

## Overview:

The Video Wall 4K over IP PoE Extender Kit allows HDMI equipment supporting up to 4K @ 30Hz or 1080p @ 60Hz resolution to be connected and extended to create a Video Wall of user configurable size (X by Y) supporting 100's of screens, depending on network bandwidth, utilizing one Receiver for each display in the array. 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 kit comes with one (1) Transmitter and one (1) Receiver. The IR Emitter and IR Sensor, if required, may be purchased separately for IR based remote control applications.

For the point-to-multipoint and multipoint-to-multipoint configuration the Ethernet switch must have Gigabit ports, DHCP server capability, IGMP communications protocol and support Jumbo Frames. MuxLab recommends using the Cisco SG300 Series Managed Switches.

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:

- Configure a Video Wall array with 100's of displays, depending on network bandwidth
- Supports up to 4K @ 30Hz and 1080p @ 60Hz
- Visually lossless video (1 frame latency)
- Supports point-to-point, point-to-multipoint and multipoint-to-multipoint applications
- Transmission up to 330ft (100m) over Cat5e/6
- Supports audio insert (TX) & audio extract (RX)
- Supports RS232 and IR transmission for remote control
- PoE powered
- Control via any web device (mobile, tablet) with use of model 500811 (Pro Digital Network Controller)

Specifications									
<b>Environment</b>	HDMI 1.4								
<b>Devices</b>	Blu-Ray, projectors, monitors, TV, PC, laptops, servers supporting HDMI.								
<b>Bandwidth</b>	300MHz								
<b>Signals</b>	HDMI 1.4 protocol								
<b>Connectors</b>	One (1) HDMI receptacle. One (1) RJ45S for Cat 5e/6 unshielded or shielded twisted pair. Two (2) 3.5mm jacks for IR emitter (on TX)/sensor (on RX). Two (2) 3.5mm jacks for audio insert (on TX)/audio extract (on RX). One (1) DB9 for the RS232 Four (4) DIP Switches for device ID addressing.								
<i>Note: Cables not included.</i>									
<b>Maximum Distance</b>	Cat5e/6: 330ft (100m) up to 4K @ 30Hz <i>Note: When installed in an electrically noisy environment, an STP cable must be used. Also, cross-connection reduces the effective distance depending on the grade of twisted cable used.</i>								
<i>Based on a maximum length of 6.6ft (2m) of HDMI cable per end.</i>									
<b>Latency</b>	Typical one (1) Frame (16ms), maximum 2 frames (33ms)								
<b>Compression</b>	Proprietary Compression								
<b>Bandwidth</b>	Up to 850Mbps								
<b>Network Requirement</b>	1000BaseT with Jumbo Frame								
<b>IR Frequency</b>	38 to 56KHz (IR Emitter and IR Sensor sold separately)								
<b>RJ45 Pin Configuration</b>	<p><b>RJ45 Link</b></p> <table border="0"> <tr> <td>Pin 1 (R)</td> <td>Pin 2 (T)</td> </tr> <tr> <td>Pin 3 (R)</td> <td>Pin 6 (T)</td> </tr> <tr> <td>Pin 4 (R)</td> <td>Pin 5 (T)</td> </tr> <tr> <td>Pin 7 (R)</td> <td>Pin 8 (T)</td> </tr> </table> <p><i>Reverse Polarity Sensitive. Use EIA/TIA 568A or 568B straight-through wiring.</i></p>	Pin 1 (R)	Pin 2 (T)	Pin 3 (R)	Pin 6 (T)	Pin 4 (R)	Pin 5 (T)	Pin 7 (R)	Pin 8 (T)
Pin 1 (R)	Pin 2 (T)								
Pin 3 (R)	Pin 6 (T)								
Pin 4 (R)	Pin 5 (T)								
Pin 7 (R)	Pin 8 (T)								
<b>Cable</b>	One (1) Cat 5e/6 or better twisted pair cables required								
<b>Power Source</b>	This device supports PoE (PD), an external power supply is not included. It is intended to be powered via a PoE (PSE) Ethernet Switch. If required, an optional power supply (500993) may be purchased separately.								
<b>PoE</b>	IEEE 802.3af								
<b>Power Consumption</b>	Transmitter: 2.85Watt      Receiver: 2.55Watt								
<b>Temperature</b>	Operating: 0° to 40°C      Storage: -20° to 85°C Humidity: Up to 95% non-condensing								
<b>Dimensions</b>	4.40" x 5.08" x 1.00" (112mm x 129mm x 25mm)								
<b>Weight</b>	1.5lbs (0.68kg)								
<b>Compliance</b>	Regulatory: FCC, CE, RoHS      Flammability: 94V0								
<b>Warranty</b>	3 years								
<b>Order Information</b>	500759 Video Wall 4K over IP PoE Extender Kit (UPC: 627699007594) 500759-TX Video Wall 4K over IP PoE Extender TX (UPC: 627699907597) 500759-RX Video Wall 4K over IP PoE Extender RX (UPC: 627699807590)								
<b>Accessories</b> (These items are sold separately)	500920 16-Port Rackmount Transceiver Chassis 500917 Wall Mount Transceiver Bracket Kit 500990 IR Emitter, and 500991 IR Sensor 500993 Univ. Locking Power Supply 5VDC/2.6A US/UK/EU Blade								

## Typical Application

