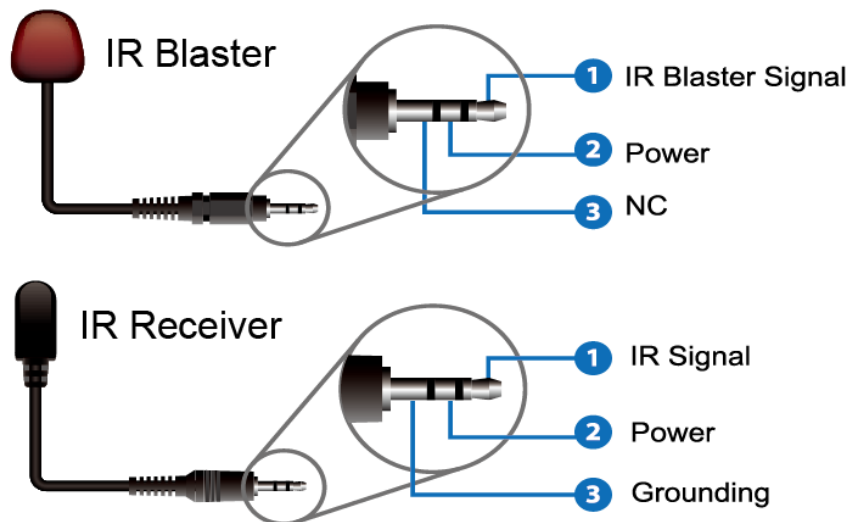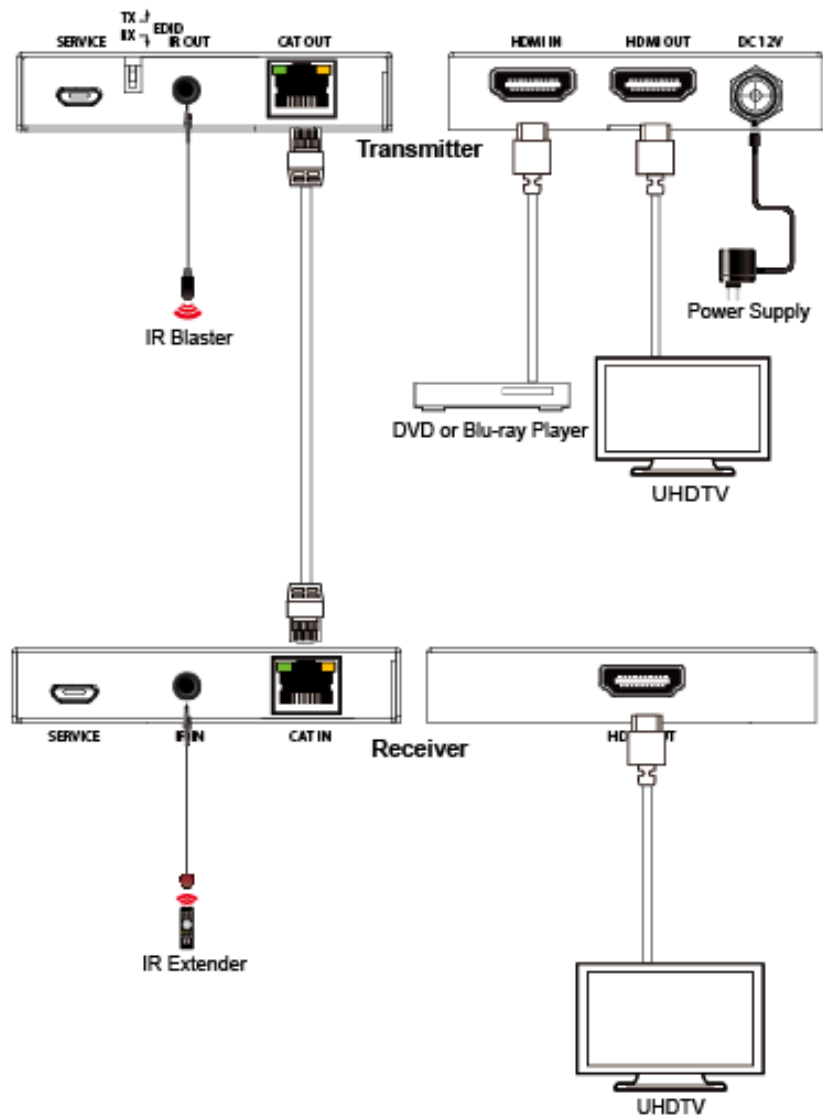| Number	Name	Function description
1	SERVICE port	For firmware updated use.
2	COPY TX / RX	■ When in "TX" position, the unit will copy the EDID setting of the HDMI loop output display device to source device. The source device will send again matching the loop output display device audio / video signal to all HDMI outputs. ■ When in "RX" position, the unit will copy the EDID setting of the HDMI output display device on the receiving end to source device. The source device will send again matching the HDMI output display device on the receiving end audio / video signal to all HDMI outputs.
3	IR OUT	Connect to wideband IR Blaster cable.
4	CAT OUT	Connect to CAT IN port on the receiving end with a CAT6 cable.
5	Power Indicator Lamp	The lamp will illuminate when the transmitter is power on.
6	Connection signal Indicator Lamp	The lamp will illuminate when the transmitter and the receiver have signal transmission.
7	HDMI IN	HDMI input port, connect to HDMI source device such as DVD or PS4 player with an HDMI cable.
8	HDMI OUT	HDMI loop output port, connect to HDMI display device such as TV or Projector with an HDMI cable.
9	DC 12V	Plug the 12V/1A adapter to AC wall outlet for power supply.

5.2 Receiver Panel

Number	Name	Function description
1	SERVICE port	For firmware updated use.
2	IR IN	Connect to wideband IR Receiver cable.
3	CAT IN	Connect to CAT OUT port on the transmitter end with a CAT6 cable.
4	Power Indicator Lamp	The lamp will illuminate when the receiver is power on.
5	Connection signal Indicator Lamp	The lamp will illuminate when the transmitter and the receiver have signal transmission.
6	HDMI OUT	HDMI output port, connect to HDMI display device such as TV or Projector with an HDMI cable.

5.3 IR Pin Definition

IR Receiver and Blaster pin's definition as below:

IR RECEIVER   IR BLASTER

IR Blaster
1. IR Blaster Signal
2. Power
3. NC

IR Receiver
1. IR Signal
2. Power
3. Grounding

6. Application Example

7. Mission Statement

BZBGEAR manifests from the competitive nature of the audiovisual industry to innovate while keeping the customer in mind. AV solutions can cost a pretty penny, and new technology only adds to it. We believe everyone deserves to see, hear, and feel the advancements made in today's AV world without having to break the bank. BZBGEAR is the solution for small to medium-sized applications requiring the latest professional products in AV.

We live in a DIY era where resources are abundant on the internet. With that in mind, our team offers system design consultation and expert tech support seven days a week for the products in our BZBGEAR catalog. You'll notice comparably lower prices with BZBGEAR solutions, but the quality of the products is on par with the top brands in the industry. The unparalleled support from our team is our way of showing we care for every one of our customers. Whether you're an integrator, home theater enthusiast, or a do-it-yourselfer, BZBGEAR offers the solutions to allow you to focus on your project and not your budget.

8. Warranty Information

Second Year Assurance

BZBGEAR wants to assure you peace of mind. We're so confident in the quality of our products that along with the manufacturer's one-year limited warranty, we are offering free second-year warranty coverage upon registration*!

Taking advantage of this program is simple, just follow the steps below:

1. Register your product within 90 days of purchase by visiting BZBGEAR.com/warranty.

2. Complete the registration form. Provide all necessary proof of purchase details, including serial number and a copy of your sales receipt.

For questions, please call 1.888.660.2962 or email support@bzbgear.com.

For complete warranty information, please visit BZBGEAR.com/warranty or scan the QR code below.

*Terms and conditions apply. Registration is required.