



User Manual

TL-DA14-F2

1x4 HDMI splitter with EDID management and
downscaling



All Rights Reserved

Version: TL-DA14-F2_191025

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 instruction only 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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1. Introduction

1.1 Introduction to the TL-DA14-F2

The TL-DA14-F2 is an 18Gbps HDMI splitter with four simultaneous outputs. Compatible with HDMI 2.0a & HDCP 2.2/1.4 sources and devices, the TL-DA14-F2 supports video resolutions up to 8k30 (4:2:0 8bit).

The TL-DA14-F2 will support 4k video with HDR¹, xvYCC, x.v.Color, and Deep Color.

The TL-DA14-F2 can downscale video² on each output individually to match the connected display's highest compatible resolution. This feature is required when mixing 4k and 1080p displays in the same installation. Advanced EDID management puts you in control of what resolution the source will output.

Notes:

1: HDR content can pass through the TL-DA14-F2 but cannot be processed to properly for 1080p displays.

2: Certain video conversions are not supported:

- 4k60 4:2:2 to 1080p
- Frame rate conversion
- 4k60 4:2:2 to 4k60 4:2:0

1.2 Features

- Advanced EDID management
- Automatic downscaling per output
- Supports HDMI 2.0, 4Kx2K@60Hz 4:4:4
- HDCP 2.2 compliant
- 18Gbps video bandwidth
-

1.3 Package Contents

- 1 x TL-DA14-F2
- 1 x Power Adapter (DC 5V)
- 1 x User Manual Card

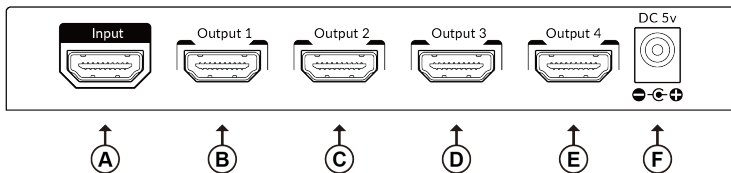
2. Panel Description

2.1 Front Panel



No.	Name	Description
1	EDID Mode	4 DIP switches for selection of EDID mode
2	Firmware	Mini-USB connection for firmware updates only
3	Power Indicator	Power LED Indicator
4	Signal Indicator	Indicates signal link on HDMI input (lit when both source and display are connected)
5	Output Indicator (1~4)	Indicates signal link on HDMI outputs

2.2 Rear Panel



No.	Name	Description
A	EDID Mode	4 DIP switches for selection of EDID mode
B~E	Firmware	Mini-USB connection for firmware updates only
F	Power Indicator	Power LED Indicator

***Pictures shown in this manual are only for reference.

3. System Connection

1. Using quality HDMI cables, connect an HDMI source (such as Blu-ray, games console, satellite/cable TV, media server etc.) to HDMI In of the TL-DA14-F2.
2. Connect the HDMI outputs to HDMI sinks (TVs, projectors, etc).
3. Connect the included 5V power supply to the TL-DA14-F2.
4. Check that the Power, Signal, and Output lights are illuminated to indicate successful connection.
5. Booyah!

4. Mode Selection

The TL-DA14-F2 has [4] 2-position DIP switches labelled “EDID” on the front panel. These switches are used to select the EDID* and operating modes. The switches are labelled 1~4 from left to right, and the switch should be in the down position to be considered 'ON'. After changing the switch positions, please power cycle the TL-DA14-F2 for the new settings to take effect.

*EDID – Extended Display Identification Data is metadata that is passed from the display to the source in order to 'request' compatible video and audio formats from the source. Since the TL-DA14-F2 may be connecting different types of display, some manual manipulation may be required in order to successfully reproduce audio and video at all displays.

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Table 4-1 – EDID selection

DIP Switch Position			Description
Pin 2	Pin 3	Pin 4	
Off [↑]	Off [↑]	Off [↑]	Ultra HD(8K4K@30) ¹ (4K2K@60) – 8/10/12bit 3D HDR video & 7.1ch audio
On [↓]	Off [↑]	Off [↑]	Ultra HD(4K2K@60) – 8/10/12bit 3D HDR video & 2ch audio
Off [↑]	On [↓]	Off [↑]	Ultra HD(4K2K@30)(4K2K@60 420) – 8bit 3D HDR video & 7.1ch audio
On [↓]	On [↓]	Off [↑]	Ultra HD(4K2K@30)(4K2K@60 420) – 8bit 3D HDR video & 2ch audio
Off [↑]	Off [↑]	On [↓]	Full-HD(1080p@60) – 12bit 3D video & 7.1ch audio
On [↓]	Off [↑]	On [↓]	Full HD(1080p@60) – 8bit 2D video & 2ch audio
Off [↑]	On [↓]	On [↓]	Learning EDID from Output 1
On [↓]	On [↓]	On [↓]	Auto EDID analysis learning mode ²

1: Only supports 8k4k@30Hz 4:2:0 8bits

2: Automatic EDID learning will detect all the connected displays and analyze all the contents of the EDID. The maximal resolution supported will be the reference EDID for the HDMI source.

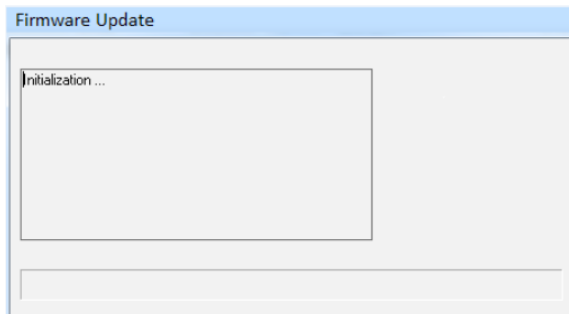
Table 4-2 – Operating mode selection

DIP Switch Position		Description
Pin 1		
Off [↑]		Working mode (Normal)
On [↓]		Firmware Update mode

5. Firmware Update Procedure

If a firmware update is required for any reason, the process can be completed by connecting a PC to the Mini-USB port on the front panel of the TL-DA14-F2. Please use the following procedure to successfully complete the update:

1. Save the firmware file (.bin) and the Firmware Update software in the same folder on your PC.
2. Power on the TL-DA14-F2, connect it to your PC using a Mini-USB cable. Please be sure to use a cable that includes the data lines, and not a 'charging' cable.
3. Set the 'Pin 1' DIP switch to On [↓] (Firmware update mode).
4. Open the Firmware Update software and the TL-DA14-F2 will start the update process automatically.



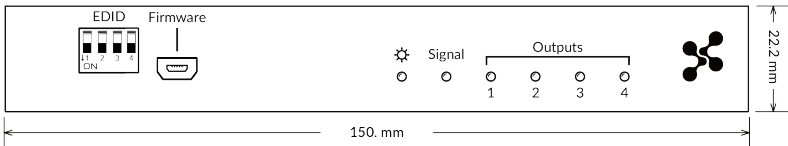
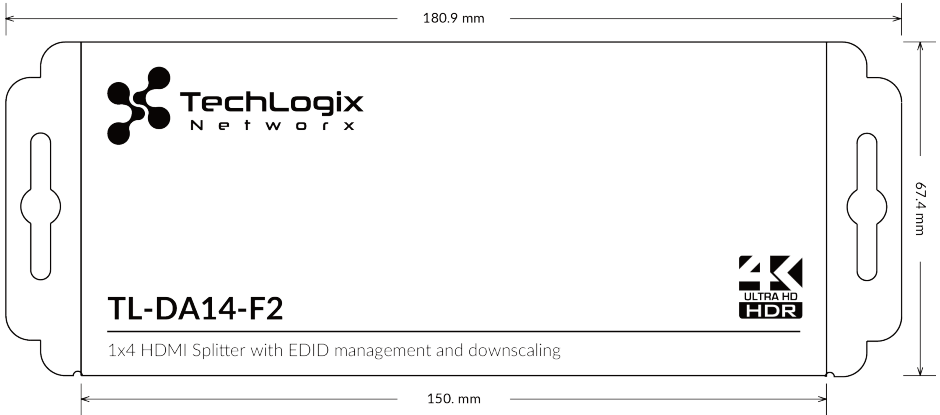
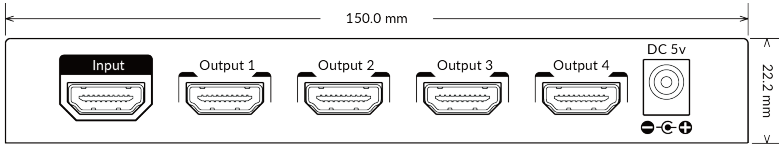
5. After the update process is done, the software will show a 'Success' message and then close automatically.
6. Set the 'Pin 1' DIP switch to Off [↑] (Working mode).

6. Specifications

I/O Connections	
HDMI Input	One HDMI type A receptacle
HDMI Outputs	Four HDMI type A receptacle
DC 5V Power	One micro USB Type B port
Supported Video and Audio	
Resolutions	480i, 480p, 576i, 576p, 720p, 1080i, 1080p, 1080p, 4Kx2K (60Hz 4:2:0 10bit, 60Hz 4:4:4 8bit), 8kx4k (30Hz 4:2:0 8bit)
Video Compliance	HDMI 2.0a, HDCP 2.2
Bandwidth	Single-link 600MHz (18 Gbps)
Embedded Audio Compatibility	DTS-HD Master Audio, Dolby TrueHD, Dolby Digital, DTS, DVD-Audio, LPCM, SACD, MPCM
Maximum Passive HDMI Distance	10 m (33 ft)
Input DDC Signal	5.0 volts p-p (TTL)
Input Video Signal	0.5 ~ 1.0 volts p-p
Chassis and Environmental	
Enclosure	Painted steel
Dimensions (W x H x D)	136mm x 62mm x 20 mm (5.3 in x 2.4 in x 0.8 in)
Dimensions (W x H x D) (Package)	264mm x 170mm x 77mm (10.4 in x 6.7 in x 3 in)
Weight	0.23 Kg (8.1 oz)
Weight (Shipping)	0.77 Kg (1.7 lbs)

Operating Temperature (Environment)	0° ~ 40° C (+32° ~ +104° F)
Operating Humidity (Environment)	20% ~ 90% Non-condensing
Storage Temperature (Environment)	-20° ~ 60° C (-4° ~ +140° F)
Storage Humidity (Environment)	20% ~ 90% Non-condensing
Power, ESD, Regulatory	
Maximum Power Consumption	10W
Power Supply	5V at 2A DC
Regulatory	CE, FCC
Other	
Standard Warranty	3 Year
Indicators	1 Power, 1 Input status, 4 Output connection status
Firmware Update	Via Mini-USB (Front Panel)
Included Items	User Manual Card, Power adaptor

7. Panel Drawing



8. Troubleshooting & Maintenance

● No image on display:

- Ensure that the display device has been set to the correct input.
- Ensure that the HDMI cables used for both the source/transmitter and the receiver/display are properly connected and are working. Test the HDMI cables directly from a source to display and ensure their operation.
- Test with 1080p mode. Set the EDID switches to [Pin2, Pin3, Pin4=↓-↑-↓] and power-cycle the TL-DA14-F2. The only requirement for video to show will be that the display must support Full HD (1920x1080@60hz)
- Test with Learning Mode. Set the EDID switches to [Pin2, Pin3, Pin4=↑-↓-↓] and power-cycle the TL-DA14-F2. This will learn the EDID from Output 1. Be sure to connect the display with the lowest resolution to Output 1.

If your problem persists after following the above troubleshooting steps, please contact your authorized reseller or TechLogix technical support.

9. After-sales Service

- 1) **Product Limited Warranty:** We warrant that our products will be free from defects in materials and workmanship for **three years**.
- 2) **Warranty coverage may be voided when:**
 - The warranty period has expired
 - The factory applied serial number has been altered or removed from the product
 - There is damage, deterioration or malfunction caused by:
 - Atypical wear and tear
 - Use of supplies or parts not meeting the specifications
 - No certificate or invoice as the proof of warranty
 - Damage caused by force majeure
 - Non-authorized service
- 3) **Technical Support:** When contacting TechLogix support, please have the following information available:
 - Product part number
 - Installation and sale date
 - Detailed failure information