Switch between 2 HDMI 1.3 sources to 4 HDMI displays

2:4 HDMI 1.3 Splitter (Pre-Order)

Access up to Two Sources from up to Four Displays

2 Sources + 4 Displays = Greater Integration Options

Gefen's 2x4 HDMI™ Switcher is equipped with two HDMI™ inputs and four HDMI outputs. Two inputs accommodate the simultaneous connection of up to two high definition video sources, such as satellite systems and HD DVD players. four outputs send the high definition audio/video signals to up to four high definition displays. Switching is done via the IR remote that is provided with the unit.

Fully HDCP Compliant

HDCP (high bandwidth digital content protection) is a standard encoded into the video signal to prevent it from being pirated. If a source device is HDCP coded and is connected to a display or projector without the proper decoding mechanism, the picture is relegated to "snow" or in some cases, very low (480P) resolutions of the images. In order to see high resolution digital video with HDCP compliance, both the source, the display and anything in between must be equipped with HDMI connections that can enable HDCP decoding, such as the 2x4 HDMI Switcher.

How It Works

You simply connect all your sources to the Switcher's inputs. Then connect up to four displays on the output ports. Once the sources, the Switcher and the display(s) are powered and connected, you simply select which source you want to view using the IR remote.

Note: This HDMI product supports BOTH Audio and Video signals.

All displays that cannot show the same video resolution(s) as the Primary Display connected to Output #1 may fail to show a picture. Secondary displays follow the Primary by sharing the resolution and capability information (EDID) obtained from the Primary Display.

DVI, HDCP & HDMI Defined

HDMI 1.3 Features:

- Lip-Sync Pass Through
- 225 MHz (up to 12 bit YUV 444 supported @ 1080p)
- Deep Color Supported (XV Color Supported)
- Color Space Conversion Supported
- Dolby TrueHD & DTS Master Supported
- CEC Pass Through

Features:

- Switch easily between any two HDMI™/DVI sources
- Outputs are mirrored to four HDMI™/DVI displays simultaneously
- Maintains high resolution video - beautiful, sharp HDTV resolutions up to 1080p, 2k, and computer resolutions up to 1920 x 1200 are easily achieved
- Discrete IR remote (included)
- HDMI™ compliant
- HDCP compliant

Specifications:

- Video Amplifier Bandwidth: 225 MHz
- Input Video Signal: 1.2 volts p-p
- Input DDC Signal: 5 volts p-p (TTL)
- Single Link Range: 1080p/60 12 bit color depth, 1920x1200
- HDMI Connector: type A 19 pin female
- Power Supply: 5V DC
- Power Consumption: 10 watts (max)
- Dimensions: 12"W x 1.25"H x 4.25"D
- Shipping Weight: 6 lbs.

Package Includes:

- 2x4 HDMI Switcher
- RMT-2IR Remote Control
- Two 6-foot HDMI cables
- 5V DC Power Supply
- User's Manual

EXT-HDMI1.3-244

2x4 HDMI Switcher/Splitter

USER MANUAL

www.gefen.com

ASKING FOR ASSISTANCE

Technical Support:
Telephone   (818) 772-9100
                       (800) 545-6900

Fax   (818) 772-9120

Technical Support Hours:
8:00 AM to 5:00 PM Monday through Friday PST.

Write To:

Gefen Inc.
c/o Customer Service
20600 Nordhoff St.
Chatsworth, CA 91311

www.gefen.com
support@gefen.com

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

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HDMI is a trademark of hdmi.org

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Congratulations on your purchase of the ex•tend•it 2x4 HDMI Switcher/Splitter. Your complete satisfaction is very important to us.

Gefen's line of HDTV switches, extenders, and splitters are designed to make your A/V equipment use more comfortable, more productive and less expensive.

The 2x4 HDMI Switcher/Splitter allows access to two HDTV devices, using up to four HDTV displays. All output displays will have mirrored images.

The ex•tend•it line offers solutions for Home Theater, A/V installation, data center, information distribution, conference room presentation, school and corporate training environments.

Our Commitment

Gefen will always offer the finest quality product at the best possible price. Included in that price is a lifetime support from a team of outstanding engineers.

The ex•tend•it 2x4 HDMI Switcher/Splitter allows two HDTV HDMI devices to be distributed easily in to four HDTV HDMI compatible monitors or projectors. Simply connect your HDTV displays to the DA's display outputs. The 2x4 HDMI Switcher/Splitter can also be placed at the end of a long HDMI cable to regenerate the HDMI signal.

How It Works

You simply connect all your sources to the Switcher's inputs. Then connect up to four displays on the output ports. Once the sources, the Switcher and the display(s) are powered and connected, you simply select which source you want to view using the IR remote.
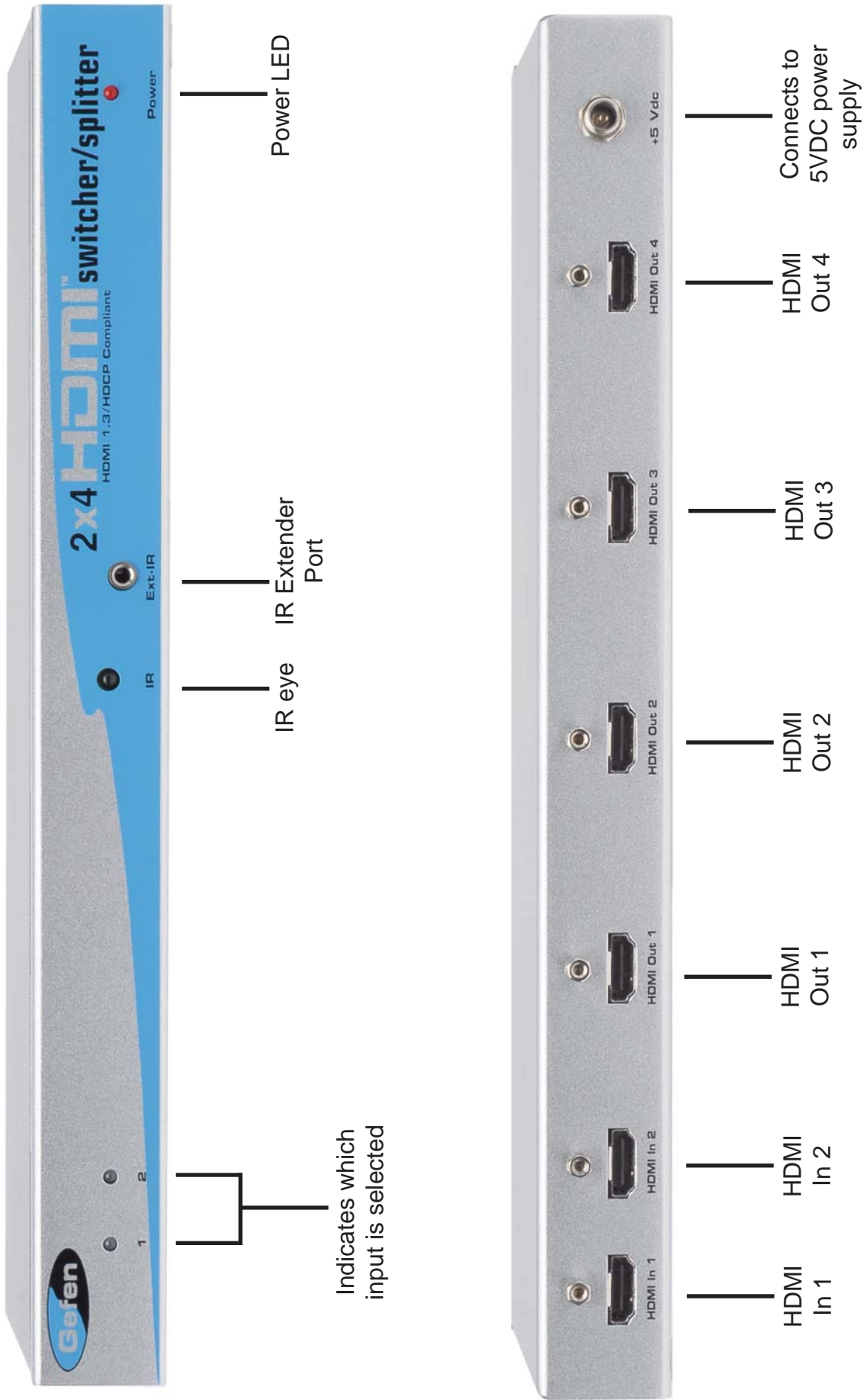
Features

- Switches easily between any two DVI/HDMI sources

- Maintains 480i, 480p, 720p, 720i, and 1080i, 1080p resolutions

- Maintains highest HDMI single link video resolution

- Maintains highest HDMI digital audio signal

- Supports HDCP compliant devices

- HDMI or DVI to HDMI cables are used to connect the inputs and switcher output

- Inputs can be switched with the IR remote control.

- Installs in seconds

- Fully HDMI 1.3 compliant

Includes:

(1) 2x4 HDMI Switcher/Splitter
(2) 6' HDMI cables (M-M)
(1) 5VDC Power Supply
(1) RMT2-IR
(1) Users Manual

Power LED

IR Extender Port

IR eye

Indicates which input is selected

Power

Ext-IR

IR

2x4 HDMI switcher/splitter

HDMI 1.3/HDCP Compliant

1   2

Gefen

Connects to 5VDC power supply

HDMI Out 4

HDMI Out 3

HDMI Out 2

HDMI Out 1

HDMI In 2

HDMI In 1

+5 Vdc

HDMI Out 4

HDMI Out 3

HDMI Out 2

HDMI Out 1

HDMI In 2

HDMI In 1

CONNECTING AND OPERATING 2x4 HDMI SWITCHER/SPLITTER

How to Connect the 2x4 HDMI Switcher/Splitter to your devices

1 Connect the supplied cables from the HDTV HDMI sources into the 2x4 HDMI Switcher/Splitter inputs.

2 Connect the cables from your displays (monitor or projector) into the HDMI outs of the 2x4 HDMI Switcher/Splitter.

3 Plug the 5VDC power supply into the 2x4 HDMI Switcher/Splitter.

How to Control the 2x4 HDMI Switcher/Splitter

Use the RMT2-IR remote control to toggle between sources.

1. Remove battery cover from the back of the RMT2-IR remote.

2. Verify that dip switches 1 & 2 are in the down (OFF) position.

3. Insert the battery, hold the battery so that you can see the positive side facing up. The side that is not marked must be facing down.

4. Test the RMT2-IR remote by pressing ONLY one button at a time. The indicator light on the remote will flash once each time you press a button. WARNING: Do not press multiple buttons simultaneously and do NOT press buttons rapidly. These actions will cause the remote to reset and steps 1-4 will have to be repeated.

Note: The RMT2-IR ships with two batteries. One battery is required for operation, the second battery is complimentary.

The optional IR extender allows you to relocate your HDMI Switcher and still have IR control of the HDMI Switcher

How to Resolve IR Code Conflicts

There are matching pairs of dip switches underneath the Switcher unit and under the remote battery cover. Switch 1 & 2 on the Remote and Switch 3 & 4 inside the unit are the matching switches. These switches need to be matched for the remote to communicate with the switcher. There are 4 possible sets of IR codes and at least one of these sets should be able to resolve any IR conflicts with other home theater devices.
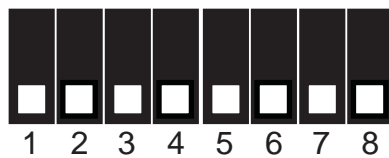
Remote Channel 1:

1   2

Remote

Remote Channel 2:

1   2

Remote Channel 3:

1   2

Remote Channel 4:

1   2

2:4 HDMI Internal Switches

Remote Channel 1:
Default

1 2 3 4 5 6 7 8

Remote Channel 2:

1 2 3 4 5 6 7 8

Remote Channel 3:

1 2 3 4 5 6 7 8

Remote Channel 4:

1 2 3 4 5 6 7 8
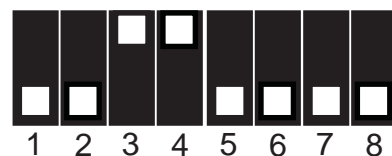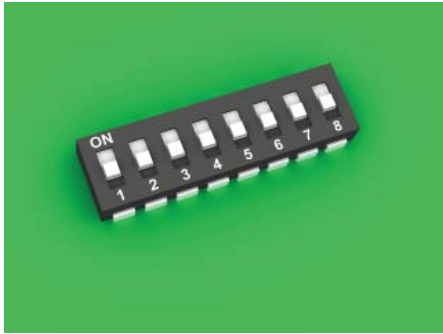
Dip Switch EDID Guide

Extended display identification data (EDID) is a data structure provided by a display to describe its capabilities to any source that asks for it. The EDID includes manufacturer name, product type, timings supported by the display, display size, luminance data, (for digital displays only) pixel mapping data, supported audio channels and formats. This information is used by the source to cater its output to resolutions and audio formats that are supported by the display.

Additional EDID modes are available and configured using a combination of dip switches 1, 2, and 5. Please refer below for the different EDID modes.

To access the Dip Switches, remove all screws from the bottom and sides of the Gefen unit. Carefully slide the unit apart. The 8 Bank of Dip Switches are located on the main PCB. Once adjustments are complete, slide the unit back together and replace all removed screws.

EDID Mode 0 (Switch 1=OFF Switch2=OFF Switch5=ON)
-EDID is copied from the first HDMI port

EDID Mode 1 (Switch 1=ON Switch2=OFF Switch5=ON)
-Same as Mode 0 and adds basic audio support

EDID Mode 2 (Switch 1=OFF Switch2=ON Switch5=ON)
-Same as Mode 0 and adds full audio support

EDID Mode 3 (Switch 1=ON Switch2=ON Switch5=OFF)
-EDID is generated based on the common video and audio features of all of the connected devices

EDID Mode 4 (Switch 1=OFF Switch2=ON Switch5=OFF)
-Same as Mode 3 and adds basic audio support

EDID Mode 5 (Switch 1=ON Switch2=OFF Switch5=OFF)
-Same as Mode 3 and adds full audio support

EDID Mode 6 (Switch 1=OFF Switch2=OFF Switch5=OFF) **DEFAULT**
-EDID is generated based on the common video features of all of the connected devices and the combined audio features of all of the connected devices

SPECIFICATIONS

Video Amplifier Bandwidth...2.25 GHz

Input Video Signal...1.2 volts p-p

Input DDC Signal..5 volts p-p (TTL)

Single Link Range..1080p/60 10 bit color depth, 1920x1200

HDMI Connector...type A 19 pin female

Power Supply...5V DC

Power Consumption..10 watts (max)

Dimensions...12"W x 1.25"H x 4.25"D

Shipping Weight..6 lbs.