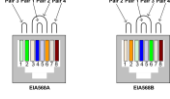


# Specifications

Specifications	
Environment	HDMI 2.0b
Devices	TVs, monitors, projectors supporting HDMI.
Signal Protocol/Standard	HDMI 2.0b and HDCP 2.2.
Video Resolution	HDMI: Up to 4K @ 30Hz (4:4:4) and 4K @ 60Hz (4:2:0) VGA: Up to 1920 x 1200 @ 60Hz
Video Bandwidth	300MHz
Audio Bandwidth	20Hz to 20KHz (2 CH)
Network Bandwidth	500Mbps (Typ), up to 800Mbps (Max).
Network Requirement	1G Network via PoE Ethernet Switch supporting IGMP and Jumbo Frames.
Network Protocol	Multicast
Compression	JPEG2000
Latency	16.7ms typ. (1 Frame), up to 33.4ms max. (2 frames).
Connectors	One (1) HDMI input connector for Audio/Video One (1) VGA input 15-Pin DSUB connector for Video One (1) 3.5mm input jack for 2CH Audio One (1) RJ45S for Ethernet connection One (1) 2.1mm locking power connector, for optional use since this device supports PoE (PD)
Maximum Distance	Cat5e/6: 330ft (100m) from Ethernet Switch.  <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>
RJ45 Pin Configuration	<b>RJ45 Link</b> Pin 1 (R) Pin 2 (T) Pin 3 (R) Pin 6 (T) Pin 4 (R) Pin 5 (T) Pin 7 (R) Pin 8 (T) 
Reverse Polarity Sensitive. Use EIA/TIA 568A or 586B straight-through wiring.	
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	3W
Temperature	Operating: 0° to 40°C Storage: -20° to 85°C Humidity: Up to 95% non-condensing
Wall Plate Size	2 Gang
Dimensions	5.00" x 4.53" x 1.65" (127 x 115 x 42 mm)
Weight	1.17 lb (0.53 kg)
Compliance	Regulatory: FCC, CE, RoHS Flammability: 94V0
Warranty	3 years
Order Information	500773-TX HDMI/VGA over IP PoE Wall Plate Transmitter, UHD-4K 500773-TX-WH HDMI/VGA over IP PoE Wall Plate Transmitter, UHD-4K (White)
Compatible Receivers	500758-RX, and 500759-RX
Accessories (Item is sold separately)	500993 Universal Locking Power Supply 5VDC/2.6A US/UK/EU Blade



## HDMI/VGA over IP PoE Wall Plate Transmitter 500773-TX Quick Installation Guide

### Overview

The HDMI/VGA over IP PoE Wall Plate Transmitter allows HDMI and VGA equipment to be connected up to 330ft (100m) at up to 4K (3840x2160) resolution @ 30Hz via one (1) Cat5e/6 unshielded twisted pair cable in a point-to-point configuration. Point-to-multipoint and multipoint-to-multipoint configurations are also possible by connecting several Transmitters and Receivers to the same local Ethernet IP network via an Ethernet Switch. The HDMI/VGA over IP PoE Wall Plate Transmitter also supports PoE (PD) if used with a PoE (PSE) Ethernet Switch. Additional Transmitters may be purchased separately depending on the intended application and number of units required.

For the point-to-multipoint and multipoint-to-multipoint configuration the Ethernet Switch must have Gigabit ports, Jumbo Frame capability, DHCP Server capability, PoE, and additionally support the IGMP communication protocol for the multipoint-to-multipoint case. MuxLab recommends using the Cisco SG300 or SG500 Series Managed Switches.

The MuxLab ProDigital Network Controller (500811) is available to simplify the configuration and utilization of the 500773-TX and other MuxLab IP based products via an Ethernet web interface. The MuxLab Control Android and iOS Application may also be used for connectivity management, in combination with the 500811 Network Controller.

### Applications

Applications include commercial and residential AV systems, classroom systems, digital signage, boardroom systems, collaborative PC systems, and medical information systems.

### Installation

1. Identify the connectors on the Transmitter and Receiver as indicated on the product labels, see the above front and rear product views for further details.
2. Verify that the distance between the HDMI/VGA over IP PoE Wall Plate Transmitter and other MuxLab Receiver is within the specifications (see Specifications table for more details).

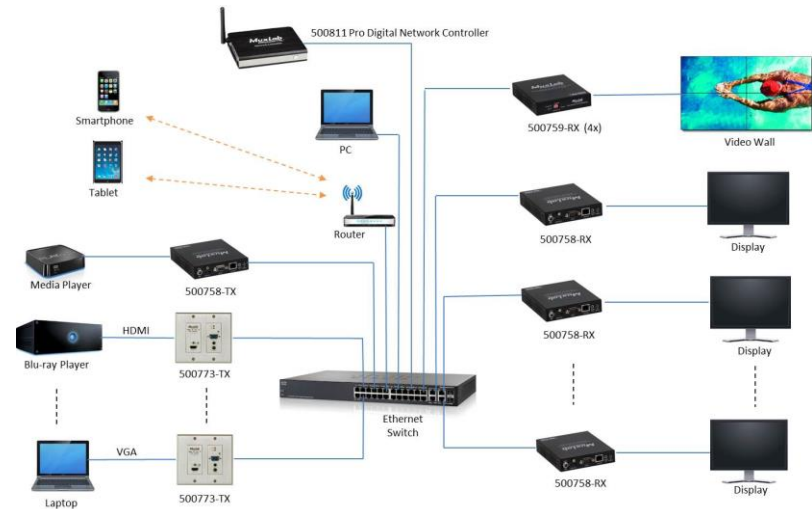


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3. To install the Transmitter:
  - 3a. For an HDMI source, connect the Transmitter to the HDMI video source with an HDMI compliant cable. For a VGA source, connect the Transmitter to the VGA video source and connect the audio to the Audio-In port with compliant video and audio cables.
  - 3b. If the application is point-to-point, then connect one (1) length of Cat 5e/6 (or higher) grade UTP cable to the RJ45 LINK connector on the Transmitter. If transmitting over the network, use an Ethernet Switch between Transmitter and Receiver.
4. To install a Muxlab Receiver (such as the Muxlab 500758/759/770/771 Receiver):
  - 4a. Connect the Receiver to the HDMI display equipment with an HDMI compliant cable.
  - 4b. If the application is point-to-point, then connect one (1) Cat 5e/6 cable (or higher) coming from the Transmitter, to the RJ45 LINK connector on the Receiver. If transmitting over the network, use an Ethernet Switch between Transmitter and Receiver.
5. If the configuration is a point-to-multipoint or multipoint-to-multipoint:
  - 5a. You will need to use an Ethernet Switch with Gigabit ports and DHCP Server support. In addition Jumbo Frame support is required and IGMP Protocol support is required for the multipoint-to-multipoint case. **Verify that the Ethernet Switch is configured correctly and that the DHCP Server is enabled, that the IGMP Protocol is enabled for multipoint-to-multipoint applications, and that Jumbo Frame is enabled.** See the operating manual for more information about configuring the Ethernet Switch.
  - 5b. Connect all Transmitters and Receivers to the Ethernet Switch.
  - 5c. Use the DIP Switches to select a unique Device ID for each Transmitter present on the network and configure each Receiver Device ID to the corresponding selected Transmitter.
 

**Note:** This step is not necessary if the MuxLab Pro Digital Network Controller (500811) is used.
6. Powering the Transmitter or Receiver via an external power supply is only necessary where PoE (PSE) is unavailable. If PoE is unavailable, connect a 5 VDC power supply (500993 - sold separately) to each Receiver and to an AC power outlet. Next connect each Transmitter in the same manner. If power is present, the green power LED on each Transmitter and Receiver will illuminate..
 

**Note: Power 'ON' the HDMI/VGA over IP PoE Wall Plate Transmitter and any other Transmitters and Receivers only after all connections have been made.**
7. Power 'ON' the HDMI and VGA equipment and verify the image quality.
8. Press and hold the push button for 5 seconds to toggle between Normal and Auto Source Detect mode. In Normal mode, press and release the push button on the front panel to switch between the HDMI and VGA inputs. In Auto Source Detect mode, the HDMI/VGA over IP PoE Wall Plate Transmitter will detect and select the first input signal inserted, and will remain selected until the connector is removed.
9. The following diagram illustrates a typical LAN configuration with other compatible MuxLab AV over IP devices. The 500773 is compatible with the MuxLab 500758/759/770/771.



## Troubleshooting

The following table describes some of the symptoms, probable causes and possible solutions in regard to the installation of the HDMI/VGA over IP PoE Wall Plate Transmitter:

Symptom	Transmitter LEDs		Receiver LEDs		Probable Cause	Possible Solutions
	Power	Link	Power	Link		
No Image	OFF	OFF	OFF	OFF	No power	<ul style="list-style-type: none"> <li>Check power connections</li> <li>Check PoE Ethernet Switch Setup</li> </ul>
No Image	BLINK	OFF	BLINK	ON	Booting	<ul style="list-style-type: none"> <li>Wait until booting process is finished</li> </ul>
No Image	ON	OFF	ON	OFF	No Ethernet Link	<ul style="list-style-type: none"> <li>Check Ethernet Switch Status</li> <li>Check UTP Cables</li> </ul>
Info Screen	ON	OFF	ON	BLINK	UTP Cable	<ul style="list-style-type: none"> <li>Check the Transmitter UTP cable</li> </ul>
Info Screen	ON	ON	ON	OFF	UTP Cable	<ul style="list-style-type: none"> <li>Check the Receiver UTP cable.</li> </ul>
Info Screen	ON	BLINK	ON	BLINK	No Data Connection	<ul style="list-style-type: none"> <li>Check if DIP Switch settings match</li> </ul>
Info Screen	ON	ON	ON	BLINK	Wrong setting on Receiver	<ul style="list-style-type: none"> <li>Check DIP Switch address of the Receiver</li> </ul>
Choppy Video	ON	ON	ON	ON	Configuration	<ul style="list-style-type: none"> <li>Check cable length</li> <li>Check the HDMI or VGA Cable Quality</li> <li>Check if Jumbo Frame and IGMP are enabled on the Ethernet Switch</li> </ul>
Image flickers when powering up nearby equipment	ON	ON	ON	ON	Interference	<ul style="list-style-type: none"> <li>Use STP cables</li> </ul>

If you still cannot diagnose the problem, please call MuxLab Customer Technical Support at 877-689-5228 (toll-free in North America) or (+1) 514-905-0588 (International).