

Specifications

Specifications									
Environment	HDMI 2.0b								
Devices	Blu-Ray, projectors, monitors, TV, PC, laptops, servers supporting HDMI.								
Bandwidth	300MHz								
Signals	HDMI 2.0b protocol HDCP 2.2 compliant HDR10 support								
Connectors	One (1) HDMI receptacle. One (1) RJ45S for Cat 5e/6 unshielded or shielded twisted pair. One (1) 3.5mm jack for directional IR (may be set for an emitter or sensor). One (1) 3.5mm jack for audio insert (on TX)/audio extract (on RX). One (1) DB9 for the RS232 One (1) 2.1mm locking power connector (may be used with optional power supply, if PoE is not available).								
<i>Note: Cables not included.</i>									
Maximum Distance	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>								
Latency	Typical one (1) Frame (16ms), maximum 2 frames (33ms)								
Compression	JPG 2000								
Bandwidth	500Mbps								
Network Requirement	1000BaseT with Jumbo Frame								
IR Frequency	38 to 56KHz								
RJ45 Pin Configuration	<p>RJ45 Link</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)								
Cable	One (1) Cat 5e/6 or better twisted pair cables required								
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	Transmitter: 2.85Watt Receiver: 2.55Watt								
Temperature	Operating: 0° to 40°C Storage: -20° to 85°C Humidity: Up to 95% non-condensing								
Dimensions	5.60" x 5.20" x 1.10" (142mm x 132mm x 28mm)								
Weight	1.5lbs (0.68kg)								
Compliance	Regulatory: FCC, CE, RoHS Flammability: 94V0								
Warranty	3 years								
Order Information	500778-TX DomoStream Transmitter (UPC: 627699907788) 500778-RX DomoStream Receiver (UPC: 627699807781)								



2321 Rue Cohen, Montreal, Quebec, Canada. H4R 2N7
 Tel: (514) 905-0588 Fax: (514) 905-0589
 Toll Free (North America): (877) 689-5228
 E-mail: info@muxlab.com URL: www.muxlab.com



DomoStream 500778 Quick Installation Guide

Overview

DomoStream allows HDMI equipment to be extended up to 330ft (100m) at video resolutions up to 4K (3840x2160) @ 30Hz via one (1) Cat5e/6 cable in point-to-point, point-to-multipoint and multipoint-to-multipoint configurations, by connecting several units to the same local 1Gbps Ethernet network. DomoStream supports HDR10, enhancing picture quality and detail particularly in darker or dimly lit scenes. The unit supports the pass-through transmission of the latest audio formats up to 8 CH LPCM, Dolby Atmos and DTS:X, offering the listener an exceptional and enveloping sound experience. In addition the unit supports 2 CH audio insert on the TX and audio extract on the RX. It supports CEC, RS232 and directional IR for control of end devices. DomoStream is a PoE (PD) device and may be powered by a PoE (PSE) Ethernet Switch.

DomoStream is an excellent addition to any distributed home AV entertainment system, and may be managed by the combination of the MuxControl App for iOS or Android running on a Smartphone or Tablet, and the Pro Digital Network Controller (model 500811).

For the point-to-multipoint and multipoint-to-multipoint configuration the Ethernet Switch must have Gigabit ports, Jumbo Frame capability and DHCP Server capability, and additionally support the IGMP communication protocol for the multipoint-to-multipoint case. It should also support PoE (PSE). MuxLab recommends using the Cisco SG350 Series Managed Switches.

Applications

Residential AV systems.

Installation

- 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.
- Verify that the distance between the HDMI Transmitter and Receiver is within MuxLab specifications (see Specifications table for more details).
- To install the Transmitter:
 - Connect the Transmitter to the HDMI video source with an HDMI compliant cable.
 - 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.
- To install the Receiver:
 - Connect the Receiver to the HDMI display equipment with an HDMI compliant cable.

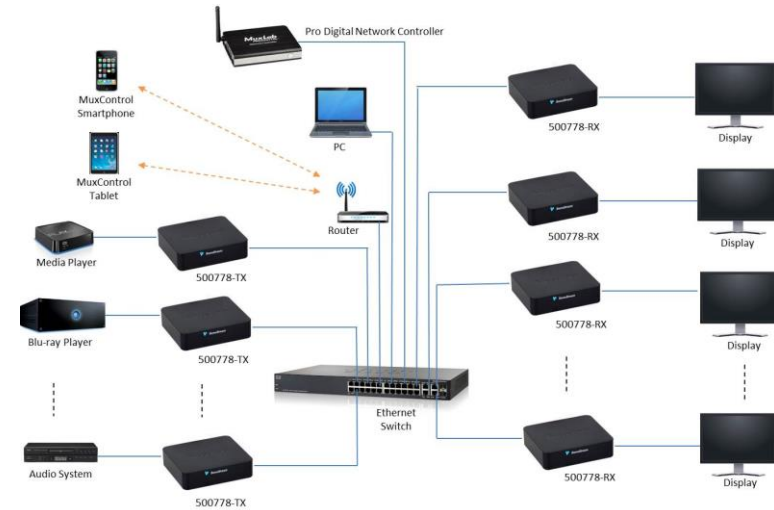
- 4b. If the application is point-to-point, then connect one (1) Cat 5e/6 cable (or higher) coming from the Transmitter, to the RJ45 LINK connector on the Receiver. If transmitting over the network, use an Ethernet Switch between Transmitter and Receiver.
5. If the configuration is a point-to-multipoint 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.
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' DomoStream only after all connections have been made.

7. Power 'ON' the HDMI equipment and verify the image quality.
8. This product supports directional IR pass-thru control. The signal may also originate from the MuxLab Pro Digital Network Controller (model 500811). The IR port signal direction may be set up for an Emitter or Sensor. IR Emitter and Sensor are not included, and are sold separately. If infrared remote control is needed to control the Source equipment from the Display, connect the IR Sensor to the 3.5mm Stereo Jack of the Receiver and the IR Emitter to the 3.5mm Mono Jack of the Transmitter.

Note: You can differentiate the IR Sensor and the IR Emitter by looking at the 3.5 mm plug. The IR Sensor is using a Stereo Plug (3 Contacts) and the IR Emitter a mono plug (2 Contacts).

9. Position the IR Sensor so that it is directed at the hand-held remote control. For a clear IR signal reception, aim the hand-held remote control at the top of the IR Sensor enclosure.
10. Position the IR Emitter as close as possible to the source's IR Sensor (i.e. DVD player). For a clear IR signal reception, the IR Emitter can be glued on the source's IR Sensor. The IR Emitter's signal is transmitted from the side of the enclosure.
11. This product supports RS232 bidirectional communication. On the Transmitter, the RS232 port is configured as a DCE; and on the Receiver as a DTE. Please connect your RS232 cable accordingly. Configure the RS232 communications setting via the device web interface.
12. Commands or messages may be sent via RS232 by connecting a PC to the RS232 port of DomoStream, or over the network via IP. This communications is meant to be machine to machine.
13. The following diagram illustrates a typical point-to-point LAN configuration.



Troubleshooting

The following table describes some of the symptoms, probable causes and possible solutions in regard to the installation of DomoStream:

Symptom	TX LED Power	RX LED Power	Probable Cause	Possible Solutions
No Image	OFF	OFF	No power	<ul style="list-style-type: none"> Check power connections Check PoE Ethernet Switch Setup
No Image	BLINK	BLINK	Booting	<ul style="list-style-type: none"> Wait until booting process is finished
No Image	ON	ON	No Ethernet Link	<ul style="list-style-type: none"> Check Ethernet Switch Status Check UTP Cables
Info Screen	ON	ON	UTP Cable	<ul style="list-style-type: none"> Check the Transmitter and Receiver UTP cable
Info Screen	ON	ON	No Data Connection	<ul style="list-style-type: none"> Check if DIP Switch settings match
Info Screen	ON	ON	Wrong setting on Receiver	<ul style="list-style-type: none"> Check DIP Switch address of the Receiver
Choppy Video	ON	ON	Configuration	<ul style="list-style-type: none"> Check cable length Check the HDMI Cable Quality Check if Jumbo Frame and IGMP are enabled on the Ethernet Switch
Image flickers when powering up nearby equipment	ON	ON	Interference	<ul style="list-style-type: none"> Use STP cables
IR not functioning *	ON	ON	Interference from sunlight, Fluorescent, Neon or Halogen lights	<ul style="list-style-type: none"> Place the IR equipment away for the interfering light
IR not functioning *	ON	ON	Interference from RF radiation from the TV	<ul style="list-style-type: none"> Place the IR equipment away for the RF radiation

* IR Emitter and IR Sensor sold separately.

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).