



HDMI over fiber

Optional Accessories



HDMI Cables

HD•1000

Extends HDMI 1.3 up to 330 feet (100 meters) over fiber optic cables.

The Gefen HD•1000 allows an HDMI video signal to be extended up to 330 feet (1640 w/o HDCP) using multimode LC-LC fiber optic cable. Fiber Optics technology allows the HD•1000 to carry video signals over long distances that are not possible with other technologies. Fiber Optic cables are immune to video signal corruption from electromagnetic interference (EMI), ensuring a crystal clear picture.

How It Works

The HD•1000S sender unit sits next to your set-top box or DVD player source. Cables supplied with the HD•1000 connect your HDMI™ 1.3 source to the sender unit. The display plugs into the back of the receiver unit. One CAT-5 cable and a multi mode LC fiber optic cable connect the Sender and the Receiver units to each other.

Note: The HD•1000HD is HDCP compliant.

DVI, HDCP & HDMI Defined

HDMI 1.3 Features:

- 12-bit/channel RGB Deep Color support
- CEC protocol support
- Lip-Sync passthrough
- Dolby True-HD, DTS-HD pass-through
- xvYCC pass-through

Features:

- Extends high definition HDMI compliant devices up to 330 feet (100 meters)
- Uses a 4 strand multi mode LC-LC fiber optic cable for HDMI and a CAT5e cable for DDC/control signals
- Extends range of HDMI by equalizing signals
- HDCP and HDMI compliant with HDMI 1.3 Features
- HDMI 1.3 support: 12-bit/channel RGB Deep Color, CEC protocol
- HDMI 1.3 pass-through: Lip-Sync, Dolby True-HD, DTS-HD, xvYCC
- Supports resolutions up to 1080p, 2K, and 1920 x 1200

Specifications:

- Video Amplifier Bandwidth: 225 MHz maximum
- Input Video Signal: 1.2 volts p-p
- Input DDC Signal: 5 volts p-p (TTL)
- Single Link Range: 1080p, 2k, 1920 x 1200
- HDMI Connector: type A, 19 pin female
- Video Link Connector: LC
- DDC Link Connector: RJ-45 Shielded
- Power Supply: 5V DC with locking connector
- Power Consumption: 60W watts x 2 (max)
- Link Connectors: LC Fiber, Shielded RJ-45
- Rack mountable: 1U rack space
- Dimensions: 3.25"D x 4.25"W x 1"H
- Shipping Weight: 5 lbs.

Package Includes:

- HD•1000S Sender unit
- HD•1000R Receiver unit
- Two 5V Power Supplies
- One 6 ft HDMI cable (M-M)
- User's Manual

EXT-HD-1000

Gefen

HD-1000 Extender

Model # EXT-HD-1000

USER MANUAL



www.gefen.com

1080P
PROGRESSIVE

HDMI
HIGH DEFINITION MULTIMEDIA INTERFACE

HD TV

HD DVD

Blu-ray Disc

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.

Write To:

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Notice

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HDMI is a trademark of HDMI.org

TABLE OF CONTENTS

1. Introduction / Operation Notes
2. Features
3. Sender Panel Descriptions
4. Receiver Panel Descriptions
5. Connecting and Operating the HD-1000
6. Network Cable Wiring Diagram
7. Specifications
8. Warranty

INTRODUCTION

The Gefen HD-1000 allows an HDMI video signal to be extended up to 330 feet (1640 w/o HDCP) using multi-mode LC-LC fiber optic cable. Fiber Optics technology allows the HD-1000 to carry video signals over long distances that are not possible with other technologies. Fiber Optic cables are immune to video signal corruption from electromagnetic interference (EMI), ensuring a crystal clear picture.

How It Works

The HD•1000S sender unit sits next to your set-top box or DVD player source. Cables supplied with the HD•1000 connect your HDMI™ 1.3 source to the sender unit. The display plugs into the back of the receiver unit. One CAT-5 cable and a multi mode LC fiber optic cable connect the Sender and the Receiver units to each other.

OPERATION NOTES

READ THESE NOTES BEFORE INSTALLING OR OPERATING THE HD-1000

- 50 or 62.5 micron multi-mode fiber optic cable is required for operation of the HD-1000.
- Maximum extension range of 330 feet (100 meters) when the source requires HDCP. One CAT-5, CAT-5e or CAT6 cable is used to transmit DDC and HDCP data back to the source.
- Maximum range of 1640 feet (500 meters) when the source does not require HDCP. This scenario does not require the CAT-5, CAT5e or CAT-6 cable if the source does not require DDC information. If DDC is required, the use of an EDID storage device (part# EXT-DVI-EDIDN, EXT-DVI-EDIDP) can be used to transmit DDC information back to the source.
- HDMI 1.3 compliant (please see FEATURES section on page 2 for supported HDMI 1.3 features).
- HDCP compliant
- Compatible with all HDMI and DVI* displays.

NOTE: *When used with a DVI to HDMI adapter

FEATURES

Features

- Extends high definition HDMI compliant devices up to 330 feet (100 meters)
- Uses a 4 strand multi mode LC-LC fiber optic cable for HDMI and a CAT5e cable for DDC/control signals
- Extends range of HDMI by equalizing signals
- HDCP and HDMI compliant with HDMI 1.3 Features
- Supports resolutions up to 1080p, 2K, and 1920 x 1200

HDMI 1.3 Supported Features

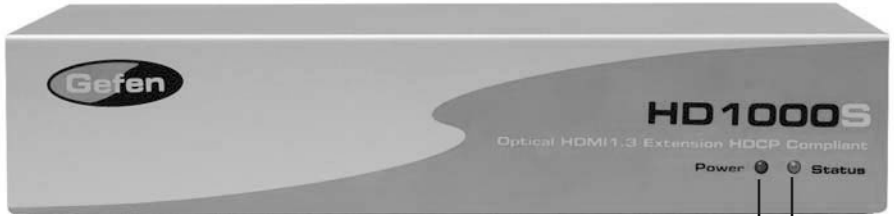
- 12-bit/channel RGB Deep Color support
- CEC protocol support
- Lip-Sync pass-through
- Dolby TrueHD, DTS-HD pass-through
- xvYCC pass-through

Includes:

- (1) HD-1000S Sender unit
- (1) HD-1000R Receiver unit
- (2) 5V DC Power Supply
- (1) 6 ft HDMI cable (M-M)
- (1) User's Manual

SENDER PANEL DESCRIPTIONS

Front Panel



Power LED
Indicator

Status LED
Indicator

Back Panel



Fiber Optic
LC-LC Terminals

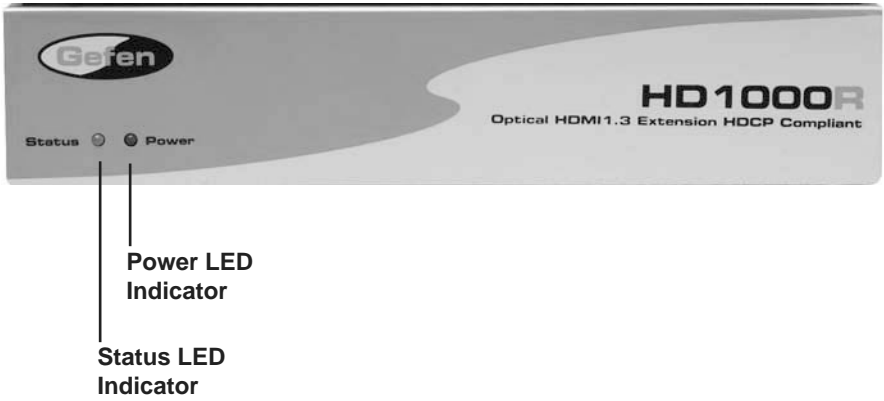
HDMI Input
Port

RJ-45
Port

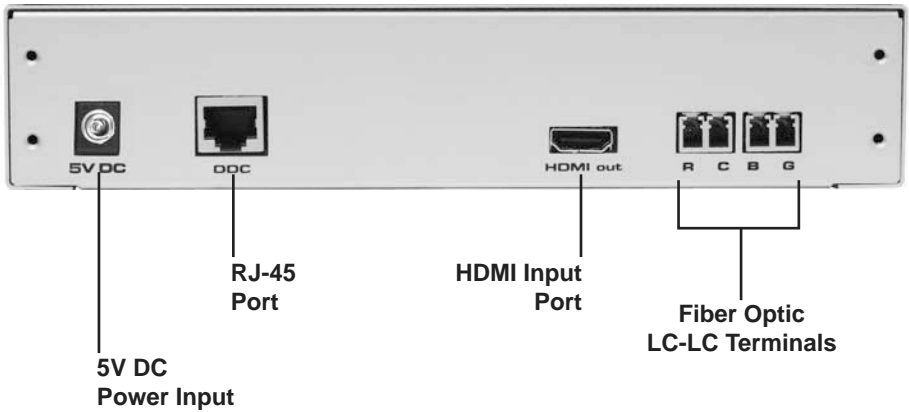
5V DC
Power Input

RECEIVER PANEL DESCRIPTIONS

Front Panel



Back Panel



CONNECTING AND OPERATING THE HD-1000

How To Connect The HD-1000

1. Connect the HDMI source to the HD-1000 sender unit using the supplied HDMI cable.
2. Connect a user supplied CAT-5, CAT-5e or CAT-6 cable to the sender unit.
3. Connect four user supplied multi-mode LC terminated fiber optic cables into HD-1000 sender unit.

NOTE: 50 or 62.5 micron multi-mode fiber optic cable is required for operation of the HD-1000.

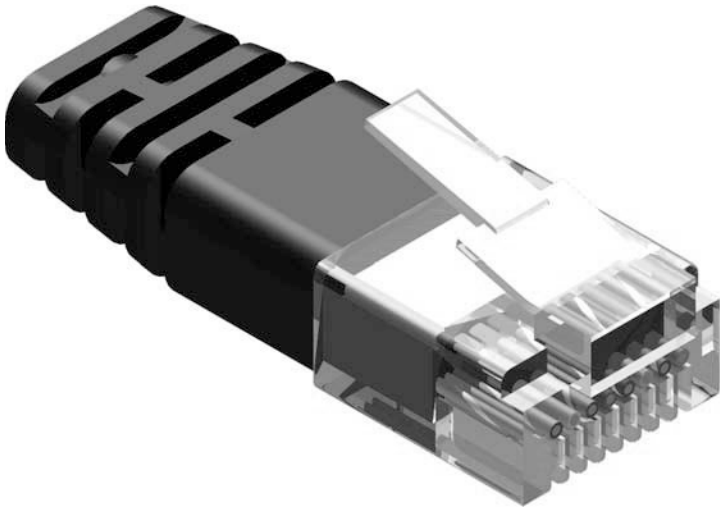
4. Connect the other end of the CAT-5, CAT-5e or CAT-6 cable into the HD-1000 receiver unit.
5. Connect the other ends of all four multi-mode LC terminated fiber optic cables into the HD-1000 receiver unit.

NOTE: Please take careful note of the labeling above each fiber optic port on both the sending and receiving HD-1000 units. The most common user error is to mis-match the fiber optic cable connections on each end, which results in no video being transmitted.

6. Connect the display to the HD-1000 receiver unit using a user supplied HDMI cable.
7. Connect the included 5V DC power supplies into both the HD-1000 sending unit and receiving units.
8. Power on the display, followed by the source.

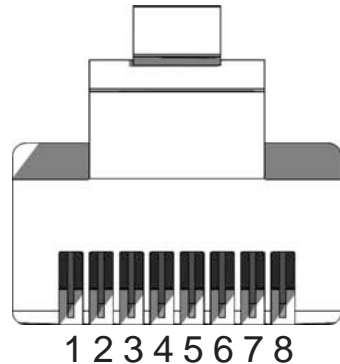
No further adjustments are necessary to operate the HD-1000.

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.