

# BG-UDAIC-E14

**1X4 4K60 UHD 18Gbps HDMI Splitter & Distribution Amplifier**  
up to 230ft

## User Manual







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## Statement

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Please read these instructions carefully before connecting, operating, or configuring this product. Please save this manual for future reference.

## Safety Precaution

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- To prevent damaging this product, avoid heavy pressure, strong vibration, or immersion during transportation, storage, and installation.
- The housing of this product is made of organic materials. Do not expose to any liquid, gas, or solids which may corrode the shell.
- Do not expose the product to rain or moisture.
- To prevent the risk of electric shock, do not open the case. Installation and maintenance should only be carried out by qualified technicians.
- Do not use the product beyond the specified temperature, humidity, or power supply specifications.
- This product does not contain parts that can be maintained or repaired by users. Damage caused by dismantling the product without authorization from BZBGear is not covered under the warranty policy.
- Installation and use of this product must strictly comply with local electrical safety standards.



## Introduction

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The BG-UDAIC-E14 is an extender splitter kit that distributes 1 HDMI input to 4 HDMI outputs and extends these signals up to 230 feet (70m). The kit supports resolutions up to 4K@60Hz and the transmitter is also equipped with an HDMI loop out to view the content near the source. The unit is also capable of bi-directional IR, advanced EDID, and RS232 control .

## Features

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- Zero latency transmission
- Split and extend 1 HDMI input signal to 4 HDMI outputs
- Up to 4K@60Hz resolutions
- Transmission distance up to 230 feet or 70 meters by using Cat6/6A/7 cables
- Bi-directional IR
- HDMI loop out
- Audio extraction from the TV or source device on the receiver end via S/PDIF.
- EDID passthru or manually set the EDID
- RS-232 command control
- Surge Protection, Lightning Protection, ESD Protection
- Equipped with rack mount ears

## Packing List

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- |                                 |                                   |
|---------------------------------|-----------------------------------|
| 1. 1x HDMI Splitter Extender TX | 6. 1x Terminal Block (RS-232)     |
| 2. 4x HDMI Splitter Extender RX | 7. 1x IR Blaster Extension Cable  |
| 3. 1x User Manual               | 8. 4x IR Receiver Extension Cable |
| 4. 1x DC12V/2A                  | 9. 20x Mounting Brackets          |
| 5. 4x DC5V/2A                   | 10. 40x Screw                     |



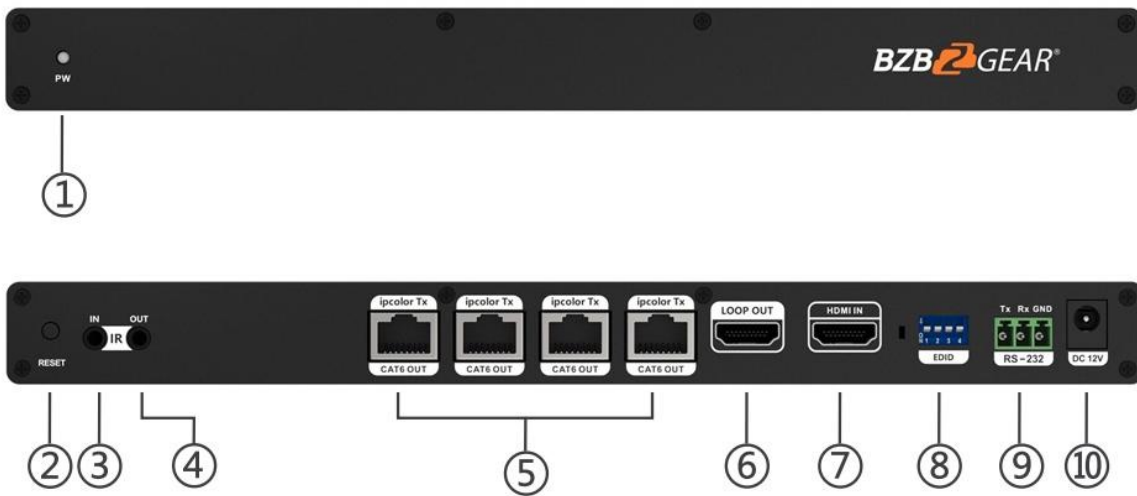
## Specifications

Item	Specification
Transport protocol	ipcolor
Split mode	1 IN 4 OUT
Transmission Distance	CAT6/6A/7<70m
HDMI signal	HDMI 2.0, HDCP2.2
Resolution	480i@60Hz, 480p@60Hz, 576i@50Hz, 576p@50Hz, 720p@50/60Hz, 1080i@50/60Hz, 1080p@50/60Hz, 1280x960, 1280x800, 1280x768, 1680x1050, 1360x768, 1366x768, 1600x900, 1024x768, 800x600, 3840x2160@24/25/30/50/60Hz, 4096x2160@24/25Hz
Audio formats	LPCM/DTS-HD/DTS-Audio/Dolby Digital 5.1
IR	Bi-directional IR passback (20-60khz)
RS-232	3-pin: TxD-RxD-GND, follows RS-232 levels
Working Temperature	-20~60°C
Storage Temperature	-30~70°C
Humidity (no condensation)	0~90%
Protection	ESD protection 1a Contact discharge level 3 1b Air discharge level 3 Implementation of the standard: IEC 61000-4-2
	Lightning protection
	Surge protection
Power supply	TX: DC 12V/2A RX: DC 5V/2A
Power consumption	TX<13W RX<4W
Material	Aluminum alloy material + crystal panel
Color	Black
Weight	TX: 640g RX: 210g
Dimension	TX: 264.00(L) x 104.00(W) x 23.50(H)mm RX: 106.0(L) x 99.0(W) x 26.2(H)mm



## Panel Description

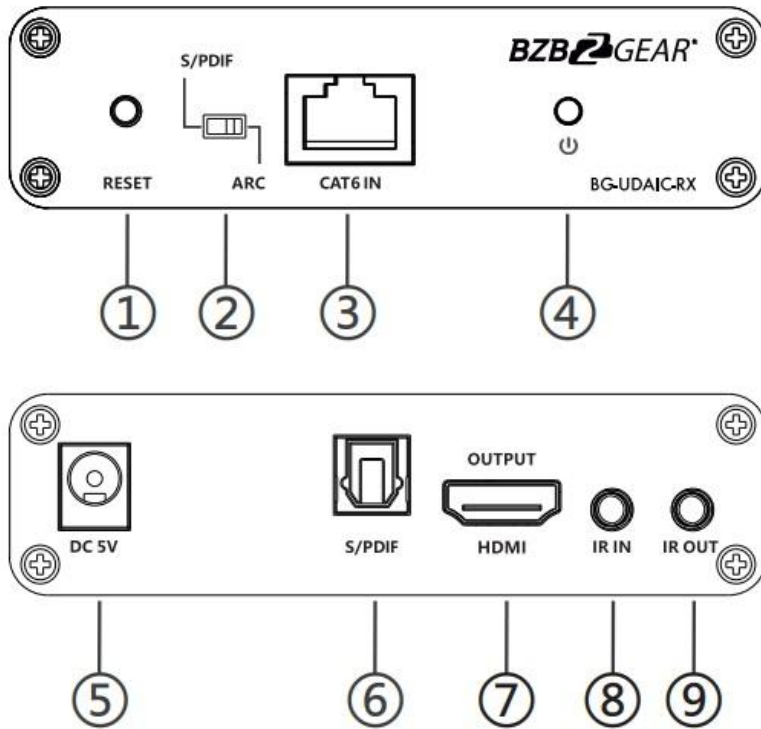
### Transmitter (TX)



No.	Name	Function Description
1	Power indicator	The blue light will illuminate when powered on
2	Reset button	Restarts the device
3	IR in	Connect to the IR receiver extension cable
4	IR out	Connect to the IR blaster extension cable
5	RJ45 output port	Connect using CAT 6/6a/7 network cables
6	HDMI output port	Connects to a local HDMI display device using an HDMI cable
7	HDMI input port	Connects to an HDMI source device using an HDMI cable
8	EDID DIP switch	Configure output resolution using the EDID DIP switch
9	RS-232 Port	Connects to an external device to control the transmitter
10	Power	Connects to the supplied DC 12V/2A power adapter



## Receiver (RX)



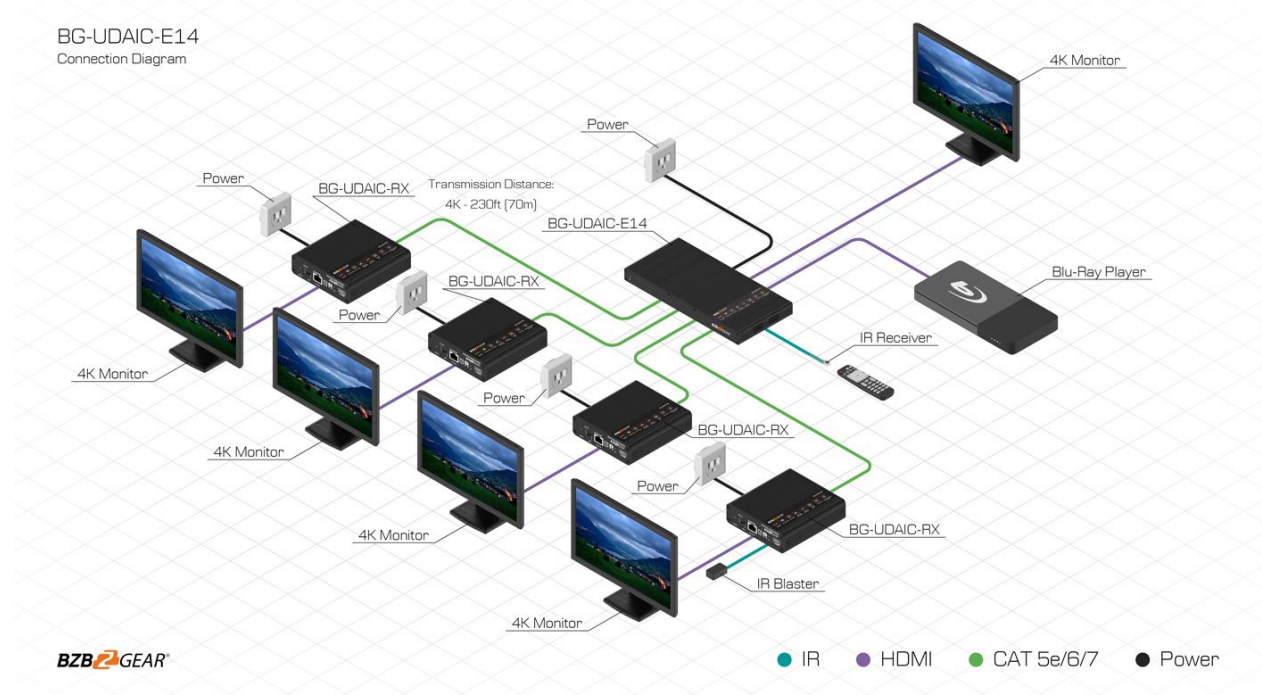
No.	Name	Function Description
1	Reset button	Restarts the device
2	Audio switch	Choose the audio source (output from the S/PDIF port) S/PDIF: From the source device ARC: From the TV (receiver end)
3	RJ45 signal input	Connect using CAT 6/6a/7 network cables
4	Power/Signal indicator	When the device is powered on, the blue indicator light will be solid if the HDMI signal is detected. If the HDMI signal is not detected, the light will flash.
5	Power	Connects to the supplied DC 5V/2A power adapter
6	S/PDIF output	Connect to a speaker or amplifier
7	HDMI output	Connects to an HDMI display device
8	IR in	Connect using an IR receiver extension cable
9	IR out	Connect using an IR blaster extension cable





## Installation Procedures

### Connection Diagram



### Connection Instructions

1. Connect the source device to the transmitter's HDMI IN port using an HDMI cable.
2. Connect the transmitter's CAT6 OUT port to the receiver's CAT6 IN port using network cables.
3. Connect the receiver's HDMI OUTPUT port to the display devices using HDMI cables.
4. If using an HDMI loop out, connect the transmitter's LOOP OUT port to the display using an HDMI cable.
5. If using the RS-232 control, connect the transmitter's RS-232 port to the external control device.
6. Plug the power into the devices.

### IR User Guide

1. The IR blaster extension cable connects to the IR OUT port of the transmitter or receiver. The IR receiver extension cable connects to the IR IN port of the transmitter or receivers.
2. The emitter of the IR blaster extension cable is recommended to be as close as possible to the IR receiving window of the target device.
3. Point the remote control at the receiving head of the IR receiver extension cable to operate.



# Control Settings

## RS232 Settings

The default configuration is as follows:

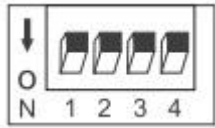
Baud rate: 9600 / Data bits: 8 / Stop bits: 1 / Parity: 0

Control Commands	Function Descriptions	
ES XX On/n	Turn on the network signal output port(s), choose from "01" to "04" (the network ports from right to left are: 01, 02, 03, 04.); "All" means all four ports	
ES XX Off/n	Turn off the network signal output port(s), choose from "01" to "04" (the network ports from right to left are: 01, 02, 03, 04.); "All" means all four ports	
Reset/n	Restart the device	
Recover/n	Restore device to factory settings	
Baud XX /n	Set the baud rate value: 9600 (default), 19200, 38400, 57600, 115200	
Examples of control commands are shown below:		
Control Command	ES 04 On/n	
Function Description	Turn on network signal output port 04	
Return Values	Received successfully	ES 04 On OK
	Receive failed	ES 04 On FAIL
Control Command	ES All Off/n	
Function Description	Turn off all the network signal output ports	
Return Values	Received successfully	ES All Off OK
	Receive failed	ES All Off FAIL
Control Command	Reset/n	
Function Description	Restart the device	
Return Values	Received successfully	Reset OK
	Receive failed	Reset FAIL
Control Command	Baud 19200/n	
Function Description	Set the baud rate value: 9600	
Return Values	Received successfully	Baud 19200 OK
	Receive failed	Baud 19200 FAIL

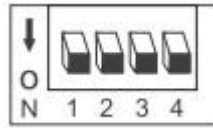


**EDID Settings:**

The transmitter has 16 built-in EDID settings that can be configured using the DIP switch. Flipping the DIP switch upward indicates a “1” and flipping downward indicates a “0.”



Switch up for "1"



Switch down for "0"

Switch Status				EDID Information
1	2	3	4	
0	0	0	0	4K@60Hz 2CH
1	0	0	0	4K@60Hz 5.1CH
0	1	0	0	4K@60Hz 7.1CH
0	0	1	0	4K@60Hz HDR 7.1CH
0	0	0	1	4K@30Hz 2CH
1	1	0	0	4K@30Hz 5.1CH
1	0	1	0	4K@30Hz 7.1CH
1	0	0	1	4K@30Hz HDR 7.1CH
0	1	1	0	1080p@60Hz 2CH
0	1	0	1	1080p@60Hz 5.1CH
0	0	1	1	1080p@60Hz 7.1CH
1	1	1	0	1080i@60Hz 2CH
1	1	0	1	1080i@60Hz 5.1CH
1	0	1	1	1080i@60Hz 7.1CH
0	1	1	1	1080p@60Hz HDR 7.1CH
1	1	1	1	Auto

Auto: Auto output at a resolution compatible with all displays.



## FAQ

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**Q:** Why does my display device not have an image?

**A:**

1. Check the power supply and all cables and ensure they are properly connected.
2. Check if the HDMI signal input is detected.
3. Check the corresponding network output and ensure it has not been turned off by the RS-232 command.

**Q:** Why is the output image unstable?

**A:**

1. Check the length of the network cable and ensure it is within the 70-meter limit.
2. Press the "reset" button on TX and RX panels to restart and reconnect.

**Q:** Why does the TV have a snowy/fuzzy screen?

**A:**

1. The HDMI cable may be defective or exceeds the recommended cable length and needs replacing.
2. The recommended length of the HDMI cable connected to the transmitter is  $\leq 3$  meters, and the recommended length of the HDMI cable connected to the receiver is  $\leq 5$  meters.



## Tech Support

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Have technical questions? We may have answered them already!

Please visit BZBGear's support page ([bzbgear.com/support](http://bzbgear.com/support)) for helpful information and tips regarding our products. Here you will find our Knowledge Base ([bzbgear.com/knowledge-base](http://bzbgear.com/knowledge-base)) with detailed tutorials, quick start guides, and step-by-step troubleshooting instructions. Or explore our YouTube channel, BZB TV ([youtube.com/c/BZBTVchannel](http://youtube.com/c/BZBTVchannel)), for help setting up, configuring, and other helpful how-to videos about our gear.

Need more in-depth support? Connect with one of our technical specialists directly:

**Phone**

1.888.499.9906

**Email**

support@bzbgear.com

**Live Chat**

bzbgear.com



## Warranty

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BZBGear Pro AV products and cameras come with a three-year warranty. An extended two-year warranty is available for our cameras upon registration for a total of five years.

For complete warranty information, please visit [bzbgear.com/warranty](http://bzbgear.com/warranty).

For questions, please call 1.888.499.9906 or email [support@bzbgear.com](mailto:support@bzbgear.com).



## Mission Statement

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BZBGear is a breakthrough manufacturer of high-quality, innovative audiovisual equipment ranging from AVoIP, professional broadcasting, conferencing, home theater, to live streaming solutions. We pride ourselves on unparalleled customer support and services. Our team offers system design consultation, and highly reviewed technical support for all the products in our catalog. BZBGear delivers quality products designed with users in mind.



## Copyright

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