

BG-UHD-42MG2

4K/18G 4x2 HDMI Matrix with Audio Breakout

User Manual







TABLE OF CONTENTS

Statement	4
Safety Precaution	4
Introduction	5
Features	5
Packing List	5
Specifications	6
Operation Controls and Functions	6
Front Panel	6
Rear Panel	7
Remote Control	8
RS-232 Pin Assignment	8
Application Diagram	9
Tech Support	10
Limited Product Warranty Terms	10
Mission Statement	10
Copyright	10



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.



Introduction

The BG-UHD-42MG2 is a HDMI 2.0 matrix switcher which is designed to enable the user to switch between any of the four connected HDMI sources to send video and audio to either of the two connected HDMI displays. This matrix supports all the latest features HDMI 2.0, 4K UHD resolutions (4K@60Hz YUV 4:4:4), HDR (High Dynamic Range), Deep Color, and High-Definition audio.

The BG-UHD-42MG2 also features audio extraction for each output via Coaxial RCA or a 3.5mm mini stereo jack. Each source can be routed to any display using the manual selection buttons, IR remote control, or RS-232 interface.

Features

- Independent switching and control of up to four 4K HDR HDMI sources to up to two individual 4K HDR HDMI display devices.
- Allows any source to be displayed on multiple displays at the same time
- 4K UHD video including HDR (up to 4K@60Hz 4:4:4)
- Dolby TrueHD and DTS-HD master audio pass through
- Extract audio from HDMI output via Coaxial RCA or a 3.5mm mini stereo jack
- Multiple switching modes, push button, IR remote control, and RS-232 control
- IR Matrix functionality to control the sources or displays
- Advanced EDID management
- HDCP 2.2 compliant

Packing List

- 1 x MT0402-NA1
- 1 x 12V2A DC power supply
- 1 x Remote control
- 4 x IR Emitter
- 3 x IR Receiver.
- 1 x pair of mounting ears.
- 1 x User Manual

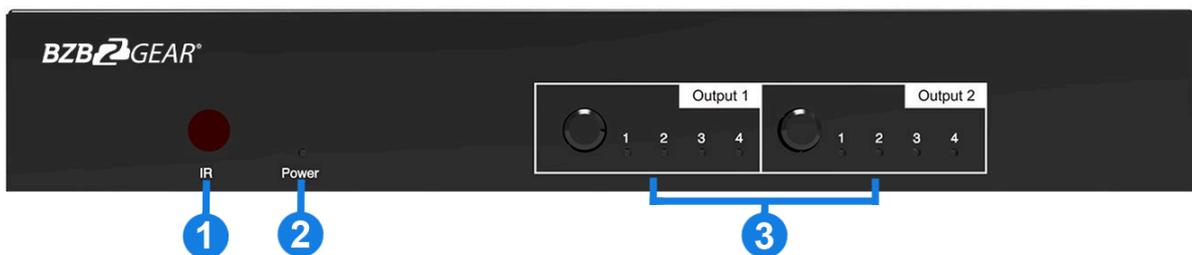


Specifications

Data Rate	
Bandwidth	6 Gbps per color
Switcher	
Video Input Connectors	4x HDMI Type A, 19-pin, female
Video Output Connectors	2x HDMI Type A, 19-pin, female
Audio Output Connectors	2x Coaxial RCA(SPDIFF), 2x 3.5mm Stereo mini
Dimensions	255mm x 105mm x 40mm, w/o feet
RS232 Serial port	1x DB9, female
IR input ports	2x 3.5mm stereo jack
IR output ports	4x 3.5mm mono jack
Rack-Mountable	rack ears included
Shipping Weight	1.5KG
Enclosure Material:	Metal
Power Supply	12V2A DC
Environment	
Operating Temperature	32°F to 104°F (0°C to 40°C)
Storage Temperature	-4°F to 140°F (-20°C to 60°C)

Operation Controls and Functions

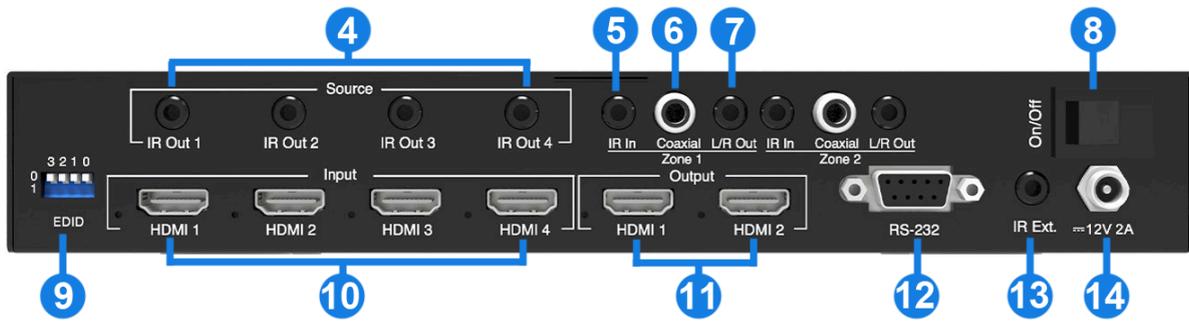
Front Panel



No.	Name	Function Description
1	IR window	Receive IR signals from the included IR remote for control of this unit only
2	Power LED indicator	Indicate the power status of the matrix
3	HDMI output routing buttons 1-2	Press either of these buttons to sequentially switch through the available inputs for the associated output



Rear Panel

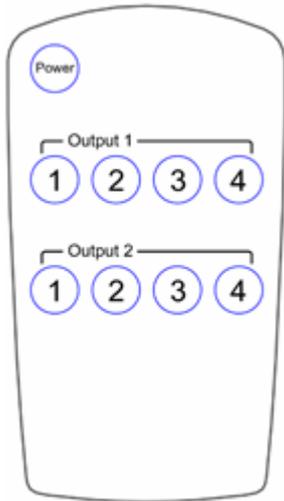


No.	Name	Function Description
4	IR Out port	3.5mm mono phone-jack, connect to IR emitter cable included
5	IR In port	3.5mm stereo phone-jack, connect to IR receiver cable included
6	Coaxial output	RCA (S/PDIF) audio extracted from HDMI output1
7	L/R output	3.5mm stereo phone-jack, audio extracted from HDMI output1 (PCM)
8	Power switcher	Press to power on/off the matrix
9	EDID DIP switch	EDID management
10	HDMI Inputs	Connect to HDMI source devices
11	HDMI Outputs	Connect to HDMI display devices
12	RS-232	DB9 female connector, connect to a DTE or DCE
13	IR extension receiver input	3.5mm stereo phone-jack, connect to IR receiver cable included
14	Power port	Use included 12V/2A DC power supply to power the matrix

3	2	1	0	EDID type
Combination of DIP positions				
0	0	0	0	HDMI 1080p@60Hz, Audio 2CH PCM
0	0	0	1	HDMI 1080p@60Hz, Audio 5.1CH PCM/DTS/DOLBY
0	0	1	0	HDMI 1080p@60Hz, Audio 7.1CH PCM/DTS/DOLBY/HD
0	0	1	1	HDMI 1080i@60Hz, Audio 2CH PCM
0	1	0	0	HDMI 1080i@60Hz, Audio 5.1CH PCM/DTS/DOLBY
0	1	0	1	HDMI 1080i@60Hz, Audio 7.1CH PCM/DTS/DOLBY/HD
0	1	1	0	HDMI 4K@60Hz 4:2:0, 4K@30Hz 4:4:4, Audio 2CH PCM
0	1	1	1	HDMI 4K@60Hz 4:2:0, 4K@30Hz 4:4:4, Audio 5.1CH PCM/DTS/DOLBY
1	0	0	0	HDMI 4K@60Hz 4:2:0, 4K@30Hz 4:4:4, Audio 7.1CH PCM/DTS/DOLBY/HD
1	0	0	1	HDMI 4K@60Hz 4:4:4, Audio 2CH PCM
1	0	1	0	HDMI 4K@60Hz 4:4:4, Audio 5.1CH PCM/DTS/DOLBY
1	0	1	1	HDMI 4K@60Hz 4:4:4, Audio 7.1CH PCM/DTS/DOLBY/HD
1	1	0	0	DVI 1280x1024@60Hz, Audio None
1	1	0	1	DVI 1920x1080@60Hz, Audio None
1	1	1	0	DVI 1920x1200@60Hz, Audio None
1	1	1	1	Software Control EDID



Remote Control



- Power Button – Press to enter standby mode
- Output 1 button 1 to 4 – Press to select input from 1 to 4
- Output 2 button 1 to 4 – Press to select input from 1 to 4

RS-232 Pin Assignment

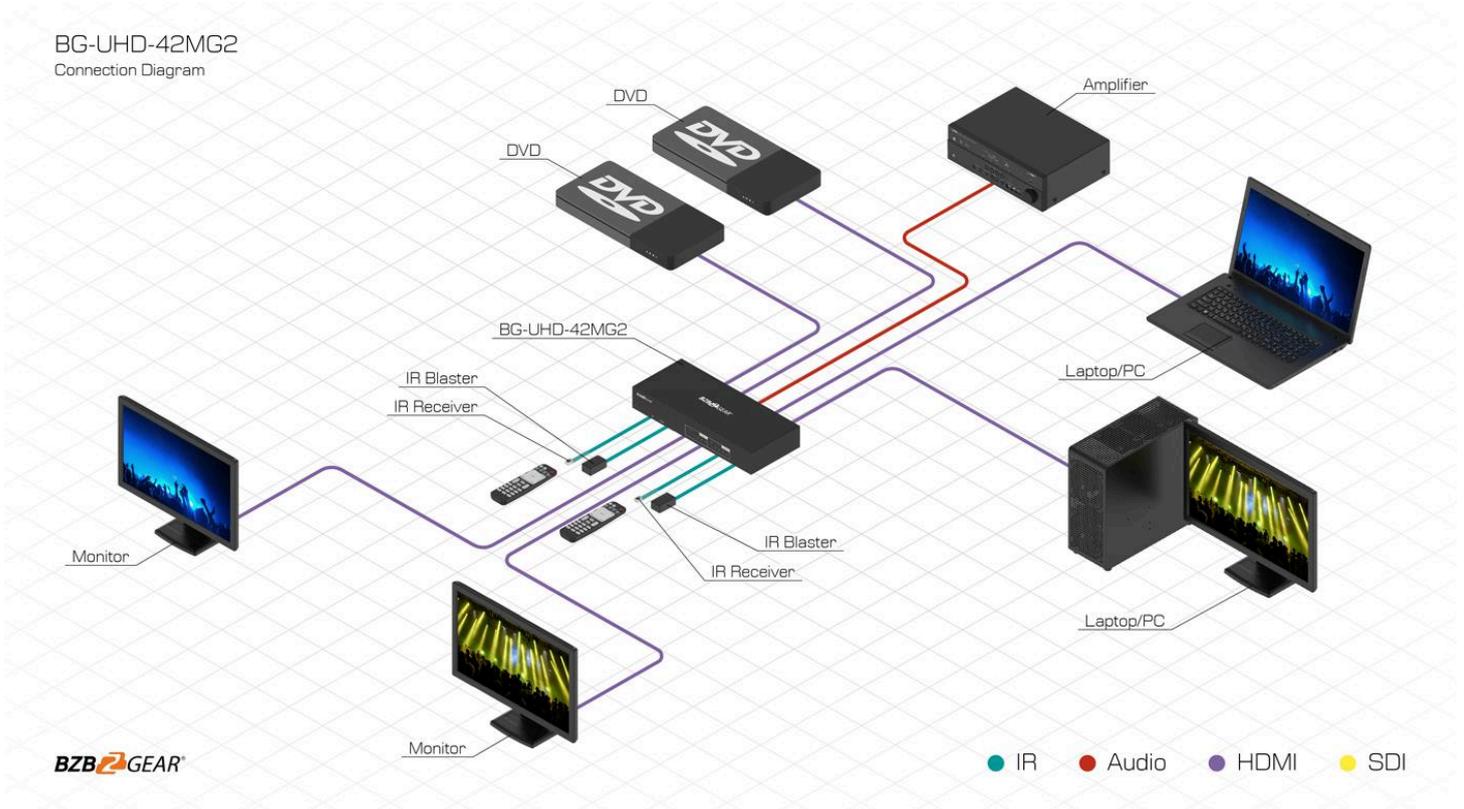
MT0402-NA1		Remote Control Console	
PIN	Assignment	PIN	Assignment
1	NC	1	NC
2	Tx	2	Rx
3	Rx	3	Tx
4	NC	4	NC
5	GND	5	GND
6	NC	6	NC
7	NC	7	NC
8	NC	8	NC
9	NC	9	NC

- Baud Rate: 57600 bps
- Data Bit: 8-bit
- Parity: None
- Stop Bit: 1-bit
- Flow Control: No



Application Diagram

BG-UHD-42MG2
Connection Diagram



● IR ● Audio ● HDMI ● SDI



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:

<u>Phone</u>	<u>Email</u>	<u>Live Chat</u>
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.

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