

18Gbps 16×16 HDMI Matrix with ARC Function

4K60 4:4:4 Matrix Switcher with Coaxial Audio De-embedding & ARC

MPN: MMX-16X16AUD



Route sixteen HDMI sources to sixteen displays with full 4K60 4:4:4 fidelity and independent coaxial audio de-embedding on every output. The KanexPro MMX-16X16AUD is an 18Gbps 16×16 HDMI matrix switcher that delivers seamless routing of ultra-high-definition video and multi-channel digital audio across large-scale AV environments — with dedicated coaxial audio outputs on all sixteen channels.

Compliant with HDMI 2.0b, HDCP 2.2/1.x, and DVI 1.0, the matrix supports HDR10, HDR10+, Dolby Vision, and HLG pass-through alongside Dolby Atmos and DTS:X audio. Each output features an independent 4K-to-1080p downscaler for mixed-resolution displays. ARC support extracts audio from connected displays to coaxial output. Control via front panel OLED, IR remote, RS-232, TCP/IP, and Web GUI. 1U rack-mountable.

1 PRODUCT OVERVIEW

DESIGNED FOR

Enterprise AV integrators and consultants deploying large-scale distribution infrastructure for convention centers, campus AV, broadcast master control, command centers, and government facilities.

THE CHALLENGE

Large installs require 16 independent audio-equipped outputs from a single unit — most 16×16 HDMI matrices at 18Gbps with audio de-embedding are priced at \$3,000–\$5,000+.

THE KANEXPRO ADVANTAGE

16-output coaxial audio de-embedding plus ARC plus per-output independent downscaler in a 1U rack unit at \$1,995.95 — BZBGear comparable starts near \$3,000.

2 PRODUCT POSITIONING

MMX-16X16AUD is the 16×16 full-bandwidth matrix for enterprise integrators who need audio de-embedding at every output without a rack of external extractors or an 8K price premium.

3 SALES ANALYSIS

CHANNEL FIT

AV distribution (primary): WAVE Electronics, Stampede.
Rep/VAR: large CEDIA/commercial integrators. Direct: government, higher education, broadcast bids.

DEAL SIZE & SALES CYCLE

\$1,995–\$8,000+ per unit (with accessories). Often part of larger AV infrastructure bids.

COMMON OBJECTIONS

1. "Why not HDBaseT?" — HDMI-native is cost-efficient within cable limits. 2. "BZBGear offers 8K?" — 8K is over-spec; 50% cost premium for unused bandwidth. 3. "Only coaxial de-embed?" — Coaxial covers all commercial audio zone scenarios.

WIN / LOSS THEMES

WIN: Competitive pricing vs. 16×16 competitors; audio-complete; 1U rack-efficient. LOSS: Coaxial only (no 3.5mm per output); 16 ft 4K60 cable limit.

TOP USE CASES TO CLOSE

- 1 Enterprise campus AV infrastructure: replace legacy matrix + 16 external audio extractors with a single 1U unit — single-device story with Web GUI and TCP/IP control compelling for IT-managed AV environments.
- 2 Convention center ballroom and breakout room distribution: 16 sources routed to 16 audio-equipped zones from one rack unit — eliminates per-zone audio distribution device and simplifies operator training.

4 APPLICATIONS



Convention Center & Event Venue

Route 16 sources across ballrooms, pre-function spaces, and breakout rooms with coaxial audio extraction to zone amplifiers on every channel.



Enterprise Campus AV Infrastructure

Central 1U matrix serving 16 meeting rooms with EDID management, Web GUI, and TCP/IP control integrated with building management systems.



Broadcast Master Control & MCR

Route and monitor 16 video feeds across preview, program, and confidence monitors with coaxial audio extraction feeding a central audio router.



Command Center & TOC Operations

16 independent data and video feeds to analyst positions with per-output audio isolation and independent downscaling for mixed display types.



University AV & Large Classroom Networks

Backbone of a university AV distribution plant routing 16 sources across lecture theaters, labs, and tiered classrooms from a single 1U unit.



Government & Defense AV Distribution

Secure 1U rack-mounted 18Gbps distribution in command-and-control environments with HDCP 2.2 and RS-232 control integration.

5 WHO THIS IS FOR

Enterprise AV Integrator

Broadcast

Convention Center

Government / Defense

Higher Education

Command Center

Ideal User

Senior AV Systems Designer or Lead Systems Integrator handling large commercial, government, or broadcast infrastructure bids.

Project Types

Convention centers, enterprise campus AV, broadcast master control, tactical operations centers (TOC/NOC), higher education AV plants, government/defense.

Typical Buyer

AV Lead Designer specifies; AV Consultant validates; IT Director or Facilities VP signs off. Contracting Officer on government bids.

6 KANEXPRO PRODUCT COMPARISON

KanexPro's matrix line scales from entry-level 4×4 through 16×16. The MMX-16X16AUD serves the large-venue segment where 16 independent audio-equipped outputs are required.

MODEL	BEST FOR	KEY CAPABILITY	HOW IT DIFFERS
MMX-16X16AUD	Large-venue 16-zone matrix	16-output coaxial de-embed + ARC + downscaler, 1U, 18Gbps	This product — best value for audio-complete 16×16
MMX-8X8AUD	Mid-scale 8-zone matrix	Dual analog + coaxial de-embed + ARC + downscaler all 8	Step down: 8 outputs; adds analog 3.5mm de-embed per output
SP-HDMI2X8-8K	8K 2-input splitter	48Gbps, 2×8 routing, 8K support	For 8K sources with one or two inputs; not a full matrix

✦ Recommend MMX-16X16AUD for 16-output installs requiring audio at every zone without an 8K price premium.

7 FREQUENTLY ASKED QUESTIONS

Do all 16 outputs have independent audio de-embedding?

Yes. Every output includes a dedicated coaxial (RCA) audio extraction port — independently routed, not linked to the input assignment.

Does the matrix support mixed-resolution displays?

Yes. Each output has an independent 4K → 1080p downscaler, allowing 4K sources to be delivered to 1080p displays on any subset of outputs.

What control interfaces are available?

Front panel OLED, IR remote, RS-232 (D-Sub 9), TCP/IP (RJ45), and a full Web GUI with scene preset storage. Compatible with Crestron, AMX, and Lutron.

Is the unit rack-mountable?

Yes. Standard 1U rack-mount unit (440mm W × 200mm D × 44mm H). Mounting ears included.

How does it compare to the BZBGear 16×16 8K matrix?

The BZBGear BG-8K-1616MA is typically priced 40–50% higher. For 4K60 environments — the vast majority of current deployments — the MMX-16X16AUD delivers identical functional output at significantly lower project cost.

What Dolby/DTS formats pass through the HDMI outputs?

HDMI outputs support LPCM 2/5.1/7.1, Dolby TrueHD, Dolby Atmos, DTS-HD Master Audio, and DTS:X. Coaxial outputs carry LPCM 2.0, Dolby Digital/DD+, and DTS 5.1.

What EDID modes are available?

21 factory EDID presets, 2 user-defined EDID slots, and 16 copy-from-output modes. CEC pass-through supported across all ports.