

DATA SHEET

AVS-HDMI2-4X4-R2, AVS-HDMI2-8X8-R2

VIDEO MATRIX SWITCHERS – HDMI 2.0, 4X4 AND 8X8

24/7 TECHNICAL SUPPORT AT 877.877.2269 OR VISIT BLACKBOX.COM



BLACK BOX®

OVERVIEW

VIDEO MATRIX SWITCHER - HDMI 2.0, 4X4

INTRODUCTION

The AVS-HDMI2-4x4-R2 is a professional 4K 4x4 HDMI 2.0 Matrix Switch with 4 HDMI inputs, 4 HDMI outputs, and 4 SPDIF audio outputs. It is designed for switching four HDMI 2.0 and HDCP 2.2 compliant signals. The last two outputs have downscaling function, which is designed for switching two HDMI2.0 and HDCP2.3 compliant signals. It also includes powerful EDID management and advanced HDCP handling to ensure maximum functionality with a wide range of video sources as well as reliable AV distribution and routing.

This capable switch supports 4K @ 60 Hz 4:4:4 and 1080p. It is compatible with HDMI 2.0, HDCP 2.3, and it is backward compatible to the earlier versions. You can control the unit via the front panel, IR, RS-232, TCP, and web-based GUI.

The matrix switch is designed to be the central component of an AV system. It is ideal for applications where multiple signals with different resolutions must be optimized for displays. It is suitable for presentation spaces where two displays are needed.

The switch supports audio via stereo audio ports, with ports for both left/right (L/R) unbalanced audio as well as SPDIF.

FEATURES

- 4x4 HDMI 2.0 Matrix Switcher
- Supports 4K/60 4:4:4, HDCP2.3 compliant
- Audio Matrix
- Audio out can de-embedded from arbitrary input or output.
- Individual volume adjustment on each left and right output
- Supports 4K to 1080p downscaling up to 2 outputs
- HDMI out provides 2.5 W to power Active Optical Cable (AoC).
- HDMI Output support up to 5V 500mA for AoC cable.
- Controllable by front panel, IR, RS-232, and TCP/IP.

OVERVIEW

VIDEO MATRIX SWITCHER - HDMI 2.0, 8X8

INTRODUCTION

The AVS-HDMI2-8X8-R2 is a professional 4K 8x8 HDMI 2.0 Matrix Switch with 8 HDMI inputs, 8 HDMI outputs, and 8 SPDIF audio outputs. It is designed for switching eight HDMI 2.0 and HDCP 2.2 compliant signals. The last four outputs have downscaling function, which is designed for switching four HDMI2.0 and HDCP2.3 compliant signals. It also includes powerful EDID management and advanced HDCP handling to ensure maximum functionality with a wide range of video sources as well as reliable AV distribution and routing.

This capable switch supports 4K x 2K @ 60 Hz 4:4:4 and 1080p 3D signals. It is compatible with HDMI 2.0, HDCP 2.3, and it is backward compatible to the earlier versions. You can control the unit via the front panel, IR, RS-232, TCP, and web-based GUI.

The matrix switch is designed to be the central component of an AV system. It is ideal for applications where multiple signals with different resolutions must be optimized for displays. It is suitable for presentation spaces where two displays are needed.

The switch supports audio via stereo audio ports, with ports for both left/right (L/R) unbalanced audio as well as SPDIF.

FEATURES

- 8X8 HDMI 2.0 Matrix Switcher
- Supports 4K/60 4:4:4; HDR, HDCP2.3 compliant
- Audio Matrix
- Audio out can de-embedded from arbitrary input or output.
- Individual volume adjustment on each left and right output
- Supports 4K to 1080p downscaling up to 4 outputs
- HDMI out provides 2.5 W to power Active Optical Cable (AoC).
- HDMI Output support up to 5V 500mA for AoC cable.
- Controllable by front panel, IR, RS-232, and TCP/IP.



SPECIFICATIONS

VIDEO MATRIX SWITCHER - HDMI 2.0, 4X4 AND 8X8



WHAT'S INCLUDED WITH THE VIDEO MATRIX SWITCHER – HDMI 2.0, 4X4

- (1) Video matrix switcher 4x4
- (1) IR Remote
- (1) IR Receiver
- (1) Power Adaptor (24V DC, 1.25 A)
- (1) RS-232 Cable (3-pin to DB9)
- (2) Mounting Ears
- (6) Screws
- (4) Plastic Cushions

WHAT'S INCLUDED WITH THE VIDEO MATRIX SWITCHER – HDMI 2.0, 8X8

- (1) Video matrix switcher 8x8
- (1) IR Remote
- (1) IR Receiver
- (1) Power Adaptor (24V DC, 2.71 A)
- (1) RS-232 Cable (3-pin to DB9)
- (2) Mounting Ears
- (6) Screws
- (4) Plastic Cushions
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COMPARISON CHART

VIDEO MATRIX SWITCHER - HDMI 2.0, 4X4 AND 8X8

VIDEO MATRIX SWITCHER – HDMI 2.0, 4X4 AND 8X8 FEATURE COMPARISON CHART		
FEATURE	AVS-HDMI2-4X4-R2	AVS-HDMI2-8X8-R2
VIDEO		
INPUT	(4) HDMI	(8) HDMI
INPUT CONNECTOR	(4) HDMI Type A female	(8) HDMI Type A female
INPUT VIDEO RESOLUTION	Up to 4K @ 60 Hz 4:4:4	Up to 4K @ 60 Hz 4:4:4, HDR
OUTPUT	(4) HDMI	(8) HDMI
OUTPUT CONNECTOR	(4) HDMI Type A female	(8) HDMI Type A female
OUTPUT RESOLUTION	Up to 4K @ 60 Hz 4:4:4	Up to 4K @ 60 Hz 4:4:4; HDR10; Dolby Vision
HDMI OUTPUT	Supports up to 5V 500mA for AoC cable	
HDMI VERSION	Up to 2.0	
HDCP VERSION	Up to 2.3	
HDMI AUDIO SIGNAL	LPCM 7.1 audio; Dolby Atmos®; Dolby® TrueHD; Dolby Digital® Plus; DTS:X™; DTS-HD® Master Audio™ pass-through	

SPECIFICATIONS

VIDEO MATRIX SWITCHER - HDMI 2.0, 4X4 AND 8X8

VIDEO MATRIX SWITCHER – HDMI 2.0, 4X4 AND 8X8 FEATURE COMPARISON CHART CONTINUED		
FEATURE	AVS-HDMI2-4X4-R2	AVS-HDMI2-8X8-R2
DIGITAL AUDIO OUTPUT		
OUTPUT	(4) Digital SPDIF audio	(8) Digital SPDIF audio
OUTPUT CONNECTOR	(4) Toslink connector	(8) Toslink connector
DIGITAL SPDIF AUDIO FORMAT	Supports PCM; Dolby Digital; DTS; DTS-HD	
FREQUENCY RESPONSE	20 Hz to 20 kHz, ± 1 dB	
MAX OUTPUT LEVEL	± 0.05 dBFS	
THD+N	< 0.05%, 20 Hz to 20 kHz bandwidth, 1 kHz sine at 0dBFS level (or max level)	
SNR	> 90 dB, 20Hz to 20 kHz bandwidth	
CROSSTALK ISOLATION	< -70 dB, 10 kHz sine at 0dBFS level (or max level before clipping)	
NOISE	-90 dB	
ANALOG AUDIO OUTPUT		
OUTPUT	(4) Analog L/R Audio	(8) Analog L/R Audio
OUTPUT CONNECTOR	(4) L&R (RCA)	(8) L&R (RCA)
DIGITAL SPDIF AUDIO FORMAT	PCM 2CH	
FREQUENCY RESPONSE	20 Hz to 20 kHz, ± 1 dB	
MAXIMUM OUTPUT LEVEL	2.0Vrms ± 0.5 dB. 2V = 16dB headroom above -10dBV (316 mV) nominal consumer line level signal	
THD+N	< 0.05%, 20 Hz to 20 kHz bandwidth, 1 kHz sine at 0dBFS level (or max level)	
SNR	> 80 dB, 20Hz to 20 kHz bandwidth	
CROSSTALK ISOLATION	< -80 dB, 10 kHz sine at 0dBFS level (or max level before clipping)	
L-R LEVEL DEVIATION	< 0.05 dB, 1 kHz sine at 0dBFS level (or max level before clipping)	
FREQUENCY RESPONSE DEVIATION	± 0.5 dB 20Hz to 20KHz	
OUTPUT LOAD CAPACITY	1k ohm and higher (supports 10x paralleled 10k ohm loads)	
NOISE	-80 dB	
CONTROL		
CONTROL PORT	(1) IR EYE, (1) RS-232, (1) TCP/IP	
CONTROL CONNECTOR	(1) 3.5mm jack, (1) 3-pin terminal block, (1) USB-A, (1) RJ-45	
GENERAL		
TRANSMISSION DISTANCE	4K/60Hz/444 5m; 4K/60Hz/420 10m; 1080p 15m	
BANDWIDTH	18 Gbps	
OPERATION TEMPERATURE	23 to 131° F (-5 to +55° C)	
STORAGE TEMPERATURE	-13 to 158° F (-25 to +70° C)	
RELATIVE HUMIDITY	10 to 90%	
EXTERNAL POWER SUPPLY	Input: 100 to 240 VAC, 50/60Hz; Output: 24 VDC, 1.25 A	Input: 100 to 240 VAC, 50/60Hz; Output: 24 VDC, 2.71 A
POWER CONSUMPTION	18.3 W	24 W
DIMENSIONS (H X W X D)	1.7" x 17.2" x 9.3" (4.4 x 43.6 x 23.6 cm)	
NET WEIGHT	5.7 lb. (2.6 kg)	6.6 lb. (3 kg)

ORDERING INFORMATION

VIDEO MATRIX SWITCHER - HDMI 2.0, 4X4 AND 8X8

ITEM	CODE
Video Matrix Switcher – HDMI 2.0, 4X4	AVS-HDMI2-4X4-R2
Video Matrix Switcher – HDMI 2.0, 8X8	AVS-HDMI2-8X8-R2

DISCLAIMER

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