BG-IPGEAR-ULTRA

4K UHD AV OVER IP MULTICAST TRANSCEIVER WITH SEAMLESS MATRIX SWITCHING/VIDEO WALL/ MULTIVIEW/KVM/USB 2.0/POE SUPPORT

Introducing the BG-IPGEAR-ULTRA 4K60Hz advanced AVoIP kit. Key features of the BG-IPGEAR-ULTRA series include HDMI 2.0b and HDCP 2.2 compliance, support for video resolutions up to 4K60Hz (4:4:4), and a video bandwidth of 18Gbps. Audio formats support LPCM 2.0CH at 48kHz. The integrated design of the encoder and decoder supports both fiber and copper connections, with a window roaming function that allows a decoder unit to process up to 16 signals for arbitrary windowing, roaming, overlaying, and splicing. The system supports KVM seat management, universal H.264/265 protocol, high-definition background images, multi-screen splicing, scrolling subtitles, character overlay, point-to-point signal extension, signal distribution, multicast mode, matrix, and video wall functions over a 1G Network Switch.

It also features integrated central control over RS-232, APP control on portable devices, user rights management, flexible control via KVM, APP, and Control Server, and standard POE support (802.3af Class 3, PD mode). The encoder supports HDMI local loop-out and audio embedding and de-embedding functions, along with comprehensive visual interaction modes, signal source, large screen status, scene preview, and environmental visualization control.

FEATURES

HDMI 2.0B AND HDCP 2.2
Ensures seamless integration with the latest video standards

4K@60HZ VIDEO
Delivers stunning image quality with support for up to 18Gbps video bandwidth

HIGH-QUALITY AUDIO
Supports LPCM 2.0CH 48kHz for clear and precise audio output

USER RIGHTS MANAGEMENT
Offers secure and flexible control access for authorized users

WINDOW ROAMING
Allows a single decoder unit to process up to 16 signals, enabling windowing, roaming, overlaying, and splicing for dynamic displays

AUDIO EMBEDDING/DE-EMBEDDING
Provides flexible audio management capabilities for embedding and extracting audio

TECH SPECIFICATIONS

Technical

HDMI Compliance	HDMI 2.0b
HDCP Compliance	HDCP 2.2
Video Compression Standard	H.264/H.265
Video Bandwidth	18Gbps
Network Port	1000M Base-T (supporting POE)
Video Resolution	1024x768 ~ 3840x2160@60Hz (Note: The decoder supports custom resolution output.)
Color Space	RGB 4:4:4, YCbCr 4:4:4/4:2:2/4:2:0
Color Depth	8/10/12bit
Encoding Sampling Rate	48KHz
HDMI Audio Formats	LPCM 2.0CH, 16bit, 48k
Analog Audio Formats	Left and right stereo analog audio
ESD Protection	Human-body Model: ±8kV (Air-gap discharge), ±4kV (Contact discharge)

Connection

Input	1x HDMI IN [Type A, 19-pin female] 2x AUDIO IN [3-pin phoenix connector, stereo balanced linear interface]
Output	1x HDMI OUT [Type A,19-pin female] 2x AUDIO OUT [3-pin phoenix connector, stereo balanced linear interface]
Control	1x LAN (POE) [RJ45, supporting POE] 1x RS-232 [3-pin phoenix connector] 1x USB HOST [Type B, 4-pin female] 2x USB DEVICE [Type A, 4-pin female] 1 x SFP [Fiber slot]

Mechanical

Housing	Metal Enclosure
Color	Black
Dimensions (WxDxH)	8in x 5.2in x 1.2in [204mm x 131.5mm x 30mm]
Weight	1.7 lbs [760g]
Power Supply	Input: AC 100 - 240V 50/60Hz; Output: DC 12V/2.5A (US/EU standards, CE/FCC/UL certified)
Power Consumption	Encoder: 10.22W; Decoder: 7.04W
Operating Temperature	32° - 104°F / 0° - 40°C
Storage Temperaturel	-4° - 140°F / -20° - 60°C
Relative Humidity	20 - 90% RH (no condensation)

Industry-Leading Warranty & Support

BZBGEAR Pro AV products and Cameras come with a three-year warranty. An extended two-year warranty is available for our Cameras upon registration for a total of five years. We pride ourselves in our Customer Service and seven-days-a-week Tech Support.

LIFETIME
PRODUCT SUPPORT

PRO AV	CAMERAS
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YEAR WARRANTY	YEAR WARRANTY