

1:2 | Splitter for HDMI 1.3 with Digital Audio

EXT-HDMI1.3-142D

User Manual

Release B4



Important Safety Instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this product near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install or place this product near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. To reduce the risk of electric shock and/or damage to this product, never handle or touch this unit or power cord if your hands are wet or damp. Do not expose this product to rain or moisture.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. Batteries that may be included with this product and/or accessories should never be exposed to open flame or excessive heat. Always dispose of used batteries according to the instructions.

Warranty Information

Gefen warrants the equipment it manufactures to be free from defects in material and workmanship.

If equipment fails because of such defects and Gefen is notified within two (2) years from the date of shipment, Gefen will, at its option, repair or replace the equipment, provided that the equipment has not been subjected to mechanical, electrical, or other abuse or modifications. Equipment that fails under conditions other than those covered will be repaired at the current price of parts and labor in effect at the time of repair. Such repairs are warranted for ninety (90) days from the day of reshipment to the Buyer.

This warranty is in lieu of all other warranties expressed or implied, including without limitation, any implied warranty or merchantability or fitness for any particular purpose, all of which are expressly disclaimed.

1. Proof of sale may be required in order to claim warranty.
2. Customers outside the US are responsible for shipping charges to and from Gefen.
3. Copper cables are limited to a 30 day warranty and cables must be in their original condition.

The information in this manual has been carefully checked and is believed to be accurate. However, Gefen assumes no responsibility for any inaccuracies that may be contained in this manual. In no event will Gefen be liable for direct, indirect, special, incidental, or consequential damages resulting from any defect or omission in this manual, even if advised of the possibility of such damages. The technical information contained herein regarding the features and specifications is subject to change without notice.

For the latest warranty coverage information, refer to the Warranty and Return Policy under the Support section of the Gefen Web site at www.gefen.com.

PRODUCT REGISTRATION

Please register your product online by visiting the Register Product page under the Support section of the Gefen Web site.

Contacting Gefen Technical Support

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Technical Support Hours: 8:00 AM to 5:00 PM Monday - Friday, Pacific Time

1:2 Splitter for HDMI 1.3 with Digital Audio
is a trademark of Gefen, LLC.

Important Notice

Gefen, LLC reserves the right to make changes in the hardware, packaging, and any accompanying documentation without prior written notice.

Operating Notes

- By default, display information from the display connected to HDMI output port 1 is sent back to the source. Therefore, the other display connected to the 1:2 Splitter for HDMI 1.3 with Digital Audio must be capable of accepting the timings, resolutions and audio formats of the display that is connected to HDMI output port 1. It is recommended that the display with the lowest native resolution be connected to HDMI output port 1. This is to ensure that a compatible video signal will be able to be displayed on all connected monitors. There is a generic EDID programmed into the 1:2 Splitter for HDMI 1.3 with Digital Audio that can be used instead. See [EDID Management \(page 8\)](#) for more information.
- The digital TOSLINK output supports the following audio formats:
 - ▶ LPCM, 2-channel
 - ▶ Dolby Digital, up to 5.1 channels
 - ▶ Dolby Digital Plus, up to 5.1 channels
 - ▶ DTS Digital Surround™, up to 5.1 channels
- LPCM of more than 2 channels, Dolby Digital Plus of 7.1 channels, DTS-HD and Dolby TrueHD are supported through the HDMI output only.

Features and Packing List

Features

- Simultaneously displays a single Hi-Def source on up to two (2) HDTV displays without signal loss
- Maintains sharp HDTV resolutions up to 1080p Full HD and 2K
- HDMI Features:
 - ▶ 225 MHz (up to 12 bit YUV 444 supported @ 1080p)
 - ▶ Deep Color
 - ▶ Dolby TrueHD and DTS-HD Master Audio
 - ▶ Lip-Sync
- 3DTV Pass-Through
- Color Space Conversion
- EDID Management for rapid integration of sources and display devices.
- Mono-LOK™ Locking HDMI Connectors
- Built-in TOSLINK audio output connector
- Supports the use of DVI sources and DVI displays with an HDMI-to-DVI converter cable or adapter
- HDMI and HDCP compliant



Packing List

The 1:2 Splitter for HDMI 1.3 with Digital Audio ships with the items listed below. If any of these items are not present in the box when you first open it, immediately contact your dealer or Gefen.

- 1 x 1:2 Splitter for HDMI 1.3 with Digital Audio
- 1 x 6 ft HDMI cable (M-M)
- 1 x 5V DC Power Supply
- 1 x Quick-Start Guide

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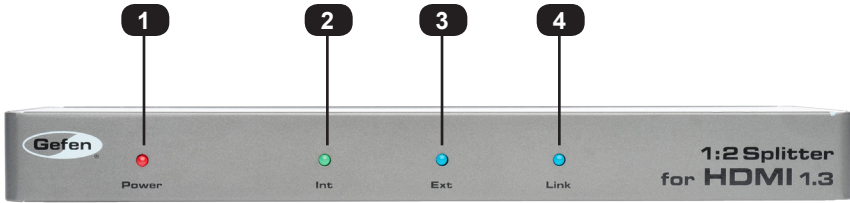
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01 Getting Started

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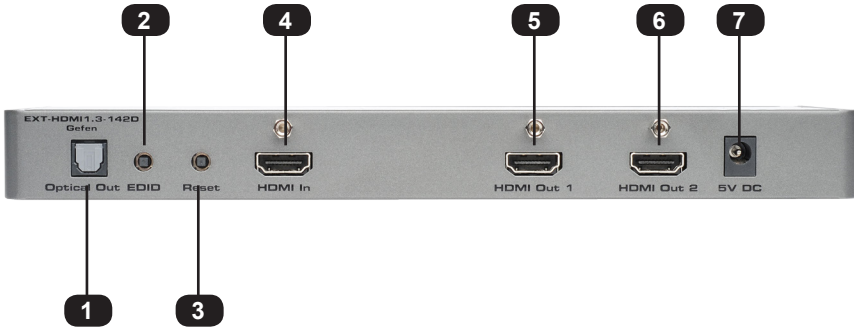
Unit Layout

Front



ID	Name	Description
1	Power	This LED indicator will glow bright red once the included power supply is connected between the unit and an available electrical outlet.
2	Int	This LED indicator will glow bright green when the Splitter is using the internal EDID. See EDID Management (page 8) for more information.
3	Ext	This LED indicator will glow bright blue when the Splitter is using the external (downstream) EDID. See EDID Management (page 8) for more information.
4	Link	This LED indicator will glow bright blue once the active source device is connected to the HDMI In connector.

Back



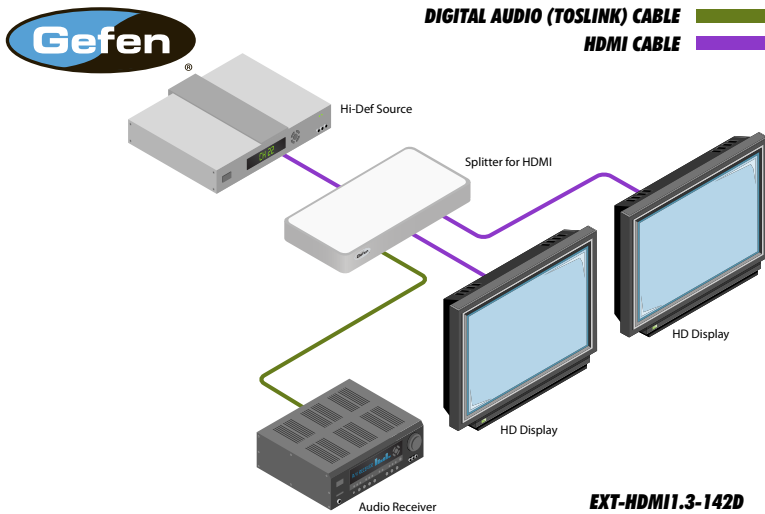
ID	Name	Description
1	Optical Out	Connect an optical audio cable from this TOSLINK® connector to an A/V receiver.
2	EDID	Press this button to toggle between the internal and external EDID. The unit must be power-cycled when the EDID mode is changed. See EDID Management (page 8) for more information.
3	Reset	Press this button to power-cycle the splitter.
4	HDMI In	Use the included HDMI cable to connect the Hi-Def source to this port.
5	HDMI Out 1	Connect a Hi-Def display from this port using an HDMI cable.
6	HDMI Out 2	Connect a Hi-Def display from this port using an HDMI cable.
7	5V DC	Connect the included 5V DC power supply to this power receptacle.

Installation

Connection Instructions

1. Connect the included HDMI cable between the Hi-Def source and the **HDMI In** port on the splitter.
2. Connect up to two Hi-Def displays to the splitter using the **HDMI Out 1** and **HDMI Out 2** ports.
3. OPTIONAL: Connect an optical audio cable from the TOSLINK connector on the splitter to an A/V receiver.
4. Connect the included 5V DC power supply from the power receptacle of the splitter to an available electrical outlet.

Sample Wiring Diagram



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02 Operating the 1:2 Splitter for HDMI 1.3 with Digital Audio

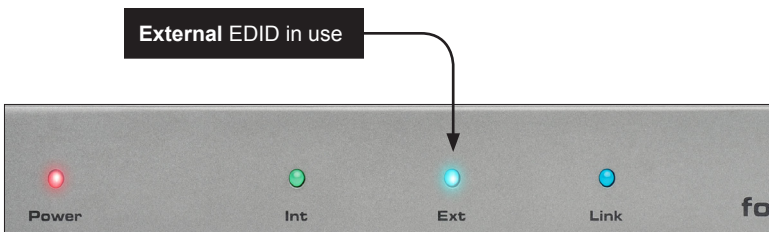
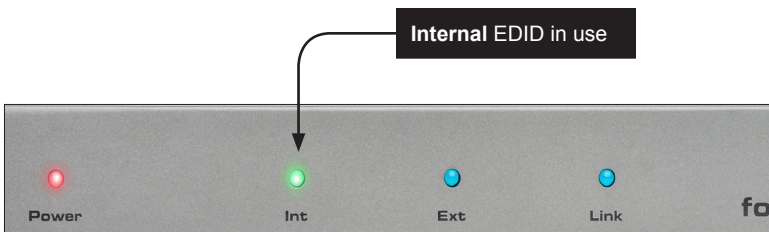
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EDID Management

The 1:2 Splitter for HDMI 1.3 with Digital Audio features EDID Management. Before the source can send video and/or audio to the display (sink), the source reads the EDID (Extended Display Identification Data) from the sink (display) devices that are connected to the splitter. The EDID contains information about what type of audio/video data that the source can send to each output device. The splitter can use either the downstream EDID (from the display/sink) or the built-in internal EDID.

Selecting the EDID Mode

1. Press and release the **EDID** button, on the back panel, to toggle between internal and external EDID modes.
2. The LED indicators on the front panel will display the current EDID mode.
3. After the desired EDID mode is selected, press the Reset button on the back panel. The splitter must be reset or power-cycled when switching between EDID modes.



Internal EDID

Use this EDID mode if problems are encountered when using the external EDID. The built-in internal EDID provides the source device with a “generic” EDID which can be used by all display (sink) devices.

1. Select the internal EDID mode. Refer to [Selecting the EDID Mode \(page 8\)](#).
2. The **Int** LED indicator on the front panel will be illuminated.
3. Press and release the **Reset** button on the back panel of the splitter to reset the unit. The splitter must be reset (or power-cycled) each time the EDID mode is switched.

The table, below, displays the video timings and audio formats supported by the internal EDID.



NOTE: All sink devices connected to the splitter *must* be compatible with at least one resolution / audio format specified in the internal EDID. If one of the connected displays does not support xvYCC, then this feature is removed from the EDID.

Video Timings	Audio Formats
1280 x 720p @ 50 Hz	LPCM (2CH),
1280 x 720p @ 59.94 / 60 Hz	Dolby Digital (2CH/5.1CH),
1920 x 1080i @ 50 Hz	DTS Digital Surround™
1920 x 1080i @ 59.94 / 60 Hz*	(2CH/5.1CH)
720 x 480p @ 59.94/60 Hz	
720 x 576 @ 50 Hz	
1920 x 1080p @ 50 Hz	
1920 x 1080 @ 59.94 / 60 Hz	
1440 x 480p @ 59.94 / 60 Hz	
1440 x 576p @ 50 Hz	

* *Native resolution*

External EDID

When set to **Ext** mode, EDID data will be fetched from the sink that is connected to **HDMI Out 1**. It is recommended that the display with the lowest native resolution be connected to **HDMI Out 1**. This ensures that a compatible video signal will be output to all connected displays.

1. Select the external EDID mode. Refer to [Selecting the EDID Mode \(page 8\)](#).
2. The **Ext** LED indicator on the front panel will be illuminated.
3. Press and release the **Reset** button on the back panel of the splitter to reset the unit. The splitter must be reset (or power-cycled) each time the EDID mode is switched.

When the external EDID is used, the following rules apply:

- ▶ The 1:2 Splitter for HDMI 1.3 with Digital Audio will always attempt to read the EDID from **HDMI Out 1**. Once read, the EDID will be copied to **HDMI In**.
- ▶ If a sink device is not present on **HDMI Out 1**, then the EDID will be read from **HDMI Out 2** and copied to **HDMI In**.

This state will be in effect until a sink device is connected to **HDMI Out 1** and the splitter is power-cycled or the **Reset** button is pressed.

- ▶ Both Deep Color and x.v.Color (xvYCC) will be enabled if it is supported by the sink that is connected to **HDMI Out 1**. If these features are not supported by the display connected to HDMI Out 2, then no picture will appear on that display.

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Specifications

Supported Formats

Resolutions (max.)	<ul style="list-style-type: none"> • 1920 x 1200 (WUXGA) • 1080p Full HD
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Electrical

Maximum Pixel Clock	• 225 MHz
Input Video Signal	• 1.2 Volts p-p
Input DDC Signal	• 5 Volts p-p (TTL)
Power Indicator	• 1 x LED, red
Internal EDID Indicator	• 1 x LED, green
External EDID Selector	• 1 x LED, blue
Link Indicator	• 1 x LED, blue
EDID Selection Button	• 1 x Tact-type
Reset Button	• 1 x Tact-type

Connectors

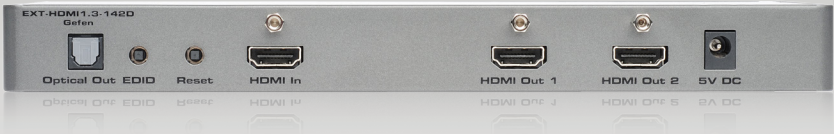
Video Input	• 1 x HDMI Type A, 19-pin, female
Video Output	• 2 x HDMI Type A, 19-pin, female
Audio Out	• 1 x TOSLINK®, female

Operational

Power Input	• 5V DC
Power Consumption	• 13 Watts (max.)
Operating Temperature	• +32 to +104 °F (0 to +40 °C)

Physical

Dimensions (W x H x D) (Sender / Receiver)	• 10.5" x 1.0" x 4.25" (266mm x 25mm x 108mm)
Unit Weight	• 1.2 lb (0.5 kg)



Stretch it. Switch it. Split it. Gefen's got it. ®

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This product uses UL or CE listed power supplies.