MuxLab

Overview:

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, and supports Video Wall and Multiview capabilities 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. The transmitter accepts a 1080p @ 60Hz video and streams the content to the Receiver, where the signal is up-scaled up to 4K @ 60Hz to be displayed on a 4K monitor. The Receiver also accepts H.264/H.265 video streams from other transmitting devices of up to 4K @ 60Hz. These devices support PoE (PD) and may be powered by a PoE (PSE) Ethernet Switch.

Applications:

- Audio/Video Streaming over LAN, Wifi and Internet
- Commercial and residential AV systems
- Classroom projector systems
- Digital signage
- Boardroom systems
- Medical information systems

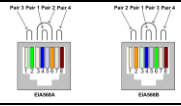**MuxLab PRODIGITAL™**

4K60 ULTRA HD

Key Features:

- Receiver supports up to 4K @ 60Hz (4:4:4) video streams
- Receiver up-scales 1080p @ 60Hz video streams from Transmitter and other devices up to 4K @ 60Hz
- Transmitter supports up to 1080p @ 60Hz video
- Supports Video Wall and Multiview capabilities
- Extends local audio/video transmission up to 330ft (100m) over Cat5e/6
- H.264/265 video codec, excellent for LAN, WiFi & Internet transmission
- High image quality and <200ms latency in low latency mode with H.265
- Supports 100's of TX & RX devices depending on network bandwidth
- Supports Multicast, RTSP, RTMP, HLS, FLV and TS
- 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
- Managed via Pro Digital Network Controller (500811), and MuxLab Control Smartphone & Tablet App

Specifications	
Environment	HDMI 2.0 (RX) and HDMI 1.3a (TX)
Devices	Blu-Ray, Set Top Boxes, Media Players/Streamers, projectors, monitors, TVs, PCs, supporting HDMI.
Signal Protocal/Standard	HDMI 2.0 and HDCP 2.2 (RX) / HDMI 1.3a and HDCP 1.4 (TX)
Video Bandwidth	148.5MHz (TX), and 594MHz (RX)
Network Bandwidth	32Mbps (max)
Latency	<200ms (in low latency mode with H.265)
Protocols	TX: Supports Multicast, RTSP, RTMP (H.264), HLS, FLV (H.264) & TS RX: Supports Multicast, RTSP, HLS, FLV & TS
Connectors	One (1) HDMI connector for AV (Input on TX and Output on RX). One (1) RJ45S for Ethernet connection (on TX and RX). One (1) USB 3.0 connector for future capabilities (on RX). One (1) TosLink optical connector for digital audio extraction (on RX). One (1) 3.5mm connector for audio embedding/extraction (input on TX and output on RX). One (1) 3.5mm connector for directional IR (on TX and RX – direction controllable via software). One (1) RS232 DB9 connector for controlling end devices (on TX and RX). One (1) 2.1mm locking power connector (on TX and RX).
Maximum Distance	Cat5e/6: 330ft (100m) from Ethernet Switch. Unlimited over the Internet *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.*
RJ45 Pin Configuration *Reverse Polarity Sensitive. Use EIA/TIA 568A or 586B straight-through wiring.*	**RJ45 Link** Pin 1 (R) Pin 2 (T) Pin 3 (R) Pin 6 (T) Pin 4 (R) Pin 5 (T) Pin 7 (R) Pin 8 (T)
Power Source	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.
PoE	IEEE 802.3af
Power Consumption	4.5W
Temperature	Operating: 0° to 40°C Storage: -20° to 85°C Humidity: Up to 95% non-condensing
Dimensions	4.4" x 3.6" x 1.0" (111mm x 92mm x 25mm)
Weight	0.9lbs (0.4kg)
Compliance	Regulatory: FCC, CE, RoHS Flammability: 94V0
Warranty	3 years
Order Information	500762-TX HDMI over IP H.264/H.265 PoE Transmitter (UPC: 627699907627) 500762-RX HDMI over IP H.264/H.265 PoE Receiver, 4K/60 (UPC: 627699807620)
Accessories (These items are sold separately)	500920 16-Port Rackmount Transceiver Chassis 500917 Wall Mount Transceiver Bracket Kit 500990 IR Emitter, and 500994 IR Sensor 500993 Univ. Locking Power Supply 5VDC/2.6A US/UK/EU Blade

Typical Application