



BG-EXH-8KC6

8K UHD HDMI 2.1 EXTENDER - 8K30/4K120HZ WITH IR/EARC/ARC/POC/RS-232/ETHERNET/USB 2.0 AND AUDIO EMBEDDING/DE-EMBEDDING UP TO 330FT

The BG-EXH-8KC6 is an 8K HDMI and USB over HDBaseT Extender designed to extend the range of uncompressed HD/UHD video and audio signals, including eARC/ARC, RS-232, bi-directional IR, 1GbE Ethernet, and USB 2.0 signals, up to 295ft (90m) using a single CAT6A/7 cable.

This extender supports video resolutions up to 8K@30Hz 4:4:4 10-bit, 4K@120Hz 4:4:4 10-bit, and 4K@60Hz 4:4:4. Additionally, it incorporates eARC/ARC functionality, allowing the transmission of audio signals from the receiver HDMI output pass-through to the transmitter's HDMI input or audio de-embedding to the transmitter's output port.

The device also facilitates USB 2.0 signal transmission with configurable Host/Device settings per device and bi-directional Power over Cable (POC) functionality. For home or commercial applications requiring long-distance signal transmission, the BG-EXH-8KC6 stands out as the ideal 8K signal solution.



FEATURES



COMPLIANT

HDMI 2.1, HDCP 2.3, and HDBaseT 3.0 compliant



8K@30HZ AND 4K@120HZ

Video resolution is up to 8K@30Hz 4:4:4 10-bit, 4K@120Hz 4:4:4 10-bit



8K EXCLUSIVE FEATURES

Variable Refresh Rate (VRR), Fast as Possible V-active (FVA), Auto Low Latency Mode (ALLM) support



SMOOTH IMAGE PROCESSING

HDR, HDR10, HDR10+, Dolby Vision and HLG pass-through



HDMI AUDIO FORMATS

Dolby Atmos, Dolby TrueHD, Dolby Digital Plus and DTS-HD Master Audio



ADVANCED EDID

Management through EDID DIP switches



TECH SPECIFICATIONS

Technical

| | |
|-----------------------|--|
| HDMI Compliance | HDMI 2.1 |
| HDCP Compliance | HDCP 2.3 |
| Video Bandwidth | Up to 40Gbps FRL and 18Gbps TMDS |
| Video Resolution | Up to 8K@30 4:4:4 10-bit, 4K@120Hz 4:4:4 10-bit |
| USB Bandwidth | Up to 350Mbps |
| HDR | HDR, HDR10, HDR10+, Dolby Vision, HLG |
| Color Space | RGB 4:4:4, YCbCr 4:4:4 / 4:2:2, YCbCr 4:2:0 |
| Color Depth | 8/10/12-bit |
| Audio Formats | HDMI: PCM 2.0, LPCM 5.1, LPCM 7.1, (32K/44.1K/48K/88.2K/96K/176.4K/192K) (16/20/24); Dolby Digital, Dolby Digital plus, Dolby TrueHD, Dolby Atmos; DTS Surround, 96/24, ES, DTS Express, DTS-HD HRA, DTS HD Master, DTS:X Analog: PCM 2.0 48K |
| IR Level | 5Vp-p/12Vp-p |
| IR Bandwidth | 20K - 60KHz |
| Transmission Distance | MAX: CAT6 = 197ft (60m) / CAT6A/7 = 295ft (90m) |
| ESD Protection | Human body model: ±8kV (Air-gap discharge) & ±4kV (Contact discharge) |

Connections

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|-------------|--|
| Transmitter | Input: 1 x HDMI IN [Type A, 19-pin female] 1 x AUDIO IN [3.5mm Stereo Mini-jack] Output: 1 x HDMI OUT [Type A, 19-pin female] 1 x HDBT OUT [RJ45, 8-pin female] 1 x AUDIO OUT [3.5mm Stereo Mini-jack] Control: 1 x IR IN [3.5mm Stereo Mini-jack] 1 x IR OUT [3.5mm Stereo Mini-jack] 1 x RS-232 [3 pin-3.81mm Phoenix jack] 1 x USB HOST [USB Type B] 3 x USB DEVICE [USB Type A] 1 x ETHERNET [RJ45] |
| Receiver | Input: 1 x HDMI IN [Type A, 19-pin female] 1 x HDBT IN [RJ45, 8-pin female] 1 x AUDIO IN [3.5mm Stereo Mini-jack] Output: 1 x HDMI OUT [Type A, 19-pin female] 1 x AUDIO OUT [3.5mm Stereo Mini-jack] Control: 1 x IR IN [3.5mm Stereo Mini-jack] 1 x IR OUT [3.5mm Stereo Mini-jack] 1 x RS-232 [3 pin-3.81mm Phoenix jack] 1 x USB HOST [USB Type B] 3 x USB DEVICE [USB Type A] 1 x ETHERNET [RJ45] |

Mechanical

| | |
|-----------------------|---|
| Housing | Front Panel - Aluminium / Enclosure - Metal Composite |
| Color | Black |
| Dimensions (WxDxH) | 7.9in x 3.9in x 1.2in [200mm x 100mm x 30mm] |
| Weight | 1.25 lbs (20oz) [1.1kg] |
| Power Supply | Input: AC 100 - 240V 50/60Hz Output: DC 24V/2.7A (US/EU standard, CE/FCC/UL certified) |
| Power Consumption | Total power consumption: 20.4w (POC) TX/RX Full Load: 9.36w/9.84w; TX/RX No Load: 2.46w/3.36w |
| Operating Temperature | 32° - 104°F / 0° - 40°C |
| Storage Temperature | -4° - 140°F / -20° - 60°C |
| Relative Humidity | 20 - 90% RH (no condensation) |

| Resolution | 8K30 | 4K60 | 4K24 | 1080P60 |
|--------------|------------|-----------|------------|------------|
| Cable Length | 9.8ft / 3m | 16ft / 5m | 32ft / 10m | 66ft / 20m |

NOTE: The use of "Premium High Speed" HDMI 2.1 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.

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5-YEAR WARRANTY

Essential Line Products
3-YEAR WARRANTY

Cables Products
LIFETIME WARRANTY