

# BG-AEE

4K UHD 18Gbps HDMI Signal Fixer and Audio Embedder/Extractor

## 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-AEE is an HDMI 2.0 Audio Extractor and Embedder. It has two modes: audio extraction via L/R output from HDMI input source, and the other mode is for removing the original audio of HDMI source and embedding auxiliary audio via L/R input to the HDMI output. It also features EDID dip switches with the ability to lock the video signal to various formats to ensure signal quality.

## Features

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- 4K@50Hz/60Hz 4:4:4 , HDR and full 3D format
- HDCP 2.2/HDCP 1.x and DVI compliant
- Audio embed to HDMI output
- Audio de-embedded from HDMI input
- EDID management
- HDCP management
- CEC and ARC pass through
- Relock and enhance output signal quality
- All PCM, Dolby and DTS audio formats pass through
- ESD protection

## Packing List

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- 1x BG-AEE
- 1x 5V/1A Power Supply
- 1x Pair of Rack-mount Ears



## Specifications

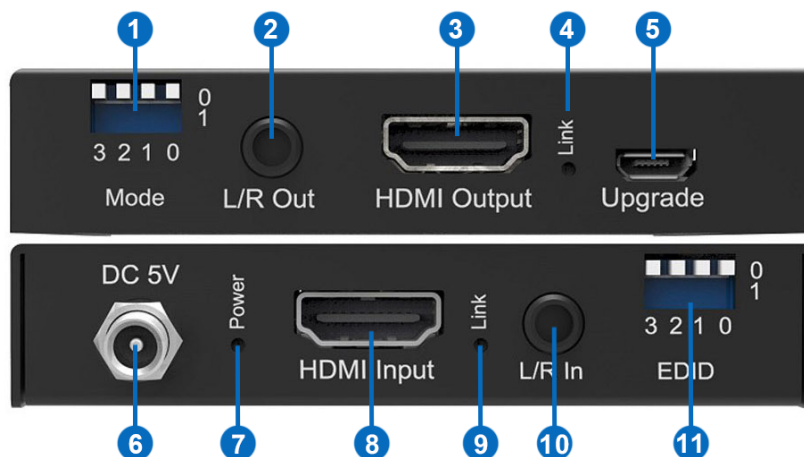
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Bandwidth	18Gbps
Video Input Connectors	1x HDMI Type A, 19-pin, female
Audio Input Connectors	1x 3.5mm stereo earphone jack (L/R)
Video Output Connectors	1x HDMI Type A, 19-pin, female
Audio Output Connectors	1x 3.5mm stereo earphone jack (L/R)
EDID	4-pin DIP Switcher
Mode	4-pin DIP Switcher
Dimensions(W x D x H)	83mm x 83mm x 17mm, without feet
Shipping Weight	0.3KG
Operating Temperature	32°F to 104°F (0°C to 40°C)
Storage Temperature	- 4°F to 140°F (- 20°C to 60°C)
Power Supply	5V/1A DC



## Operation Controls and Functions

### Panel Description

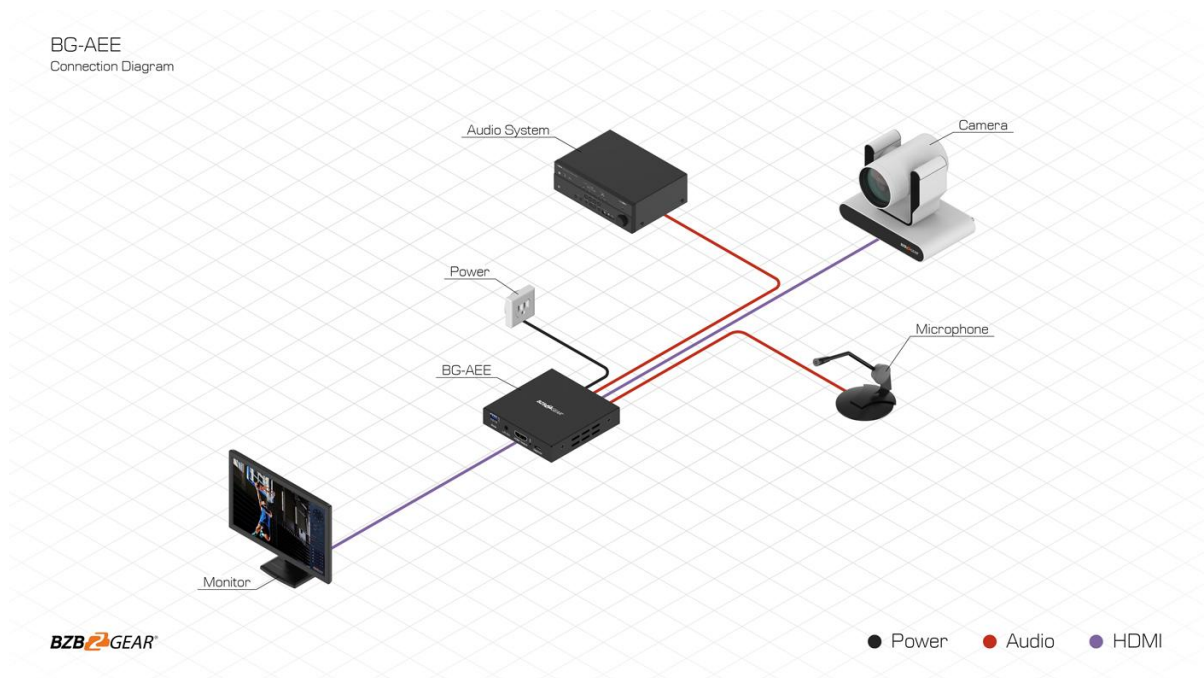


No.	Name	Function Description
1	Mode DIP Switch	<p>4 pin (UP=0, DOWN=1). The BG-AEE can be configured to perform various tasks using the mode DIP switches. Detailed settings please see below:</p> <p><b>A.</b> Under control by DIP switch, the position of DIP Switch-0 should be UP (0).</p> <p><b>DIP Switch-3</b> - Selectable to convert HDMI signal to output.</p> <ul style="list-style-type: none"> <li>Position=0 (UP) - Auto convert 6G (4:4:4) format to 3G (4:2:0) when detected sink does not support 6G (4:4:4).</li> <li>Position=1 (DOWN) - Always convert 6G (4:4:4) format to 3G (4:2:0).</li> </ul> <p><b>DIP Switch-2</b> - HDCP management.</p> <ul style="list-style-type: none"> <li>Position=0 (UP) - HDCP follows sink.</li> <li>Position=1 (DOWN) - HDCP follow source.</li> </ul> <p><b>DIP Switch-1</b> - Audio embedding and bypass.</p> <ul style="list-style-type: none"> <li>Position=0 (UP) - Audio bypass.</li> <li>Position=1 (DOWN) - Audio embedding (L/R input added to the HDMI Output).</li> </ul> <p><b>B.</b> Under control by serial USB mode, the position of DIP Switch-0 should be DOWN (1). DIP Switch-1/2/3 - reserved or not in use.</p>
2	L/R Out	Extract the audio from the HDMI input
3	HDMI Output	Connect to HDMI sink device
4	LED Link for HDMI output	Lit when detecting HDMI signal
5	Upgrade	Micro USB port for F/M upgrade and terminal API control
6	DC Power Input	Screw locking connector, use the included 5V/1A DC adapter to power the unit
7	LED Indicator for Power	Lit blue light when getting power
8	HDMI Input	Connect to HDMI source device
9	LED Indicator for HDMI Input	Lit when detecting HDMI signal
10	L/R In	Embed the audio to HDMI output
11	DIP Switcher	EDID management



3	2	1	0	EDID type
Combination of DIP positions				
0	0	0	0	Copy EDID from output
0	0	0	1	1080P 2.0CH
0	0	1	0	1080P 5.1CH
0	0	1	1	1080P 7.1CH
0	1	0	0	1080i 2.0CH
0	1	0	1	1080i 5.1CH
0	1	1	0	1080i 7.1CH
0	1	1	1	4K60Hz 4:2:0 2.0CH
1	0	0	0	4K60Hz 4:4:4 2.0CH,
1	0	0	1	4K60Hz 4:4:4 7.1CH
1	0	1	0	4K30Hz 4:4:4 2.0CH
1	0	1	1	4K30Hz 4:4:4 5.1CH
1	1	0	0	4K30Hz 4:4:4 7.1CH
1	1	0	1	DVI 1280x1024
1	1	1	0	DVI 1920x1080
1	1	1	1	DVI 1920x1200

## Application Diagram







## 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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