

## 875700 MF 100 User Manual



Thank you for purchasing this product. For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

### **SURGE PROTECTION DEVICE RECOMMENDED**

This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, lightning strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment.



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## Introduction

TLS 875700 MF100 Set is a Dual HDMI and VGA/Audio to HDBaseT Switcher Extender. It switches between HDMI and VGA/audio inputs, digitizes, and transmits via HDBaseT. Both the transmitter and receiver offer manual and RS232 switching between HDMI and VGA inputs. By using TLS 875700 MF100 Set, the transmission distance for 1080P reaches 100 meters (330ft), and 4K x2K reaches 70 meters (230ft).

**TLS 875700 MF100 Set** has the ability of equalization and amplification to ensure signal's transmission through long cable with POH (power over HDBaseT) without quality loss. The cable must be **AWG24/1** or better

**TLS 875700 MF100 Set** was designed for systems in schools, businesses and trainings.

## Features

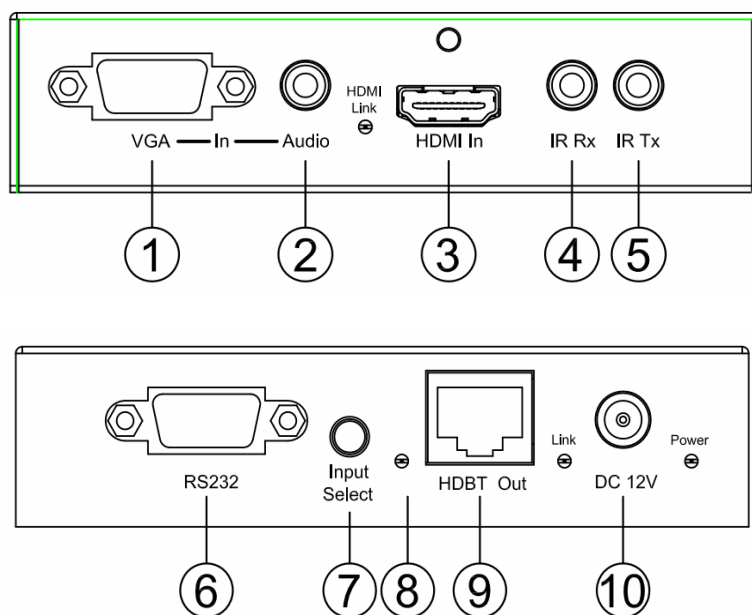
- Switching between HDMI and VGA with 3.5mm audio input, HDMI output with L/R Analog audio and Coax Digital audio outputs.
- HDMI v1.4 and HDCP compliant, support 1080p@60Hz, 3D and 4Kx2K.
- Support 1080P@60Hz or VESA: 1920x1200@60Hz up to 100m (330ft).
- Transmission distance for 4Kx2K@30Hz up to 70m (230ft).
- Support all popular VGA resolution inputs:  
640x480@60/75Hz, 720x400@70Hz, 800x600@60/75Hz,  
1024x768@60/75Hz, 1152x864@75Hz, 1280x720@60Hz,  
1280x768@60/75Hz, 1280x800@60/75Hz, 1280x960@60Hz,  
1280x1024@60/75Hz, 1360x768@60Hz, 1366x768@60Hz,  
1400x1050@60Hz, 1440x900@60Hz, 1600x1200@60Hz,  
1680x1050@60Hz, 1920x1080@60Hz
- Support Bi-Directional POH and Bi-Directional IR.
- Support EDID learning mode
- RS232 supports: bypass through HDBaseT link and, control the switching between VGA and HDMI inputs, update Valens FW and update MCU FW
- With ESD Protection.

**Note:**

The POH function is designed for powering compatible transmitter or receiver units of TLS only.

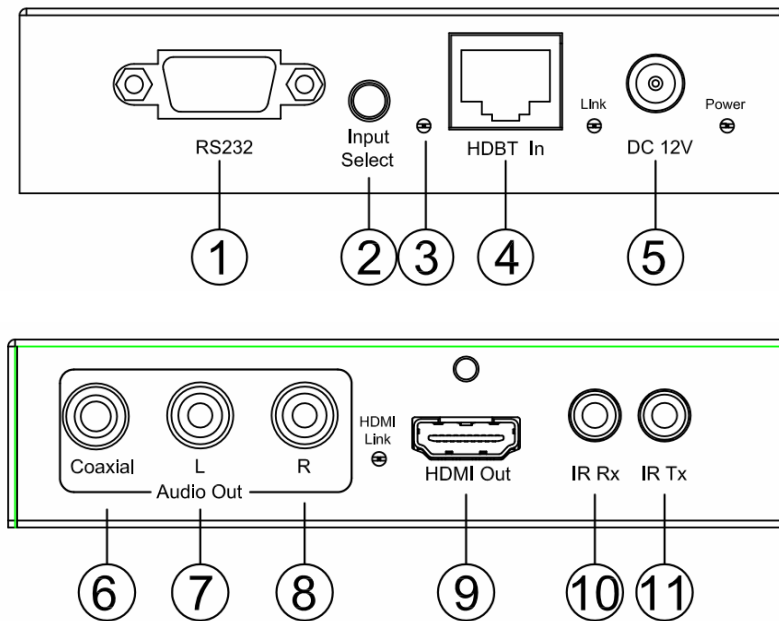
## Panel Descriptions

### Transmitter



1. VGA input
2. Audio input(go with VGA input)
3. HDMI input
4. IR Receiver jack
5. IR Transmitter jack
6. RS232 port
7. Input select button
8. Inputs indicator light, red for VGA input, blue for HDMI input
9. HDBaseT output
10. DC power input

## Receiver



1. RS232 port
2. Input select button
3. Inputs indicator light, red for VGA input, blue for HDMI input
4. HDBaseT input
5. DC power input
6. Coaxial Digital Audio output,SPDIF
7. RCA L: Left channel of stereo analog audio output
8. RCA R: Right channel of stereo analog audio output
9. HDMI output
10. IR Receiver jack
11. IR Transmitter jack

## RS232 switching codes for VGA and HDMI inputs

No.	Codes	Description
1	vgaselect	Switching to VGA input
2	hdmiselect	Switching to HDMI input
3	getselect	Get status of currently selected input, return message will be HDMI port or VGA port

**Note:** Codes are case sensitive. Carriage return ( 0X0D) needs to be pressed to activate the code.

## RS-232 Pin Assignment

MF100		Remote Control Console	
PIN	Assignment	PIN	Assignment
1	NC	1	NC
2	Tx	2	Rx
3	Rx	3	Tx
4	NC	4	NC
5	GND	5	GND
6	NC	6	NC
7	NC	7	NC
8	NC	8	NC
9	NC	9	NC

Baud Rate: 9600 bps

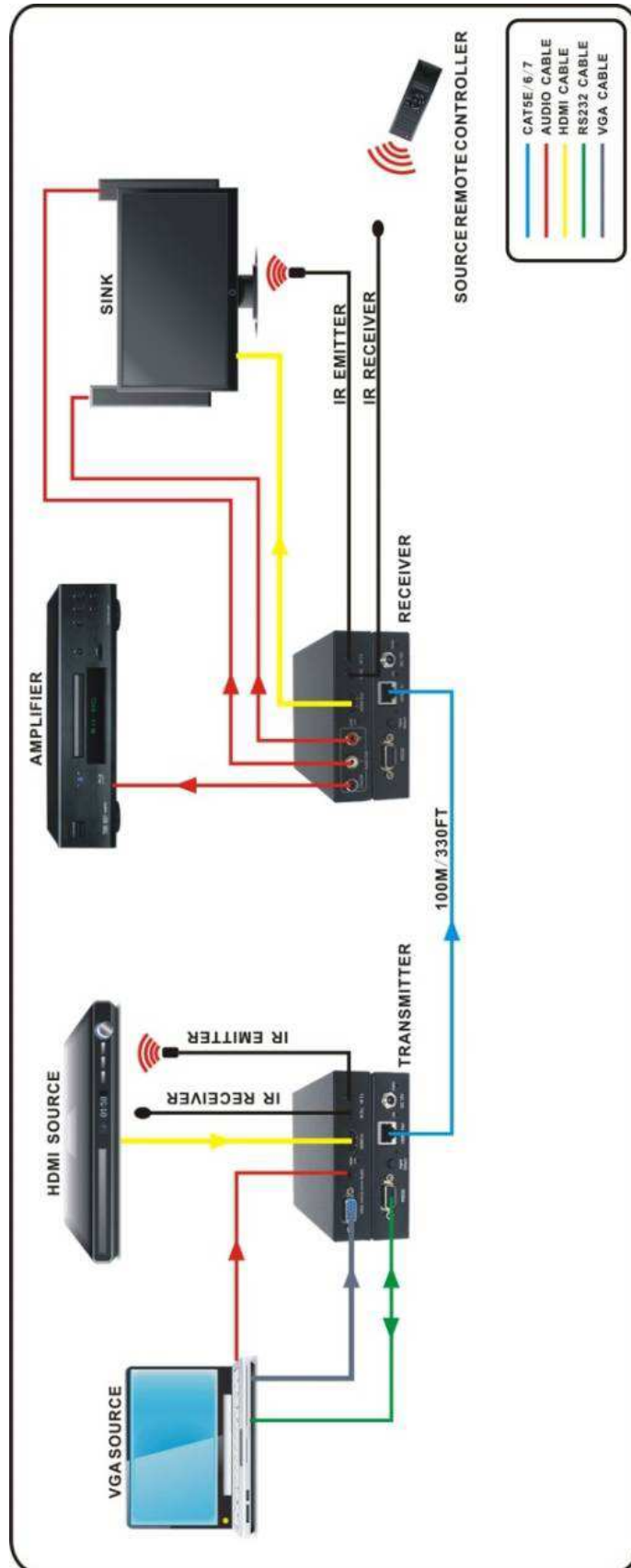
Data Bit: 8-bit

Parity: None

Stop Bit: 1-bit

Flow Control: None

Application Diagram





## Specifications

Bandwidth:	2.97Gbps per color
Video Input Connectors:	1 x HDMI Type A, 19-pin, female, locking 1 x VGA Type A, 15-pin, female, locking
Video Output Connectors:	1x RJ-45
RS-232 serial port:	DB-9, female
IR Input ports:	1x 3.5mm stereo jack
IR Output ports:	1x 3.5mm stereo jack
Rack-Mountable:	Rack ears included
Dimensions (W x H x D):	125mm x 112mm x 27mm , without feet
Shipping Weight:	375g
Operating Temperature:	32°F to 104°F (0°C to 40°C)
Storage Temperature :	-4°F to 140°F (-20°C to 60°C)
Power Supply:	12V/2A DC

## Package Contents

1. 875700 MF100 Set, Transmitter & Receiver
2. 1x 12V DC power supply
3. 1x IR Transmitter, 1x IR Receiver
4. 1x 875700 User Manual

## **Maintenance**

Clean this unit with a soft, dry cloth. Never use alcohol, paint thinner or benzene to clean this unit.

## **Warranty Policy**

TLS products are warranted against defects in material and workmanship for two years from the date of shipment. During the warranty period, TLS will, at its option, repair or replace products that prove to be defective. Repairs are warranted for the remainder of the original warranty or a 90 day extended warranty, whichever is longer.

For equipment under warranty, the owner is responsible for freight to TLS and all related customs, taxes, tariffs, insurance, etc. TLS is responsible for the freight charges only for return of the equipment from the factory to the owner. TLS will return the equipment by the same method (i.e., Air, Express, Surface) as the equipment was sent to TLS.

All equipment returned for warranty repair must have a valid RMA number issued prior to return and be marked clearly on the return packaging. TLS strongly recommends all equipment be returned in its original packaging.

TLS's obligations under this warranty are limited to repair or replacement of failed parts, and the return shipment to the buyer of the repaired or replaced parts.

## **Limitations of Warranty**

The warranty does not apply to any part of a product that has been installed, altered, repaired, or misused in any way that, in the opinion of TLS, would affect the reliability or detracts from the performance of any part of the product, or is damaged as the result of use in a way or with equipment that had not been previously approved by TLS.

The warranty does not apply to any product or parts thereof where the serial number or the serial number of any of its parts has been altered, defaced, or removed.

The warranty does not cover damage or loss incurred in transportation of the product.



The warranty does not cover replacement or repair necessitated by loss or damage from any cause beyond the control of TLS, such as lightning or other natural and weather related events or wartime environments.

The warranty does not cover any labor involved in the removal and or reinstallation of warranted equipment or parts on site, or any labor required to diagnose the necessity for repair or replacement.

The warranty excludes any responsibility by TLS for incidental or consequential damages arising from the use of the equipment or products, or for any inability to use them either separate from or in combination with any other equipment or products.

A fixed charge established for each product will be imposed for all equipment returned for warranty repair where TLS cannot identify the cause of the reported failure.

### **Exclusive Remedies**

TLS's warranty, as stated is in lieu of all other warranties, expressed, implied, or statutory, including those of merchantability and fitness for a particular purpose. The buyer shall pass on to any purchaser, lessee, or other user of TLS's products, the aforementioned warranty, and shall indemnify and hold harmless TLS from any claims or liability of such purchaser, lessee, or user based upon allegations that the buyer, its agents, or employees have made additional warranties or representations as to product preference or use.

The remedies provided herein are the buyer's sole and exclusive remedies. TLS shall not be liable for any direct, indirect, special, incidental, or consequential damages, whether based on contract, tort, or any other legal theory.

### **RMA Policy**

When returning product to TLS for any reason, the customer should fill out the official RMA form to obtain a RMA number. Without the permission or approval, TLS will be no responsible for any return. This can be initiated by emailing or calling your related sales.

All requests are processed within 48 hours.

## **Standard Replacement**

For customers that agree to return defective product to TLS first, a Standard Replacement option is available.

An RMA number must first be issued by sales. This RMA number will need to be referenced on the outside of the return shipment.

Upon receipt of the defective product, TLS will, at its discretion, either repair or replace the product and ship it out in the most expeditious manner possible. Subject to availability, the replacement product will be shipped on the business day following receipt of the defective product.

In the event the product returned to TLS has been discontinued (i.e. the product is no longer being manufactured by TLS but is still under warranty), TLS will, at its discretion, either repair or replace with recertified product.

## **Once you have obtained an RMA number**

After obtaining an RMA number from TLS, you must send the product - freight prepaid - to TLS Technology Co., Ltd. The TLS RMA number must be prominently displayed on the outside of your package. If you send your product to TLS without the RMA number prominently displayed on the outside of the package, it will be returned to you unopened.

Please use a shipping company that can demonstrate proof of delivery. TLS does not accept responsibility for any lost shipments unless proof of delivery to TLS is provided.



**Please note:**

Product shipped to TLS must be properly packaged to prevent loss or damage in transit.

Shipping your RMA to TLS using regular mailing envelopes is not acceptable, as they do not protect the product from damage during shipping.

TLS will not repair or replace a module that is shipped in such a way that the product is not properly protected.

TLS will not accept any product that has been damaged as a result of accident, abuse, misuse, natural or personal disaster, or any unauthorized disassemble, repair or modification.

TLS electronics GmbH  
Marie-Curie-Str. 20  
40721 Hilden  
Germany  
+49 2103 5006 0  
[info@tls-electronics.de](mailto:info@tls-electronics.de)

Legende:  
 Kabel VGA  
 Kabel DVI/HDMI  
 Kabel Audio  
 Kabel Steuerleitung

