



BG-EXH-8K100U

8K60/4K120 48GBPS HDMI 2.1 EXTENDER KIT OVER CAT5E/6/7 WITH USB 2.0/BI-DIRECTIONAL IR/POC/RS-232 AND AUDIO DE-EMBEDDING UP TO 328FT

The BG-EXH-8K100U is a professional HDMI 2.1 HDBaseT extender that transmits ultra-high-resolution video, audio, USB, and control signals up to 100m (328ft) over a single CAT5e/6 cable. Supporting the latest HDMI 2.1 features with up to 48Gbps FRL bandwidth, it delivers stunning resolutions up to 8K@60Hz and 4K@144Hz, making it ideal for next-generation AV installations, corporate environments, digital signage, education, and high-end residential applications.

Designed for complete system integration, the BG-EXH-8K100U combines USB 2.0 extension, bi-directional IR, RS-232 pass-through, CEC support, audio de-embedding, advanced EDID management, and bi-directional Power over Cable (PoC). Its robust HDBaseT architecture, compact metal housing, and plug-and-play operation provide a reliable solution for extending premium AV signals over long distances.



FEATURES



8K HDBASET EXTENSION

Extends HDMI, USB, audio, and control signals up to 100m (328ft) over a single CAT5e/6 cable while supporting resolutions up to 8K@60Hz and 4K@144Hz



48GBPS PERFORMANCE

Supports 48Gbps FRL, 18Gbps TMDS, and advanced HDMI 2.1 features including VRR, ALLM, QMS, QFT, and SBTM



USB 2.0 EXTENSION

Extends USB peripherals including keyboards, mice, cameras, touchscreens, and storage devices for remote workstation and KVM applications



CONTROL & INTEGRATION

Includes bi-directional IR, RS-232 pass-through, HDMI CEC, advanced EDID management, and bi-directional PoC for simplified system integration



HDR & IMMERSIVE AUDIO

Compatible with HDR10, HDR10+, Dolby Vision, HLG, Dolby Atmos, DTS:X, and other advanced HD audio formats



AUDIO DE-EMBEDDING

Extracts analog audio at the receiver for easy integration with external amplifiers, DSPs, and sound systems



TECH SPECIFICATIONS

Technical

HDMI Compliance	HDMI 2.0b
HDCP Compliance	HDCP 2.2
Video Bandwidth	48Gbps FRL / 18Gbps TMDS
Max Video Resolution	Up to 8K@60Hz (4:2:0 12-bit)
High Refresh Support	4K@144Hz, 4K@120Hz, 8K@60Hz
Color Space	RGB, YCbCr 4:4:4 / 4:2:2 / 4:2:0
Color Depth	8/10/12-bit
HDR Support	HDR10, HDR10+, Dolby Vision, HLG
HDMI Features	VRR, ALLM, QMS, QFT, SBTM
Audio Formats	LPCM, Dolby Digital/Plus/EX, Dolby TrueHD, Dolby Atmos, DTS, DTS-EX, DTS-96/24, DTS-HD Master Audio, DTS:X
CEC Support	Yes (pass-through)
EDID Management	COPY TV / STD modes

Connection

Transmitter Inputs	1x HDMI Type-A, 1x USB-B (Host), 1x IR IN, 1x IR OUT, 1x RS-232, 1x USB-C (Service)
Transmitter Output	1x HDBaseT (RJ45)
Receiver Input	1x HDBaseT (RJ45)
Receiver Outputs	1x HDMI Type-A, 1x Audio Out (3.5mm), 4x USB-A (USB 2.0 Device)
Receiver Control Ports	1x IR IN, 1x IR OUT, 1x RS-232, 1x USB-C (Service)
USB Support	USB 2.0 extension (Host/Device)
IR Support	Bi-directional IR (20-60kHz)
RS-232 Control	3-pin Phoenix connector (bi-directional)

Mechanical

Housing	Metal enclosure
Dimensions (W x D x H)	6.2in x 3.5in x 0.79in [157mm x 88mm x 20mm]
Weight	TX: 0.82lb [371g] / RX: 0.83lb [378g]
Power Supply	DC 24V/1A locking adapter
Power Consumption	21.2W (PoC operation)
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 (non-condensing)
ESD Protection	IEC 61000-4-2: ±8kV air, ±4kV contact

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.

Pro Line Products
5-YEAR WARRANTY

Essential Line Products
3-YEAR WARRANTY

Cables Products
LIFETIME WARRANTY