



# Gefentv<sup>®</sup>

Extender for HDMI 1.3 over CAT6

GTV-HDMI1.3-CAT6  
User Manual

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

## ASKING FOR ASSISTANCE

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### Notice

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

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# INTRODUCTION

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Congratulations on your purchase of the Extender for HDMI 1.3 Over CAT-6. Your complete satisfaction is very important to us.

## **Gefen TV**

Gefen TV is a unique product line catering to the growing needs for innovative home theater solutions. We specialize in total integration for your home theater, while also focusing on going above and beyond customer expectations to ensure you get the most from your hardware. We invite you to explore our distinct product line and hope you find your solutions. Don't see what you are looking for here? Please call us so we can better assist you with your particular needs.

## **The Gefen TV Extender for HDMI 1.3 Over CAT6**

The GefenTV HDMI 1.3 Over CAT6 Extender sends HDMI signals over just two unobtrusive CAT6 cables -- up to 160 feet (50 meters). The GefenTV HDMI 1.3 Over CAT6 Extender supports HDMI 1.2 and the newer HDMI 1.3 with features such as Deep Color, 1080p and uncompressed 7.1 audio. DVI-D Computer video can also be transmitted with a DVI-to-HDMI cable (please see the optional accessories).

By using standard and widely available CAT6 cables, the GefenTV HDMI 1.3 Over CAT6 Extender makes HDMI signal extensions easier than with heavy and expensive copper cables and more robust than with optical fiber. The Extender's pure digital transmission method insures 100% signal integrity over extended distances.

## **How It Works**

The GefenTV HDMI 1.3 Over CAT6 Extender system consists of a sender and a receiver. The HDMI source (set-top box, DVD player, or gaming console) connects to the sender box with the supplied 6 foot HDMI cable. The receiver box connects to the HDTV display in the same way -- up to 160 feet (50 meters) away. Two CAT6 cables link the sender and receiver. Power is applied to the sender and receiver with the included 5V DC power supplies. A crisp, flawless HDMI picture emerges on the HDTV display.

## OPERATION NOTES

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### **READ THESE NOTES BEFORE INSTALLING OR OPERATING THE EXTENDER FOR HDMI 1.3 OVER CAT6**

- The distance at which the Extender for HDMI 1.3 Over CAT6 will carry a signal will vary depending on the source's resolution and features.
  - 160 feet (50 meters) at 1080p with 10-bit Deep Color and all supported audio formats.
  - 125 feet (40 meters) at 1080p with 12-bit Deep Color and all supported audio formats.
- All The following specifications are based on high-quality CAT-5e cabling:
  - 125 feet (40 meters) at 1080p with 10-bit Deep Color and all supported audio formats.
  - 50 feet (15 meters) at 1080p with 12-bit Deep Color and all supported audio formats.
- Both CAT-6a cables (VIDEO and DDC) must be used for extension.
- HDMI 1.3 compliant. Please see page 3 for a list of supported HDMI 1.3 features.

# FEATURES

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## HDMI 1.3 Features

- 225 MHz (up to 12 bit YUV 444 Supported @ 1080p)
- Deep Color
- Dolby TrueHD and DTS-HD Master Audio Supported
- Lip Sync
- CEC Pass-Through

## Features

- Extends 1080p, 10-bit Deep Color up to 160 feet (50 meters)
- Supports lossless compressed digital audio (Dolby TrueHD, Dolby Digital Plus and DTS-HD Master Audio)
- Audio and video are transmitted digitally over the CAT-6a cable for zero signal loss.
- Maximum resolutions: 1080p, 12 bit color depth, 1920x1200 @ 60 Hz
- Equalizes and recovers incoming TMDS data before re-transmitting the signal with optimal quality regardless of the incoming signal quality
- Eliminates equipment noise in the viewing environment
- Improved compensation for cable skew
- Compliant with HDMI 1.3, HDCP 1.1 and DVI1.1 standards
- HDCP compliant

## Package Includes

- (1) GefenTV Extender for HDMI 1.3 over CAT-6 Sender Unit
- (1) GefenTV Extender for HDMI 1.3 over CAT-6 Receiver Unit
- (1) 6 ft. HDMI cable (M-M)
- (2) 5V DC Power Supply
- (1) Set of Wall Mounting Plates
- (1) User Manual

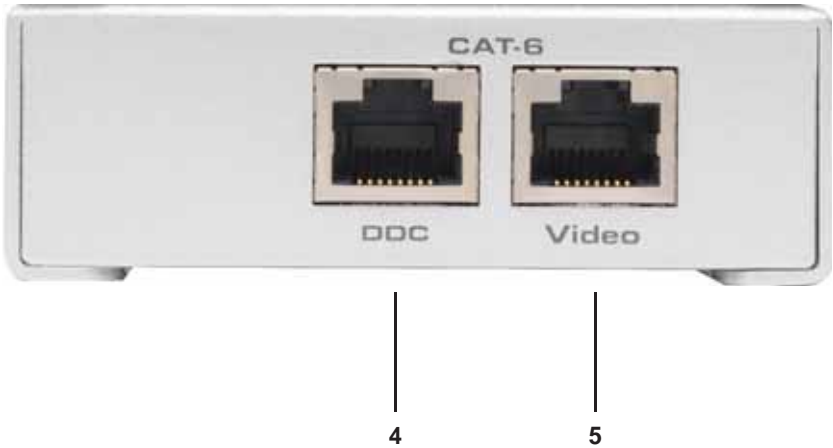
# SENDER UNIT PANEL LAYOUT

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## Front Panel



## Back Panel



## SENDER UNIT PANEL DESCRIPTIONS

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**1 HDMI Input Port**

Connect the HDMI source to this input port.

**2 Power Indicator LED**

This LED indicator will become active once the included 5V DC power adapter has been properly connected between the sender unit and an open wall power socket.

**3 5V DC Power Input Port**

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

**4 CAT-6 Port (DDC)**

Connect a ANSI/TIA/EIA-568-B terminated CAT-6a cable between this DDC port and the DDC port on the receiving unit.

**5 CAT-6 Port (Video)**

Connect a ANSI/TIA/EIA-568-B terminated CAT-6a cable between this VIDEO port and the Video port on the receiving unit.

# RECEIVER UNIT PANEL LAYOUT

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## Front Panel



1

2

3

## Back Panel



4

5

## RECEIVER UNIT PANEL DESCRIPTIONS

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**1 5V DC Power Input Port**

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

**2 Power Indicator LED**

This LED indicator will become active once the included 5V DC power adapter has been properly connected between the sender unit and an open wall power socket.

**3 HDMI Output Port**

Connect the HDMI capable output device to this port.

**4 CAT-6 Port (Video)**

Connect a ANSI/TIA/EIA-568-B terminated CAT-6a cable between this VIDEO port and the Video port on the sending unit.

**5 CAT-6 Port (DDC)**

Connect a ANSI/TIA/EIA-568-B terminated CAT-6a cable between this DDC port and the DDC port on the sending unit.

# CONNECTING AND OPERATING THE EXTENDER FOR HDMI 1.3 OVER CAT6

## How to Connect the Extender for HDMI 1.3 Over CAT6

1. Connect the HDMI source device to the Extender for HDMI 1.3 Over CAT6 sender unit using the supplied HDMI cable.
2. Connect one pair of CAT-6a\* cables between the VIDEO and DDC ports on the sender and receiver.

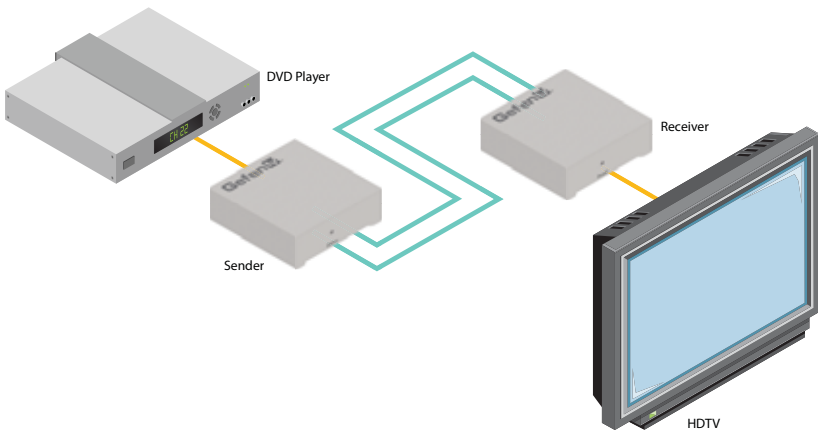
**\*NOTE:** This product was designed for use with CAT-6a (Augmented CAT-6) cabling that is terminated according to the ANSI/TIA/EIA-568B specification. CAT-5e and CAT-6 cable can be used but distance ratings will be shortened. ANSI/TIA/EIA-568A termination can be used but may cause marginal distance loss.

3. Connect the HDMI capable output device to the Extender for HDMI 1.3 Over CAT6 receiver using a user supplied HDMI cable.
4. Connect the included 5V DC power supplies to both the sender and receiver units.
5. Power on the output device first and the source second.

## Wiring Diagram for the GefenTV Extender for HDMI 1.3 over CAT6

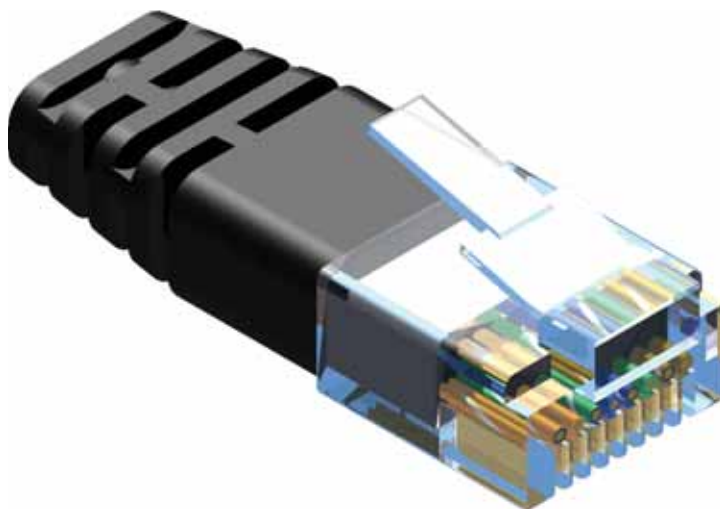
**Gefen**tv

**HDMI CABLE**   
**CAT-6 CABLE**   
(Up To 160 FT)



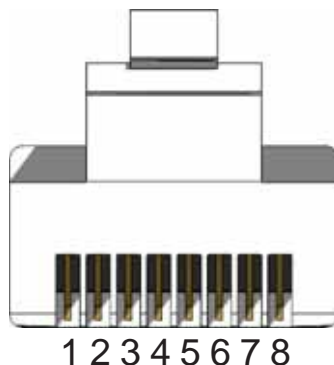
**GTV-HDMI 1.3-CAT6**

## NETWORK CABLE WIRING DIAGRAM



Gefen has specifically engineered their products to work with the TIA/EIA-568-B specification. Please adhere to the table below when field terminating cable for use with Gefen products. Failure to do so may produce unexpected results and reduced performance.

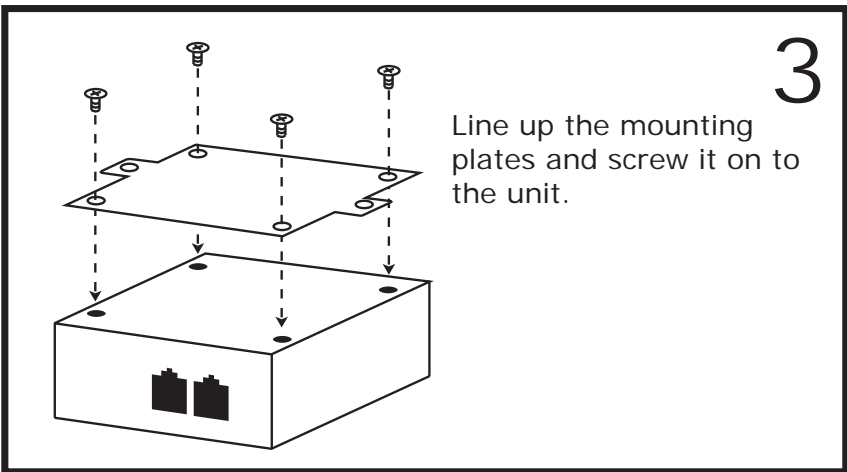
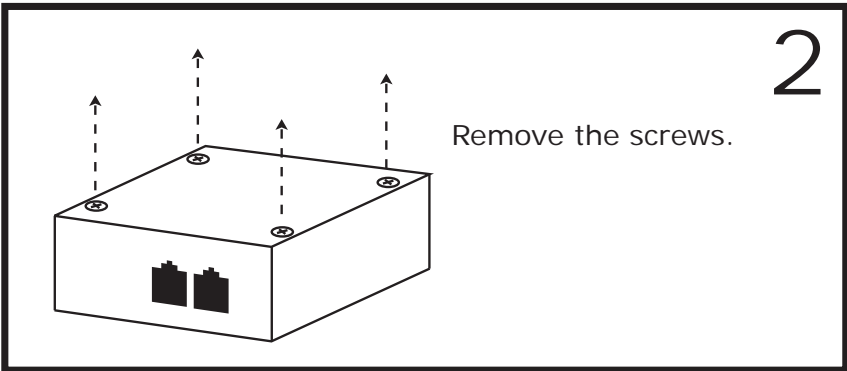
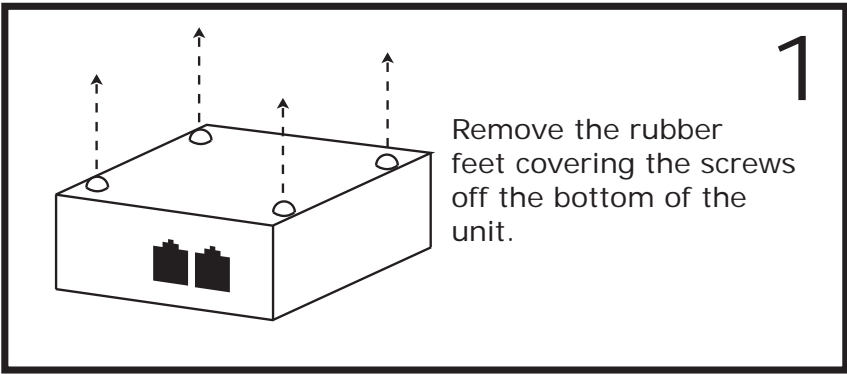
Pin	Color
1	Orange / White
2	Orange
3	Green / White
4	Blue
5	Blue / White
6	Green
7	Brown / White
8	Brown



CAT-5, CAT-5e, and CAT-6 cabling comes in stranded and solid core types. Gefen recommends using solid core cabling. CAT-6 cable is also recommended for best results.

Each cable run must be one continuous run from one end to the other. No splices or use of punch down blocks.

# Mounting Plate Installation



## SPECIFICATIONS

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Video Amplifier Bandwidth .....	225 MHz
Video Output .....	1080p, 12 bit color depth, 2k and 1920x1200 (max.)
Input DDC Signal .....	5 Volts p-p (TTL)
Input Video Signal .....	1.2 Volts p-p
HDMI Connectors (Sender Unit / Receiver Unit) .....	(2) Type A, 19-pin Female
Link Connector (Sender Unit / Receiver Unit) .....	(2) RJ-45 Shielded
Power Supply .....	5V DC
Power Consumption .....	20 Watts (max.)
Operating Temperature .....	0 - 40 °C
Shipping Weight .....	3 lbs.
Dimensions .....	3.4" W x 1.3" H x 3.3" D

## WARRANTY

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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, please visit Gefen's Warranty web page at <http://www.gefen.com/kvm/aboutus/warranty.jsp>

## PRODUCT REGISTRATION

**Please register your product online by visiting Gefen's web site at <http://www.gefen.com/kvm/Registry/Registration.jsp>**







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