

4x4 HDMI Matrix Switcher with Independent 4K Downscaling & HDR Support

Mixed-Resolution Multi-Display Routing with RS-232 and Smart EDID Management

MPN: SW-HDMX44DS



Most 4x4 HDMI matrix installations require separate scalers when mixing 4K and 1080p displays — adding cost and configuration overhead to every output. The KanexPro SW-HDMX44DS eliminates that with per-output independent 4K → 1080p downscaling on every channel, letting integrators route four sources to four displays — 4K and 1080p simultaneously — without additional hardware.

Supporting resolutions up to 4K@60Hz 4:4:4 with HDR10 and Dolby Vision pass-through. Smart EDID management with 13 factory presets. Control via front panel, IR remote, or RS-232.

1 PRODUCT OVERVIEW

DESIGNED FOR

AV integrators and corporate IT deploying mixed-resolution multi-display environments where 4K and legacy 1080p displays must operate simultaneously from a single matrix.

THE CHALLENGE

Standard 4x4 matrices cannot independently scale outputs — requiring a separate scaler per 1080p display zone, adding cost, rack space, and complexity to every install.

THE KANEXPRO ADVANTAGE

Per-output independent 4K → 1080p downscaling on all 4 channels at \$499.95 — no external scalers, no additional configuration, no extra rack units.

2 PRODUCT POSITIONING

SW-HDMX44DS is the 4x4 HDMI matrix for integrators who need independent per-output 4K downscaling without sourcing separate scalers for every 1080p display zone.

3 SALES ANALYSIS

CHANNEL FIT

Online reseller (primary): Amazon, B&H. AV distribution (secondary): WAVE, BCD. Direct: SMB corporate IT and education.

DEAL SIZE & SALES CYCLE

\$499.95 per unit. 1–2 units typical. Fast decision cycle (1–3 weeks).

COMMON OBJECTIONS

1. "OREI/Monoprice is cheaper" — lacks per-output independent downscaling. 2. "No WebGUI?" — front panel + RS-232 + IR covers 4×4 at this price. 3. "No audio de-embed?" — specify HDMX44A-18G.

WIN / LOSS THEMES

WIN: Per-output downscaler at sub-\$500; HDR10 + Dolby Vision; RS-232 presets. LOSS: No WebGUI; no audio de-embed; no ARC.

TOP USE CASES TO CLOSE

- 1 Corporate AV room with mixed 4K/1080p displays: SW-HDMX44DS eliminates per-display scalers — immediate BOM reduction vs. competitors requiring separate scaler per 1080p zone.
- 2 Classroom with legacy projector and new 4K display: per-output downscaler drives both from a single matrix — compelling value for education AV budget-constrained projects.

4 APPLICATIONS



Corporate AV Room

Route 4 sources to 4 mixed-res displays with per-output 4K → 1080p downscaling. No external scalers needed.



Classroom & Lecture Hall

Distribute PC, doc cam, streaming, and AV to 4 displays. Downscaler adapts 4K to legacy 1080p projectors automatically.



Hospitality

Feed 4 IPTV/streaming sources to 4 displays with independent 4K and 1080p output per zone.



Digital Signage

Route 4 content channels to 4 zones with independent per-output resolution scaling.



Sports Bar & Restaurant

Connect 4 feeds, route independently to 4 screens, switch per zone without interrupting others.



Control Room & NOC

Distribute 4 data/video feeds to 4 analyst displays with RS-232 preset recall automation.

5 WHO THIS IS FOR

AV Integrator

Corporate IT

Education

Hospitality

Digital Signage

Ideal User

Commercial AV integrator or IT generalist handling multi-display installs for SMB and mid-market clients.

Project Types

Corporate AV, Education (classrooms, lecture halls), Hospitality, Retail Signage, Government.

Typical Buyer

AV Integrator or IT Manager specifies and purchases. Store Manager or IT Director approves.

6 KANEXPRO PRODUCT COMPARISON

The SW-HDMX44DS is KanexPro's entry-level 4×4 matrix with per-output downscaling.

MODEL	BEST FOR	KEY CAPABILITY	HOW IT DIFFERS
SW-HDMX44DS	4-zone mixed-res matrix	Per-output 4K → 1080p downscaler, HDR10, RS-232	This product
HDMX44A-18G	4-zone matrix + analog audio	Per-output DAC 3.5mm audio, WebGUI, Telnet, 14 EDID	Step up: adds per-zone analog audio and IP control
MMX-8X8AUD	8-zone audio-complete matrix	8×8, dual de-embed, ARC, downscaler	Scale up to 8 zones with full audio management

✦ Recommend SW-HDMX44DS for 4-zone mixed-res routing with per-output downscaling at the lowest cost.

7 FREQUENTLY ASKED QUESTIONS

Does each output have its own independent downscaler?

Yes. All four outputs have independent 4K → 1080p downscalers. Enable or disable per output via RS-232 — mix 4K and 1080p outputs simultaneously.

Can I use RS-232 with Crestron or AMX?

Yes. 9600 baud, 3-pin terminal block. Compatible with Crestron, AMX, and other control systems. 10 preset memories supported.

What EDID presets are available?

13 factory presets (1080p stereo through 4K60 HDR multi-channel), user-defined EDID, and copy-from-output modes.

Is audio de-embedding available?

No. HDMI audio passes through to displays. For per-output analog audio breakout, specify HDMX44A-18G.

How does HDCP management work?

Each output independently set to HDCP bypass or forced HDCP 1.4 via RS-232 command.

What is the maximum cable length for 4K@60Hz?

Up to 16 ft (5m) with Premium High Speed HDMI cables.

How does this compare to Monoprice Blackbird?

Monoprice Blackbird offers similar downscaling but with less flexible EDID management and no RS-232 preset recall. SW-HDMX44DS includes 13 EDID presets and RS-232 for control system integration.