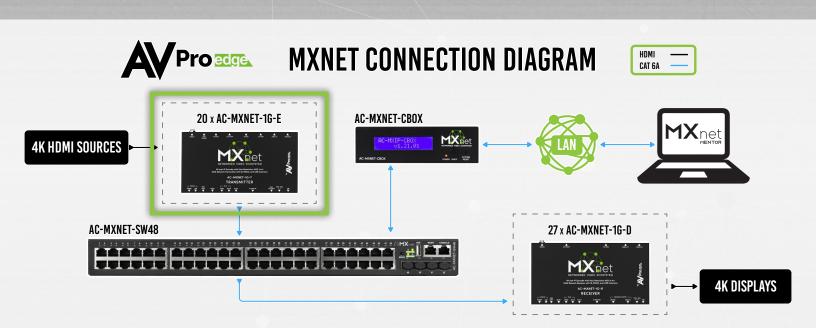# MXNet

NETWORKED VIDEO ECOSYSTEM

MXNet 1G ENCODER
(AC-MXNET-1G-E)

This is where the signal starts – the MXNet Encoder/Transmitter device. Connect this to any HDMI source, and it will encode the audio/video signal into a multicast data format that can be routed to any Decoder endpoint within the project/installation. This device connects directly via category cable (CAT 6A recommended) or fiber optics to the MXNet Switch (AC-MXNET-SW48 or SW24) or any other compatible, multicast-capable, managed L3 network switch. The AC-MXNET-1G-E will encode a full 4K 4:4:4 60Hz HDMI video signal – along with audio, control, power, and HDR metadata signals. And, it does all this with next to zero latency.

MXNet Encoders encode audio/video/control signals into IP packets using an optimized JPEG2000 codec at a flexible data rate (200Mbps for 1080p content, 300Mbps for 4K30 content, 850Mbps at peak). The AC-MXNET-1G-E Encoder also supports stand-alone point-to-point applications when connected directly to an AC-MXNET-1G-D Decoder.

The AC-MXNET-1G-E Encoder is only one part of the MXNet Ecosystem that includes Encoders, Network Switches, Control Processors and other various components designed to facilitate the building of a custom A/V distribution system. MXNet's Ecosystem includes formatting such as resolution scaling, full EDID management, HDR and Dolby Vision metadata, multifaceted video walls, and includes the MXNet Mentor setup and control tool - making installations easy on the integrator, while also presenting a major WOW factor for your client.

AVPro edge — MXNET CONNECTION DIAGRAM

HDMI ——
CAT 6A ——

4K HDMI SOURCES

20 x AC-MXNET-1G-E

AC-MXNET-CBOX

LAN

MXnet MENTOR

AC-MXNET-SW48

27 x AC-MXNET-1G-D

4K DISPLAYS

PRODUCT SPECIFICATIONS

VIDEO:	
Signal Type	DVI 1.0, HDMI 2.0b
Video Resolution	4K@60Hz 4:4:4*, 4K@30Hz 4:4:4, 4K@60Hz 4:2:0
HDR Format	HDR 10, HLG, DV
Chroma Subsampling	444, 422, 420
Bit Depth per Color	1080P (16Bit), 4k (10, 12 Bit)
AUDIO:	
Audio Format	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
Embedded Audio	Stereo Analog Audio
De-Embedded Audio	Balanced Analog Audio
PORTS:	
Ethernet	(1) × female RJ–45, 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 (1) × 3.5 mm mini stereo jack, Audio in
IR	(3) × 3.5mm mini-stereo jack, one IR-Pass, one IR-EYE, one IR-out
RS232	(1) × 5 Pin Terminal Block
USB	(1) × USB 2.0 Type-B for USB extension and KVM, (1) × USB Micro Type-B 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 Temprature	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)
POWER:	
Max Power Consumption	6.5W
PoE (Power over Ethernet)	IEEE 802.3af (15.4W)
Power Supply Unit	Input: AC 120-240V-50/60Hz 0.8A Output: DC 12V 2A
DIMENSIONS:	
Mounting	Rack and Furniture mount support
Dimensions (Unit Only Width/Depth/Height)	mm: 200 X 104x 20 inch: 7.87 X 4.09 X 0.79
Dimensions (Packaged Width/Depth/Height)	mm: 310 X 180x 54 inch: 12.2 X 7.09 X 2.13
Weight (Unit)	1.2 LBS/0.55 KG
Weight (Packaged)	1.7 LBS/0.77 KG
Regulatory	CE/FCC/UL
Product Warranty	10 Years

Specifications subject to change without notice. Mass & dimensions are approximate
*4K60 4:4:4/4k60 4:2:2 Uses ICT Compression

FEATURE SET

- 1G Maximum Data Rate
- Bandwidth management via MXNet MENTOR
- Uses any standard category cable (CAT 6A recommended)
- SFP Fiber Connection for Long Runs
- Built-In "Data Window" OLED display
- USB/KVM Host support
- Full Exterior Light Control (for discreet Installs)
- RS-232 and IR Direct Routing to one or many Decoders
- RS-232 over IP serial passthrough support