BZBGEAR®
Amplify Your World™

BG-EXH-4KC7

4K UHD HDMI/USB-C KVM HDBASET 3.0 EXTENDER/SWITCHER WITH USB 3.0/ETHERNET/IR/ RS-232/POE

The BG-EXH-4KC7 is a high-performance HDBaseT 3.0 extender designed to deliver 4K60Hz 4:4:4 HDR video and USB-C/HDMI connectivity over distances of up to 100 meters via CAT6A/7 cables. Featuring dual inputs (USB-C and HDMI) with auto/manual switching, the transmitter supports DP-ALT mode for audio/video transmission, USB 3.0, 1G Ethernet, and up to 100W power delivery. The receiver offers flexible outputs with HDMI or USB-C and includes USB 2.0 ports for peripherals. Advanced HDR formats, such as HDR10+, Dolby Vision, and HLG, ensure stunning video quality, while analog audio de-embedding on both the transmitter and receiver simplifies audio integration.

Packed with professional-grade features, the BG-EXH-4KC7 includes RS-232 and CEC control, API support, and 1G Ethernet pass-through for seamless system integration. It supports bidirectional Power over Cable (PoC) for streamlined installations and offers long-reach HDBaseT functionality, extending 1080p60 signals up to 150 meters.

FEATURES

HDR

ADVANCED HDR SUPPORT
Compatible with 4K60Hz 4:4:4, HDR10+, Dolby Vision, HLG, and Low Latency Mode (LLM)

LONG-DISTANCE TRANSMISSION
Transmits 4K60Hz signals up to 100m over CAT6A/7 cables

VERSATILE USB-C INPUT
DP-ALT mode enables USB 3.0, 1G Ethernet, and up to 100W charging

INTEGRATED AUDIO EXTRACTION
Analog audio de-embedding available on both TX and RX units

SEAMLESS AUTOMATION
RS-232 pass-through and API

SIMPLIFIED POWER MANAGEMENT
Bidirectional 24V Power over Cable (PoC) minimizes power supply needs

TECH SPECIFICATIONS

Technical

HDMI Compliance	HDMI 2.0b
HDCP Compliance	HDCP 2.2
DP Compliance	DisplayPort 1.4a
Video Bandwidth	18Gbps
Video Resolution	640x480p60Hz, 800x600p60Hz, 1024x768p60Hz, 1280x1024p60Hz, 1360x768p60Hz, 1440x900p60Hz, 1440x1050p60Hz, 1600x1200p60Hz, 720x480i59.94Hz(480i59), 720x480p59.94Hz(480p59), 720x576i50Hz(576i50), 720x576p50Hz(576p50), 1280x720p50Hz(720p50), 1280x720p59.94Hz(720p59), 1280x720p60Hz(720p60), 1920x1080i50Hz(1080i50), 1920x1080i59.94Hz(1080i59), 1920x1080i60Hz(1080i60), 1920x1080p23.98Hz(1080p23), 1920x1080p24Hz(1080p24), 1920x1080p25Hz(1080p25), 1920x1080p29.97Hz(1080p29), 1920x1080p30Hz(1080p30), 1920x1080p50Hz(1080p50), 1920x1080p59.94Hz(1080p59), 1920x1080p60Hz(1080p60), 3840x2160p23.98Hz(2160p23), 3840x2160p24Hz(2160p24), 3840x2160p25Hz(2160p25), 3840x2160p29.97Hz(2160p29), 3840x2160p30Hz(2160p30), 3840x2160p50Hz(2160p50), 3840x2160p59.94Hz(2160p59), 3840x2160p60Hz(2160p60), 3840x2160p100Hz(2160p100), 3840x2160p120Hz(2160p120), 4096x2160p23.98Hz, 4096x2160p24Hz, 4096x2160p25Hz, 4096x2160p29.97Hz, 4096x2160p30Hz, 4096x2160p50Hz, 4096x2160p59.94Hz, 4096x2160p60Hz
Color Space	RGB, YCbCr 4:4:4 / 4:2:2, YUV 4:2:0
Color Depth	8/10/12-bit
HDR	HDR, HDR10, HDR10+, Dolby Vision, HLG
IR Level	12Vp-p
Audio Formats	**HDMI/USB-C/HDBT:** LPCM 2/5.1/7.1CH, Dolby Digital/Plus/EX, Dolby True HD, Dolby Atmos, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio, DSD **Analog Audio:** LPCM 2CH (sample rate 32~192kHz)
USB Support	TX: USB 3.2 Gen 1 5Gbps, compatible with USB 2.0 480Mbps RX: USB 2.0 350Mbps
USB Host Ports	TX: 1x USB-C 3.2 Gen 1 + 1 USB-B 3.2 Gen 1 RX: None
USB Device Ports	TX: 1x USB-C 3.2 Gen 1 + 2x USB-A 3.2 Gen 1 RX: 1x USB-C 2.0 + 3x USB-A 2.0
ESD Protection	IEC 61000-4-2: ±8kV (Air-gap discharge) & ±4kV (Contact discharge)

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.**

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Technical

Audio Parameters	Output Impedance	600 Ohm balanced 300 Ohm unbalanced
	Output Level (Max)	Max 8.2dBu (2Vrms) balanced audio Max 2.2dBu (1Vrms) unbalanced audio
	Frequency Response	20Hz to 20kHz (±0.5dB)
	Dynamic Range	> 90dB@0dBu, 1kHzA-weighted
	Audio S/N Ratio	> 90dB@0dBu, 1kHzA-weighted
	Audio THD+N	< 0.01% at +4dBu, 1KHz
	Audio Output Delay	< 1ms
USB Power Supply		**Host ports:** TX: 1x USB-C port (100W charging) **Device ports:** TX: 1x USB-C port (1A) + 2x USB A port (1.5A) RX: 1x USB-C port (1A) + 3x USB A port (1A)
Transmission Distance		HDMI/USB-C passive cable: 16.4ft/5m USB 3.2 Gen 1 5Gbps passive cable: 5.9ft/1.8m CAT6A/7 cable: 328ft/100m@4K60 (HDBT Standard Mode) CAT6A/7 cable: 492ft/150m@1080P (HDBT Long Reach Mode)

Mechanical

Housing	Metal Enclosure
Color	Black
Dimensions (WxDxH)	Transmitter/Receiver: 8.2in x 4.8in x 0.87in [208mm x 122mm x 22mm]
Weight	Transmitter: 1.51 lbs [687g], Receiver: 1.4 lbs [636g]
Power Supply	Input: AC 100 - 240V 50/60Hz Output: DC 24V/7.5A (US/EU standard, CE/FCC/UL certified)
Power Consumption	173W (Power supply from TX, 100W USB-C charging, PoC to RX) 73W (Power supply from TX or RX, without USB-C charging)
Operating Temperature	32° - 104°F / 0° - 40°C
Storage Temperature	-4° - 140°F / -20° - 60°C
Operating Humidity	20% ~ 80% (relative humidity, no condensation)
Storage Humidity	10% ~ 90% (relative humidity, no condensation)

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Connection

Transmitter	**Input:** 1x HDMI IN [Type A, 19-pin female] 1x USB-C IN [USB Type C, 24-pin female] **Output:** 1x HDBaseT OUT [RJ45, HDBT output with 24V PoC] 1x HDMI OUT [Type A, 19-pin female] 1x AUDIO OUT [5pin-3.5mm phoenix connector] **Control:** 1x LAN [RJ45 connector, 1G Ethernet pass-through] 1x RS-232 [3pin-3.5mm phoenix connector] 1x SERVICE [USB-C with USB 2.0 only, 12-pin female] 1x USB HOST [USB Type B, 9-pin female] 1x USB DEVICES [USB 3.2 Type C, 24-pin female] 2x USB DEVICES [USB 3.2 Type A, 9-pin female] 1x IR IN [3.5mm audio jack, 12V level] 1x IR OUT [3.5mm audio jack]
Receiver	**Input:** 1x HDBaseT IN [RJ45, HDBT input with 24V PoC] **Output:** 1x HDMI OUT [Type A, 19-pin female] 1x AUDIO OUT [5pin-3.5mm phoenix connector] **Control:** 1x LAN [RJ45 connector, 1G Ethernet pass-through] 1x RS-232 [3pin-3.5mm phoenix connector] 1x SERVICE [USB-C with USB 2.0 only, 12-pin female] 1x USB DEVICES [USB 2.0 Type C, 12-pin female] 3x USB DEVICES [USB 2.0 Type A, 4-pin female] 1x IR IN [3.5mm audio jack, 12V level] 1x IR OUT [3.5mm audio jack]

Recommended HDMI Cable	4K60	4K24	1080P60
HDMI Cable Length (HDMI in / out)	16.4ft/5m	33ft/10m	49ft/15m

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

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