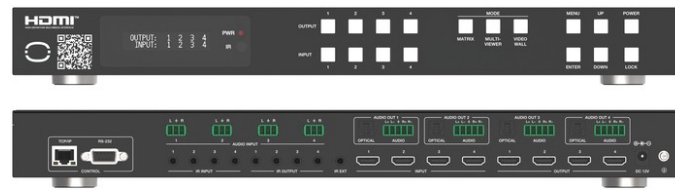


4K60 4×4 Seamless Matrix, Video Wall & Multiviewer Processor

Route Any Source, Build a 2×2 Wall or 12-Layout Multiview from One Chassis — 9 Splicing Modes, RS-232/IP/Web Control

MPN: MMX-4X4VWMV



Consolidates seamless 4×4 matrix routing, a video wall and a multiviewer into one 1U chassis, so a single box does the work that once took three separate devices. Housed in a full-rack-width black metal enclosure drawing just 25W, it routes four HDMI 2.0 sources to four displays at 4K@60Hz 4:4:4 across an 18Gbps path with HDCP 2.2, scaling each source individually and switching without a black-screen or re-sync gap. It is the right choice for mid-market control rooms, retail, hospitality and worship installs where matrix, wall, multiview and audio breakout in one controllable box matter more than a modular chassis-and-card platform.

Video-wall mode offers nine splicing modes with 0–10 bezel compensation, multiviewer mode offers twelve layouts including PIP, dual, triple and quad, and a built-in 4×4 IR matrix carries source control back from the display side. The unit is driven from the front panel, IR remote, RS-232, TCP/IP and a built-in Web GUI, with CEC for display power and advanced EDID management. Its strongest differentiator is a complete dual-format audio stage: four optical S/PDIF and four analog L/R outputs de-embed HDMI source audio to a house amplifier or DSP, while four analog L/R inputs embed a local source onto an HDMI signal, replacing a separate audio de-embedder in the chain.

1 PRODUCT OVERVIEW

DESIGNED FOR

This processor is built for fixed-install source management in operations and security control rooms, retail and QSR menu walls, sports bars and hospitality venues, corporate boardrooms and lobbies, houses of worship with overflow, and high-end residential media walls — anywhere four HDMI sources must feed four displays as a seamless matrix, a small video wall and a tiled multiview, with source audio handed off to a house amplifier or DSP.

THE CHALLENGE

Delivering matrix routing, a 2×2 wall, a multiviewer and audio de-embedding usually means cascading a seamless matrix, a video-wall processor and an outboard de-embedder — three power supplies, three control drivers and an EDID and latency penalty at every hop — or stepping up to a modular chassis at several times the price and rack space. The single-box alternatives tend to drop RS-232 or IP control, cap the switched path at 4K30 or 1080p, or offer audio outputs only with no way to embed a local source.

THE KANEXPRO ADVANTAGE

- Runs all three modes from one 1U chassis — seamless 4×4 matrix, nine-mode video wall and twelve-layout multiviewer — instead of three cascaded devices.
- Holds a genuine 4K@60Hz 4:4:4 18Gbps path with HDCP 2.2, where competing units in this band fall back to 4:2:0, 4K30 or 1080p.
- Carries the full pro control set — RS-232, TCP/IP, Web GUI, IR, front panel and CEC — so it drops into a third-party control system.
- Breaks out source audio two ways at once, four optical S/PDIF plus four analog L/R outputs, and embeds a local source through four analog L/R inputs, with no separate de-embedder needed.

2 PRODUCT POSITIONING

The MMX-4X4VWMV is the single-chassis 4K60 4×4 seamless matrix, video-wall and multiviewer processor for mid-market AV integrators who need routing, a 2×2 wall, a 12-layout multiview and dual-format audio breakout in one controllable box — without cascading three devices or stepping up to a modular chassis-and-card platform.

3 APPLICATIONS



1. Utility / security operations room

A dispatch centre feeds four source PCs into the matrix and drives a 2×2 monitor wall while a supervisor's confidence display runs a 12-window multiview of all inputs. Seamless switching means operators never see a black-screen glitch during a source change, and the RS-232/IP control integrates with the room's control processor. De-embedded S/PDIF audio routes the active source's alarm/audio feed to the room DSP.



2. Sports bar and hospitality viewing

Four set-top/streaming sources feed screens across a venue; the bartender switches any source to any display from a Web GUI on a tablet. Per-output analog L/R and optical S/PDIF breakout sends each zone's audio to a distributed amplifier, so a chosen game's commentary plays in the right zone without an outboard de-embedder.



3. Retail / QSR menu and promo wall

A 2×2 video wall runs a spliced menu-board image while the same chassis routes a fourth source to a separate promo screen at the counter. The 9 splicing modes cover both the regular 2×2 and irregular layouts for oddly-shaped display arrays, and CEC powers the panels on and off on schedule.



4. Corporate boardroom and lobby

In the boardroom the unit acts as a straight 4×4 seamless matrix routing laptops and room PCs to dual displays; the lobby draws from the same box in multiview to show four building/campus feeds at once. TCP/IP control lets the room's control system drive presets, and audio de-embedding feeds the ceiling-speaker DSP.



5. House of worship with overflow

The main program feed, lyrics/graphics PC, camera and a recorded-media player enter the matrix; the main hall shows the program while an overflow room shows a multiview of program-plus-lyrics. Analog L/R audio-in allows a mixed audio bed to be embedded, and optical out feeds the sanctuary sound system.



6. High-end residential media wall (CEDIA)

A luxury media room runs a four-panel wall in 2×2 for cinema and reconfigures to a four-source multiview for simultaneous sports on game day, all from an in-wall touch panel over IP. Low 25W draw and a metal chassis suit an enclosed AV cabinet, and audio breakout hands off to the home's separate amplifier without an AVR upgrade.

4 WHO THIS IS FOR

Ideal User

Project Types

control/operations rooms → retail & QSR digital signage → sports bar / hospitality → corporate lobby & huddle → house of worship → education → high-end residential.

Typical Buyer

the integrator's lead engineer or purchasing lead specs the part; the end client signs the PO. The engineer decides on **control compatibility**, **resolution/bandwidth** and **audio breakout**; procurement decides on **price**, **lead time** and **warranty**.

5 KANEXPRO PRODUCT COMPARISON

MODEL	BEST FOR	KEY CAPABILITY	HOW IT DIFFERS
VW-SP1X44K	1×4 HDMI 4K video wall processor with bezel correction	1×4 HDMI 4K UHD Video Wall Processor with Bezel Correction	The MMX-4X4VWMV is a four-source matrix that also builds a wall and a multiview, rather than a one-source wall driver.

MODEL	BEST FOR	KEY CAPABILITY	HOW IT DIFFERS
VW-HDUSBC1X4	1×4 HDMI/USB-C video wall controller	4K60 HDMI/USB-C 1×4 Video Wall Controller	The MMX-4X4VWMV routes four sources to four displays, adds a 12-layout multiviewer and breaks out audio, where the controller is single-input with no matrix.
MMX-4X4VW	4K30 4×4 seamless matrix and 3-layout video wall, HDMI 1.4, half-rack	4K 4×4 Seamless Matrix & Video Wall Processor	The MMX-4X4VWMV is the 4K60 4:4:4 step-up: 9 wall modes, a 12-layout multiviewer, TCP/IP and Web GUI control, a 4×4 IR matrix and the full audio de-embed/embed stack; sell them as good/better, not as substitutes.

6 FREQUENTLY ASKED QUESTIONS

Q: How is this different from the entry KanexPro 4x4 seamless matrix and video wall processor?

The entry model is HDMI 1.4 at 4K@30Hz with three wall layouts (2x2, 4x1, 1x4) and front-panel, IR and RS-232 control. This model is HDMI 2.0 at 4K@60Hz 4:4:4, adds nine wall splicing modes and a 12-layout multiviewer, network control (TCP/IP and Web GUI), a 4x4 IR matrix, and a full audio stage - four optical S/PDIF outputs, four analog L/R outputs, and four analog L/R inputs for embedding. Choose the entry model for simple 4K30 signage walls; choose this one for 4K60 sources, multiview, control-system jobs or separated audio.

Q: Is it genuinely 4K60 4:4:4, or does it fall back to 4:2:0?

Full 4K@60Hz 4:4:4 across the switched path, at 18Gbps HDMI 2.0 bandwidth with HDCP 2.2. It does not drop chroma to 4:2:0 to reach 60Hz, as several competing single-box units do.

Q: Will it work with my control system?

Yes. It is controllable by RS-232, TCP/IP and a built-in Web GUI, plus front-panel buttons and IR, with CEC for display power. That covers the common third-party control processors; confirm the specific driver for your platform before install.

Q: Can it send audio to my amplifier or DSP without an AVR?

Yes. Each of the four audio outputs has an optical S/PDIF port and a balanced/unbalanced analog L/R port carrying HDMI source audio. Three modes set what they play: Bind to Input (audio out 1-4 follow HDMI inputs 1-4), Bind to Output (each follows whatever source is routed to that display), or Audio Matrix (any input's audio to any audio output). Separately, four analog L/R inputs can embed a local audio source onto an HDMI input; audio embedded that way travels on HDMI only, not to the audio outputs. It replaces a separate audio de-embedder in the signal chain.

Q: Does switching cause a black screen or sync drop?

No - switching is seamless, with no black-screen or re-sync gap when you change a source on any output. That is what suits it to live control-room and hospitality use.

Q: What video-wall layouts does it support?

Nine splicing modes in video-wall mode - regular 2x2 and irregular splices - plus twelve layout categories in multiview mode. That is more wall flexibility than the 7-mode units it competes against.

Q: What's in the box, and is there a manual?

The unit ships with a locking 12V/2.5A power adapter, five IR wideband receiver cables, four IR blaster cables, an RS-232 serial cable, four 5-pin and four 3-pin Phoenix connectors, mounting ears and screws. The manual is digital - scan the QR code on the box; no printed manual is included.