



# Extend HDMI over your analog RGBHV cables

## Optional Accessories



RMT IR Extender



Dual Infrared Emitter

## HDMI over RGB Extender (Pre-order)

### Extend HDMI at 1080p over Coax with support for HDMI 1.3!

The Gefen HDMI over RGB Extender sends HDMI 1.3 with support for 1080p, Deep Color and multichannel 7.1 digital audio, all over legacy coaxial cabling.

Integrated Gennum ActiveConnect technology delivers flawless, breathtaking digital audio/video at distances of up to 330 feet (100m).

This is the ideal system for environments that are committed to an RGBHV infrastructure but would still like to step up to the world of digital HDTV.

### How It Works

The supplied HDMI cable connects the HDMI source and the Gefen HDMI over RGB Extender Sender unit. The sender mates to your 4- or 5-jack coaxial cable, using the included 5V DC power supply if there are only 4 BNC jacks available. The HDMI over RGB Extender Receiver terminates the BNC extension, then connects to a HDTV. Pristine 1080p HDMI now emerges on the HDTV.

Gefen sells optional IR cables which allow you to hide the Gefen HDMI over RGB Extender Receiver at your viewing location and/or transmit IR remote control signals back to the AV sources over the BNC extension. For more information, please refer to the optional products shown at the left of this page.

**Note:** Note: This HDMI product supports BOTH Audio and Video signals and is fully HDCP compliant.

### DVI, HDCP & HDMI Defined

### HDMI 1.3 Features:

- Lip-Sync Pass Through
- 340 MHz (up to 16 bit YUV 444 supported @ 1080p)
- Deep Color Supported (XV Color Supported)
- Dolby TrueHD & DTS Master Supported
- CEC Protocol Pass Through

### Features:

- Connects HDMI sources to remote HDMI-capable display devices over legacy RGBHV cabling
- Supports extension distances of up to 330 feet
- Supports resolutions of up to 1080p, 2K, and 1920 x 1200
- HDMI and HDCP compliant
- Extends any IR device

### Specifications:

- Video Amplifier Bandwidth: 340 MHz
- DisplayPort v1.0 compatible
- Video Resolutions (max): 2K, 1080P, 1920x1200
- Power Consumption: 10 Watts (max)
- Coaxial Connectors: 5 x BNC male
- IR back channel : IR blaster
- HDMI™ Connector: Type A (19 Pin) Female
- Input Video Signal: 1.2V p-p
- Input DDC Signal: 5V p-p
- Power Supply: 5V DC
- Dimensions: 4.25"W x 1.25"H x 3.9"D
- Shipping Weight: 4 lbs.

### Package Includes:

- (1) Gefen HDMI over RGB Extender Sender
- (1) Gefen HDMI over RGB Extender Receiver
- (1) 6 ft HDMI Cable (M-M)
- (1) 5V DC Power Supply
- (1) User's Manual



EXT-HDMI-5BNC

# Gefen

## HDMI™ Over RGB

EXT-HDMI-5BNC

User Manual



[www.gefen.com](http://www.gefen.com)

1080P  
PROGRESSIVE

HDMI  
REGISTRATION AND PROTECT LOGO

HD TV

HD DVD

Blu ray Disc™

## ASKING FOR ASSISTANCE

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### Technical Support:

Telephone (818) 772-9100  
(800) 545-6900

Fax (818) 772-9120

### Technical Support Hours:

8:00 AM to 5:00 PM Monday thru Friday.

### Write To:

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

[www.gefen.com](http://www.gefen.com)  
[support@gefen.com](mailto:support@gefen.com)

### Notice

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

**HDMI Over RGB** is a trademark of Gefen Inc.

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# INTRODUCTION

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Congratulations on your purchase of the HDMI Over RGB. Your complete satisfaction is very important to us.

## **Gefen**

Gefen delivers innovative, progressive computer and electronics add-on solutions that harness integration, extension, distribution and conversion technologies. Gefen's reliable, plug-and-play products supplement cross-platform computer systems, professional audio/video environments and HDTV systems of all sizes with hard-working solutions that are easy to implement and simple to operate.

## **The Gefen HDMI Over RGB**

The Gefen HDMI over RGB Extender is a handy dongle extension solution which takes an HDMI signal and extends it far away over legacy 4- or 5-connector coaxial cabling. The HDMI over RGB Extender employs Gennum's ActiveConnect technology and is capable of delivering 1080p HDMI at distances up to 330 feet (100 meters).

This is the ideal system for existing installations that are using RGBHV wiring and would like to step up to a digital signal but not rip into the walls to rewire the installation.

## **How It Works**

Simply connect one end of the supplied HDMI cable to your HDMI video source. Connect the other end of the supplied HDMI cable to the input side of the HDMI over RGB Sender unit. Connect the HDMI over RGB Sender to the sending end of your 4- or 5-plug coaxial cable run. If you are using a 5 cable configuration, power will be supplied to the receiving unit. If you have a 4-cable configuration, a second 5V power supply (sold separately) needs to be connected to the receiver unit. At the receiving end of your coaxial cable extension, plug your HDMI over RGB Receiver unit into your coaxial cable endpoints, then plug the HDMI over RGB Receiver into your HDMI display. You will now see HDMI audio/video at the remote location with perfect clarity and sound. You can connect and place an optional Gefen IR Emitter/Blaster on the IR receiver of equipment you wish to control from the remote location.

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

## OPERATION NOTES

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### READ THESE NOTES BEFORE INSTALLING OR OPERATING THE HDMI OVER RGB

- The HDMI Over RGB is designed for either 4 or 5 BNC cable type setups. When 5 BNC cables are present and used, a power supply on the HDMI Over RGB Receiver will not need to be used. Power will be transmitted over the cables. When a 4 BNC cable setup is used, a second power supply (part# EXT-PS52AU) for the receiving unit will need to be purchased and connected.
- HDMI 1.3 compliant. Please see page 3 for a listing of supported HDMI 1.3 features.
- HDCP compliant.
- The HDMI Over RGB has an IR repeater feature that will send standard IR remote control commands from the receiver back to the sender. This is useful for controlling equipment from a remote location. IR commands cannot be relayed from the sender to the receiver. Please see page 8 for more details.
- Resolutions of up to 1080p Full HD are supported for HDTV use.
- Resolutions of up to 1920 x 1200 are supported for computer use.
- The HDMI Over RGB was designed for use with 75Ω coaxial cable.

# FEATURES

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## Features

- Connects HDMI sources to remote HDMI displays over legacy RGBHV cabling
- Supports extension distances of up to 330 feet
- Supports resolutions up to 1080p, 2K, and 1920 x 1200
- HDMI and HDCP compliant
- Extends any IR device

## HDMI 1.3 Features

- Lip-Sync Pass Through
- 340 MHz (up to 16 bit YUV 444 supported @ 1080p)
- Deep Color Supported (XV Color Supported)
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- CEC Protocol Pass Through

## Package Includes

- (1) HDMI Over RGB Sender
- (1) HDMI Over RGB Receiver
- (1) 6 Foot HDMI Cable (M-M)
- (1) 5V DC Power Supply
- (1) User's Manual

# SENDER PANEL LAYOUT

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## Front Panel



## Back Panel





## SENDER PANEL DESCRIPTIONS

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### **1 Locking 5V DC Power Supply Input**

Connect the included 5V DC power supply to this input port.

### **2 HDMI Input Port**

Connect the HDMI source device to this input port. A secure connection to this HDMI port can be made using Gefen Mono•LOK cables.

### **3 IR Out Port**

An IR emitter/blaster (sold separately, part# EXT-2IREMIT) must be connected to this port to use the IR Repeater feature. Connect the emitter to this output port and then connect the emitter “eye” on or near the IR receiver of the equipment that is intended for control.

### **4 Link LED Indicator**

This LED indicator will become active once a valid link has been established between the sending and receiving units. If this LED does not activate there is a possible mis-connection between the two units.

### **5 Red BNC Connector**

This connector will transmit the RED signal data to the receiving unit. The cable used for this connection cannot be omitted.

### **6 Green BNC Connector**

This connector will transmit the GREEN signal data to the receiving unit. The cable used for this connection cannot be omitted.

### **7 Blue BNC Connector**

This connector will transmit the Blue signal data to the receiving unit. The cable used for this connection cannot be omitted.

### **8 Clock BNC Connector**

This connector will transmit the CLOCK signal data to the receiving unit. The cable used for this connection cannot be omitted.

### **9 Receiver Power BNC Connector**

This connector will transmit the power needed to operate the receiving unit. The cable used for this connection can be omitted when using a 4 BNC type of cable setup. If this cable is omitted power must separately be supplied to the receiver by one of the included 5V DC power adapters.

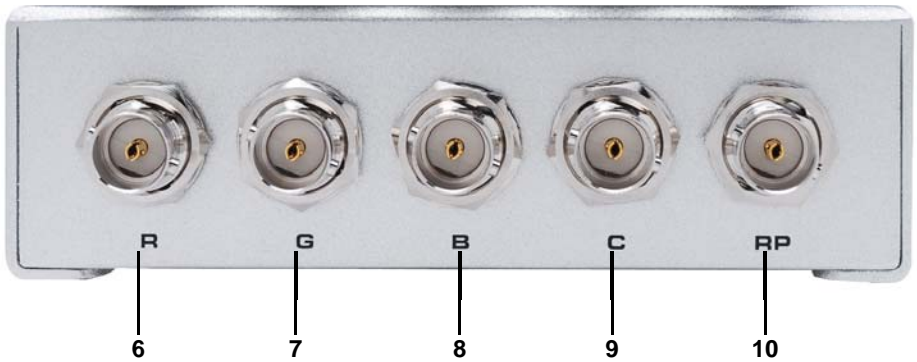
# RECEIVER PANEL LAYOUT

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## Front Panel



## Back Panel



## RECEIVER PANEL DESCRIPTIONS

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### **1 Locking 5V DC Power Supply Input**

When using a 5 BNC cable system this connector will not need to be used. When using a 4 BNC cable system a second 5V DC power supply (part# EXT-PS52AU) must be purchased and connected to this input port.

### **2 IR Receiver**

This receiver is used for the IR Repeater feature. This receiver will accept standard IR remote commands for transmission back to the sending unit and then to the connected IR emitter/blaster.

### **3 HDMI Output Port**

Connect the HDMI capable display device to this output port. A secure connection to this HDMI port can be made using Gefen Mono•LOK cables.

### **4 IR Extension Port**

An IR receiver extension (sold separately, part# EXT-RMT-EXTIR) can be connected to this port to relocate the IR receiver. This option is available so that the receiving unit can be placed out-of-sight while still retaining the usability of the IR Repeating feature.

### **5 Link LED Indicator**

This LED indicator will become active once a valid link has been established between the sending and receiving units. If this LED does not activate there is a possible mis-connection between the two units.

### **6 Red BNC Connector**

This connector will transmit the RED signal data to the receiving unit. The cable used for this connection cannot be omitted.

### **7 Green BNC Connector**

This connector will transmit the GREEN signal data to the receiving unit. The cable used for this connection cannot be omitted.

### **8 Blue BNC Connector**

This connector will transmit the Blue signal data to the receiving unit. The cable used for this connection cannot be omitted.

### **9 Clock BNC Connector**

This connector will transmit the CLOCK signal data to the receiving unit. The cable used for this connection cannot be omitted.

### **10 Receiver Power BNC Connector**

This connector will transmit the power needed to operate the receiving unit. The cable used for this connection can be omitted when using a 4 BNC type of cable setup. If this cable is omitted power must separately be supplied to the receiver by one of the included 5V DC power adapters.

# **CONNECTING AND OPERATING THE HDMI OVER RGB**

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## **How to Connect the HDMI Over RGB**

1. Connect the HDMI source device to the HDMI Over RGB sender unit using the supplied HDMI cable.
2. The HDMI Over RGB sender and receiver can be used with either a user supplied 4 or 5 BNC cable system.

### 5 BNC Cables

Connect all 5 BNC cables to the R, G, B, C, and RP BNC connectors between the HDMI Over RGB sender and receiver units.

### 4 BNC Cables

Connect the 4 BNC cables to the R, G, B, and C BNC connectors between the HDMI Over RGB sender and receiver units. The RP BNC connector will not be used and a second power supply (part# EXT-PS52AU) will need to be purchased and connected to the receiver unit.

3. Connect the HDMI capable display device to the HDMI Over RGB receiver unit using a user supplied HDMI cable.
4. Connect the included 5V DC power adapter to the HDMI Over RGB sender unit.

**NOTE:** If using a 4 BNC cable system, a second power supply must be purchased and connected to the HDMI Over RGB receiver unit.

5. Power on the display first and then the source.

## **How to Operate the HDMI Over RGB**

The HDMI Over RGB does not require any configuration for standard operation.

### **IR Repeater Feature**

An IR emitter/blaster (sold separately, part# EXT-2IREMIT) is required to send relayed IR commands to equipment at the sender's location. Connect the IR emitter jack to the HDMI Over RGB sender unit and connect the IR "eye" on or near the IR receiver of the equipment that is intended for control. Point the equipment's IR remote at the IR receiver on the HDMI Over RGB receiver unit and press buttons to relay commands back to the equipment device.

## SPECIFICATIONS

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Video Amplifier Bandwidth .....	340 MHz
DisplayPort v1.0 compatible .....	Yes
Video Resolutions (max) .....	2K, 1080P, 1920x1200
Power Consumption .....	10 Watts (max)
Coaxial Connectors .....	5 x BNC male
IR back channel .....	IR blaster
HDMI™ Connector .....	Type A (19 Pin) Female
Input Video Signal .....	1.2V p-p
Input DDC Signal .....	5V p-p
Power Supply .....	5V DC
Dimensions .....	4.25"W x 1.25"H x 3.9"D
Shipping Weight .....	4 lbs.