MuxLab

PRODIGITAL™

AV over IP

02

ENVISION INFINITE CONNECTIVITY.

Imagine the ability to access and control any AV system from anywhere. Flexible installations that deliver spectacular image quality with lightning-swift results. Unprecedented levels of control through third party experts. Imagine all of MuxLab's high performance offerings working behind the scenes to enable remote system management. Together, nothing can stop us from realizing your vision.

AV over IP. Anywhere. Everywhere.

IMAGE: HEC Montreal

03 ADVANTAGES OF AV OVER IP.

Put simply, AV over IP is the delivery of AV signals over a standard Ethernet network including 4K/60 video, audio, peripherals and control signals.

Because it is so versatile, AV over IP is quickly becoming the industry-standard for installations in both commercial and residential markets. Its flexibility allows integrators to expand systems on a port-by-port basis, with system size limited only by the network bandwidth. Virtual infrastructure can be created and rearranged with signal delivery assigned to direct point-to-point, point-to-multi-point and multipoint-to-multipoint applications.

There are virtually no distance limitations, making it convenient and cost-effective to distribute AV and other signals around the world. Visually lossless video resolutions and ultra-low latency levels only improve performance. Integrators can utilize existing network infrastructures, pay for additional ports as they build and eliminate extension cabling. All this makes for a cost-effective and highly flexible installation environment.

Plus, the entire system can be centrally managed by the use of the MuxLab ProDigital Network Controller, a unique, Linux-based PC that controls all MuxLab products on the Ethernet. It scans the LAN for connected MuxLab products and lets users configure and control these products through a web interface.

Users can also remotely manage the entire system from any smartphone or tablet when using any of the various third party control systems that have partnered with MuxLab to provide these industry-leading options.

REMOTE MANAGEMENT

EASE OF INSTALLATION

VIDEO WALL SUPPORT

LOW LATENCY SOLUTIONS WITH 4K/60 ABILITY

ProDigital Network Controller

Part# 500811

The relationship between MuxLab and third party control experts gives unparalleled access to AV equipment, making even complex matrix switching easy and simple. In some applications, users simply tap their sources to assign them to one or more displays.

"To give you an example of its simplicity in a matrix system, each source will be assigned a color and each display connected to that source will be assigned the same color automatically. This makes for a very easy and intuitive system to manage, which is attractive to end users," explained MuxLab President Daniel Assaraf. *"Restaurants and multi-classroom installations are only a small sample of the type of end users that use MuxLab's solutions."*

Key Features

- Centralizes control via web interface of MuxLab devices
- Provides a mobile web interface for smartphones and tablets
- Provides IP based control APIs for third party control integration

The MuxLab AV over IP Product Line works with Industry Leader Drivers

AMX Control4 CRESTRON DEMOPAD

ON CONTROLS RTI simplecontrol URC Control the Experience.

"CES is honored to be selected by the Cage Aux Sports. We pride ourselves in partnering with the best in class AV equipment vendors, and in being able to offer complete turnkey solutions to our customers. We are particularly pleased with MuxLab and their AV over IP product offering, due to their high product quality, exceptional performance, and MuxLab's professionalism."

AV over IP 4K/60 Uncompressed Extender, UTP

Part# 500760

The AV over IP 4K/60 Uncompressed Extender, UTP allows HDMI and DisplayPort source equipment supporting up to 4K @ 60Hz resolution to be connected and extended to HDMI sink devices to create a 4K/60 Video Wall, Virtual Matrix Switch, and Virtual Splitter arrangements of user configurable size (X by Y) supporting 100's of screens. Each Transmitter (500760-TX) and Receiver (500760-RX) can be connected via Cat5e/6 cable up to 330ft (100m) from an Ethernet Switch. The Transmitter supports audio insertion and the Receiver supports audio extraction.

Key Features

- Supports HDMI and DisplayPort sources up to 4K @ 60Hz (4:4:4)
- Uncompressed video up to 4K @ 60Hz (4:2:0) and light compression for 4K @ 60Hz (4:4:4)
- Very low latency
- Supports 100's of Transmitters & Receivers depending on network bandwidth
- Extend video HDMI up to 330ft (100m) over Cat5e/6
- Supports audio insert (TX) & audio extract (RX)
- Supports RS232 and IR transmission for remote control of end devices
- Control via 500811 Network Controller web interface or via 500811 API for Third Party smartphone or tablet control

Video Wall 4K over IP PoE Extender

Part# 500759

The Video Wall 4K over IP PoE Extender Kit allows HDMI equipment supporting up to 4K @ 30Hz or 1080p at 60Hz resolution to be connected and extended to create a Video Wall of user configurable size (X by Y) supporting 100's of screens. Each Transmitter (500759-TX) and Receiver (500759-RX) can be connected via Cat5e/6 cable up to 330ft (100m) from an Ethernet Switch. The Transmitters and Receivers support PoE (PD) and may be powered by a PoE (PSE) Ethernet Switch. The MuxLab Pro Digital Network Controller (500811) is available to simplify configuration and control and allows for third party smartphone and tablet management.

Key Features

- Supports HDMI 1.4 up to 4K @ 30Hz (4:4:4)
- Configure a video wall array with 100's of displays limited only by network bandwidth
- Very low latency
- Extend HDMI up to 330ft (100m) over Cat5e/6
- Supports point-to-point, point-to-multipoint and multipoint-to-multipoint applications
- Supports audio insert (TX) & audio extract (RX)
- Supports RS232 and IR transmission for remote control of end devices
- PoE Powered
- Control via 500811 Network Controller web interface or via 500811 API for Third Party smartphone or tablet control

Video Wall over IP Extender Kit with PoE

Part# 500754

The Video Wall over IP Extender Kit with PoE allows HDMI equipment to create a Video Wall of user configurable size (X by Y) to 100's of displays, limited only by network bandwidth, utilizing one receiver for each display in the array. The transmitter unit can be connected using a LAN switch (PoE or non-PoE), with maximum distances of 330ft (100m) of Cat 5e/6 cable between equipment.

Key Features

- Supports HDMI 1.3a up to 1080p resolution @ 60Hz
- Configure a video wall array with 100's of displays limited only by network bandwidth
- HDCP compliant
- Very low latency
- Extend HDMI up to 330ft (100m) over Cat5e/6
- Supports RS232 and IR transmission for remote control of end devices
- PoE powered
- Control via 500811 Network Controller web interface or via 500811 API for Third Party smartphone or tablet control

H.264/5

HDMI over IP H.264/H.265 PoE Extender

Part# 500762

The HDMI over IP H.264/H.265 PoE Extender Transmitter and Receiver combination allows HDMI source and display equipment to be extended locally up to 330ft (100m) at up to 4K @ 60Hz resolution via Cat5e/6 cable in point-to-point, point-to-multipoint and multipoint-to-multipoint configurations via a local Ethernet network, in a low bandwidth, flexible, expandable and cost effective manner, without the need to install dedicated cabling systems. The exceptionally low bandwidth requirements of this device combination allows for streaming audio/video content over a local network, over WiFi, and over the Internet for distributed installations spread-out throughout the globe.

Key Features

- Receiver supports up to 4K @ 60Hz (4:4:4) video streams, and up-scales 1080p @ 60Hz video up to 4K @ 60Hz
- Transmitter supports up to 1080p @ 60Hz
- Extends local audio/video transmission up to 330ft (100m) over Cat5e/6
- H.264/265 video codec, excellent for LAN, WiFi and Internet transmission
- USB 3.0 port for storing and playback of local content from an external USB drive (RX)
- Supports SPDIF (TosLink) Audio Out (RX), 2CH audio insert (TX), and 2CH audio extract (RX)
- RS232 and Directional IR for remote control of end-devices
- PoE powered, via PoE (PSE) Ethernet Switch

HDMI over IP H.264 PoE Extender Kit

Part# 500757

The HDMI over IP H.264 allows an HDMI source to be connected via any Ethernet LAN connection allowing AV broadcasts to be set up and changed without the need to install a dedicated cabling system. Uses H.264 compression algorithm for low bandwidth requirements. Point-to-Multipoint and Multipoint-to-Multipoint is possible by connecting several Transmitters and Receivers to the same network (supports 100's of Transmitters and Receivers limited only by network bandwidth).

Key Features

- Supports up to 1080p resolution @ 30Hz
- Up to 330 ft (100m) over Cat5e/6 cabling
- Supports Point-to-Point, Point-to-Multipoint and Multipoint-to-Multipoint configurations
- Supports 100's of Transmitters and Receivers limited only by network bandwidth
- Supports RS232 and IR transmission for remote control of end devices
- PoE powered
- H.264 compression with less than 500ms latency
- Control via 500811 Network Controller web interface or via 500811 API for Third Party smartphone or tablet control

"MuxLab is proud and honored to have been selected as the provider of AV over IP connectivity equipment responsible to extend, interconnect and switch AV source and display devices in a simple and efficient manner at HEC, a large Canadian University," *said Daniel Assaraf, President of MuxLab.* ***"Our technology is contributing to the improvement of tomorrows educational institutions today."***

HDMI over IP Extender with PoE Kit

Part# 500752

The HDMI over IP Extender (500752) allows an HDMI source to be connected via any Ethernet LAN thereby allowing AV broadcasts to be set up and changed without the need to install a dedicated cabling system. The kit includes two units; HDMI over IP Transmitter (500752-TX) and HDMI over IP Receiver (500752-RX). The HDMI Transmitter converts an HDMI bitstream into IP allowing it to be transmitted over an Ethernet LAN. The HDMI Receiver converts the IP packets back to the original HDMI bitstream for playback via an HDMI display.

Key Features

- Supports HDMI 1.3a up to 1080p @ 60Hz
- Very low latency
- Supports 100's of Transmitters and Receivers limited only by network bandwidth
- Extend HDMI up to 330ft (100m) over Cat5e/6
- Supports point-to-point, point-to-multipoint and multipoint-to-multipoint applications
- Supports PoE
- Support IR Control, HDCP
- Control via 500811 Network Controller web interface or via 500811 API for Third Party smartphone or tablet control

HDMI / RS232 over IP Extender Kit with PoE

Part# 500753

The HDMI / RS232 over IP Extender Kit with PoE allows HDMI equipment to be connected up to 330 ft (100m) @ 1080p via one (1) Cat5e/6 unshielded twisted pair cable in a point-to-point configuration. Point-to-multipoint and multipoint-to-multipoint is possible by connecting several transmitters and receivers to the same Ethernet network. The Transmitter (500753-TX) and Receiver (500753-RX) also supports PoE if used with a PoE Ethernet Switch. The kit comes with one (1) Transmitter and one (1) Receiver.

Key Features

- Supports HDMI 1.3a up to 1080p @ 60Hz
- HDCP compliant
- Very low latency
- Supports up to 1080p resolution @ 60Hz
- Supports RS232 and IR transmission for remote control of end devices
- Extend HDMI up to 330 ft (100m) over Cat5e/6
- Supports 100's of Transmitters and Receivers limited only by network bandwidth
- Supports PoE
- Control via 500811 Network Controller web interface or via 500811 API for Third Party smartphone or tablet control

HDMI 4K over IP PoE Extender Kit

Part# 500758

The HDMI 4K over IP PoE Extender Kit allows HDMI equipment to be extended up to 330ft (100m) up to 4K (3840×2160) resolution @ 30Hz via one (1) Cat5e/6 cable in a point-to-point configuration. Point-to-multipoint and multi-point-to-multipoint configurations are also possible by connecting several units to the same local Ethernet network, and the device supports PoE (PD) if used with a PoE (PSE) Ethernet Switch.

Key Features

- Supports HDMI 1.4 up to 4K @ 30Hz (4:4:4)
- Supports 100's of Transmitters & Receivers depending on network bandwidth
- Very low latency
- Extend HDMI up to 330ft (100m) over Cat5e/6
- Supports point-to-point, point-to-multipoint and multipoint-to-multipoint applications
- Supports audio insert (TX) & audio extract (RX)
- Supports RS232 and IR transmission for remote control of end devices
- Control via 500811 Network Controller web interface or via 500811 API for Third Party smartphone or tablet control

MuxLab offers a complete family of solutions that extend AV and control signals over an IP network to create a highly reliable, cost-effective infrastructure using standard LAN connectivity. This new ability to distribute AV signals across varying cabling infrastructures gives both flexibility and choice of implementing a custom, tailored solution.

Audio / RS232 over IP PoE Transceiver

Part# 500755

The AUDIO / RS232 over IP PoE Transceiver allows 2CH audio signals to be extended up to 330ft (100m) via Cat5e/6 cable in a point-to-point configuration. Point-tomultipoint and multipoint-to-multipoint is supported by connecting several Transceivers to the same local Ethernet network. The device supports PoE (PD) if used with a PoE (PSE) Ethernet Switch, and both RS232 and IR transmission for remote control of end devices. The Transceiver can be configured as a Transmitter or Receiver.

Key Features

- Extend 2CH audio signals up to 330ft (100m) over Cat5e/6 cable
- Supports point-to-point, point-to-multipoint and multipoint-to-multipoint applications
- Supports 100's of Transceivers depending on network bandwidth
- Supports RS232 and IR transmission for remote control of end devices
- 2CH Analog Audio In/Out & Digital Audio Out
- PoE powered
- Control via 500811 Network Controller web interface or via 500811 API for Third Party smartphone or tablet control

Audio/AMP over IP Extender Kit, with Mic & AMP 50W/CH

Part# 500755-AMP

The Audio / AMP over IP Extender Kit, with Mic & AMP 50W/CH includes a Transmitter (500755-AMP-TX) and a Receiver (500755-AMP-RX) allowing a 2CH analog audio and Mic signal to be extended over an IP network, and up to 330ft (100m) from an Ethernet Switch via Cat5e/6 cable in a point-to-point configuration. Point-to-multipoint and multipoint-to-multipoint is supported by connecting several Transmitters and Receivers to the same local Ethernet network. Depending on the application one or more Transmitters (500755-AMP-TX) can communicate with (or multicast to) multiple Receivers (500755-AMP-RX).

Key Features

- Supports dual 2CH audio and a Mic input (TX)
- Extend 2CH Audio or Mic signals up to 330ft (100m) over Cat5e/6 cable
- Supports a 2x50W Amplifier, and bridge-mode for 1x100W (RX)
- Supports Digital Audio Out (RX)
- Control input selection, volume, bass and treble locally or remotely (TX)
- Compatible with 500755-70V
- Supports RS232 and IR transmission for remote control of end devices
- Transmitter may be PoE powered
- Control via 500811 Network Controller web interface or via 500811 API for Third Party smartphone or tablet control

70V Transformer for the 500755-AMP

Part# 500755-70V

The MuxLab 70V Audio Converter may be paired with the 500755-AMP-RX and 500217 amplifiers to support 70V speaker systems at the amplifier output. The 70V Audio Converter is a passive device and can be easily mounted anywhere near the amplifier that it is to be connected with. It adapts a standard 4 ohm amplifier output that has been configured in bridge mode (mono) to a 70V speaker system. 70V speaker systems allow multiple speakers to be chained together over much longer distances than traditional 4 ohm speakers can accommodate.

"One key benefit of MuxLab's AV over IP solutions is that integrators can easily up- or down-scale their installation for complete customization, limited only by the their network's bandwidth..."

DANTE/Quad Channel Audio PoE Gateway

Part# 500765

The Dante/Quad Channel Audio PoE Gateway permits non-Dante compatible analog audio equipment to interface with Dante compatible professional audio equipment.

The unit allows Dual two-channel or Quad single-channel full range (20Hz to 20KHz) balanced analog audio signals to be transmitted over the network to Dante compatible professional audio equipment. Dual two-channel or Quad single-channel balanced analog audio signals may also be received from Dante compatible equipment in the same manner. The unit may be connected via Cat5e/6 cable up to 330ft (100m) from an Ethernet Switch.

The Dante/Quad Channel Audio PoE Gateway includes four single-channel balanced analog audio-in and four single-channel balanced analog audio-out ports, via phoenix connectors. The Quad single-channel balanced analog audio-in ports may be connected to line level balanced analog audio signals or to line level balanced microphones. The Quad single-channel balanced analog audio-out ports may be connected to balanced analog audio amplifiers supporting line level inputs, such as the MuxLab 500217 Audio Zone Amplifier 100W, or to two pairs of powered speakers for direct sound output.

The device supports PoE (PD) and may be powered by a PoE (PSE) Ethernet Switch.

Key Features

- Interface analog audio equipment to Dante audio equipment
- Supports Quad single-channel full range balanced analog audio from 20Hz to 20KHz
- Transmission up to 330ft (100m) over Cat5e/6
- Supports Quad single-channel balanced analog audio-in and Quad single-channel balanced analog audio-out from Dante audio equipment.
- Balanced audio ports may be interfaced to unbalanced audio ports when only 2 of 3 pins are used per channel
- IP managed for remote control
- PoE powered

Front view

Rear view

KVM

HDMI / USB2.0 KVM over IP PoE Extender

Part# 500770

The KVM HDMI over IP PoE Extender allows HDMI & USB equipment to be connected over an Ethernet LAN, supporting up to 1080p resolution @ 60Hz. These PoE devices may be powered from a PoE Ethernet Switch. Each Transmitter (500770-TX) terminates to a server/workstation, and the Receiver (500770-RX) terminates to an HDMI display and up to 4 USB devices such as a keyboard, mouse, printer, drawing pad, storage device, etc. The Receiver can be switched via hotkey sequences to any Transmitter on the network to manage numerous servers/workstations, in a distributed KVM application.

Key Features

- One operator can manage multiple servers/workstations
- Supports HDMI up to 1080p @ 60Hz, up to 330ft (100m)
- Receiver side includes a 4-port USB hub, for KVM applications
- Supports 100's of Transmitters & Receivers depending on network bandwidth
- PoE powered
- Supports multiple point-to-point, and point-to-multipoint applications
- Supports audio insert & mic-out (TX), and audio extract & mic-in (RX)

DVI / USB 2.0 KVM over IP PoE Extender

Part# 500771

The KVM DVI over IP PoE Extender allows DVI & USB equipment to be connected over an Ethernet LAN, supporting up to 1920x1200 and 1080p resolution @ 60Hz. These PoE devices may be powered from a PoE Ethernet Switch. Each Transmitter (500770-TX) terminates to a server/workstation, and the Receiver (500770-RX) terminates to a DVI display and up to 4 USB devices such as a keyboard, mouse, printer, drawing pad, storage device, etc. The Receiver can be switched via hotkey sequences to any Transmitter on the network to manage numerous servers/workstations, in a distributed KVM application.

Key Features

- One operator can manage multiple servers/workstations
- Supports DVI up to 1920x1200 and 1080p @ 60Hz, up to 330ft (100m)
- Receiver side includes a 4-port USB hub, for KVM applications
- Supports 100's of Transmitters & Receivers depending on network bandwidth
- PoE powered
- Supports multiple point-to-point, and point-to-multipoint applications
- Supports audio insert & mic-out (TX), and audio extract & mic-in (RX)

3G-SDI / RS232 over IP Extender Kit with PoE

Part# 500756

The 3G-SDI / RS232 over IP Extender Kit with PoE allows SDI equipment to be connected up to 330ft (100m) @ 1080p through an IP network. Point-to-Multipoint, and Multipoint-to-Multipoint is possible by connecting several transmitter and receiver to the same network (supports 100's of Transmitters and Receivers limited only by network bandwidth).

Key Features

- Supports SDI video up to 1080p resolution @ 60Hz
- Very low latency
- Supports RS232 and IR transmission for remote control of end devices
- Supports point-to-point, point-to-multipoint and multipoint-to-multipoint applications
- Extend 3G-SDI up to 330ft (100m) over an IP Network
- PoE powered
- Supports 100's of Transmitters and Receivers limited only by network bandwidth
- Control via 500811 Network Controller web interface or via 500811 API for Third Party smartphone or tablet control

SDI over IP 4K Uncompressed Extender

Part# 500767

The SDI over IP 4K Uncompressed Extender allows HD-SDI, 3G-SDI and 6G-SDI equipment to be extended up to 100ft (30m) via UTP Cat 5e/6 cable or up to 1300ft (400m) via duplex multimode OM4 fiber with LC connectors, at up to 4K (3840x2160) resolution @ 30Hz uncompressed, in a point-to-point configuration. Point-to-multipoint and multipoint-to-multipoint configurations are also possible by connecting several units to a 10Gig Ethernet network. The unit provides a 1Gig Ethernet Switch port to connect additional network devices, and an RS232 port for remote control of end devices.

Key Features

- Supports Uncompressed SDI video up to 4K @ 30Hz (4:4:4)
- Extend HD/3G/6G-SDI up to 100ft (30m) over Cat5e/6 UTP cable, or up to 1300ft (400m) over multimode OM4 fiber
- Supports 100's of Transmitters & Receivers depending on network bandwidth
- Supports point-to-point, point-to-multipoint and multipoint-to-multipoint applications
- Supports a 10Gig Ethernet port for communications and a 1Gig Switch port with PoE for additional network devices
- Supports RS232 and IR transmission for remote control of end devices
- Control via 500811 Network Controller web interface or via 500811 API for Third Party smartphone or tablet control

Dealer Stamp

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