

4×1 4K HDMI Switcher with ARC, Audio Extraction, and RS-232

18Gbps, HDCP 2.2, Dolby TrueHD/DTS-HD 7.1, Smart EDID, Auto-Switch

MPN: SW-4X1HDAUD



APPROVED OVERVIEW

Route four 4K HDMI sources to a single display with integrated audio extraction and ARC — eliminating the need for a separate audio extractor or AVR upgrade. The KanexPro SW-4X1HDAUD is an 18Gbps HDMI 2.0a 4×1 switcher that combines source switching, audio de-embedding (optical S/PDIF + analog L/R), and Audio Return Channel in a single compact device. RS-232 control enables integration into managed AV environments.

Compliant with HDMI 2.0a, DVI 1.0, and HDCP 2.2/1.4, the switcher supports resolutions up to 4Kx2K@60Hz and all HDMI 3D formats. Audio pass-through supports PCM, Dolby TrueHD, and DTS-HD Master Audio up to 7.1 channels. Smart EDID management (Auto/2CH/5.1CH/7.1CH selectable) ensures reliable source/display negotiation. Switch inputs via front-panel button, IR remote, RS-232, or automatic detection. ARC extracts return audio from a connected TV to the optical/analog outputs. Compact metal enclosure, 2.5W max.

1 PRODUCT OVERVIEW

DESIGNED FOR

AV integrators, home theater installers, IT/AV managers, and hospitality system designers deploying 4K multi-source switching with audio breakout and room control.

THE CHALLENGE

Connecting multiple 4K HDMI sources to a single display while extracting audio for an external sound system and supporting ARC typically requires either an expensive AVR or multiple separate devices — adding cost, cabling, and failure points.

THE KANEXPRO ADVANTAGE

Combines 4×1 switching, ARC, dual-format audio extraction (optical + analog), RS-232 control, and smart EDID in a single ultra-compact device at a competitive price — eliminating the need for a separate audio extractor.

2 PRODUCT POSITIONING

The KanexPro SW-4X1HDAUD is the 4K HDMI 4×1 switcher for AV integrators and home theater installers who need multi-source switching with integrated ARC and audio breakout — plus RS-232 control — without the cost or complexity of a full AV receiver or separate audio extractor.

3 APPLICATIONS

Home Theater Systems

Connect a Blu-ray player, game console, streaming box, and cable box to a single TV. ARC routes TV audio back to a soundbar via the optical output — no separate audio cable needed.

Conference & Huddle Rooms

Switch between four laptop/desktop HDMI feeds on a single display. RS-232 enables integration with Crestron, Extron, or other room control systems. Audio extracts to ceiling speakers via the analog output.

Retail & Digital Signage

Alternate between up to four content players on a single commercial display. Auto-switch provides seamless failover if a player goes offline.

Education & Classrooms

Instructors switch between a document camera, laptop, desktop PC, and media player. Smart EDID ensures correct resolution negotiation with ceiling-mounted projectors.

Hospitality & Guest Rooms

Provide guests with four HDMI inputs (personal device, cable box, streaming stick, gaming console) on the room TV. ARC simplifies soundbar integration.

Control Rooms & Monitoring

Four camera feeds or PC sources routed to a single confidence monitor. RS-232 allows automated switching via control system scheduling.

4 WHO THIS IS FOR

AV Integrators

Home Theater Installers

IT/AV Managers

Hospitality Designers

Education AV

Control System Programmers

Ideal User	Residential AV integrator or IT/AV manager, age 30–55, specifying multi-source switching for conference rooms, classrooms, or custom homes.
Project Types	Residential custom install, corporate AV, education, hospitality, retail/digital signage
Typical Buyer	Lead integrator or AV consultant (residential); IT director or facilities manager (commercial)

5 KANEXPRO PRODUCT COMPARISON

The SW-4X1HDAUD is the only KanexPro 4×1 with ARC + audio extraction + RS-232.

MODEL	BEST FOR	KEY CAPABILITY	HOW IT DIFFERS
SW-4X1HDAUD	4K multi-source + ARC + audio + RS-232	4×1 HDMI 2.0, ARC, optical+analog, RS-232	This product — only KanexPro 4×1 with ARC + audio + RS-232
SW-2X1A8K	8K source switching + audio	2×1 HDMI 2.1, 40Gbps, optical+analog	8K capable but only 2 inputs; no ARC, no RS-232
SW-4X18K	8K 4×1 switching	4×1 HDMI 2.1, 48Gbps	8K but no audio extract, no ARC, no RS-232 (~\$104)
SW-2X18K	Basic 8K 2×1	2×1 HDMI 2.1, 48Gbps	No audio, no ARC, no RS-232, only 2 inputs (~\$52)

Choose SW-4X1HDAUD when you need 4K multi-source switching with ARC, audio breakout, AND RS-232 control.

Q: Does this support eARC?

No. The SW-4X1HDAUD supports standard ARC only. For eARC, consider the OREI UHDS-401A or an 8K-class switcher.

Q: Does it pass HDR10 or Dolby Vision?

The manual does not list HDR pass-through. It supports HDMI 2.0a with 18Gbps bandwidth, which can carry HDR10 in 4K@60Hz 4:2:0, but explicit HDR metadata pass-through is not guaranteed.

Q: How does ARC work on this device?

When ARC is enabled via the front-panel button or IR remote, the HDMI output port receives return audio from the connected TV and routes it to the optical and analog audio outputs. The connected TV must support ARC on its HDMI port.

Q: What RS-232 commands are supported?

RS-232 via the rear-panel 3.5mm jack (DB9 adapter sold separately) supports input selection, EDID mode, ARC toggle, and status query. Refer to the RS-232 protocol guide in the product manual.

Q: Can I use auto-switch and RS-232 control together?

Yes. Auto-switch handles failover; RS-232 can override to a specific input at any time.

Q: How does this compare to the KanexPro SW-4X18K?

The SW-4X18K is HDMI 2.1 (8K) but lacks ARC, audio extraction, and RS-232. Choose the SW-4X1HDAUD when audio breakout, ARC, or serial control is needed.

Q: What EDID mode should I use?

Auto copies the connected display's EDID. For fixed audio channel count, select 2CH, 5.1CH, or 7.1CH. Fixed EDID prevents renegotiation when switching sources.