

# MXnet

10G



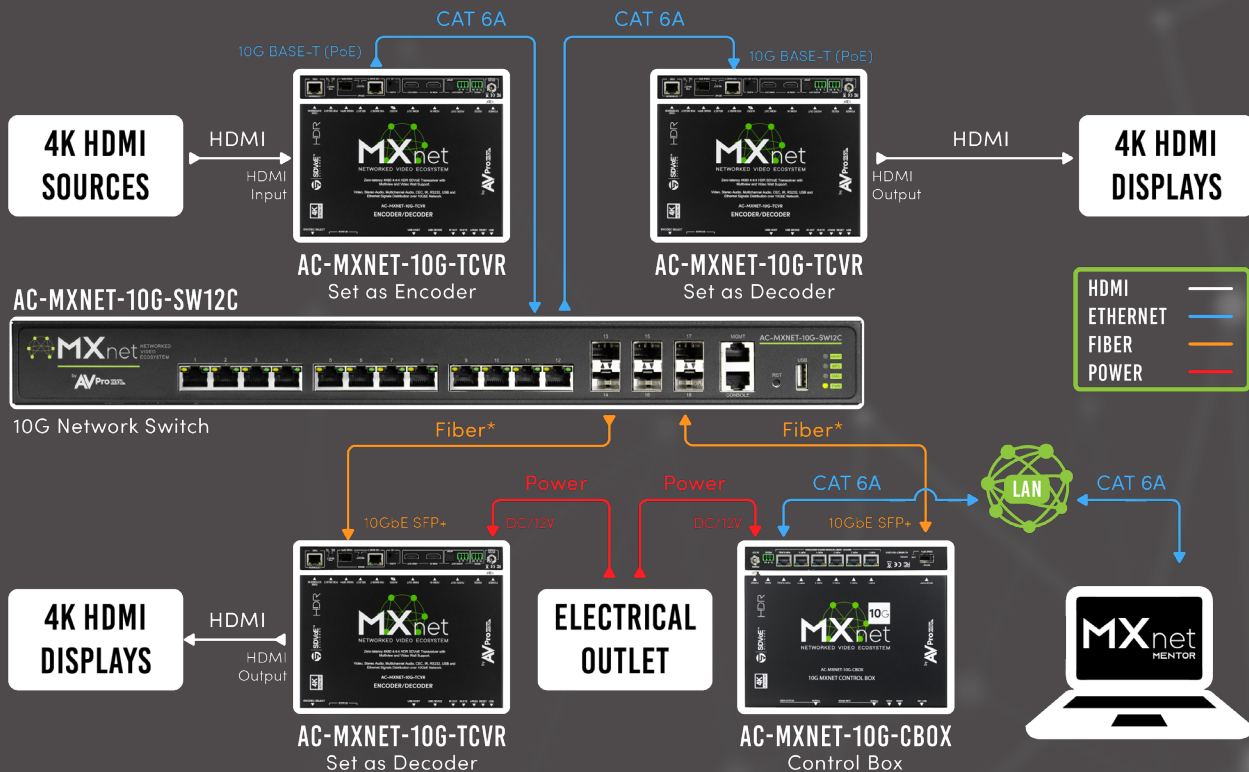
NETWORKED VIDEO ECOSYSTEM

## MXNet 10G NETWORK SWITCH (AC-MXNET-10G-SW12C)

The AC-MXNET-10G-SW12C is an AVPro Edge designed managed switch for high-density 10G communication and seamless integration with the MXNET 10G ecosystem, representing the next step forward on the evolutionary path of the MXNet platform. Encompassing an industry-first, holistically integrated approach to AV over IP video distribution from a solo manufacturer, AVPro Edge's exclusive MXNet 10G platform offers the only proprietary, hyper-optimized SDVoE ecosystem of network-based managed switches, encoders and decoders guided from a centralized control unit via MXNet Mentor, our in-house engineered setup and system utilities management software solution.

AVPro Edge is the first manufacturer of encoders and decoders to also manufacture Plug-and-Play, preconfigured network switches for all AV-over-IP applications. Switch management, including VLAN, real-time bandwidth appropriation plus POE power is configurable through Mentor, along with comprehensive system diagnostics to quickly identify and illustrate port connections. Mentor also provides detailed multicast information.

The AC-MXNET-10G-SW12C is an industry-first design to traffic both data and POE through 12 common ports - a single CAT6a is all that is required to provide power plus data. Onboard are six, 10G/25G SFP28 uplink ports, which are backward compatible with SFP+ ports to function with SFP+ optical modules or SFP+ DAC cables (please note: the 25Gbps data rate is not supported). These ports can be used to connect up to six, MXNET-10G TCVR SDVoE transceivers.



\*Single or Multimode Fiber with 10G SFP+ Modules or 10G SFP+ AOC Cable

# PRODUCT SPECIFICATIONS

## PORTS:

Ethernet	(12) × 10G-mGig RJ45 Ports (POE/POE+/POE++) (6) × 1G/10G/25Gbps SFP28 Ports (1) × 10/100/1000BASE-T Management Port (MGMT)
HDMI	N/A
Audio	N/A
IR	N/A
RS232	(1) × RJ45 console port (Out-of-Band)
USB	(1) × USB 2.0 Type-A for MXNet Service and storage

## DISTANCE:

Ethernet	100 Meters/330 Feet over CAT6a
SFP+ and Fiber	10G SFP+ DAC cable up to 1 meters, 10G SFP+ AOC cable up to 3 meters, 10G SFP+ Multimode transceiver over Multimode fiber up to 550 meters 10G SFP+ Single mode transceiver over Single mode fiber up to 20 Kilometers

## ENVIRONMENTAL:

Operating Temperature	0°C ~ 50°C
Storage Temperature	-40°C ~ 70°C
Operating Humidity	10%~90% noncondensing

## PERFORMANCE:

Max SDVoE Endpoints	18
Switching Capacity	540Gbps
Forwarding Rate	405Mpps
MAC ADDRESS	32K
Routing Table	32K
Jumbo Frame	12K
L3 Interface	8K

## POWER:

Max Power Consumption	430W
POE Power	IEEE 802.3af (POE 15.4W) IEEE 802.3at (POE+ 30W) IEEE 802.3bt (POE++ 90W) Total POE Power Budget: 370W
Thermal Dissipation	1,470.256 BTU/hr
Power Supply Unit	AC: 100~240VAC, 50~60Hz DC: Input 48V-57V   Default with two power supply units, one DC and one AC
Mounting	Rack mount

## DIMENSIONS:

Height x Width x Depth (Single Unit)	Millimeters: 44.45 x 439.7 x 319.1 Inches: 1.75 x 17.3 x 12.56
Height x Width x Depth (Packaged)	Millimeters: 161.9 x 463.55 x 558.8 Inches: 6.375 x 18.25 x 22
Weight (Unit)	9.4 lbs. (4.26 kg)
Weight (Packaged)	12.8 lbs. (5.8 kg)
Regulatory	CE/FCC
Product Warranty	10 Years

\*Specifications are subject to change without notice. Mass and dimensions are approximate.

# KEY BENEFITS

## • Designed by AVPro Edge

- The AC-MXNET-10G-SW12C design is focused on plug & play ease within the MX-NET 10G ecosystem. MXNet Mentor enables seamless setup, management, and system topology diagnostics. Virtual Switching Framework (VSF) provides scalability and high availability.

## • Port Configuration

- Provides twelve each, 10G-mGig RJ45 Ports (POE/POE+/POE++), plus six each, 1G/10G/25Gbps SFP28 Uplink Ports

## • AVPro Edge Engineered Operating System

- AC-MXNet-10G-SW12C incorporates a proprietary AVPro Edge operating system, honing speed and performance for MXNet 10G functions. All internal switch modules are optimized for more demanding audio/video signals and the speed required to maintain image fidelity plus control signal accuracy. AVPro Edge re-engineered the Internet Group Management Protocol (IGMP) for the fastest maximum data multicast throughput with the onboard Intelligent AV Multicast Processor (iAMP). Security is also enhanced.

## • Fast Switching with Near-Zero Latency

- Source-to-source switching to endpoints is virtually instantaneous if scaling is not required (100µs frame latency, or 1/150th of a frame). With scaling in use, switching speed is between one to two frames, or about 17-34 milliseconds, considered visually imperceptible.

## • High Reliability

- Carrier-Grade Hardware provides 99.999% uptime availability, crucial for applications such as public safety monitoring or medical-related installations.

## • Fail Safe Construction

- Dual internal power supplies provide redundant fallback in the unlikely event one should fail.

## • AV over IP Ready

- Pre-configured for out-of-the-box, plug and play installation.

## • Class-Leading Performance

- MXNet switches are the highest performing switches in the AVoIP market segment.