

BG-IPGEAR-XTREME-PRO

4K/8K UHD HDMI 2.1 AV OVER IP MULTICAST
TRANSCIVER WITH SEAMLESS MATRIX
SWITCHING/VIDEO WALL/MULTIVIEW/KVM/USB &
POE SUPPORT OVER 1 GIGABIT NETWORK

The BG-IPGEAR-XTREME-PRO is a high-performance HDMI 2.1 over IP multicast transceiver system designed for seamless AV transmission over 1GbE networks. This system supports 8K@60Hz 4:2:2 DSC and 4K@144Hz 4:4:4, providing crystal-clear video and ultra-low latency, making it ideal for applications in gaming, broadcasting, healthcare, digital signage, and professional AV environments. With HDMI 2.1, USB-C (Alt Mode DP 1.4), and eARC/ARC compatibility, the BG-IPGEAR-XTREME-PRO ensures broad device support and superior compatibility.

Additionally, its KVM functionality enhances control over multiple devices, while the system's compact form factor, rugged metal enclosure, and efficient power management make installation easy and reliable in demanding environments.



FEATURES



ULTRA-HD RESOLUTION

Up to 8K@60Hz (4:2:2 DSC) & 4K@144Hz (4:4:4)



VIDEO WALL SUPPORT

Advanced functionality with image rotation & flipping



MULTI-VIEW MODES

PiP, PbP, & PoP (Chroma Key) for enhanced display options



AUDIO FORMAT SUPPORT

DTS-HD Master Audio & Dolby TrueHD high bit-rate audio



MULTI-INPUT SUPPORT

USB-C (Alt Mode DP 1.4) with simultaneous HDMI & DisplayPort input



SOFTWARE MANAGEMENT

Supports configuration, firmware updates, and signal management



TECH SPECIFICATIONS

Technical

Role of Usage	HDMI 2.1 over IP Transceiver
HDMI Compliance	HDMI 2.1
HDCP Compliance	HDCP 2.3
Video Bandwidth	Up to FRL 6 (48Gbps)
Video Support	8K@30 4:4:4, 8K@60Hz 4:2:0 Uncompressed, 8K@60Hz 4:2:2 DSC, 4K@144Hz 4:4:4, 4K@120Hz 4:4:4
HDMI over UTP Distance	Up to 170m (560ft) over Cat.5e/6/6a/7 at 4K@144Hz 4:4:4 / 8K@60Hz 4:2:2 (DSC)
Latency	Less than 1 frame
Encoding / Decoding	Multi-encode and decode (proprietary codecs)
EDID Management	Supported
CEC / HDCP Bypass	Supported
Equalization	Auto
Full Duplex Mode	Supported at 4K@120Hz 4:4:4

Video & Audio

Color Formats	RGB, YCbCr 4:4:4 / 4:2:2
Audio Formats	Uncompressed digital audio up to 7.1ch
High Bit Rate Audio	Dolby TrueHD, DTS-HD Master Audio
Audio Extension	HDMI audio pass-through and extraction
Analog Audio	Bi-directional analog audio pass-through
ARC / eARC	Supported

Control & Signal Extension

IR Pass-Through	Bi-directional (20kHz–60kHz)
RS-232 Support	Full duplex, up to 115,200 bps
USB Support	USB 3.1 Gen1 host mode and USB 3.1 Gen2 UVC device mode
KVM Function	Mouse roaming supported
Seamless Switching	Supported

Networking

Network Interface	Integrated 1GbE Ethernet port
Switching Support	Managed switch with IGMP Snooping
Broadcast Modes	Point-to-Point, Point-to-Many, Multicast
VLAN Support	802.1Q VLAN

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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Display Functions

Video Wall	Supported
Image Rotation / Flip	Supported
Multi-Window Modes	PiP, PbP, PoP
Scaling	Custom output scaling

Connectors

HDMI Ports	2 x HDMI Type-A (19-pin female)
USB Ports	USB Type-A, Type-B, USB-C
USB-C Video	DisplayPort 1.4 Alt Mode
Audio Ports	3.5mm (IR receiver, IR blaster, stereo audio)
Optical Audio	2 x TOSLINK
Network Port	1 x RJ-45 (8P8C)
Control Port	1 x RS-232

Electrical & Mechanical

Housing	Metal enclosure
Mounting	Wall-mountable (mounting hardware included)
Power Supply	12V DC
Power Consumption	Refer to product label
Operating Temperature	32~104°F / 0~40°C
Storage Temperature	-4~140°F / -20~60°C
Relative Humidity	20~90% RH [no condensation]
Dimensions (LxWxH)	8.7 x 4.1 x 1.7in [220 x 105 x 44mm]
Weight	24 oz [680 g]



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