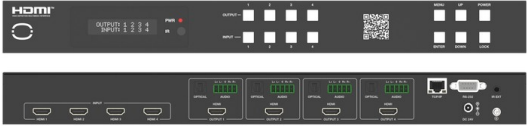


48Gbps 4x4 HDMI 2.1 Matrix Switcher with Per-Output Downscaling & Audio Breakout

Full Gaming Feature Set - VRR, ALLM, QMS, QFT & SBTM to Every Output at 4K120 4:4:4
MPN: MMX-4X4-48G



Routes 8K and 4K/120 gaming sources to a mix of new and legacy displays, downscaling and HDR-converting each output independently so one matrix drives every screen in the room. The MMX-4X4-48G is a 1U, all-metal 4x4 HDMI 2.1 matrix that carries the full 48Gbps FRL bandwidth to all four outputs, powered by a locking 24V/2.7A supply and rated up to 8K60 4:2:0, 8K30 4:4:4 and 4K120 4:4:4. It is the right choice for gaming theaters, esports rooms and mixed-resolution commercial installs where high-refresh signal integrity and per-output scaling matter more than raw port count.

Each of the four outputs carries the complete HDMI 2.1 gaming feature set — VRR, ALLM, QMS, QFT and SBTM — with HDR10, HDR10+, Dolby Vision and HLG pass-through, plus independent optical S/PDIF and balanced analog breakout for de-embedding audio to a processor or zone amp. Advanced EDID management with 36 defined, 3 user and 4 copy modes keeps mixed-source, mixed-display systems stable, and the matrix drops into any control system over front-panel buttons, IR, RS-232 or a TCP/IP Web GUI. Its single strongest advantage is doing all of this at a true 48Gbps — not the 40Gbps of many 8K units — while downscaling per output so legacy 4K and 1080p displays share the same routing fabric as the 8K reference screen, without a separate scaler in the rack.

 48Gbps Full HDMI 2.1	 8K60 4:2:0 / 4K120 4:4:4 (8K at full 4:4:4 is 30Hz only)	 Per-Output Downscale & HDR	 Gaming VRR/ALLM/QMS/QFT/SBTM	 Audio Breakout Optical + Analog
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KEY FEATURES

- Independently routes 4 HDMI inputs to 4 HDMI outputs, HDCP 2.3
- Full 48Gbps HDMI 2.1: 8K60 4:2:0, 8K30 4:4:4, 4K120 4:4:4
- Per-output resolution downscaling (8K→4K, 8K/4K→1080p) and HDR conversion
- Complete gaming feature set: VRR, ALLM, QMS, QFT, SBTM to every output
- HDR10, HDR10+, Dolby Vision and HLG pass-through
- Per-output optical S/PDIF and balanced analog audio breakout
- Advanced EDID management: 36 defined, 3 user and 4 copy modes
- Control via front panel, IR, RS-232 and TCP/IP Web GUI

SPECIFICATIONS

HDMI / HDCP	HDMI 2.1 - HDCP 2.3 - 48Gbps bandwidth
Max Resolution	8K60 4:2:0 - 8K30 4:4:4 - 4K120 4:4:4
Color	RGB/YCbCr 4:4:4/4:2:2/4:2:0 - 8/10/12-bit
HDR	HDR10 - HDR10+ - Dolby Vision - HLG
Gaming	VRR - ALLM - QMS - QFT - SBTM
Per-Output Scaling	8K→4K - 8K/4K→1080p - HDR to SDR - Auto
Audio Breakout	4× optical S/PDIF - 4× balanced analog
Control	Front panel - IR - RS-232 - TCP/IP Web GUI
HDMI Cable Length	3m 8K - 5m 4K60 - 10m 4K30 - 15m 1080p
Power	AC 100-240V in - DC 24V/2.7A - 35W max
Enclosure	Black metal - 1U rack-mount
Dimensions / Weight	17.32 × 7.99 × 1.75 in · 5.84 lbs (2.65 kg)
Package Contents	1 × 48Gbps 4x4 HDMI Matrix • 1 × 24V/2.7A locking power adapter • 1 × IR remote • 1 × IR wideband receiver cable (12V, 1.5m) • 1 × AC power cord (1.5m) • 1 × RS-232 serial cable (1.5m, male-to-female) • 4 × 5-pin 3.81mm phoenix connector • 8 × machine screw (KM3*6) • 2 × mounting ear

APPLICATIONS

 Home Theater VRR gaming to the main screen	 Esports Lounges 4K120 to every station	 Corporate Boardrooms one matrix, mixed displays	 Broadcast Monitoring 8K & 4K to monitor grid	 Sports Bars downscaled feeds venue-wide
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