



MXNet 1G Evolution II Downmixing Encoder (AC-MXNET-1G-AVDM-EV2)

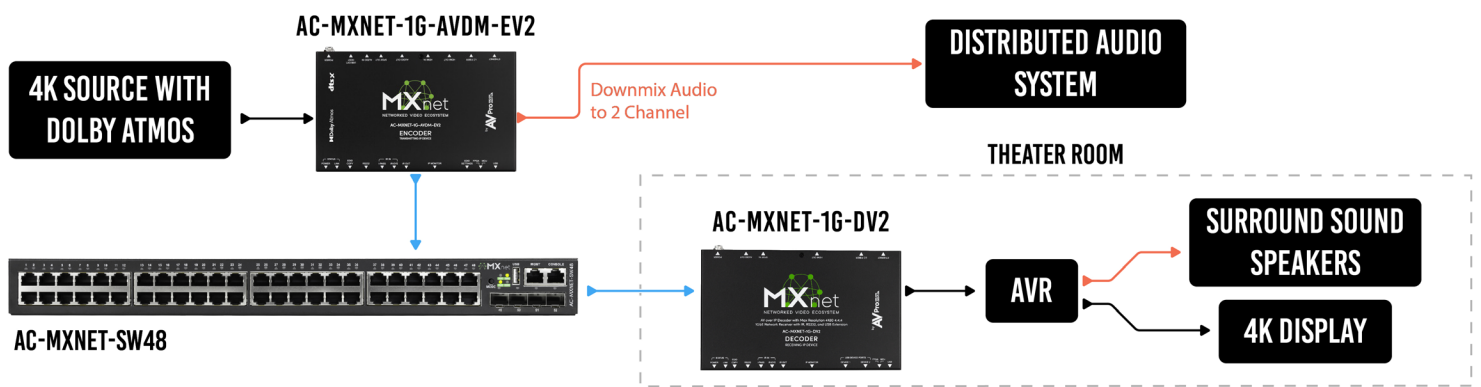
Tracing the footprints of AVPro Edge’s AC-MXNET-1G-EV2 and continuing down the evolutionary path of the MXNet Platform, the AC-MXNET-1G-AVDM-EV2 draws upon an onboard proprietary audio decoder module designed to extract two-channel, balanced analog audio from high bitrate, multi-channel audio codecs including Dolby Atmos® and DTS:X® to integrate with multi-zone stereo distribution systems. Downmixed signals are extracted and output in analog stereo via a balanced Phoenix-type terminal on the encoder chassis.

The AC-MXNET-1G-AVDM-EV2 functions otherwise as an Evolution II Encoding / Transmitting device, incorporating a newly designed AVPro Edge application-specific integrated circuit (ASIC) that introduces an improved software-based video encoding / decoding engine into the IC for enhanced video processing. Refinements to the IC include native support for 4K/60fps 4:4:4 signals (RGB and YCbCr @10- and 12-bit). All MXNet first-generation encoder features are retained for use with the AC-MXNET-1G-AVDM-EV2.

As a member of the AVPro Edge family of AV over IP products, an AC-MXNET-1G-EV2 is the gateway where a signal enters the MXNet Ecosystem, connected with category cable (AVPro Edge strongly encourages CAT-6a infrastructure for all MXNet system deployments however for MXNet 1G, Cat-5e will comfortably transport MXNet 1G data signals) or fiber optic cabling, to an MXNet switch or any compatible multicast-capable managed L3 network switch.



MXNET DOWNMIX AUDIO DIAGRAM



PRODUCT SPECIFICATIONS

Encoding:	
Video Codec	Proprietary Codec based on M-JPEG
Audio Codec	Proprietary Codec
Latency	16ms@60Hz
Streaming Protocols	TCP, UDP, IP, IGMP-V2
Copy Protection	HDCP 2.2 and earlier
Video Input/Ingestion	
Signal Type	DVI 1.0, HDMI 2.0b
Video Resolution	720p@50/60Hz; 1080p@24, 50 & 60Hz; 4K@50/60Hz 4:4:4*; 4K@30Hz 4:4:4; 4K@60Hz 4:2:0;4:2:2 4K@24Hz 4:2:0/4:2:2 [Ultra-wide Support]
Chroma Subsampling	4:4:4, 4:2:2, 4:2:0, RGB
Bit Depth per Color	1080p 8-,10-,12-bit, 4K 8-,10-,12-bit
Visually Lossless	4096x2160p@60Hz (8-bit) 4:4:4 or RGB; 3840x2160p@60Hz (12-bit) 4:2:2 Dohly Vision; 3840x2160p@60Hz (10-bit) 4:2:2 HDR10/HLG; 1920x1080p@60Hz (12-bit)
Audio	
Audio Format (end to end)	PCM 2, 5.1, 7.1 Channel, Dolby Digital 5.1 Channel, Dolby Digital Plus, DTS 5.1 Channel, DTS-ES, DTS-HD High Resolution, DTS-HD Master Audio, Dolby Atmos, DTS:X
Audio Format (HDMI Loopout)	Same As End-To-End
Embedded Audio	Stereo Analog Audio (3.5mm jack)
De-Embedded Audio	Balanced Stereo Analog Audio (5-pin phoenix only, downmixed to 2Ch)
Ports	
Ethernet	(1) × female RJ45, PoE
SFP	(1) × SFP Slot
HDMI	(2) × HDMI Type A 19-pin, female, one HDMI input, one HDMI loop out
Audio	(1) × 5-pin Terminal Block, Balanced L/R Audio out (Downmixed to 2Ch audio) (1) × Toslink Audio Out (Future Audio Return Support Only) (1) × 3.5 mm mini stereo jack, Audio in
IR	(3) × 3.5 mm mini-stereo jack, one IR-Pass, one IR-EYE, one IR-out
RS232	(1) × 3-pin Terminal Block
USB	(1) × USB 2.0 Type-B for USB extension and KVM, (1) × USB Type-C for MXNet service
Distance	
Ethernet	100 Meters / 330 Feet over CAT5e and above
SFP and Fiber	1000BASE-SX SFP Transceiver Module (MMF, 850nm, 550m, LC, DOM) 1000BASE-LX/LH SFP 1310nm 10km Transceiver Module
Environmental	
Operating Temperature	23 to 125°F (-5 to 51°C)
Storage Temperature	-4 to 140°F (-20 to 60°C)
Operating Humidity	5-90% RH (No Condensation)
Cooling	Fanless Cooling
Acoustic Noise Level	0dB
Power	
Max Power Consumption	10.3W
PoE (Power over Ethernet)	IEEE 802.3af (15.4W)
Power Supply Unit	Input: AC 120-240V-50/60Hz 0.8A
Dimensions	
Mounting	Rack and Furniture mount support
Dimensions (Unit only Width/Depth/Height)	mm: 199.14 x 119.86 x 19.84 inch: 7.84 x 4.72 x .78
Dimensions (Packaged Width/Depth/Height)	mm: 309.88 x 180.09 x 54.10 inch: 12.2 x 7.09 x 2.13
Weight (Unit)	1.43lb / .65kg
Weight (Packaged)	1.91lb / .87kg
Regulatory	CE/FCC/UL
Product Warranty	10 Years

Specifications subject to change without notice. Mass & dimensions are approximate

FEATURE SET

- 8CH Audio Downmixing to 2CH
- HDMI 2.0
- 18Gbps Bandwidth Support
- HDCP 2.2 (and all earlier versions supported)
- Evolution II ASIC with improved encoding engine
- With “lossy” signals, JPEG 2000 optimizes compression efficiency
- Proprietary MXNet Mentor interface for bandwidth management, real-time status feedback, live diagnostics plus EDID copy and configuration
- Encodes native 4K/60fps 4:4:4 RGB or YCbCr with dynamic metadata support
- Downstream decoders now support ARC and eARC
- Genlock frame-syncing ensures video walls are free from image-tearing
- Near-zero latency, visually imperceptible
- Configure control signal routing for RS-232, IR or USB via MXNet Mentor
- USB/KVM support with USB 2.0 Type-B female Host connection
- Improved USB 2.0 video processing for resolutions up to 1920x1080p @ 30Hz
- Built-in OLED data window provides localized device information at a glance
- Backed by AVPro Edge’s 10-year, no-hassle warranty



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