

BZBGEAR

Solution to Amplify Your World

830 NATIONAL DRIVE STE 140, SACRAMENTO, CA, 95834

8X8 HDMI2.0 18Gps 4K@60Hz 4:4:4 HDBT Video And Audio Matrix Switcher with 8 Receivers

BG-M88S-H2A-KIT



The BZBGEAR BG-M88S-H2A-KIT is an eight-input by eight-output HDBaseT and HDMI matrix with HDCP 2.2 and up to 4K/UHD@60Hz video support. It transmits 4K video to distances up to 131 feet (40 meters) and 1080p video to distances up to 230 feet (70 meters) over a single CATx Ethernet cable. The eight HDBaseT outputs support 24V Power over Cable (PoC) feature, allowing the receivers to draw their power from the matrix over the HDBaseT cable.

BG-M88S-H2A-KIT matrix switcher features comprehensive EDID management and advanced HDCP handing to ensure maximum functionality with a wide range of video sources. BG-M88S-H2A-KIT matrix switcher not only supports bi-directional IR, RS232 extension but also has IR, RS232, and TCP/IP control options. The product provides performance in control and transmission, which could be used in a number of different installation scenarios, for example, with computers, for monitoring purposes, large screen displays, conference systems, television education, bank security institutions, etc.

Features

- 8x8 HDBaseT matrix switcher with audio matrix.
- Fully compliant with the HDMI 2.0 and HDCP 2.2.
- Supports HDMI resolution up to 4K@60Hz 4:4:4, HDR10.
- Features eight mirrored HDMI outputs for eight HDBaseT outputs, and the eight HDMI outputs support 4K to 1080p down-scaling.
- The eight HDBaseT outputs support 24V PoC, allowing the receivers to draw their power from the matrix switcher over the HDBaseT cable.
- Transmits 4K signal to the distance up to 131 feet (40 meters) and 1080p signal to the distance up to 230 feet (70 meters) over a single CATx Ethernet cable.
- Supports audio matrix. Provides eight digital SPDIF audio outputs and eight analog L+R audio outputs for HDMI input audio de-embedding and HDBaseT output audio de-embedding. Moreover, the eight digital SPDIF audio outputs supports ARC audio output from receivers.

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- Volume adjustment for analog L+R audio outputs.
- Supports comprehensive EDID management and advanced HDCP handling.

Controllable via front panel buttons, RS232 local and pass-through, IR local and pass-through, CEC, and TCP/IP (built-in GUI).

Specifications

- **Matrix Switcher**

Video Input	
Input	(8) HDMI
Input Connector	(8) Type-A female HDMI
HDMI Input Resolution	Up to 4Kx2K@60Hz 4:4:4, HDR10,1080p 3D
Video Output	
Output	(8) HDBaseT, (8) HDMI
Output Connector	(8) RJ45, (8) Type-A female HDMI
HDMI Output Resolution	Up to 4Kx2K@60Hz 4:4:4, HDR10, 1080p 3D. Supports 4K to 1080p down-scaling.
HDBaseT Output Resolution	Up to 4Kx2K@60Hz 4:2:0
HDMI Audio Signal	LPCM7.1 audio, Dolby Atmos®, Dolby® TrueHD, Dolby Digital® Plus, DTS:X™, DTS-HD® Master Audio™ pass-through.
Audio Output	
Output	(8) Stereo analog L+R audio, (8) Digital SPDIF audio
Output Connector	(8) 3-pin terminal blocks, (8) Toslink connectors
Analog L+R Audio Format	Supports PCM
Digital SPDIF Audio Format	Supports PCM, Dolby Digital, DTS, DTS-HD
Local Audio Sampling Rate	Supports 44.1KHz, 48KHz, 96KHz
ARC Audio Sampling Rate	Supports 48KHz, 96KHz
Frequency Response	20Hz – 20KHz, ±3dB
Audio Output Impedance	700ohms
Max Input Level	L+R: 2.0Vrms ± 0.5dB. 2V = 16dB headroom above -10dBV (316mV) nominal consumer line level signal. SPDIF: ±0.05dBFS.
THD+N	< 0.05% (-80dB), 20Hz – 20KHz bandwidth, 1KHz sine at 0dBFS level (or max level).
SNR	L+R: > 80dB, 20Hz - 20KHz bandwidth. SPDIF: > 90dB, 20Hz-20 kHz bandwidth.
Crosstalk Isolation	SPDIF: < -70 dB, 10KHz sine at 0dBFS level (or max level before clipping). L+R: < -80 dB, 10KHz sine at 0dBFS level (or max level before clipping).
L-R Level Deviation	L+R: < 0.3dB, 1KHz sine at 0dBFS level (or max level before clipping).
Frequency Response Deviation	< ± 0.5dB 20Hz - 20KHz.
Output Load Capability	L+R: 1KΩ and higher (Supports 10x paralleled 10KΩ loads).
Stereo Channel Separation	>70dB@1KHz.
Noise Level	L+R: -80dB; SPDIF: -90dB
Control Part	
Control port	(8) IR IN, (1) IR ALL IN, (8) IR OUT, (1) IR ALL OUT, (1) IR EYE, (9) RS232, (1) FIRWARE, (1) TCP/IP
Control Connector	(19) 3.5mm jacks, (9) 3-pin terminal blocks, (1) Type-A USB, (1) RJ45
General	
Transmission Mode	HDBaseT
Transmission Distance	1080p ≤ 230 feet (70 meters), 4K@60Hz ≤ 131 feet (40 meters)
Bandwidth	18Gbps
Operation Temperature	-5°C ~ +55°C
Storage Temperature	-25°C ~ +70°C
Relative Humidity	10% ~ 90%
External Power Supply	100V~240V AC, 50/60Hz
Power Consumption	125W (Max)
Dimension (W*H*D)	436.6mm x 88mm x 440mm
Net Weight	5.8kg

BZBGear

830 National Drive ste 140, Sacramento, CA, 95834

Tel: 1(888)499-9906 Email: info@bzbgear.com | www.bzbgear.com

- **HDBaseT Receiver**

Video	
Input	(1) HDBT
Input Connector	(1) RJ45
Input Resolution	Up to 4Kx2K@60Hz 4:2:0
Output	(1) HDMI
Output Connector	(1) Type-A female HDMI
Output Resolution	Up to 4Kx2K@60Hz 4:4:4 8bit, HDR10
Audio	
Input	(1) ARC Audio In
Input Connector	(1) Toslink Connector
Output	(1) Audio Breakout
Output Connector	(1) Toslink connector
Audio Format	Supports PCM, Dolby Digital, Dolby True-HD, DTS and DTS-HD.
Frequency Response	20Hz – 20KHz, ±3dB
Max Output Level	2.0Vrms ± 0.5dB. 2V = 16dB headroom above -10dBV (316mV) nominal consumer line level signal
THD+N	< 0.05% (-80dB), 20Hz – 20KHz bandwidth, 1KHz sine at 0dBFS level (or max level)
SNR	> 85dB, 20Hz-20 kHz bandwidth
Crosstalk Isolation	> 70dB, 10KHz sine at 0dBFS level (or max level before clipping)
L-R Level Deviation	< 0.3dB, 1KHz sine at 0dBFS level (or max level before clipping)
Frequency Response Deviation	< ± 0.5dB 20Hz - 20KHz
Output Load Capability	1KΩ and higher (Supports 10x paralleled 10KΩ loads)
Stereo Channel Separation	>70dB@1KHz
Control	
Control Part	(1) ARC Mode button, (1) FW, (1) IR In, (1) IR Out, (1) RS232
Control Connector	(1) Micro-USB port, (2) 3.5mm jacks, (1) 3-pin terminal block
General	
Bandwidth	18Gbps
HDMI Standard	2.0
HDCP Version	2.2, 1.4 compliant
CEC	Pass-through
Bidirectional PoC	Supported
HDMI 2.0 Cable Length	4K@60Hz 4:4:4 ≤ 5m, 4K@60Hz 4:2:0 ≤ 15m, 1080p ≤ 20m
Transmission Standard	HDBaseT
Transmission Distance	1080p@60Hz ≤ 230 feet (70 meters), 4K@60Hz ≤ 131 feet (40 meters)
Operation Temperature	-5°C ~ +55°C
Storage Temperature	-25°C ~ +70°C
Relative Humidity	10%-90%
Power Supply	Input:100V~240V AC; Output:24V DC 1.25A
Power Consumption	12W (Max)
Dimension (W*H*D)	40mm x 19.5mm x 84mm
Net Weight	290g