DVI to HD-SDI Single Link Scaler

USER MANUAL

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Notice

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INTRODUCTION

Gefen's DVI to HD-SDI Single Link Scaler is the newest revision of our HD-SDI conversion line incorporating full single link DVI-D conversion scaled up to SD/HD-SDI single resolutions. Resolutions of up to 1080p are supported over the HDSDI link for those that want true “High Definition”. Performance has been greatly enhanced due to Gennum’s VXP Scaler onboard; allowing for new features such as: Color & Gamma Correction, Noise Reduction, Detail Enhancement, Aspect Ratio Selection, Pattern Generator Mode, & Multiple Language Menu Support. Bottom Line? -- More performance, less cost.

HOW IT WORKS

DVI devices are connected to the DVI input and SDI devices are connected to the SDI output. When the source, display and the Scaler are powered and connected, video signals are converted to the proper format.

CONTENTS

The DVI to HD-SDI Scaler SL package consists of:

(1) DVI to HD-SDI SL Scaler
(1) 6 foot DVI Cable (M-M)
(1) RMT-8HDS-IR Remote Control
(1) 5V DC Power Supply
(1) User's Manual

OPERATION NOTES

On power up, the DVI to HD-SDI Scaler will automatically detect the input format of the input. The unit is controlled using the included remote.

The following are the buttons for the RMT-8HDS-IR:

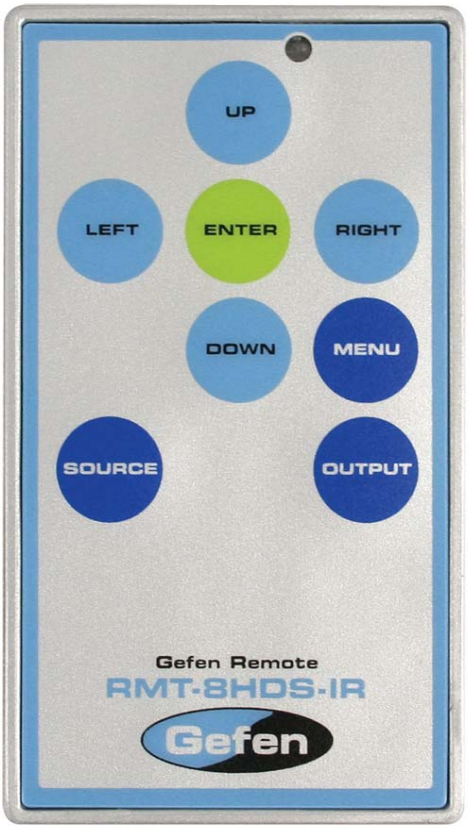
- UP (Navigates cursor up)
- LEFT (Navigates cursor left)
- Enter (Accept Operation / Return to Menu)
- RIGHT (Navigates cursor right)
- DOWN (Navigates cursor down)
- MENU (Show / Hide On-screen Display)
- OUTPUT (Change Output Format)
- SOURCE (Non operational)

To bring up the on-screen menu, press the MENU button. Navigation is done using Buttons up, left, right, and down; Push the Enter button to accept the cursor focus.

Pressing the Output button cycles through the following output modes:
480i - 576i - 720p - 1080i

Other functions and output modes can be accessed through the on-screen menu.
To Restore I/O settings, simply recycle power on the Scaler

*Note: Both dip switches under the remote battery cover must initially be in the OFF position to communicate with the Scaler.





Infrared Eye

Power Indicator Light



5V Power Connector

DVI-D Input

RS-232 Uplink Port

HD-SDI Output

MENU FUNCTIONS

Aspect:

-Full Screen: Stretches input to fill the Monitor.

-Letter / Pillar Box: Sets the aspect ratio to fit a letter or pillar box format.

Panoramic Zoom feature

-Extract: Feature to magnify the signal.

-Extract Size: Adjusts signal magnification.

-Horizontal / Vertical Position: Moves the magnified signal Horizontally and Vertically

-Through: Feature to crop the signal.

-Horizontal / Vertical Size: Horizontally and Vertically contracts or expands the cropping viewport.

-Horizontal / Vertical Position: Move the signal Horizontally or Vertically inside the cropping viewport.

Layout: Feature to Re-size Image resolution.

-Size and Position:

-Horizontal / Vertical Size: Adjust Horizontal or Vertical resolution.

-Horizontal / Vertical Position: Move image Horizontally or Vertically.

Picture:

-Image Color:

-Contrast: Individually adjust the contrast for red, green and blue

-Brightness: Individually adjust the brightness for red, green and blue

-Black level: Adjust black levels between 0 (default) and 100

-Detail Enhancement:

-Detail Enhancement: Digitally enhance signal

-Noise Threshold: Adjusts noise allowed in detail enhancement

-Noise Reduction: Digitally reduce signal noise

-Motion Threshold

Input:

-Input Video Format: Auto Detect by default. Signal can be forced to a specific High-definition resolution. (Please see Supported Input/Output Resolutions for more information).

-Input Graphic Format: Auto Detect by default. Signal can be forced to a specific computer resolution. (Please see Supported Input/Output Resolutions for more information).

-Clean Aperture:

-Horizontal and Vertical Size: Stretch image Horizontally or Vertically

-Horizontal and Vertical Position: Move image in view port Horizontally or Vertically

-Remote Channel: Changes the IR code of the DVI to HD-SDI Scaler to one of 4 different settings between 0 and 3. When the remote channel is changed, dip switches in the remote must be changed to the corresponding code in order to continue operating the DVI to HD-SDI Scaler.

(Please see RMT-8HDS-IR Installation page for more information.)

Output:

-Output Format: Select the desired output resolution. (Please see Supported Input/Output Resolutions for more information).

-Genlock Reference: Locks input clock in sync with output clock. (Note: feature only works if input and output frequencies are multiples of each other)

-Language: Set menu to display English or French text.

-Gamma Correction:

-Default: Set for Default Gamma settings.

-sRGB

-Custom: Enables Gamma Coefficient menu item as the current Gamma coefficient.

-Gamma Coefficient: (0.3 - 3.0); Default set at 1.0.

Patterns:

-Color Bars: Display color bar video pattern.

-Cross Hatch: Display cross hatch video pattern.

SUPPORTED INPUT/OUTPUT RESOLUTIONS

Input Video Formats Supported:

480i	1080p/60	1280x854
480p	1080sf/23.98	1152x864/75
576i	1080sf/24	1280x768/60
576p	1080sf/25	1280x960/60
720p/25	1080sf/29.97	1280x960/85
720p/24	1080sf/30	1280x1024/60
720p/29.97	2K-p/23.98	1280x1024/75
720p/30	2K-p/24	1280x1024/85
720p/50	2K-sf/23.98	1360x768/60
720p/60	2K-sf/24	1366x768/60
720p/59.94	640x350/85	1366x923/50
1035i/59.94	640x400/85	1440x900/60
1035i/60	640x480/60	1440x1080/60
1080i/50	640x480/75	1600x1024
1080i/50M	640x480/85	1600x1200/60
1080i/59.94	800x600/60	1600x1200/65
1080i/60	800x600/75	1600x1200/70
1080p/23.98	800x600/85	1600x1200/75
1080p/24	1024x768/60	1680x1050/60
1080p/25	1024x768/75	1920x1200/60
1080p/29.97	1024x768/85	2048x1080

Output video formats supported:

480i	1035i/59.94	1080p/50M
483SDp/59.94	1035i/60	1080p/59.94
576i	1080i/50	1080p/60
576SDp/50	1080i/50M	1080sf/23.98
720p/23.97	1080i/59.94	1080sf/24
720p/24	1080i/60	1080sf/25
720p/25	1080p/23.98	1080sf/29.97
720p/29.97	1080p/24	1080sf/30
720p/30	1080p/25	2K-p/23.98
720p/50	1080p/29.97	2K-p/24
720p/59.94	1080p/30	2K-sf/23.98
720p/60	1080p/50	2K-sf/24

RMT-8HDS-IR INSTALLATION

1. Remove battery cover from the back of the RMT-8HDS-IR remote.

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

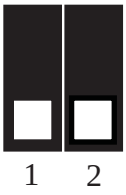
3. Insert the battery, hold the battery so that you can see the positive side facing up. The side that is not marked must be facing down.

4. Test the RMT-8HDS-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 RMT-8HDS-IR ships with two batteries. One battery is required for operation, the second battery is complimentary.

The following are the dip switch combinations that correspond to the Remote Code menu option on the DVI to HD-SDI Scaler (Please see Menu Functions section for more information):

Remote Channel 0:



Remote Channel 1:



Remote Channel 2:



Remote Channel 3:



FIRMWARE UPDATE PROCEDURE

Please check http://www.gefen.com/kvm/support/download.jsp for firmware updates and procedures.

SPECIFICATIONS

Input Video Bandwidth.....1.65 Gbps

Output Video Bandwidth.....1.485 Gbps

Maximum Input Resolution.....2048x1080

Maximum Output Resolution.....2048x1080p24

DVI Connector.....DVI-I 29 pin female (digital only)

SDI/HD-SDI Connector.....BNC female

Data Port.....Serial RS-232

Power Supply.....5V DC

Power Consumption.....20 watts (Max.)

Dimensions.....6.5”W x 1”H x 6.75”H

Shipping Weight.....5 lbs.

WARRANTY

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

If equipment fails because of such defects and Gefen Inc. is notified within two (2) year from the date of shipment, Gefen Inc. 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 cable must be free from any scratches, markings, and neatly coiled.

The information in this manual has been carefully checked and is believed to be accurate. However, Gefen Inc. assumes no responsibility for any inaccuracies that may be contained in this manual. In no event will Gefen Inc., 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 EXT-DVI-2-HDSDISSL features and specifications is subject to change without notice.