



## BG-8K-HS41AR

4X1 8K UHD HDMI 2.1 SWITCHER WITH DIGITAL/  
ANALOG AUDIO DE-EMBEDDING/EDID/RS-232  
(8K60/4K120HZ 4:4:4 VRR/ALLM SUPPORT)

The BG-8K-HS41AR is a high-performance 4x1 HDMI switcher designed to deliver seamless switching between up to four 8K HDMI source devices and a single 8K display. Supporting video resolutions up to 8K@60Hz (4:2:0, 12-bit), 8K@30Hz (4:4:4, 12-bit), and 4K@120Hz (4:4:4, 12-bit) as specified in HDMI 2.1, this switcher ensures crystal-clear image quality with HDR formats including HDR10, HDR10+, Dolby Vision, and pass-through for ALLM/VRR. It is fully HDCP 2.3 compliant and supports advanced HDMI audio formats such as Dolby Atmos, DTS-HD Master Audio, and DSD, ensuring compatibility with the latest AV equipment.

Engineered for versatility and ease of use, the BG-8K-HS41AR offers a built-in HDMI signal generator for quick troubleshooting and supports digital and analog audio de-embedding, with analog audio output featuring adjustable gain control. Advanced EDID management is accessible through a 4-pin DIP switch, while control options include front panel buttons, IR remote, and RS-232 API commands.



## FEATURES



### 8K & 4K120 SUPPORT

8K@60Hz YCbCr 4:2:0 12-bit, 8K@30Hz  
RGB/YCbCr 4:4:4 12-bit, and 4K@120Hz  
RGB/YCbCr 4:4:4 12-bit



### CONTROL OPTIONS

Supports control via front panel buttons,  
IR remote, and RS-232 API commands



### AUDIO FORMAT SUPPORT

LPCM, Dolby Digital/Plus/EX, Dolby  
TrueHD, Dolby Atmos, DTS, DTS-EX, DTS  
96/24, DTS High-Res, DTS-HD Master  
Audio, and DSD



### AUDIO DE-EMBEDDING

Supports digital and analog audio de-  
embedding with analog audio output and  
gain control adjustment



### SWITCHING MODES

Offers automatic and manual switching  
between input sources



### HDR & GAMING FEATURES

Pass-through support for HDR10,  
HDR10+, Dolby Vision, ALLM, and VRR



# TECH SPECIFICATIONS

## Technical

HDMI Compliance	HDMI 2.1
HDCP Compliance	HDCP 2.3
Video Bandwidth	48Gbps
Audio Latency	No Latency
Video Latency	No Latency
Video Resolution	Up to 8K60 YCbCr 4:2:0 12bit, 8K30 RGB/YCbCr 4:4:4 12bit or 4K120 RGB/YCbCr 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
HDR	HDR, HDR10, HDR10+, Dolby Vision, HLG
IR Level	12Vp-p
IR Frequency	Wideband 20K-60KHz
Audio Formats	<b>HDMI input/output:</b> LPCM, Dolby Digital/Plus/EX, Dolby True HD, Dolby Atmos, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio, DSD <b>Audio de-embedding output:</b> <b>Optical:</b> Up to LPCM/Dolby/DTS 5.1CH <b>Analog:</b> Only LPCM 2CH
ESD Protection	IEC 61000-4-2: ±8kV (Air-gap discharge) & ±4kV (Contact discharge)

## Connection

Input	4x HDMI IN [Type A, 19-pin female]
Output	1x HDMI OUT [Type A, 19-pin female] 1x OPTICAL AUDIO OUT [S/PDIF, female] 1x L/R AUDIO OUT [5pin-3.5mm Phoenix connector]
Control	1x RS-232 [3pin-3.5mm Phoenix connector] 1x IR CTL [3.5mm stereo mini-jack] 1x SERVICE [USB Type C, Update port]

## Mechanical

Housing	Metal Enclosure
Color	Black
Dimensions (WxDxH)	8.7in x 4.3in x 0.85in [220mm x 110mm x 21.5mm]
Weight	1.3 lbs [595g]
Power Supply	Input: AC100 - 240V 50/60Hz, Output: DC 12V/1A (US/EU standards, CE/FCC/UL certified)
Power Consumption	5.4W (Max)
Operating Temperature	-10°C ~ 45°C / 14°F ~ 113°F
Storage Temperature	-20°C ~ 60°C / -4°F ~ 140°F
Relative Humidity	20~90% RH (non-condensing)

Recommended HDMI Cable	8K60	4K60	4K24	1080P
HDMI Cable Length (HDMI in / out)	2m/6.6ft (Ultra HDMI 2.1)	8m/26ft	12m/39ft	15m/49ft

The use of "Premium High Speed HDMI" cables is highly recommended.

## 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](https://www.bzbgear.com/warranty).  
For questions, please call 1.888.499.9906 or email [support@bzbgear.com](mailto:support@bzbgear.com).

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**5-YEAR WARRANTY**

Essential Line Products  
**3-YEAR WARRANTY**

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**LIFETIME WARRANTY**