



## Installation Guide

# TL-SM3C-HDV

*Three Input HDMI Share-Me™ Switcher with Extension and Control*



## Preface

Read this user manual carefully before using this product. Pictures shown in this manual are for reference only; the actual product may vary.

This manual is only for operation instructions and not for any maintenance or repair.

## Trademarks

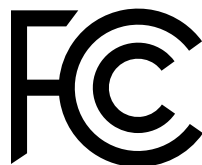
Product model and logo are trademarked. Any other trademarks mentioned in this manual are acknowledged as the properties of the trademark owner. No part of this publication may be copied or reproduced without prior written consent.

## FCC Statement

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. It has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial installation.

Operation of this equipment in a residential area is likely to cause interference, in which case the user at their own expense will be required to take whatever measures may be necessary to correct the interference.

Any changes or modifications not expressly approved by the manufacture would void the user's authority to operate the equipment.



## Safety Precautions

- To insure proper operation, please read all instructions carefully before using the device. Save this manual for further reference.
- Unpack the equipment carefully and save the original box and packing material for possible future shipment.
- Follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- Do not dismantle the housing or modify the module. It may result in electrical shock or burn.
- Using supplies or parts not meeting the products' specifications may cause damage, deterioration or malfunction.
- Refer all servicing to qualified service personnel.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Do not remove the housing of the device, as opening or removing housing may expose you to dangerous voltage or other hazards.
- Install the device in a place with adequate ventilation to avoid damage caused by overheating.
- Keep the device away from liquids.
- Spillage into the housing may result in fire, electrical shock, or equipment damage. If an object or liquid falls or spills on to the housing, unplug the device immediately.
- Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.
- Unplug the power cord when left unused for a long period of time.
- If disposing of the unit, do not burn or mix with general household waste. The device must be disposed of per local regulations for electronic recycling.

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## Introduction

### Product Overview

The TechLogix Network TL-SM3C series of Share-Me™ products build upon the core functions of the popular, easy-to-use functionality of the TL-SM3X1 series Share-Me™ products and add video signal extension plus a wider breadth of control for the display. With up to 70m (229 ft) of video extension for 1080p content, or 40m (131 ft) of 4K content, and the ability to power the extender set from the receiver end, the TL-SM3C series of Share-Me™ products allow for automatic power on/off commands to be transmitted from the unit (as well as connected table inserts) to the display, thereby providing a complete room connectivity and control solution.

The TL-SM3C-HDV transmitter features two HDMI inputs and one VGA input with video support up to 4K/30 plus multichannel audio, three control inputs for the TL-SMG series Share-Me™ grommet inserts, and auto-switch mode and manual switch mode. There is also an RS232 with 12V DC support connector to interface with the TL-TI-4C or any third-party controller that can operate within 12V DC at 0.5 A.

The TL-SM3C-HDV receiver features an HDMI output with CEC control to adjust volume and power states of the display. Additional display control capabilities are IR and RS232; relay outputs allow raising and lowering projector screens with momentary and latching configurations. The TL-SM3C-HDV receiver can de-embed stereo audio to the 3.5mm stereo analog port and RCA-style digital output port. There is also an Ethernet port to configure the entire TL-SM3C system.

### Features

- Two HDMI inputs
- One VGA with analog audio input
- One HDMI output
- Digital and analog audio de-embedding
- EDID pass-through and built-in EDID
- HDMI video resolution up to 4K@30Hz 4:4:4
- HDCP 2.2 compliant
- 4K over Cat 5e/6 up to 40m
- 1080p over Cat 5e/6 up to 70m
- IR, RS232, CEC control of display
- Relay outputs for projector screens
- Integration with TechLogix table inserts for signal pass-through & remote control
- Micro USB firmware port
- Hot-plug support

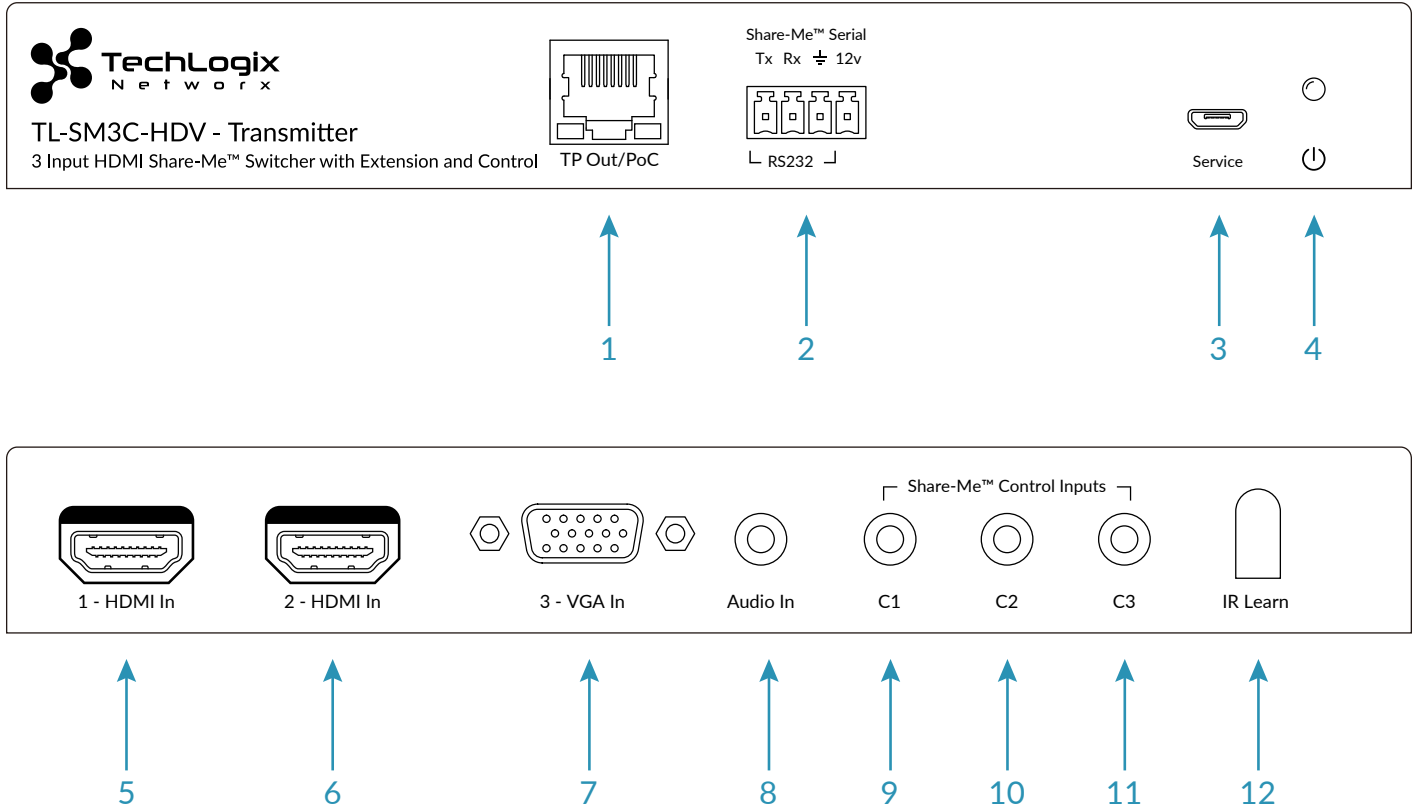
*Note:* Shielded twisted pair cable with shielded connectors are recommended.

### *Included in Each Set*

- 1 ea TL-SM3C-HDV Transmitter
- 1 ea TL-SM3C-HDV Receiver
- 2 ea 3.5mm audio cable (2m)
- 1 ea 3-pin to DE-9 RS232 Cable
- 1 ea 4-pin Removable Terminal Block
- 3 ea 3-pin Removable Terminal Blocks
- 1 ea Power Adapter (DC 24V 2.71A) with US EIC Power Cable
- 4 ea Mounting rails (with 8 screws)
- 8 ea Rubber feet
- 1 ea User Manual QR Card

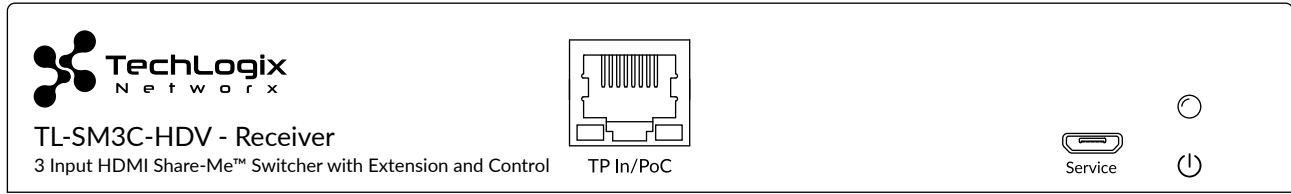
## Input/Output Overview

### TL-SM3C-HDV Transmitter



Number	Name	Description
1	TP Out/PoC	Connect to the TP In port on the receiver via a twisted pair cable. Supports PoC (Power over Cable) from receiver. Yellow LED indicates link with receiver. Green LED indicates HDCP status.
2	Share-Me™ Serial	RS232 transmit (TX), receive (RX, and ground plus 12V DC power for TL-SMG-4C or third party control system.
3	Service	Micro USB type B port for drag and drop firmware updates.
4	Power Indicator	Red LED indicates power between the transmitter and receiver. Green LED indicates video transmitting from transmitter to receiver.
5	1 - HDMI In	Connect to an HDMI source.
6	2 - HDMI In	Connect to an HDMI source.
7	3 - VGA In	Connect to a VGA source.
8	Audio In	Connect to analog audio source.
9	Share-Me™ Control 1	Dry contact closure control port for use with compatible TechLogix table inserts.
10	Share-Me™ Control 2	Dry contact closure control port for use with compatible TechLogix table inserts.
11	Share-Me™ Control 3	Dry contact closure control port for use with compatible TechLogix table inserts.
12	IR Learn	IR receiver to capture IR commands for display.

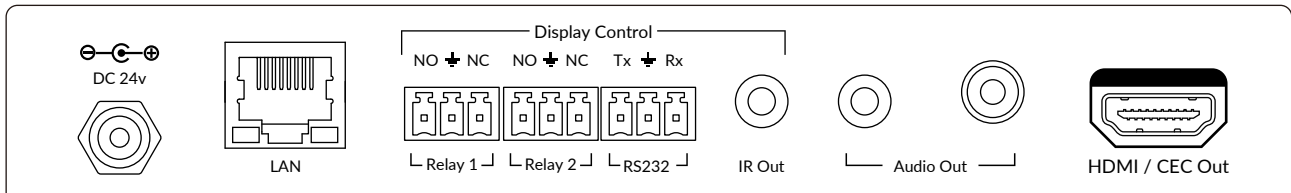
## TL-SM3C-HDV Receiver



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Letter	Name	Description
A	TP In/PoC	Connect to the TP Out port on the receiver via a twisted pair cable. Supports PoC (Power over Cable) from receiver. Yellow LED indicates link with receiver. Green LED indicates HDCP status.
B	Service	Micro USB type B port for drag and drop firmware updates.
C	Power Indicator	Red LED indicates power between the transmitter and receiver. Green LED indicates video transmitting from transmitter to receiver.
D	DC 24V	24V DC power port.
E	LAN	100 Gbps Ethernet port for web GUI setup and Telnet control
F	Relay 1	Latching or momentary with NO and NC connections.
G	Relay 2	Latching or momentary with NO and NC connections.
H	RS232	RS232 output for display control.
I	IR Out	IR output for display control.
J	Analog Audio Out	3.5 mm TRS analog audio output port.
K	Digital Audio Out	RCA-style digital audio output port.
L	HDMI / CEC Out	Connect to an HDMI display. CEC control with compatible display devices.



## System Connection

### Usage Precautions

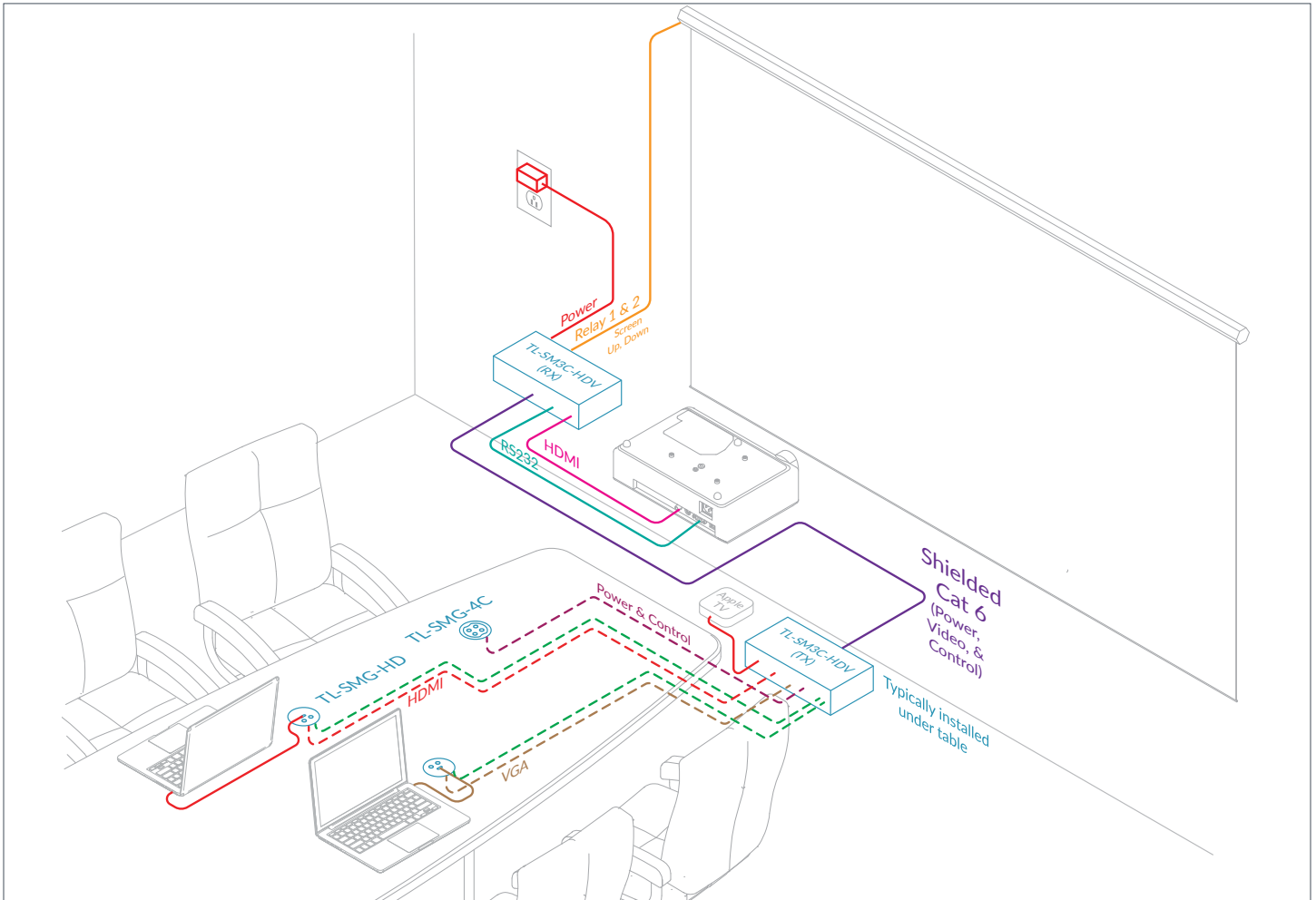
- System should be installed in a clean environment that has a proper temperature and humidity.
- All of the power switches, plugs, sockets and power cords should be installed properly.
- All devices should be connected before powering on the devices.
- The twisted pair terminations for the devices should be a straight-thru conforming to the TIA/EIA T568B standard.
- Use shielded solid core straight-thru Cat5e or greater with TIA/EIA T568B terminations to connect the TP ports.
- If mounting the unit, the included mounting hardware must be used.

### Connection Procedure

1. Verify all components included with the TL-SM3C-HDV are present before installation.
2. If the TL-SM3C-HDV will be permanently mounted to a surface, attach the included mounting rails with the supplied screws.
3. If the TL-SM3C-HDV will be sitting on a shelf, attach the included rubber feet to the bottom of the unit.
4. Turn off power and disconnect the audio/video equipment by following the manufacturer's instructions.
5. If the TL-SM3C-HDV will be controlled via TechLogix table inserts:
  - a. Separately connect HDMI signal cables between the HDMI sources and HDMI ports of the table inserts and VGA signal cables between the VGA source and VGA port of the table insert.
  - b. Separately connect HDMI signal cables between the HDMI sources (or table inserts if used) and the 1 - HDMI In and 2 - HDMI In ports. Connect a VGA signal cable between the VGA source (or table insert if used) and the 3 - VGA In port of the TL-SM3C-HDV.
  - c. Separately connect three table inserts to the C1, C2, and C3 ports of the TL-SM3C-HDV.
6. If the TL-SM3C-HDV will be controlled via the TL-SMG-4C, connect the 4-wire power and control cable included with the table insert into the *Share-Me™ Serial* port on the transmitter.
7. Connect HDMI signal cables between the HDMI sources (or table inserts if used) and the 1 - HDMI In and 2 - HDMI In ports. Connect a VGA signal cable between the VGA source (or table insert if used) and the 3 - VGA In port.
8. Connect TP Out/PoC port of Transmitter and TP In/PoC port of Receiver with a single shielded solid core straight-through Cat 5e or greater cable with TIA/EIA T568B terminations.
9. Connect a display to the HDMI / CEC Out port of Receiver.
10. If using RS232 to control the display, connect the included RS232 cable from the RS232 port of the receiver to the RS232 input of the display.
11. If using IR to control the display, connect the IR Emitter to the IR Out port of Receiver, and then put it over the IR receiver port of the display.
12. If using external audio, connect audio amplifier device to the appropriate Audio Out port of Receiver.
13. Connect a PC to the TCP/IP port of Receiver for web-based system setup and Ethernet-based Telnet control.
14. Connect the 24V DC 2.71A power adaptor to the power port of Receiver.

*Note:* Connect TP ports via single shielded solid core straight-through Cat 5e or greater cable with shielded TIA/EIA T568B terminations at both ends.

### Example System Diagram



## Web-based Configuration

All control, video, and network configuration settings are handled in the web-based configuration tool.

Connect the TCP/IP port of the Receiver to Ethernet port of PC with twisted pair, and then modify the PC's static IP network segment to be the same as the TL-SM3C-HD's. For example, the IP address of PC can be modified to 192.168.0.42.

If you need assistance setting a static IP address for Windows or mac OS (OS X), Netgear has a couple support articles that should help:

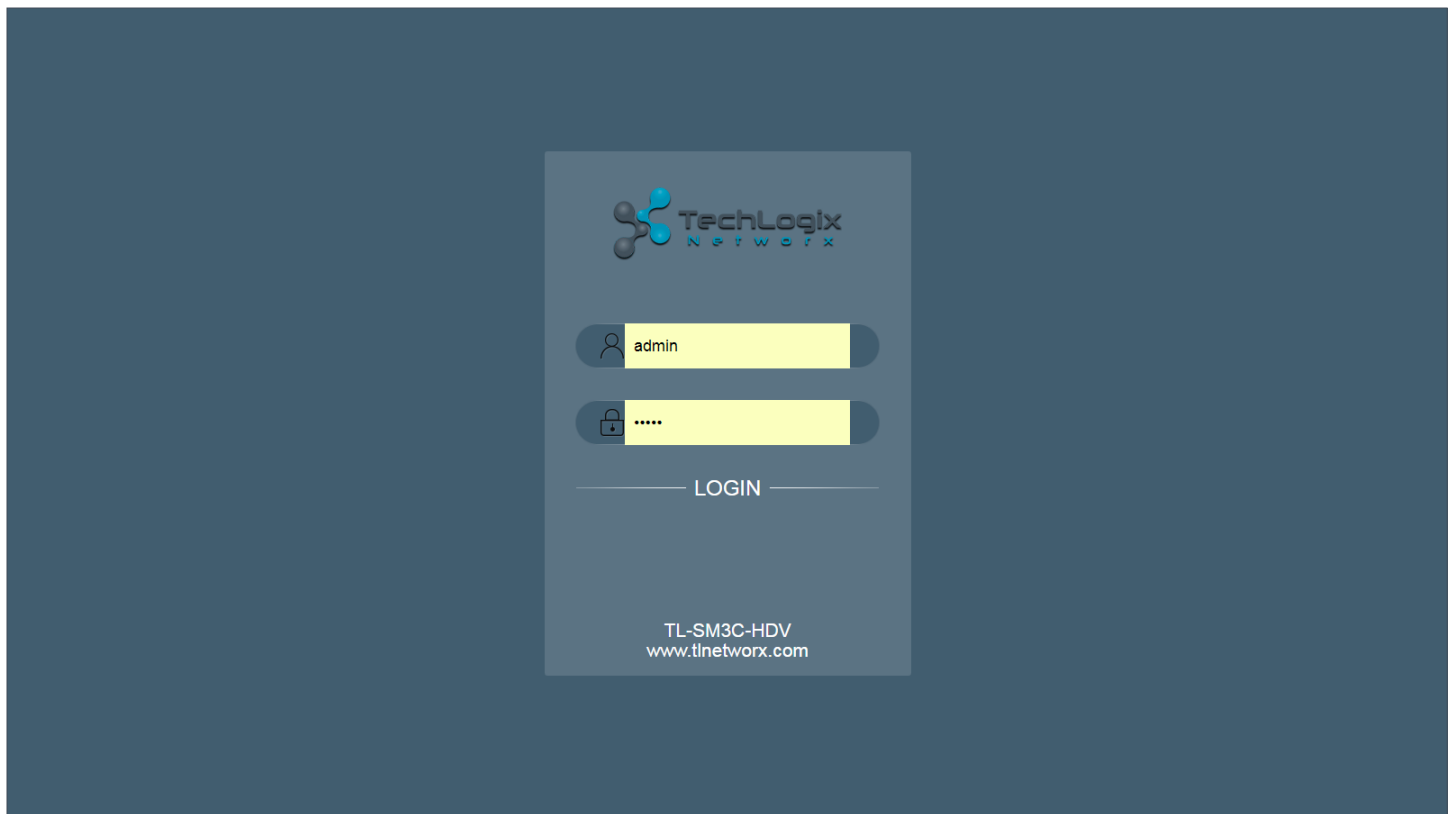
[Windows](#)

[mac OS \(OS X\)](#)

## Logging into the Web Interface

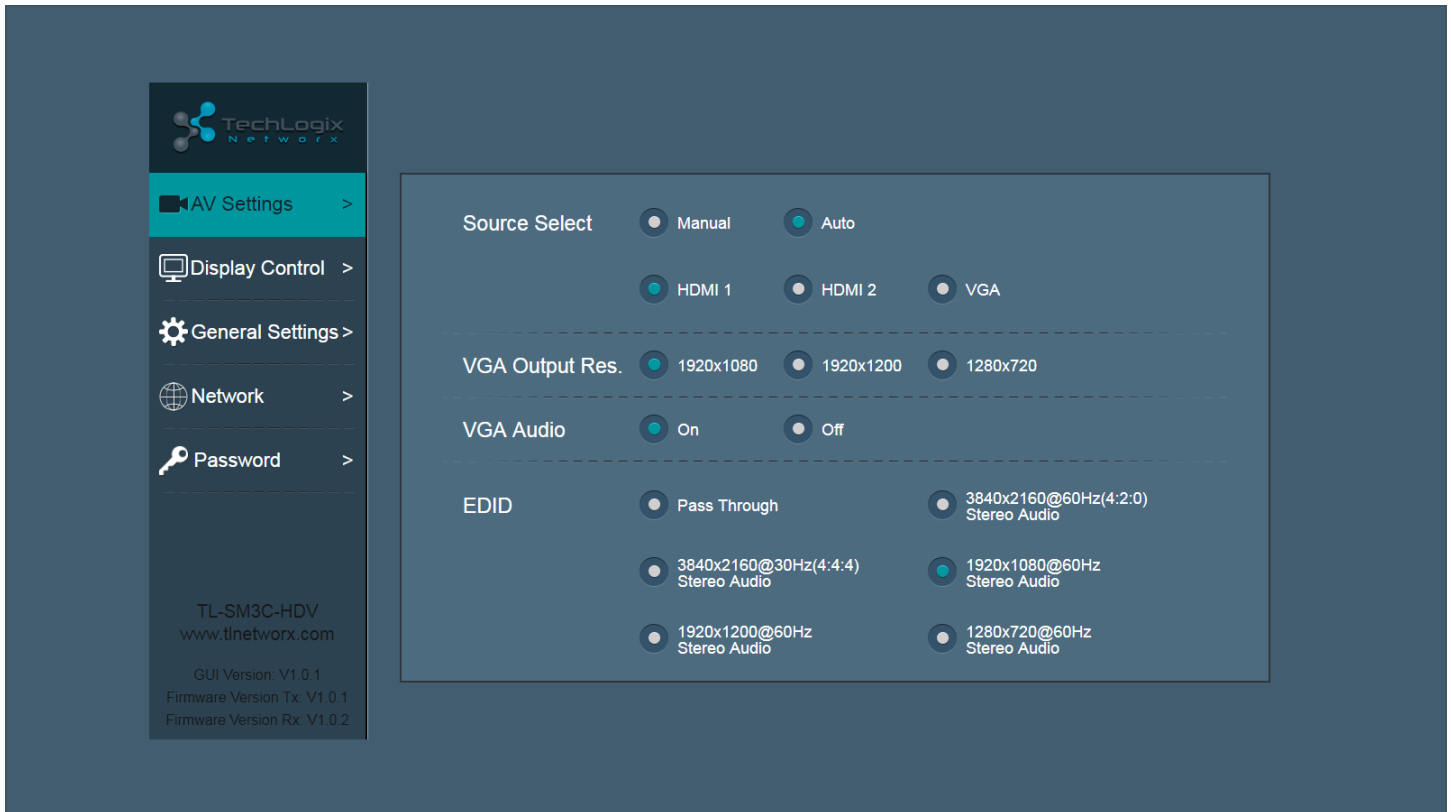
Navigate to 192.168.0.178 in your browser, it will enter the login interface shown as below.

There is only one user (*admin*). The default password is *admin*, but this can be changed to a more secure password later. Click the word *LOGIN* to proceed.



## AV Settings

From the AV Settings screen, there are two primary areas: *Source Select* and *EDID*.



### Source Select

In addition to selecting the active input, there are settings to determine whether to manually switch inputs via the TechLogix table inserts or third party control or to auto-switch based on active video sensing. The two basic rules of auto-switching are:

1. When a new signal (or connection) is detected, the TL-SM3C-HDV switches to this new signal automatically.
2. Should an active signal be removed, the TL-SM3C-HDV will detect all input signals with priority from 1 - HDMI In to 3 - VGA In. It will transfer the first signal detected to the display.

### VGA Output Res. (Resolution)

The default scaled output resolution is 1920x1080@60Hz. Other options are 1920x1200@60Hz and 1280x720@60Hz.

## VGA Audio

This setting enables analog audio input conversion for the VGA input. This setting is *On* by default.

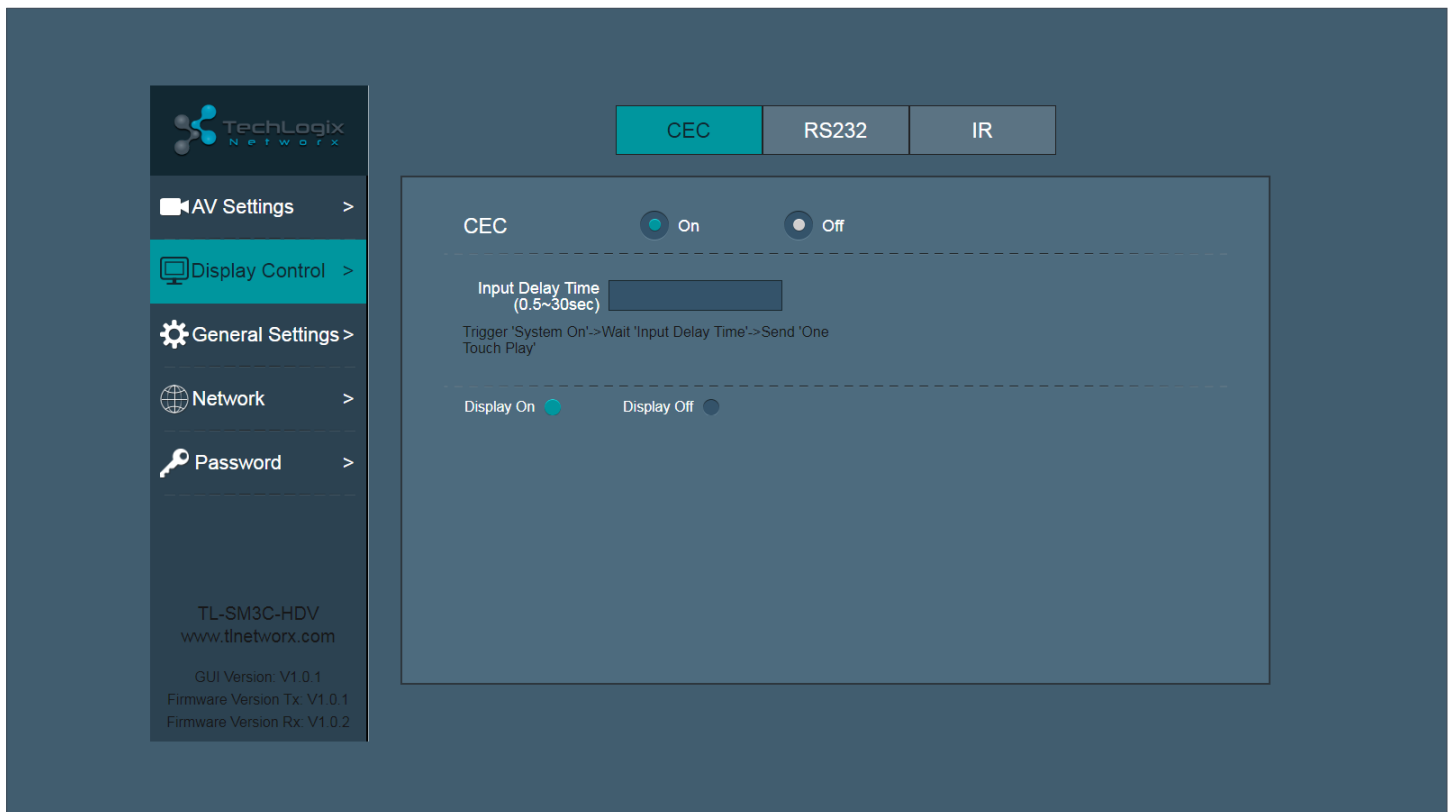
## EDID

The default EDID setting is 1920x1080@60Hz with Stereo Audio. If using the TL-SM3C-HDV with a 4K display, it is highly recommended to use one of the 3840x2160 presets to ensure signal bandwidth compatibility.

## Display Control - CEC

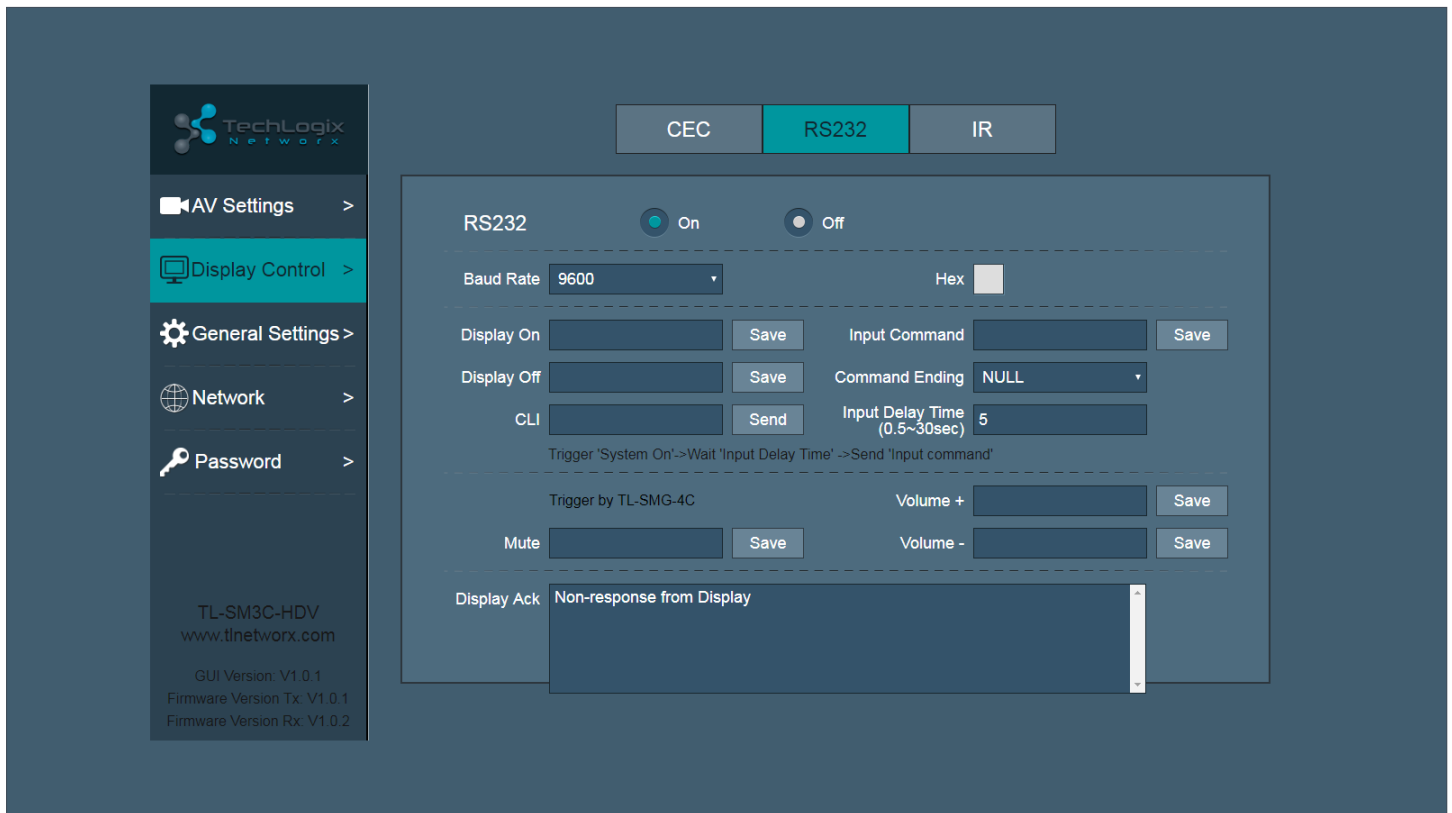
The *CEC* section of the *Display Control* configuration defines whether CEC is on or off and the delay time (default is 5 seconds) between turning the display on and switching to the input connected to the TL-SM3C-HDV receiver (also known as One Touch Play).

The *Display On* and *Display Off* section just shows the state of the display.



## Display Control - RS232

The RS232 section of the *Display Control* configuration is probably the most complex area of the web-based setup, but it is still easy to navigate. RS232 control can be turned on or off from this area.



The screenshot shows the RS232 configuration interface. At the top, there are three tabs: CEC, RS232 (highlighted), and IR. Below the tabs, there are radio buttons for 'On' (selected) and 'Off'. The configuration fields are as follows:

- Baud Rate:** 9600 (dropdown menu)
- Hex:**
- Display On:**  Save
- Display Off:**  Save
- CLI:**  Send
- Input Command:**  Save
- Command Ending:** NULL (dropdown menu)
- Input Delay Time (0.5~30sec):** 5
- Trigger 'System On' -> Wait 'Input Delay Time' -> Send 'Input command':** (checkbox)
- Trigger by TL-SMG-4C:**
- Mute:**  Save
- Volume +:**  Save
- Volume -:**  Save
- Display Ack:** Non-response from Display

On the left sidebar, the navigation menu includes: AV Settings, Display Control (selected), General Settings, Network, and Password. At the bottom of the sidebar, it displays: TL-SM3C-HDV, www.tlnetwork.com, GUI Version: V1.0.1, Firmware Version Tx: V1.0.1, and Firmware Version Rx: V1.0.2.

The available baud rates are: 2400, 4800, 9600, 19200, 38400, 57600, and 115200. Click the *Hex* checkbox if the display requires hex commands.

Enter the *Display On*, *Display Off*, and *Input Command* in the appropriate fields. Be sure to press the *Save* button after each entry.

The *Command Ending* adds code to the end of each RS232 command that may be required by the display. *NULL* is no ending. *CR* is a carriage return, which is 0D in hex. *LF* is a line feed, which is 0A in hex. *CR+LF* is a carriage return followed by a line feed, which is 0D 0A in hex.

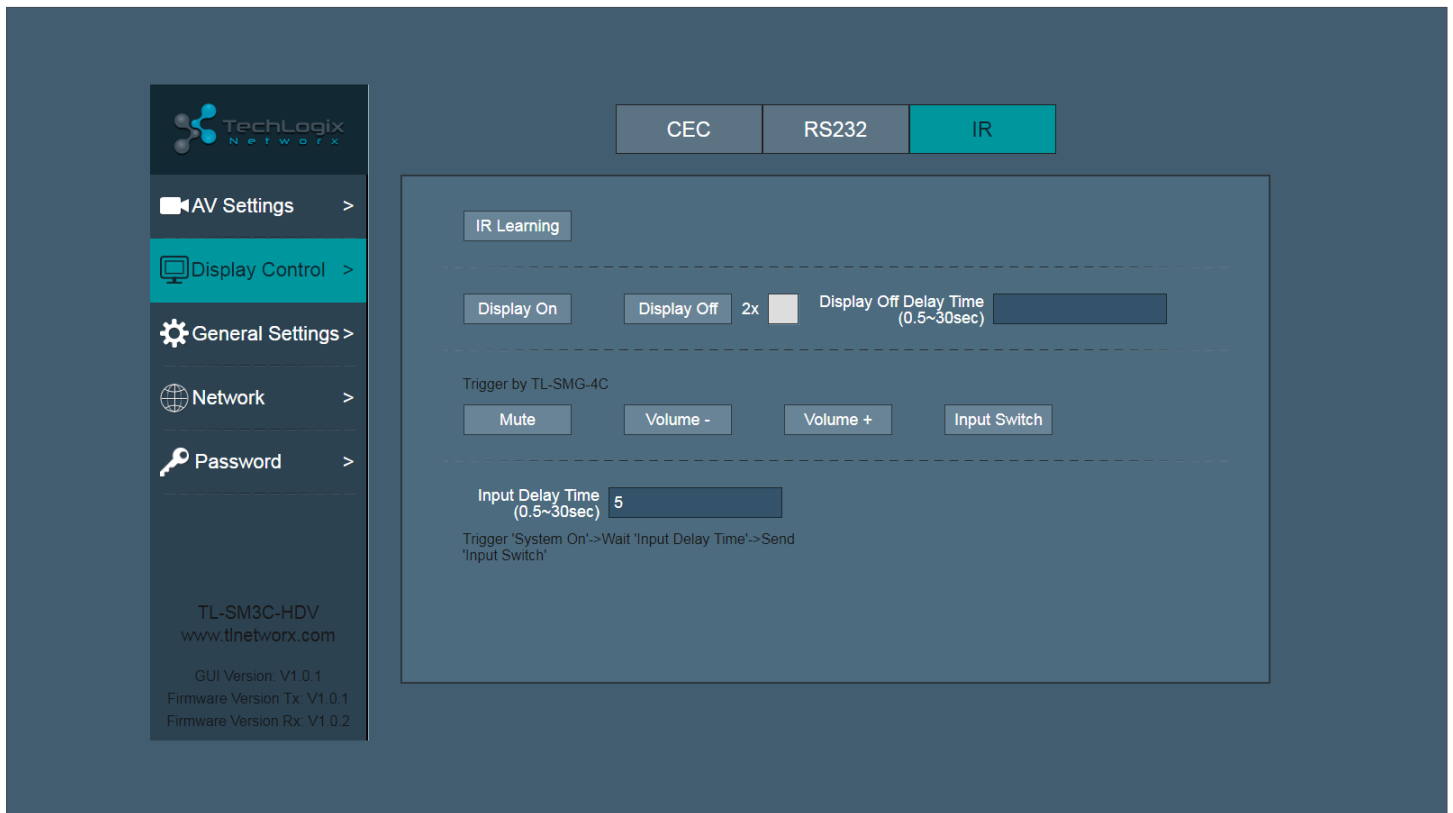
Enter the *Input Delay Time*, from 0.5 to 30 seconds, needed between turning on the display and switching to the TL-SM3C-HDV. The default time is 5 seconds.

The *CLI* (command line interface) field is solely for testing wiring (TX to TX instead of TX to RX?) and verifying the RS232 commands work well without needing to wait for the system to automatically turn off the display.

If the TL-SMG-4C will be used with the TL-SM3C-HDV, enter the RS232 commands for *Volume +* (up), *Volume -* (down), and *Mute* in their respective fields.

## Display Control - IR

The *IR* section of the *Display Control* configuration assists in storing the IR commands from the display's IR remote. This procedure requires access to the front panel of the TL-SM3C-HDV transmitter.



Click the *IR Learning* button to begin the IR learning process.

Click the *Display On* button, then press the Power On button on the IR remote. Once the IR command is learned, the *Display On* button will return to its original state. Repeat the process for the additional commands.

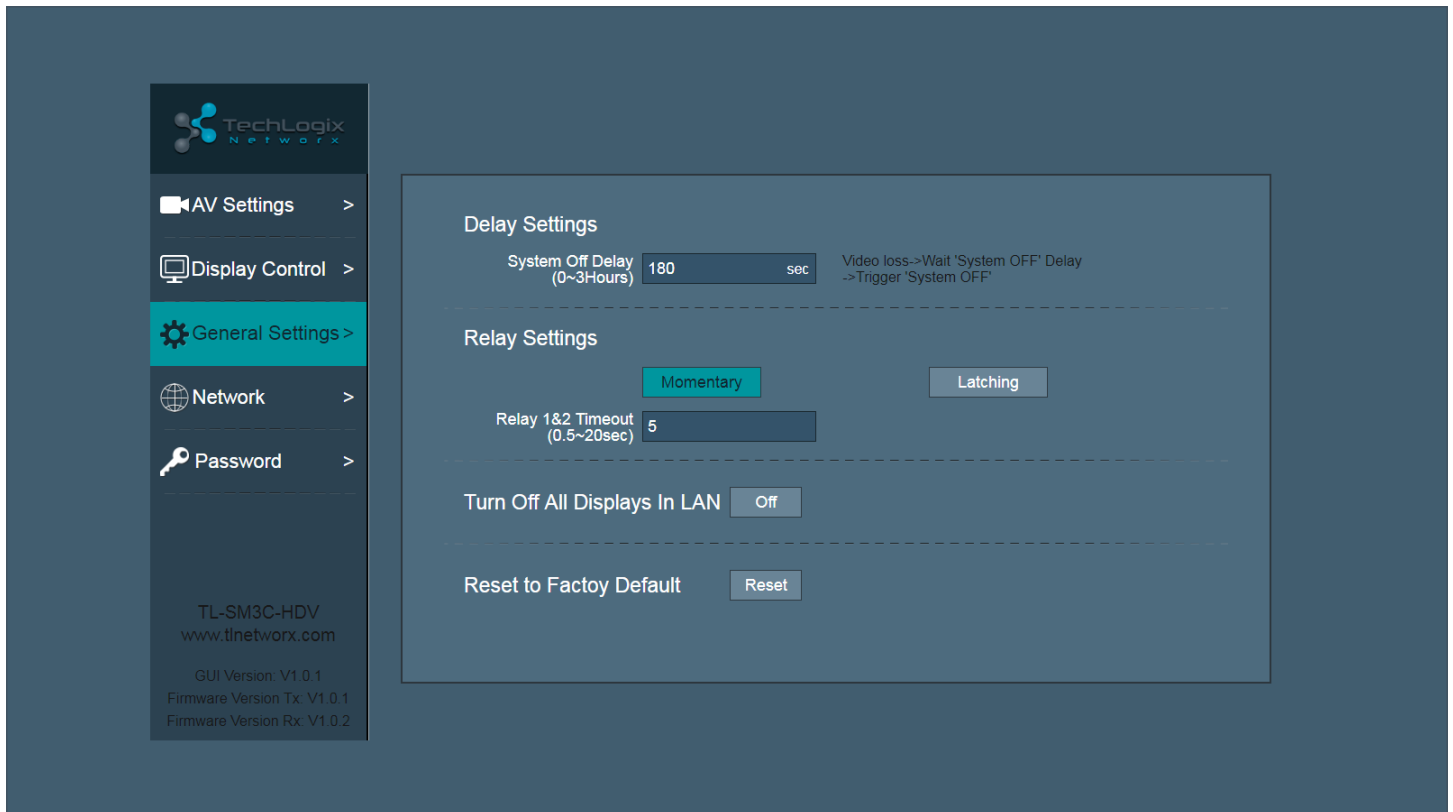
If the display requires two button presses for power off, click the *2x* checkbox. The *Display Off Delay Time* is the time between the two off commands; the default is 5 seconds.

If the TL-SMG-4C will be used with the TL-SM3C-HDV, repeat the IR learning process for *Mute*, *Volume -* (down), *Volume +* (up), and *Input Switch*.

Enter the *Input Delay Time*, from 0.5 to 30 seconds, needed between turning on the display and switching to the TL-SM3C-HDV. The default time is 5 seconds.

## General Settings

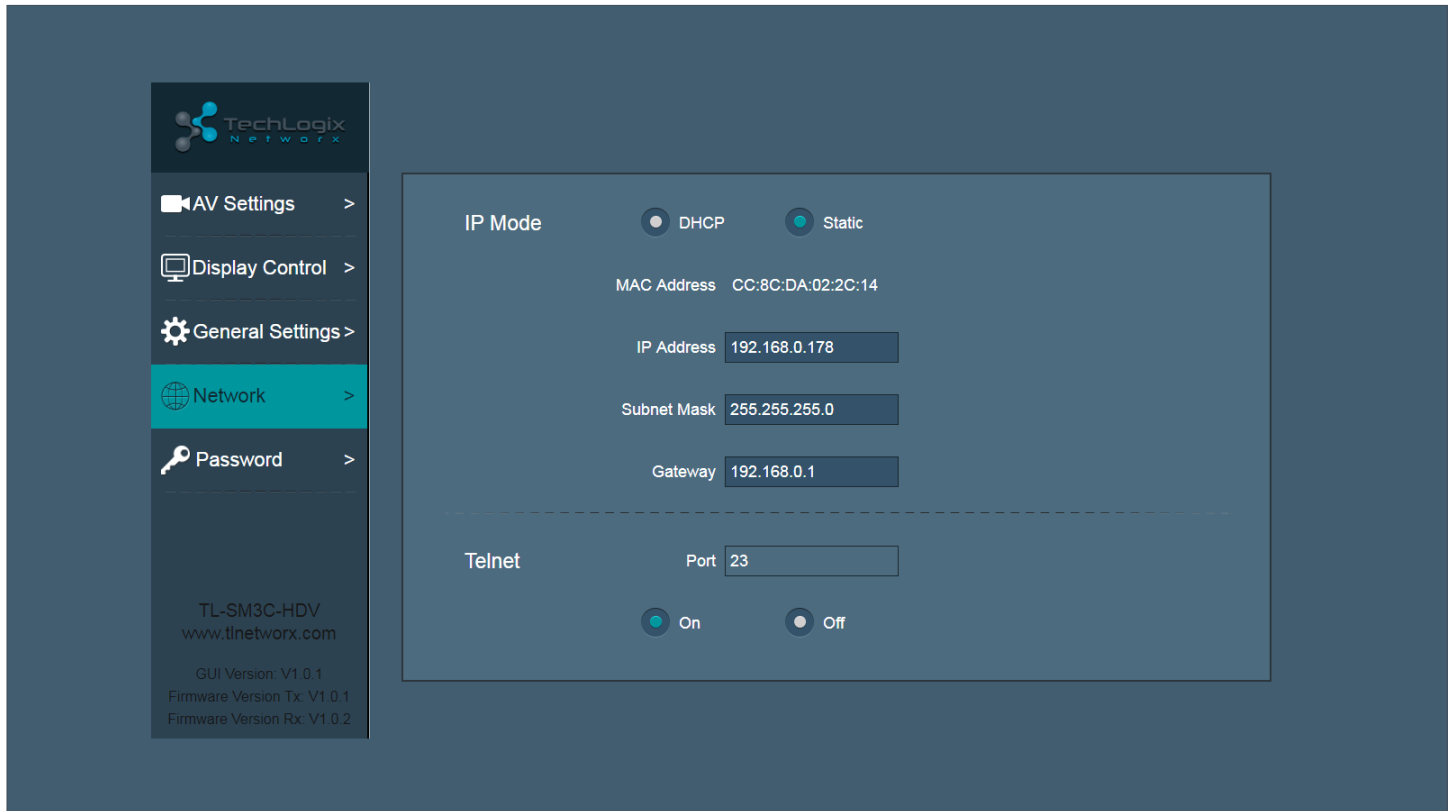
The *General Settings* configuration page sets the delay time in seconds (0-10800) between no video signal presence and shutting off the system, defines the operation of the relays and sets the activation time when in momentary mode, allows turning off all displays on the LAN, and resets the TL-SM3C-HDV to factory default.





## Network

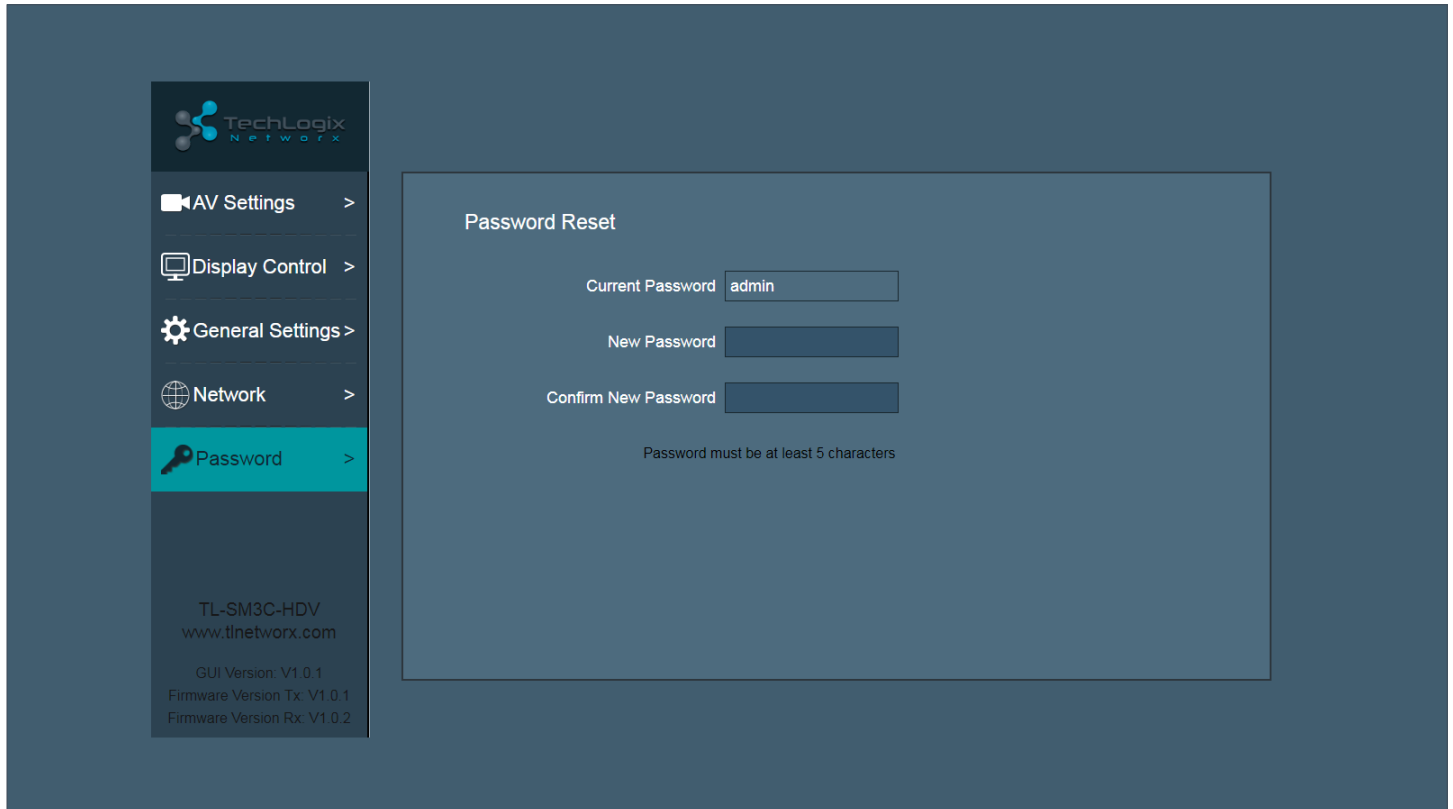
The *Network* configuration page allows the user to define whether the TL-SM3C-HDV has a static or dynamic IP address as well as enabling Telnet communication for control of the switcher.



## Password

The *Password* section of the *Display Control* configuration is the easiest section to work with. Enter a new password in the New Password field, then retype it into the Confirm New Password field.

The password must be at least 5 characters.



The screenshot shows the 'Password Reset' configuration page. On the left is a navigation sidebar with the following items: AV Settings, Display Control, General Settings, Network, and Password (highlighted in teal). Below the sidebar, the device information is displayed: TL-SM3C-HDV, www.tlnetwork.com, GUI Version: V1.0.1, Firmware Version Tx: V1.0.1, and Firmware Version Rx: V1.0.2. The main content area is titled 'Password Reset' and contains three input fields: 'Current Password' with the value 'admin', 'New Password', and 'Confirm New Password'. Below the fields is a validation message: 'Password must be at least 5 characters'.

## RS232 and Telnet Commands

### Switching and Display Control

Command	Function	Feedback Example
/HDMIx;	Switch to HDMIx. x = 1 or 2	#HDMIx.
/VGA;	Switch to VGA.	#VGA.
/TVOff;	System off	IR/Rx RS232/CEC TV off
/TVOn;	System on	IR/Rx RS232/CEC TV on
/TVVOL+;	Volume up	IR/Rx RS232/CEC VOL+
/TVVOL-;	Volume down	IR/Rx RS232/CEC VOL-
/TVMUTE;	Mute	IR/Rx RS232/CEC MUTE

### AV Configuration

Command	Function	Feedback Example
/EDIDIntx;	Set EDID mode x 0 = EDID pass through 1 = 4K/60Hz/4:2:0 2ch/ 2 = 4K/30Hz/4:4:4 2ch/ 3 = 1920x1080/60Hz 2ch 4 = 1280x720/60Hz 2ch 5 = 1920x1200/60Hz 2ch	#EDIDIntx. <i>or</i> #EDIDThrough.
/EDID?;	Query EDID mode.	#EDIDIntx. <i>or</i> #EDIDThrough.
/AUTOSwitch;	Enable auto switching.	#AUTO ON.
/MANUSwitch;	Disable auto switching.	#MANUAL ON.
/AVStatus;	Check switch Status.	#HDMIx.
/VRes1;	Set output resolution of VGA to 1920x1080	#VRes1.
/VRes2;	Set output resolution of VGA to 1920x1200	#VRes2.
/VRes3;	Set output resolution of VGA to 1080x720	#VRes3.
/VGAMuteEn;	VGA audio On	#VGAMuteEn.
/VGAMuteDis;	VGA audio Off	#VGAMuteDis.

### Control Configuration

Command	Function	Feedback Example
/CECON;	Enable CEC.	#CECON.
/CECOFF;	Disable CEC.	#CECOFF.
/CEC?;	Query CEC status.	#CECOFF. <i>or</i> #CECON.
/Baudrate xxxx;	Set the RS232 of RX. Values are: 2400, 4800, 9600, 19200, 38400, 57600, 115200	#Baudrate xxxx.
/IP:xxx.xxx.xxx.xxx;	Set IP address	#IP:xxx.xxx.xxx.xxx.
/IP?;	Query IP address	#IP:xxx.xxx.xxx.xxx.

## RS232 Output Configuration

Command	Function	Feedback Example
/SetVolMute: %s;	Set the RS232 string (%) for Volume mute	#SetVolMute: %s.
/SetVolSub: %s;	Set the RS232 string (%) for Volume down	#SetVolSub: %s.
/SetVolAdd: %s;	Set the RS232 string (%) for Volume up	#SetVolAdd: %s.
/SetOff: %s;	Set the RS232 string (%) for Display Off	#SetOff: %s.
/SetOn: %s;	Set the RS232 string (%) for Display On	#SetOn: %s.
/SetInCmd: %s;	Set the RS232 string (%) for Input Select	#SetInCmd: %s.

## Delay Timing Setup

Command	Function	Feedback Example
/SetRSTime: %d;	Set the RS232 input delay (%d) time; 1 = 0.5s Value range 1-60	#SetRSTime: %d.
/SetCECTime: %d;	Set the CEC input delay (%d) time; 1 = 0.5s Value range 1-60	#SetCECTime: %d.
/SetIROffTime: %d;	Set the 2x IR OFF delay (%d) time; 1 = 0.5s Value range 1-60	#SetIROffTime: %d.
/SetOffTime: %d;	Set the IR input delay (%d) time; 1 = 1s Value range 0-10800	#SetOffTime: %d.
/SetRelayTime: %d;	Set the Relay Timeout (%d) 1 = 0.5s Default value is 10.	#SetRelayTime: %d.
/SetRelayMode: x;	Set Relay mode (Default 1) 1 = Momentary 2 = Latching	#SetRelayMode: x.

## Delay Timing Setup

Command	Function	Feedback Example
/*Name;	Query model name	#TL-SM3C-HDV.
/^Version;	Query firmware version	#TxV:1.0.1. #RxV:1.0.2.
/FactoryDefault;	Restore to default settings	#FactoryDefault.

## Firmware Updates

When a firmware update is available, it will be hosted on the TechLogix website ([www.tlnetworkx.com](http://www.tlnetworkx.com)). To perform the update, all you will need is a USB type A to a micro USB type B cable.

Download the .zip file and extract it to a folder on your computer.

### Transmitter Update Procedure

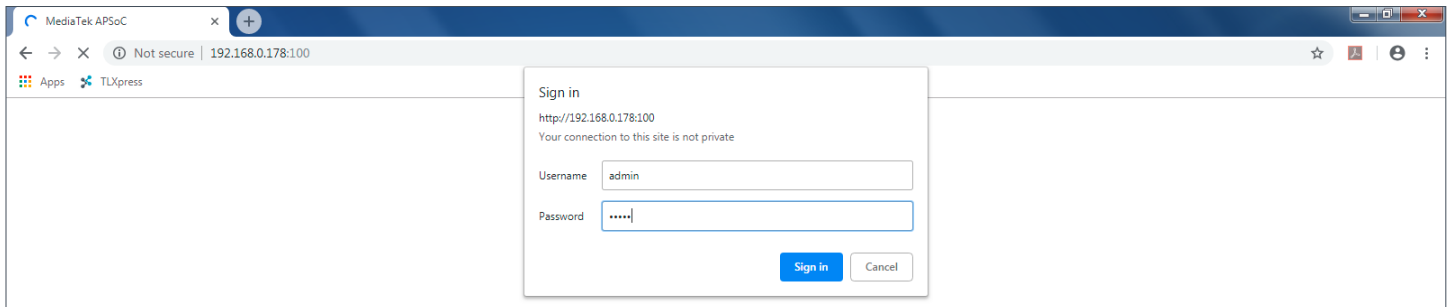
1. Remove all devices and disconnect the TP cable from the TL-SM3C-HDV transmitter. Leave the receiver powered on.
2. Connect a PC (any operating system) to the *Service* port using the USB type A to a micro USB type B cable.
3. Reconnect the TP cable to the transmitter.
4. The TL-SM3C-HDV transmitter should show up on the computer as a removable drive. The power LED for the transmitter should be dark, but the *TP Out/PoC* LEDs should be active.
5. Drag the TX firmware file over to the new removable drive.
6. After a couple seconds, the removable drive should disconnect from the PC, then reconnect. If the update was successful, a *SUCCESS.TXT* file will be the only file on the removable drive.
7. Remove the USB cable from the transmitter.
8. Proceed to the “*Receiver Update Procedure*” on page 17.

### Receiver Update Procedure

1. Remove all devices, disconnect the TP cable from the TL-SM3C-HDV receiver, and remove power from the receiver.
2. Connect a PC (any operating system) to the *Service* port using the USB type A to a micro USB type B cable.
3. Reconnect power to the receiver.
4. The TL-SM3C-HDV receiver should show up on the computer as a removable drive. The power LED for the receiver should be dark.
5. Drag the RX firmware file over to the new removable drive.
6. After a couple seconds, the removable drive should disconnect from the PC, then reconnect. If the update was successful, a *SUCCESS.TXT* file will be the only file on the removable drive.
7. Remove the USB cable from the receiver.
8. Remove power from the TL-SM3C-HDV receiver.
9. Reconnect power to the receiver.
10. Proceed to the “*Web GUI Update Procedure*” on page 18.

## Web GUI Update Procedure

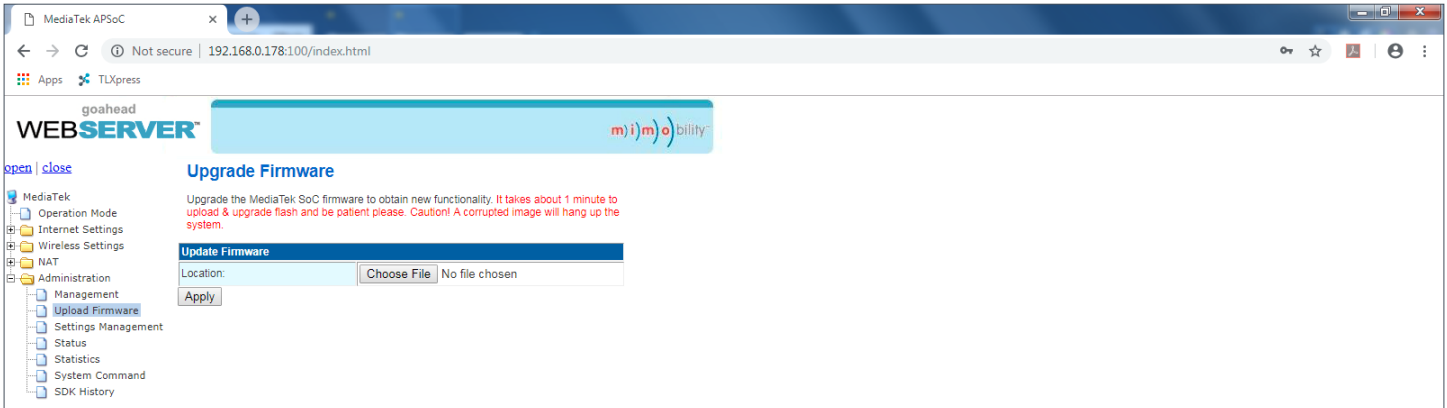
1. Connect the TCP/IP port of the Receiver to Ethernet port of PC with twisted pair, and then modify the PC's static IP network segment to be the same as the TL-SM3C-HDV's. For example, the IP address of PC can be modified to 192.168.0.42.
2. Navigate to 192.168.0.178:100 in your browser, it will enter the login interface shown as below.
3. There is only one user (*admin*). The default password is *admin*, but this may have been changed to a more secure password in the web GUI. Click the *Sign in* to proceed.



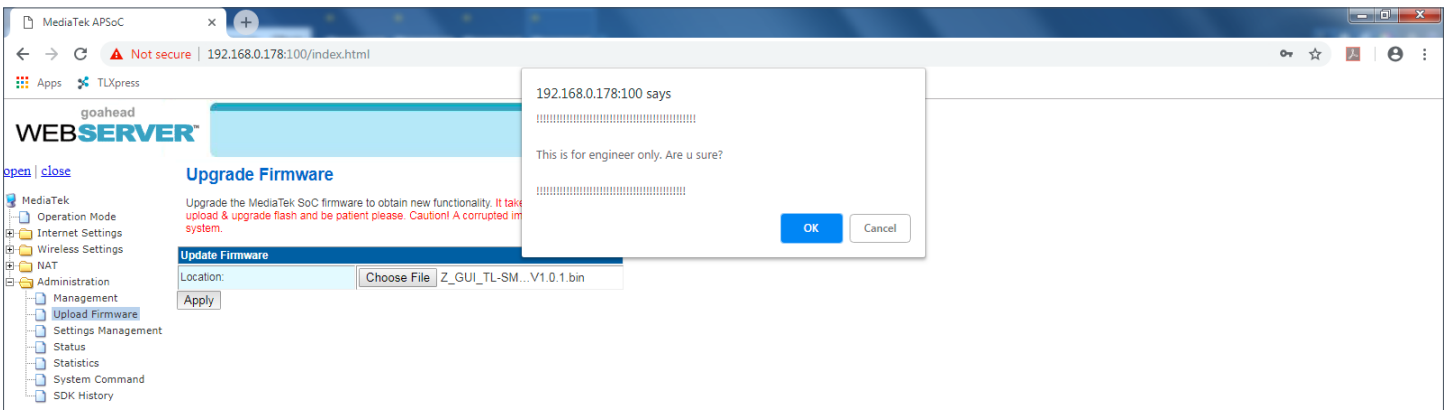
4. Once logged in, click the *Administration* folder.



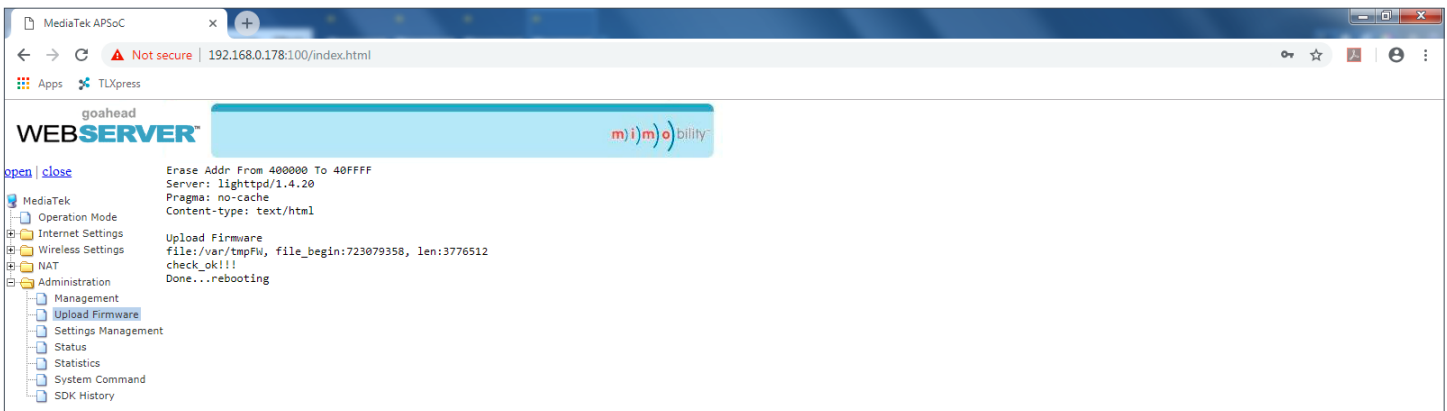
5. Click the Upload Firmware link to be directed to the Upgrade Firmware page.
6. Click the Choose File button.
7. In the Open File window, select the GUI firmware file.
8. Click the Apply button.



9. A popup will show confirming the firmware upgrade process.



10. After a minute or so, the firmware upgrade window will clear and show a Done...rebooting message.



11. Close the web browser.
12. Disconnect power from the TL-SM3C-HDV receiver.
13. Reinstall the product per the "Connection Procedure" on page 5.

## Technical Specifications

### Transmitter Inputs and Output

Video Inputs	2 HDMI 1 VGA
Video Input Connectors	2 female HDMI 1 female VGA (15-pin)
Input Video Signal	HDMI, VGA
Audio Input (with VGA)	1 stereo analog audio
Input Audio Signal	1 3.5mm mini jack
Twisted Pair Output	1 8P8C port (Shielded RJ45)
Control Ports	3 Dry Contact (C1~C3) 1 FIRMWARE 1 Share-Me™ Serial (TX, RX, Gnd, 12V DC) 1 IR Learn
Control Connectors	3 3.5mm mini jack 1 Micro-USB 1 4-pin removable terminal block 1 embedded IR receiver

### Receiver Inputs and Outputs

Video Output	1 HDMI
Video Output Connector	1 female HDMI
Output Video Signal	HDMI
Audio Outputs	1 3.5mm mini jack 1 RCA
Twisted Pair Input	1 8P8C port (Shielded RJ45)
Control Ports	2 Relay (NO/NC) 1 FIRMWARE 1 RS232 (TX, Gnd, RX) 1 IR Out 1 LAN
Control Connectors	2 3-pin removable terminal block 1 Micro-USB 1 3-pin removable terminal block 1 3.5mm mini jack 1 8P8C port (Shielded RJ45)
12V DC Power	5.5 mm Outside Diameter, 2.1 mm Inside Diameter Barrel (Locking)



## Supported Video, Audio, and Control

Maximum Video Compatibility	70 m: Deep Color 36/30/24 Bit at 1080p 40 m: Deep Color 48 Bit at 1080p, 3D, and 4k x 2k (UHD) up to 30 Hz: RGB, YCbCr 4:4:4, YCbCr 4:2:2; up to 60 Hz: YCbCr 4:2:0
Video Compliance	HDMI, HDCP 2.2, and CEC (Consumer Electronics Control)
Embedded Audio	Up to PCM 8 channel, Dolby Digital TrueHD, and DTS-HD Master Audio
Input DDC Signal	5.0 volts p-p (TTL)
Input Video Signal	0.5 to 1.0 volts p-p
Audio Output Impedance	<24Ω
Frequency Response	20Hz~20K Hz
Stereo Channel Separation	>80dB @1KHz
IR Carrier Frequency Range	33-55kHz at 5 volts
RS232 Baud Rates	2400 to 115,200 baud
Relay Contact Rating	300 mA at 125 VAC, 1 A at 30 VDC

## Extender Signal Characteristics

Maximum Distance	70 m: Deep Color 36/30/24 Bit at 1080p 40 m: Deep Color 48 Bit at 1080p, 3D, and 4k x 2k (UHD) up to 30 Hz: RGB, YCbCr 4:4:4, YCbCr 4:2:2; up to 60 Hz: YCbCr 4:2:0
Cable Requirements	Solid core shielded Category 5e, Category 6 or greater with TIA/EIA-568B crimp pattern
Bandwidth	10.2 Gbps

## Environmental Characteristics

Operating Temperature (Environment)	-10° to +40° C (14° to 104° F)
Operating Temperature (Chassis)	45° C (113° F)
Operating Humidity (Environment)	10% ~ 90%
Storage Temperature (Environment)	-15° to +70° C (5° to 158° F)
Storage Humidity (Environment)	0%~55%

## Chassis Characteristics

Enclosure	Painted steel
Transmitter Dimensions	170mm x 100mm x 25mm (6.69 in x 3.94 in x 0.98 in)
Receiver Dimensions	170mm x 100mm x 25mm (6.69 in x 3.94 in x 0.98 in)
Transmitter Weight	0.28 kg (0.62 lbs)
Receiver Weight	0.34 kg (0.75 lbs)

## Power, ESD, and Regulatory

Maximum Power Consumption	4.9W (TX), 6.7W (RX)
Power Supply	100-240v AC Input, 24v 2.71A Output with locking connector (C-UL/UL, CTick, CCC)
ESD Protection	15KV
Regulatory	CE, FCC

## Other

Warranty	3 years
Included Accessories	1 ea Power Supply with US power cable, 2 ea mounting kits, 3 ea 6' SMC cables, 8 ea rubber bumper feet, 3 ea 3-pin terminal blocks, 1 ea 4-pin terminal block, 1 ea IR emitter, 1 ea RS232 cable for display connection
Compatible TechLogix Table Inserts	TL-SMG-HD (HDMI) TL-SMG-DP (DisplayPort) TL-SMG-VGA (VGA) TL-TI-HD (HDMI) TL-TI-DP (DisplayPort) TL-TI-VGA (VGA) TL-SMG-PT (Pass-through) TL-SMG-2B (2 Button Control) TL-SMG-4C (4 Button Control)