



BG-IPGEAR-XTREME

4K UHD HDMI OVER IP MULTICAST TRANSCIVER
WITH SEAMLESS MATRIX SWITCHING/MULTIVIEW/
KVM/USB 3.0/POE SUPPORT

The BG-IPGEAR-XTREME is a high-performance HDMI 2.1 over IP multicast system designed to deliver Ultra-HD 4K@120Hz 4:4:4 video over a Cat.5e network up to 100 meters (330 feet). With support for bi-directional IR, RS-232, and USB 3.1, this versatile solution ensures seamless transmission of high-resolution video and audio while maintaining compatibility with modern AV control systems.

This system is ideal for a variety of applications, including digital signage, healthcare, corporate AV, gaming, and large-scale video broadcasting. The BG-IPGEAR-XTREME supports flexible point-to-point, point-to-multipoint, and multicast configurations, enabling scalable video distribution across multiple displays.

The inclusion of Variable Refresh Rate (VRR) and Auto Low Latency Mode (ALLM) further optimizes performance for gaming and interactive applications, reducing input lag and eliminating screen tearing. These features make the BG-IPGEAR-XTREME an excellent choice for applications requiring real-time responsiveness.



FEATURES



HDMI 2.1 & HDCP 2.3 COMPLIANCE

Ensures compatibility with the latest high-definition content protection standards



4K@120HZ 4:4:4 VIDEO TRANSMISSION

Provides ultra-high-definition video with crystal-clear clarity and exceptional color depth



VRR (VARIABLE REFRESH RATE) & ALLM (AUTO LOW LATENCY MODE)

Enhances gaming and interactive applications with smooth frame rates and reduced latency



LONG-DISTANCE TRANSMISSION

Extends HDMI signals up to 100m (330ft) over Cat.5e cabling



ADVANCED AUDIO SUPPORT

Delivers uncompressed 7.1-channel digital HDMI audio, including DTS-HD Master Audio and Dolby TrueHD



INTELLIGENT NETWORK MANAGEMENT

Works with managed 1GbE switches supporting IGMP Snooping & 802.1Q VLAN for multicast optimization



TECH SPECIFICATIONS

Technical

HDMI Compliance	HDMI 2.1
HDCP Compliance	HDCP 2.3
Video Bandwidth	up to FRL 5 (40G)
Video Support	up to 4K@120 4:4:4
HDMI over UTP	4K@120 4:4:4 100m (330ft) [CAT.5E]
Audio Support	Surround sound [up to 7.1ch]
Equalization	Auto
Input TMDS Signal	1.2 Volts [peak-to-peak]
Input DDC Signal	5 Volts [peak-to-peak, TTL]
ESD Protection	Human body model — $\pm 15\text{kV}$ [air-gap discharge] & $\pm 8\text{kV}$ [contact discharge]
PCB Stack-up	6-layer board [impedance control — differential 100 Ω ; single 50 Ω]
IR Pass-thru	Bi-directional
RS-232 Support	Yes
Input	1x HDMI, 1x 3.5mm, 1x USB, 1x USB-C
Output	1x 3.5mm, 1x RJ-45
I/O	1x terminal block (RS-232)
HDMI Source Control	Controllable via IR pass-through from RX to TX or TX to RX with IR extenders
HDMI Connector	Type A [19-pin female]
RJ-45 Connector	WE/SS 8P8C (Reverse Mode)
USB Connector	Type A / USB-C
3.5mm Connector	IR receiver / IR blaster

Mechanical

Housing	Metal enclosure
Fixedness	Wall-mounting case with screws
Dimensions (LxWxH)	5.2 x 3 x 0.79in [132 x 75 x 20mm]
Weight	1.1 lbs [0.5kg]
Power Supply	12V DC, 1A
Power Consumption	12 Watt [max]
Operation Temperature	32~104°F / 0~40°C
Storage Temperature	-4~140°F / -20~60°C
Relative Humidity	20~90% RH [no condensation]

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

