

BG-8K-DA12

**1x2 8K UHD HDMI 2.1 Splitter with Auto Downscaling
(8K60/4K120 and VRR/ALLM/QMS/QFT/SBTM Support)**

User Manual







TABLE OF CONTENTS

Statement	4
Safety Precaution	4
Surge protection device recommended	4
Introduction	5
Features	5
Packing List	5
Specifications	6
Operation Controls and Functions	7
Auto Downscaling & Auto Converting	8
Connection Diagram	9
Troubleshooting	10
Tech Support	11
Limited Product Warranty Terms	11
Mission Statement	12
Copyright	12



Statement

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

Safety Precaution

- 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.

Surge protection device recommended

This product contains sensitive electrical components that electrical spikes, surges, electric shocks, lightning strikes, etc may damage. Use of surge protection systems is highly recommended to protect and extend the life of your equipment.



Introduction

The BG-8K-DA12 1x2 HDMI Splitter is an advanced solution designed to split a single HDMI signal into two HDMI outputs simultaneously, delivering unparalleled video quality with resolutions up to 8K@60Hz 4:2:0 12-bit. With support for data rates up to 48Gbps, this splitter meets the stringent requirements of HDMI 2.1 and HDCP 2.3. It features EDID management and cable equalization, ensuring seamless integration into any setup. Whether you're using an Xbox or PS5, this splitter allows you to achieve 4K@120Hz on your TVs or monitors, making it perfect for gaming and high-definition video applications.

Features

- HDCP 2.3 compliant
- Support 48Gbps FRL and 18Gbps TMDS video bandwidth
- Support video resolution up to 8K@60Hz 4:2:0 12bit, 4K@120Hz 4:4:4 12bit, as specified in HDMI 2.1
- HDMI 2.1 protocols: VRR, ALLM, QMS, QFT, and SBTM are supported
- Support HDR, HDR 10, HDR 10+, Dolby Vision, HLG pass-through
- LPCM 7.1CH, Dolby TrueHD, Atmos and DTS-HD Master, DTS:X Audio pass-through
- 8K to 4K or 8K/4K to 1080P auto downscaling on all outputs
- HDR to SDR auto-converting on all outputs
- Advanced EDID management
- Compact design for easy and flexible installation

Packing List

- 1 × 48Gbps 1x2 Splitter
- 1 × 5V/2A Multinational Power Supply
- 1 × User Manual



Specifications

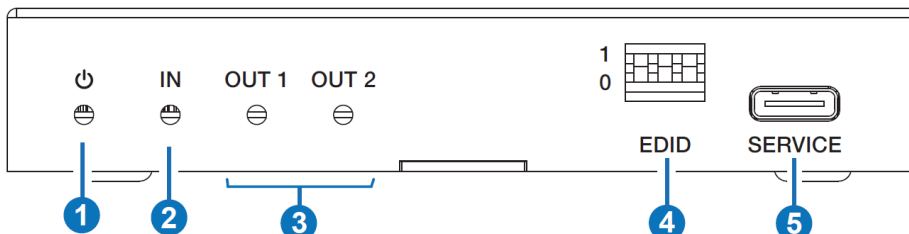
Technical				
HDMI Compliance	HDMI 2.1			
HDCP Compliance	HDCP 2.3			
Video Bandwidth	48Gbps FRL and 18Gbps TMDS			
Video Resolution	Up to 8K@60Hz 4:2:0 12bit, 4K@120Hz 4:4:4 12bit			
Color Depth	8/10/12-bit			
Color Space	RGB, YCbCr_4:4:4, YCbCr_4:2:2, YCbCr_4:2:0			
Audio Formats	HDMI input/output: LPCM, Dolby Digital/Plus/EX, Dolby True HD, Dolby Atmos, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio, DSD			
HDR	HDR, HDR10, HDR10+, Dolby Vision, HLG			
ESD Protection	IEC 61000-4-2: ±8kV (Air-gap discharge) & ±4kV (Contact discharge)			
Connection				
Input	1 × HDMI IN [Type A, 19-pin female]			
Output	2 × HDMI OUT [Type A, 19-pin female]			
Control	1 × SERVICE [USB Type C, Update port]			
Mechanical				
Housing	Metal Enclosure			
Color	Black			
Dimensions (W x D x H)	3.7in x 2.7in x 0.71in [95mm x 68mm x 18mm]			
Weight	0.39 lbs [177g]			
Power Supply	Input: AC 100-240V 50/60Hz, Output: DC 5V/2A (US/EU standards, CE/FCC/UL certified)			
Power Consumption	4.3W (Max)			
Operation Temperature	32°F ~ 104°F / 0°C ~ 40°C			
Storage Temperature	-4°F ~ 140°F / -20°C ~ 60°C			
Relative Humidity	20~90% RH (non-condensing)			
Recommended HDMI Cable				
Video Resolution	8K	4K60	4K24	1080P
HDMI Cable Length (HDMI in / out)	3m/10ft (Ultra HDMI 2.1)	8m/26ft	12m/39ft	15m/49ft
The use of "Premium High-Speed HDMI" cables is highly recommended.				



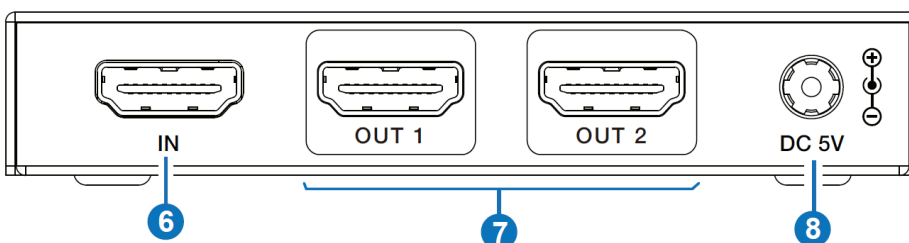
Operation Controls and Functions

Front and Rear Panel

Front Panel



Rear Panel



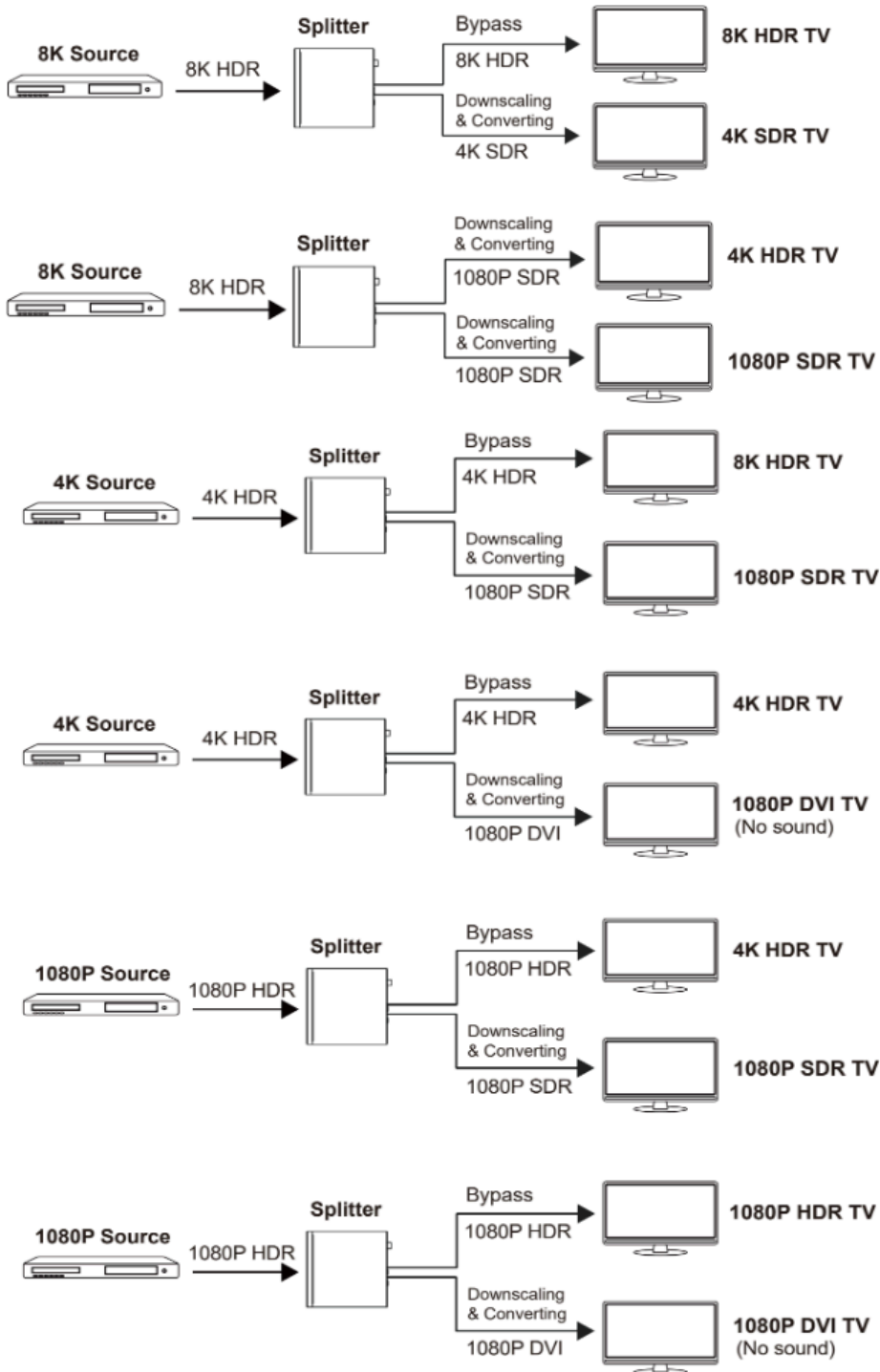
No.	Name	Function Description
1	Power LED	When the device is powered on, the red LED will be on.
2	IN LED	When the HDMI IN port connects to an active source device, the green LED will be on.
3	OUT LED (1~2)	When the HDMI OUT 1/2 port connects to a display device and outputs a signal, the corresponding green LED will be on.

No.	Name	Function Description
4	EDID DIP switch	Use the DIP switch to set EDID. [DIP]=111: Copy OUT 1 port sink EDID (as factory default) [DIP]=110: 4K60 (4:4:4), 2.0CH [DIP]=101: FRL12G_8K_HDR, 2.0CH [DIP]=100: FRL12G_8K_HDR, 5.1CH [DIP]=011: FRL12G_8K_HDR, 7.1CH [DIP]=010: FRL10G_8K_HDR, 2.0CH [DIP]=001: FRL10G_8K_HDR, 5.1CH [DIP]=000: FRL10G_8K_HDR, 7.1CH
5	SERVICE	Firmware update port.
6	IN port	HDMI signal input port, connected to HDMI source device such as DVD or PS5 with an HDMI cable.
7	OUT port (1~2)	HDMI signal output port, connected to HDMI display device such as a TV or Monitor with an HDMI cable.



Auto Downscaling & Auto Converting

This 48Gbps 1x2 splitter supports independent auto downscaling and auto-converting on all outputs. Before downscaling it will compare all the EDID of the connected display devices and select the minimum resolution to downscale and output. For example:



Note: If the source resolution is downscaled and converted to **1080P DVI** according to the EDID of display devices, it will be output without sound on the TV.

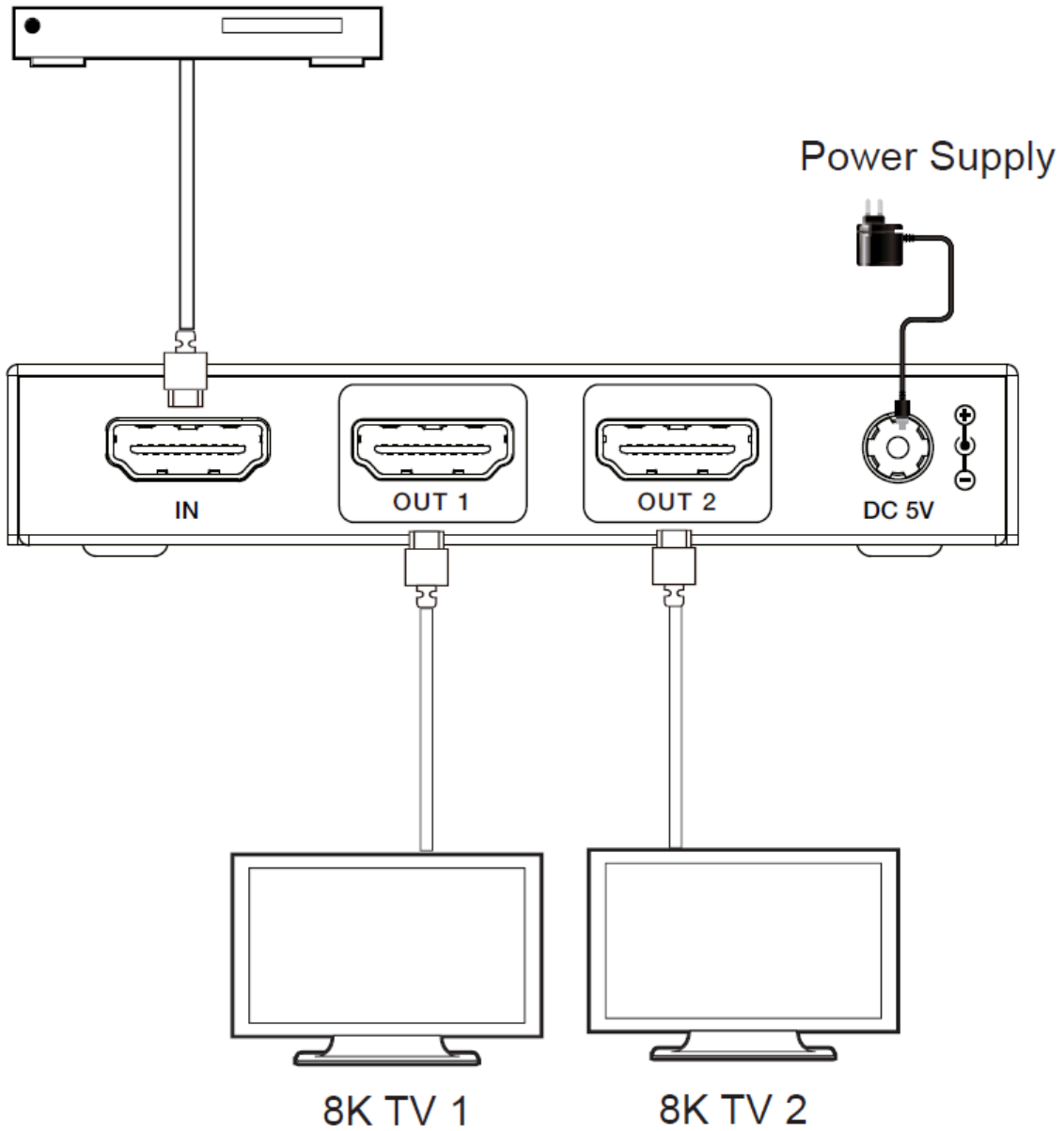
Downscaling will not work in the following conditions:

1. The input source is 8K DSC format.
2. The resolution of the input source is not supported by the splitter.



Connection Diagram

DVD or Blu-ray Player





Troubleshooting

Problems	Causes	Solutions
No Power / All LED off	Power supply not connected, connected fully, or wrong power supply.	Check if the power supply is connected correctly and the output voltage value is within recommended specifications.
No sound or sound issues	The HDMI connection is faulty, the audio format is not supported by the displays, or the source player is set to another port for audio output	Check if the HDMI cables are connected correctly. Check if the audio format is supported by the display and that a user has not changed the supported audio format on the player's audio output. Ensure output settings from the HDMI source device as set correctly.
No picture or picture flickers	The HDMI cable may be faulty or the category cable quality is faulty.	Check if the HDMI and category cable connections are correct and undamaged. Change to another good working HDMI cable or category cable (CAT6 or better cable is recommended).



Tech Support

Have technical questions? We may have answered them already!

Please visit BZBGear's support page (bzbgear.com/support) for helpful information and tips regarding our products. Here you will find our Knowledge Base (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), 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	Email	Live Chat
1.888.499.9906	support@bzbgear.com	bzbgear.com

Limited Product Warranty Terms

Pro Line: 5-year warranty from the date of purchase for AV/Broadcasting products bought on or after August 1, 2024.

Essential Line: 3-year warranty from the date of purchase for AV/Broadcasting products bought on or after August 1, 2024.

Cables: Lifetime Limited Product Warranty.

For complete warranty information, please visit bzbgear.com/warranty.

For questions, please call 1.888.499.9906 or email support@bzbgear.com.



Mission Statement

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

All the contents in this manual and its copyright are owned by BZBGear. No one is allowed to imitate, copy, or translate this manual without BZBGear's permission. This manual contains no guarantee, standpoint expression or other implies in any form. Product specification and information in this manual is for reference only and subject to change without notice.

All rights reserved. No reproducing is allowed without acknowledgement.