Gefen

HDMI™ 1.3 Over Fiber with IR

EXT-HDMI1.3IR-FO-141

User Manual

www.gefen.com

1080P PROGRESSIVE   HDMI™ HIGH-DEFINITION MULTIMEDIA INTERFACE   HDTV   HD DVD   Blu-ray Disc™

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.gefentv.com
support@gefen.com

Notice
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Rev X1

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INTRODUCTION

Congratulations on your purchase of the HDMI 1.3 Over Fiber with IR. 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.

HDMI 1.3 Over Fiber with IR

The Gefen HDMI 1.3 Over Fiber with IR system extends Full 1080p HD deep color with multichannel digital audio over a single small strand of fiber optic cable that can easily be hidden in a wall or above a ceiling. Great distances of extension can be obtained thanks to the use of fiber optic cable.

1080p Full HD deep color is displayed at the destination with no signal delays and no EMI (electromagnetic interference) disturbances such as cut-outs and pixilation, phenomena that can happen often with copper cables, especially at long distances. Multichannel digital audio with Dolby TrueHD & DTS Master Audio helps to deliver a full HD audio/video home theater experience wherever it is needed. The IR back channel is carried on the CAT5 cable, providing convenient, local control of video source devices.

How It Works

Install the Sender near your High Definition source and the Receiver at the Display side. Connect HDMI cables from the Sender to your source and from Display to Receiver. Run a single strand of SC fiber optic cable from Sender to Receiver for AV signals, then run a single CAT5 cable from Sender to Receiver for the IR back channel. Plug in the power supplies on the Sender and Receiver, and crisp vibrant HDMI 1.3 video will appear on the Display. IR commands from the remote control to video source equipment are sent across the IR back channel via the CAT5 cable which connects the Sender and Receiver at their RJ45 jacks.

**READ THESE NOTES BEFORE INSTALLING OR
OPERATING THE HDMI 1.3 OVER FIBER WITH IR**

- Use one SC terminated multi-mode fiber optic cable and one industry standard CAT-5, CAT-5e or CAT-6 cables to operate the HDMI 1.3 Over Fiber with IR. Gefen recommends CAT-6 cabling for maximum performance.

- For 1080p video, maximum extension is 1000 feet (330 meters).

- IR repeater functionality is only from the receiving unit to the sending unit. IR data cannot be transmitted from the sending unit to the receiving unit.

Features

- Immune to electro-magnetic interference (EMI)

- Transmits HDMI 1.3 audio/video at full bandwidth

- 1000-foot (330m) extension distance, maximum

- Delivers highest quality signal of any HDMI extension method

- Supports video resolutions up to 1080p, 2K, and 1920 x 1200

- Uses inexpensive and widely available single-strand multimode SC fiber optic cable
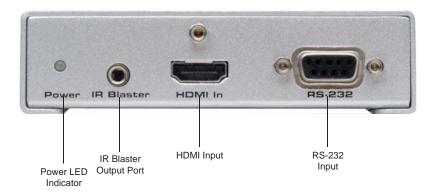
- HDCP Compliant

HDMI 1.3 Features

- 340 MHz (up to 16 bit YUV 444 supported @ 1080p)

- Deep Color Supported (XV Color Supported)

- Dolby TrueHD & DTS Master Supported

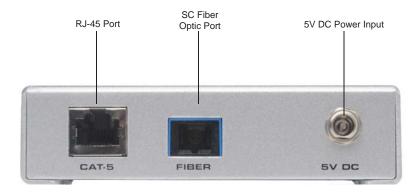- Lip-Sync Pass Through

- CEC Protocol Pass Through

Package Includes

(1) HDMI 1.3 Over Fiber with IR - Sender
(1) HDMI 1.3 Over Fiber with IR - Receiver
(1) 6 Foot HDMI Cable (M-M)
(2) 5V DC Power Supply
(1) User's Manual

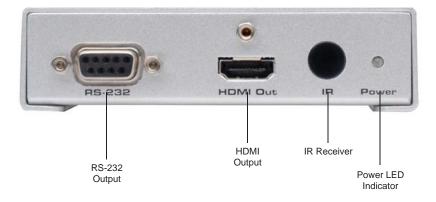## *Front Panel*

Power   IR Blaster   HDMI In   RS-232

Power LED
Indicator

IR Blaster
Output Port

HDMI Input

RS-232
Input

Back Panel

RJ-45 Port

SC Fiber
Optic Port

5V DC Power Input

CAT-5   FIBER   5V DC

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Front Panel

RS-232   HDMI Out   IR   Power

HDMI
Output

IR Receiver

RS-232
Output

Power LED
Indicator

Back Panel

RJ-45 Port

SC Fiber
Optic Port

5V DC Power Input

CAT-5   FIBER   5V DC
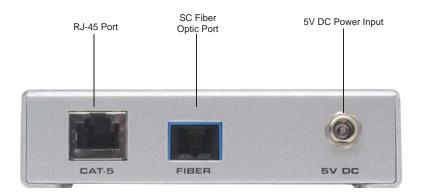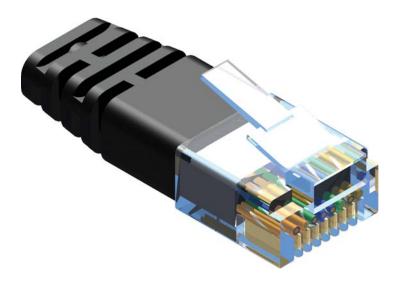
CONNECTING AND OPERATING THE HDMI 1.3 Over Fiber with IR

1. Connect the HDMI source to the HDMI 1.3 Over Fiber with IR sending unit's HDMI input port using the supplied HDMI cable.

2. Connect the RS-232 source to the HDMI 1.3 Over Fiber with IR sending unit's RS-232 input port using the supplied DB-9 serial cable.

3. For IR repeater functionality, please connect the IR emitter's mini-jack (sold separately, part # EXT-2IREMIT) into the HDMI 1.3 Over Fiber with IR sending unit. Place the IR emitter directly on or above the IR receiver of the desired source device.

4. Connect the HDMI 1.3 Over Fiber with IR sending and receiving units together using one user supplied SC terminated multi-mode fiber optic cable and one CAT-5, CAT-5e or CAT-6 cable.

NOTE: If field terminating network cable, please adhere to the TIA/EIA568B specification. Please see page 7 for more information.

5. Connect the display to the HDMI output port of the HDMI 1.3 Over Fiber with IR receiving unit using a user supplied HDMI cable.

6. Connect the RS-232 device to the RS-232 output port of the HDMI 1.3 Over Fiber with IR receiving unit using a user supplied DB-9 serial cable.

7. Plug the included 5V DC power supplies into the HDMI 1.3 Over Fiber with IR sending and receiving units.

8. Power on the display first and the source second.

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

1 2 3 4 5 6 7 8

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.

SPECIFICATIONS

Video Amplifier Bandwidth .... 340 MHz

HDMI Input/Output Connector .... type A, 19 pin

Link Connector .... SC Fiber Optic

CAT5 Connector RJ45

Input Video Signal .... 1.2 Volts p-p

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

Power Supply .... 5V DC

Dimensions .... 2.75"W x 4.5"H x 1.2"D (approx)

Shipping Weight .... 5 lbs. (approx)