

8K 2×1 HDMI 2.1 Switcher with Audio De-Embedding

40Gbps, HDCP 2.3, HDR/Dolby Vision, Optical + 3.5mm Audio Output

Switch between two 8K HDMI 2.1 sources on a single display while independently routing audio to optical or analog outputs — without upgrading your AV receiver. The KanexPro SW-2X1A8K is a compact 2×1 HDMI switcher with built-in audio de-embedding that resolves a common integration pain point: connecting next-generation 8K and 4K@120Hz sources to a display while simultaneously extracting audio for a separate sound system. Its 8-position EDID DIP switch ensures reliable handshake with virtually any source/display combination.

Compliant with HDMI 2.1 and HDCP 2.3, the switcher delivers up to 8K@60Hz 4:2:0 and 4K@120Hz 4:4:4 at 40Gbps bandwidth. Full HDR pass-through — HDR10, HDR10+, Dolby Vision, and HLG — preserves cinematic image quality. VRR, ALLM, and FVA support optimize gaming performance. Audio de-embedding outputs via S/PDIF optical (LPCM/Dolby/DTS 5.1) and 3.5mm analog (PCM 2.0). Control via IR remote, front-panel button, or auto-switch. Housed in a compact metal enclosure drawing just 5.25W.

Surge Protection Recommended — This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, or lightning strikes. Use of surge protection systems is highly recommended.

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2. FEATURES

- ✓ HDMI 2.1 and HDCP 2.3 compliant
- ✓ Supports 40Gbps video bandwidth
- ✓ Video resolution up to 8K@60Hz 4:2:0 10-bit, 8K@30Hz 4:4:4 10-bit, 4K@120Hz 4:4:4 10-bit
- ✓ VRR, FVA, and ALLM supported for optimized gaming performance
- ✓ HDR, HDR10, HDR10+, Dolby Vision, and HLG pass-through
- ✓ HDMI audio formats: LPCM, Dolby Digital/Plus/EX, Dolby TrueHD, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio, DSD
- ✓ Built-in equalizer, retiming, and driver for signal integrity
- ✓ Advanced EDID management with 8-position DIP switch
- ✓ Audio de-embedding via optical (S/PDIF) and 3.5mm analog output
- ✓ IR remote control and front-panel button switching
- ✓ Compact metal enclosure for flexible installation

3. PACKAGE CONTENTS

1× 8K HDMI 2×1 Switcher • 1× IR Remote • 1× 5V/2A Multinational Power Supply • 1× User Manual



4. Specifications

TECHNICAL	
HDMI Compliance	HDMI 2.1
HDCP Compliance	HDCP 2.3
Video Bandwidth	40Gbps
Video Resolution	Up to 8K@60Hz 4:2:0 10-bit, 8K@30Hz 4:4:4 10-bit, 4K@120Hz 4:4:4 10-bit
Color Depth	8/10/12-bit
Color Space	RGB, YCbCr 4:4:4, YCbCr 4:2:2, YCbCr 4:2:0
Audio Formats	HDMI input/output: LPCM, Dolby Digital/Plus/EX, Dolby TrueHD, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio, DSD De-embed optical: LPCM 2/5.1CH, Dolby Digital 2/5.1CH, DTS 2/5.1CH De-embed analog: PCM 2.0
ESD Protection	±8kV (air-gap discharge) & ±4kV (contact discharge)

CONNECTION	
Input	2 × HDMI IN [Type A, 19-pin female]
Output	1 × HDMI OUT [Type A, 19-pin female] 1 × OPTICAL OUTPUT [S/PDIF] 1 × L/R [3.5mm Stereo Mini-jack]
Control Ports	1 × SERVICE [Micro USB, Update port]

MECHANICAL	
Housing	Metal Enclosure
Color	Black
Dimensions	145mm (W) × 68mm (D) × 17mm (H)
Weight	268g
Power Supply	Input: AC 100–240V 50/60Hz Output: DC 5V/2A (US/EU standard, CE/FCC/UL certified)
Power Consumption	5.25W (Max)
Operating Temp	0°C – 40°C / 32°F – 104°F
Storage Temp	-20°C – 60°C / -4°F – 140°F
Relative Humidity	20–90% RH (Non-condensing)

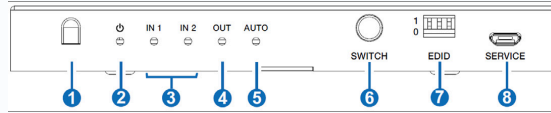
RECOMMENDED HDMI CABLE	
8K	Ultra HDMI 2.1 — 3m / 10ft
4K@60Hz	HDMI 2.0 — 8m / 26ft
4K@24Hz	HDMI 1.4 — 12m / 39ft
1080p	HDMI 1.4 — 15m / 49ft

The use of "Premium High Speed HDMI" cable is highly recommended.



5. Operation Controls and Functions

FRONT PANEL

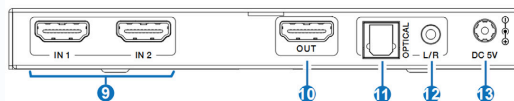


No.	Name	Function Description
1	IR Window	Receives IR remote signals.
2	Power LED	Green = on; red = standby.
3	IN 1-2 LEDs	Green LED = selected input channel.
4	OUT LED	Green LED = output active.
5	AUTO LED	Green = auto-switching enabled.
6	SWITCH	Short press: cycle inputs. Long press (3s): toggle auto-switch.
7	EDID DIP	3-position DIP with 8 EDID presets (see table below).
8	SERVICE	Micro USB for firmware update.

EDID DIP SWITCH SETTINGS

DIP	EDID Mode
111	Copy OUT port sink EDID (default)
110	1080p@60Hz, 2CH PCM
101	4K@60Hz 4:4:4, 2CH PCM, HDR
100	4K@60Hz 4:4:4, 5.1CH PCM/DTS/Dolby, HDR
011	4K@60Hz 4:4:4, 7.1CH PCM/DTS/Dolby/HD, HDR
010	8K@60Hz 4:2:0 + 4K@120Hz, 2CH PCM, HDR
001	8K@60Hz 4:2:0 + 4K@120Hz, 5.1CH, HDR
000	8K@60Hz 4:2:0 + 4K@120Hz, 7.1CH, HDR

REAR PANEL



No.	Name	Function Description
9	IN (1-2)	HDMI input ports. Connect to source devices.
10	OUT	HDMI output port. Connect to display.
11	OPTICAL	S/PDIF audio output for de-embedded audio.
12	L/R	3.5mm analog audio output (PCM 2.0).
13	DC 5V	5V/2A power input.

6. IR REMOTE

Power: Power on the product or set it to standby mode.

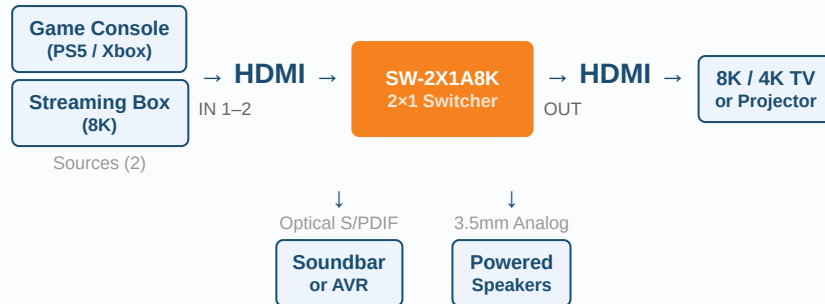
1 / 2: Press to select HDMI signal source IN 1 or IN 2.

Cycle: Press to cyclically switch between HDMI signal sources.



7. Application Example

8K Source Switching with Audio De-Embedding



How it works: Connect two HDMI sources to IN 1 and IN 2. Connect HDMI OUT to your display. Route audio to a soundbar via the optical output or to powered speakers via the 3.5mm analog output. Switch sources using the IR remote, front-panel button, or auto-switch.

EDID: Set the DIP switch to match your display's native resolution for reliable handshake. Default (111) copies the connected display's EDID automatically.

Gaming: VRR, ALLM, and FVA ensure low-latency, tear-free switching at up to 4K@120Hz 4:4:4.

TROUBLESHOOTING

Q: No signal on the display after switching sources?

A: 1) Verify HDMI cables are Premium High Speed or Ultra High Speed rated. 2) Try a different EDID DIP switch setting. 3) Power-cycle the switcher. 4) Ensure the source outputs a resolution supported by your display.

Q: Audio is not coming through the optical or analog output?

A: 1) Confirm the source outputs a compatible audio format. 2) Check that the EDID DIP switch includes the desired audio channels. 3) Verify cable connections to the audio device.

Q: Auto-switch is not detecting a new source?

A: Long-press the SWITCH button for 3 seconds to toggle auto-switch on (green AUTO LED). Ensure the previous source is fully powered off before connecting the new one.

