



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

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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

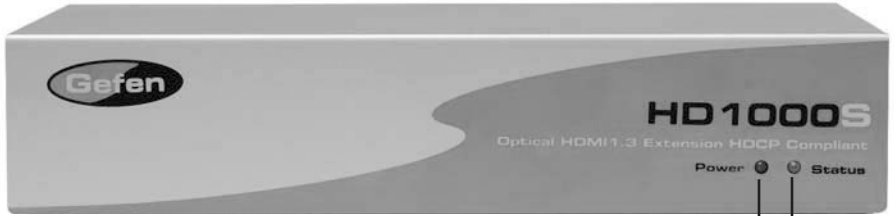
- 12-bit/channel RGB Deep Color support
- CEC protocol support
- Lip-Sync pass-through
- Dolby TrueHD, DTS-HD pass-through
- xvYCC pass-through

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

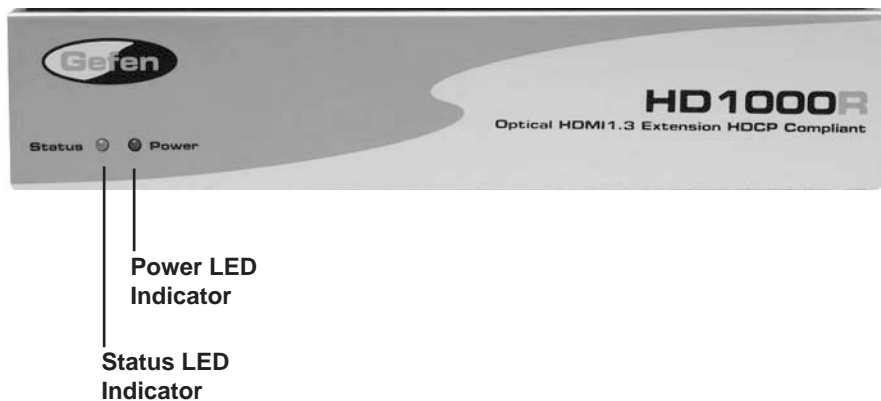
HDMI Input
Port

RJ-45
Port

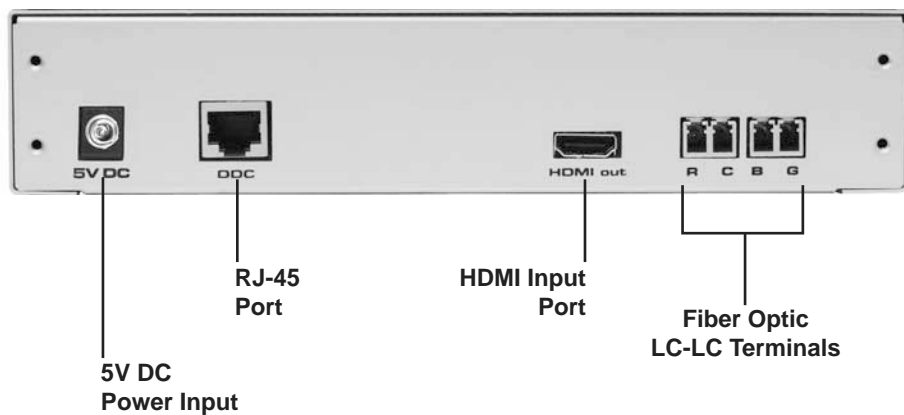
5V DC
Power Input

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.

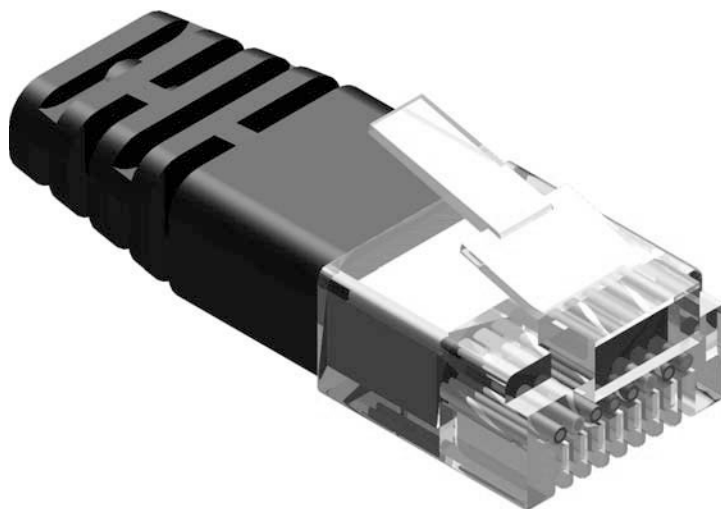
4. Connect the other end of the CAT-5, CAT-5e or CAT-6 cable into the HD-1000 receiver unit.
5. Connect the other ends of all four multi-mode LC terminated fiber optic cables into the HD-1000 receiver unit.

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.

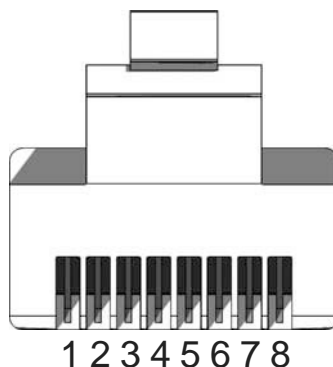
No further adjustments are necessary to operate the HD-1000.

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.