



BG-EXH-8K50C

8K60/4K120 48GBPS HDMI 2.1 EXTENDER KIT OVER CAT5E/6/7 WITH BI-DIRECTIONAL IR/POC AND HDR/VRR/ALLM SUPPORT UP TO 165FT

The BG-EXH-8K50C is a professional HDMI 2.1 extender that transmits ultra-high-definition video, audio, and control signals up to 50m (164ft) over a single Cat6 cable. Supporting the full 48Gbps HDMI 2.1 bandwidth, it delivers stunning resolutions up to 8K@60Hz and 4K@120Hz, making it ideal for next-generation AV systems, gaming, digital signage, corporate environments, and high-end residential installations.

Engineered for reliable, high-performance signal distribution, the BG-EXH-8K50C features HDMI re-clocking technology, bi-directional Power over Cable (PoC), bi-directional IR pass-through, CEC support, and compatibility with HDR, Dolby Atmos, DTS:X, and the latest HDMI 2.1 features. Its compact metal enclosure and plug-and-play operation provide a dependable solution for extending premium AV content without compromising quality.



FEATURES



8K EXTENSION

Extends HDMI signals up to 50m (164ft) over a single Cat6 cable while supporting resolutions up to 8K@60Hz and 4K@120Hz



48GBPS BANDWIDTH

Supports the full 48Gbps FRL and 18Gbps TMDS bandwidths for uncompromised HDMI 2.1 performance



PREMIUM HDR & AUDIO

Compatible with HDR10, HDR10+, Dolby Vision, HLG, Dolby Atmos, DTS:X, PCM, and LPCM for exceptional audiovisual quality



PROFESSIONAL INSTALLATION FEATURES

Includes bi-directional PoC, bi-directional IR pass-through, and HDMI CEC support for simplified installation and device control



ENHANCED SIGNAL RELIABILITY

Integrated HDMI re-clocking technology improves signal integrity while reducing HDCP and HDMI handshake issues



NEXT-GEN GAMING SUPPORT

Supports HDMI 2.1 features including Variable Refresh Rate (VRR) and Auto Low Latency Mode (ALLM) for smoother gameplay and reduced input lag



TECH SPECIFICATIONS

Technical

HDMI Compliance	HDMI 2.1
HDCP Compliance	HDCP 2.3
Video Bandwidth	48Gbps FRL / 18Gbps TMDS
Color Space	RGB, YCbCr 4:4:4 / 4:2:2 / 4:2:0
Color Depth	Color Depth
HDR Support	HDR10, HDR10+, Dolby Vision, HLG
HDR10, HDR10+, Dolby Vision, HLG	Supported
IR Level	IR Level
IR Level	20–60KHz (Wideband)

VIDEO RESOLUTIONS

Supported Formats	VGA-WUXGA, 480i-8K
HD / FHD	720p50/60, 1080i50/60, 1080p24-240Hz
4K UHD	3840x2160 up to 144Hz, 4096x2160 up to 144Hz
Ultra-Wide	5120x2160 up to 120Hz
8K UHD	7680x4320 up to 60Hz

AUDIO

Audio Formats	PCM 2.0, LPCM 5.1 / 7.1
Sampling Rates	32K-192KHz (16/20/24-bit)
Surround Sound	Dolby Digital, Dolby TrueHD, Dolby Atmos
Dolby Digital, Dolby TrueHD, Dolby Atmos	DTS:X, DTS-HD Master Audio, DTS-HD HRA, DTS Express

TRANSMISSION

Distance	Up to 50m (164ft) over Cat6
HDMI Cable Distance	HDMI Cable Distance
HDMI Cable Distance	Uncompressed HDMI over single Cat6
PoC	Bi-directional Power over Cable

CONNECTIONS

Transmitter Inputs	1x HDMI IN (Type A), 1x IR IN, 1x IR OUT
Transmitter Output	1x CAT OUT (RJ45)
Receiver Output	1x HDMI OUT (Type A)
PoC	Bi-directional Power over Cable
Service Port	1x USB-C (Firmware Upgrade)

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.

Pro Line Products
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Essential Line Products
3-YEAR WARRANTY
Cables Products
LIFETIME WARRANTY





TECH SPECIFICATIONS

MECHANICAL

Enclosure	Metal
Color	Black
Dimensions (WxDxH)	3.5in x 2.4in x 0.71in [88mm x 61mm x 18mm]
Weight	0.34lb [155g] (TX / RX each)

POWER

Power Supply	12V / 1A DC
Power Consumption	Max 8.8W
PoC Support	Yes (either TX or RX powered)
Input Voltage	AC 100-240V, 50/60Hz

ENVIRONMENTAL

Operating Temperature	32°F to 104°F / 0°C to 40°C
Storage Temperature	-4°F to 140°F / -20°C to 60°C
Operating Humidity	20%-80% RH (non-condensing)
Storage Humidity	10%-90% RH

PROTECTION

ESD Standard	IEC 61000-4-2
Air Discharge	±8kV
Contact Discharge	±4kV



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