MXnet
NETWORKED VIDEO ECOSYSTEM
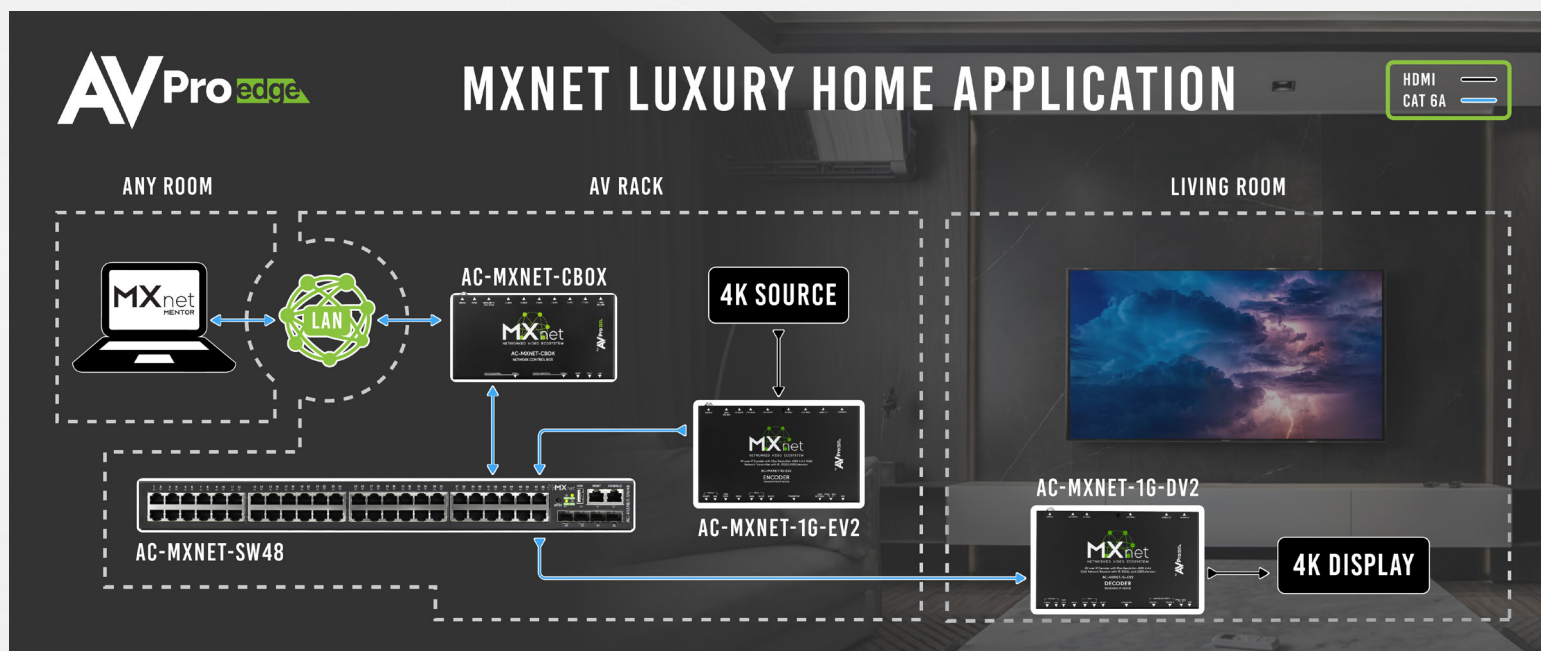
TAA COMPLIANT

MADE IN THE USA

MXNet 1G Evolution II Decoder
(AC-MXNET-1G-DV2-TAA)

The AC-MXNET-1G-DV2-TAA represents the next step in the evolution of the MXNet AV over IP video distribution ecosystem from AVPro Edge. AC-MXNET-1G-DV2-TAA, an Evolution II decoding/receiving device, incorporates 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), plus extended audio capabilities to support high bitrate multi-channel formats, including Dolby Atmos and DTS:X for IMAX Enhanced soundtracks.

As a member of the AVPro Edge family of AV over IP products, an AC-MXNET-1G-DV2-TAA is the destination endpoint within the MXNet Ecosystem where the signal arrives. At the input side, connected by either category wiring (Cat 5e is recommended) or fiber optic cabling to an MXNet switch or any compatible multicast-capable managed L3 network switch, an AC-MXNET-1G-DV2-TAA receives multicast packeted data from an AC-MXNET-1G-EV2 encoder. This data, encoded using an optimized MJPEG codec, is precisely decoded per its encode rate (200Mbps for 1080p content, 300Mbps for 4K/30fps content, peaking at 850Mbps for 4K/60fps content). Control signals are unpacked and routed, per their intended application.

The new IC developed for Evolution II devices enables the AC-MXNET-1G-DV2-TAA to excel at smoothly decoding 4K/60fps 4:4:4 signals, RGB or YCBCR 10- or 12-bit, with crisp, artifact-free detail and the added punch of dynamic metadata.

AVPro edge
MXNET LUXURY HOME APPLICATION

HDMI
CAT 6A

ANY ROOM   AV RACK   LIVING ROOM

AC-MXNET-CBOX

4K SOURCE

AC-MXNET-1G-EV2

AC-MXNET-1G-DV2

4K DISPLAY

AC-MXNET-SW48

PRODUCT SPECIFICATIONS

Decoding

Video Codec	Proprietary Codec based on M-JPEG
Audio Codec	Proprietary Codec
Latency	16ms@60Hz
Ultra Low Latency Mode	2-4ms@60Hz
Streaming Protocols	TCP, UDP, IP, IGMP-V2
Copy Protection	HDCP 2.2 and earlier

Video Output/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 [Ultrawide 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 (12BIT) 4:2:2 Dolby 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
Embedded Audio	Toslink Audio IN (Future Audio Return Support Only)
De-Embedded Audio	Balanced Stereo Analog Audio (5-pin Phoenix Only)

Ports

Ethernet	(1) × female RJ45, PoE
SFP	(1) × SFP Slot
HDMI	(1) × HDMI Type A 19-pin, female, HDMI Output
Audio	(1) × 5-pin Terminal Block, Balanced L/R Audio out (1) x Toslink Audio In (Future Audio Return Support Only)
IR	(3) × 3.5 mm mini-stereo jack, one IR-Pass, one IR-EYE, one IR-out
RS232	(1) × 3 Pin Terminal Block
USB	(2) × USB 2.0 Type-A 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	6.8W
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)	1.38 lbs / .63 kg
Weight (Packaged)	1.85 lbs / .84 kg
Regulatory	CE/FCC/UL
Product Warranty	10 Years

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

FEATURE SET

- HDMI 2.0
- 18Gbps Bandwidth Support
- HDCP 2.3 (and all earlier versions supported)
- Evolution II ASIC with improved decoding engine
- With "lossy" signals, JPEG 2000 optimizes compression efficiency
- Proprietary MXNet Mentor interface for bandwidth management, real-time status feedback, live diagnostics, EDID configuration and source image thumbnails
- Decodes native 4K/60fps 4:4:4 RGB or YCbCr with dynamic metadata support
- High Bitrate multi-channel support for Dolby Atmos and DTS:X
- Genlock frame-syncing ensures video walls are free from image-tearing
- Near-zero latency, visually imperceptible
- Receives RS-232, IR or USB control signals routed via MXNet Mentor from an MXNET-1G-EV2 transmitter
- USB/KVM support
- Built-in OLED data window provides localized device information at a glance
- Backed by AVPro Edge's 10-year, no-hassle warranty