# StarTech.com

### Hard-to-find **made easy**®

## HDMI® over Fiber Video Extender with IR

ST121HDFXA



*actual product may vary from photos

**DE:** Bedienungsanleitung - de.startech.com
**FR:** Guide de l'utilisateur - fr.startech.com
**ES:** Guía del usuario - es.startech.com
**IT:** Guida per l'uso - it.startech.com
**NL:** Gebruiksaanwijzing - nl.startech.com
**PT:** Guia do usuário - pt.startech.com

For the most up-to-date information, please visit: www.startech.com

## FCC Compliance Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

## Use of Trademarks, Registered Trademarks, and other Protected Names and Symbols

This manual may make reference to trademarks, registered trademarks, and other protected names and/or symbols of third-party companies not related in any way to StarTech.com. Where they occur these references are for illustrative purposes only and do not represent an endorsement of a product or service by StarTech.com, or an endorsement of the product(s) to which this manual applies by the third-party company in question. Regardless of any direct acknowledgement elsewhere in the body of this document, StarTech.com hereby acknowledges that all trademarks, registered trademarks, service marks, and other protected names and/or symbols contained in this manual and related documents are the property of their respective holders.

StarTech.com
Hard-to-find made easy®

# Table of Contents

StarTech.com

Hard-to-find made easy®

# Introduction

The ST121HDFXA is a long-range HDMI® video extender kit that uses SC fiber optic cable to extend video / audio from an HDMI®-equipped device up to 2600 feet (800 Meters) to a remote display. The extender supports full High-Definition video (1920x1200 / 1080p), and includes both the transmitter and receiver, for a complete ready-to-use digital signage solution.

Not only is this an incredibly long range solution that can extend an HDMI® signal across or between buildings , but because fiber optics transmit data using light rather than copper, it will not cause or be effected by electromagnetic Interference (EMI).

For convenient, time-saving control of the media source, the HDMI® extender also offers Infrared (IR) extension, which enables you to control the HDMI® audio-video source from either end of the connection. The kit also includes optional mounting hardware for a clean and professional installation.

The ST121HDFXA HDMI® over Fiber Optic Extender kit is backed by a StarTech.com 2-year warranty and free lifetime technical support.

## Packaging Contents

- 1x Local HDMI® Extender Unit
- 1x Remote HDMI® Receiver Unit
- 1x IR Receiver Cable
- 1x IR Transmitter Cable
- 2x Mounting Brackets
- 1x Multi-mode SC-SC duplex Fiber Optic cable
- 2x Foot Pad Set
- 2x Universal Power Adapter NA / UK / EU
- 1x User Manual

## System Requirements

- HDMI® enabled video source device (i.e. computer, Blu-ray Player)
- HDMI® enabled display device (i.e. television, projector)
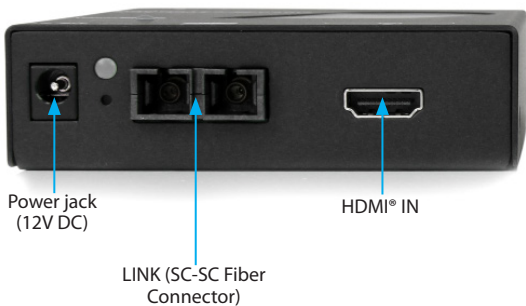- Available AC electrical outlet for transmitter and receiver
- 2x HDMI® Cable

StarTech.com
Hard-to-find made easy®

**Front View – Transmitter**



IR Transmitter Port

**Front View – Receiver Unit**



IR Receiver Port

**Rear View – Transmitter**



Power jack
(12V DC)

HDMI® IN

LINK (SC-SC Fiber
Connector)

**Rear View – Receiver Unit**



Power jack
(12V DC)

HDMI® OUT

LINK (SC-SC Fiber
Connector)

StarTech.com
Hard-to-find made easy®
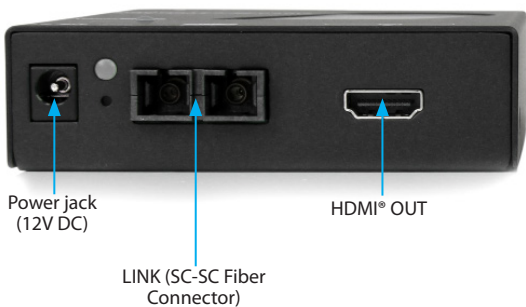
# Preparing Your Site

1. Determine where the local video source (i.e. computer, Blu-ray Player) will be located and set up the device.

2. Determine where the remote display will be located and place/ mount the display appropriately.

**NOTE:** Ensure the Transmitter Unit and the Receiver Unit are situated near an available AC electrical outlet.  Make sure all devices are turned off before beginning installation.

# Hardware Installation

1. Install Transmitter Unit

   a)  Position the Transmitter Unit near the video source (i.e. Computer, Blu-ray Player).

   b)  Connect an HDMI® cable from the video source device (i.e. computer, Blu-ray Player) to the "HDMI® IN" on the Transmitter Unit.

   c)  Connect the provided Transmitter Unit power supply.

   d)  **(Optional)** If using the ST121HDFXA to extend an infrared (IR) device signal. Connect the IR Transmitter Cable to the IR Transmitter port on the Transmitter Unit, and Position the extended IR sensor directly in front of the video source's IR sensor. Check the manual of your video source device for the IR sensor location.

2. Install SC-SC terminated Fiber Optic Cable

   a)  Connect an SC-SC terminated Fiber optic cable SC-SC Fiber Connector on the Transmitter unit.

   **NOTE:** Ensure you have enough Fiber cabling to connect the Transmitter Unit to the Receiver Unit's location, and that each end is terminated with an SC-SC connector. The cabling should not go through any networking equipment (i.e. router, switch).

   b)  Connect the other end of the fiber cable run to the SC-SC connector on the Receiver Unit ensuring the SC connector connect to TX the transmitter is connect to RX on the receiver and vise-versa.

   **Notes:**

   • Multi-mode fiber cabling (50/125 or 62.5/125) terminated with SC duplex connectors, is required to connect the transmitter to the receiver.

   • If your video source is HDCP encrypted, your connected display MUST be HDCP compliant. If the extender detects a non-HDCP compliant display while you're extending an HDCP encrypted video source, the content will not display.

StarTech.com
Hard-to-find made easy®

# Hardware Reset Procedure

**NOTE:** If video signal does not appear on the display a hardware reset can be performed on the Transmitter Unit, Receiver Units.

1. Press the reset button for more than 3 seconds on the device using a pin point tool, such as a ballpoint pen or a bent paper clip.

2. After 3 seconds disconnect the power adapter while holding the reset button.

3. Release the reset button, and reconnect the power adapter.

4. Your source video image will now appear on the remote video display.

StarTech.com

Hard-to-find made easy®

# Specifications

| | |
|---|---|
| **Local Unit Connectors** | 1x HDMI® (19 pin) Female |
| | 1x Fiber Optic SC Female |
| | 1x IrDA (Infrared) Female |
| **Remote Unit Connectors** | 1x HDMI® (19 pin) Female |
| | 1x Fiber Optic SC Female |
| | 1x IrDA (Infrared) Female |
| **Maximum Data Transfer Rate** | HDMI® - 1.656G x 3 |
| **Max Distance** | 800 m / 2600 ft. (1080p) |
| **Maximum Digital Resolutions** | 1080p @ 60Hz, 24-bit |
| **Resolution Performance** | 50 / 125 Multimode - 800 m at 1080p 1200 m at 1080i |
| | 62.5 / 125 Multimode - 350 m at 1080p 450 m at 1080i |
| **Audio Specifications** | Supports Dolby® TrueHD, DTS-HD MA |
| **General Specifications** | IR Interface: Uni-directional |
| | 20K~60K / ±10° / 5M |

| | | |
|---|---|---|
| **Power Adapter** | **Input Voltage** | DC 9~12V |
| | **Output Current** | 1.5A A |
| | **Center Tip Polarity** | Positive |
| | **Plug Type** | M |

StarTech.com
Hard-to-find made easy®

# Technical Support

StarTech.com's lifetime technical support is an integral part of our commitment to provide industry-leading solutions. If you ever need help with your product, visit **www.startech.com/support** and access our comprehensive selection of online tools, documentation, and downloads.

For the latest drivers/software, please visit **www.startech.com/downloads**

# Warranty Information

This product is backed by a two year warranty.

In addition, StarTech.com warrants its products against defects in materials and workmanship for the periods noted, following the initial date of purchase. During this period, the products may be returned for repair, or replacement with equivalent products at our discretion. The warranty covers parts and labor costs only. StarTech.com does not warrant its products from defects or damages arising from misuse, abuse, alteration, or normal wear and tear.

**Limitation of Liability**

In no event shall the liability of StarTech.com Ltd. and StarTech.com USA LLP (or their officers, directors, employees or agents) for any damages (whether direct or indirect, special, punitive, incidental, consequential, or otherwise), loss of profits, loss of business, or any pecuniary loss, arising out of or related to the use of the product exceed the actual price paid for the product. Some states do not allow the exclusion or limitation of incidental or consequential damages. If such laws apply, the limitations or exclusions contained in this statement may not apply to you.

StarTech.com
Hard-to-find made easy®

# StarTech.com

## Hard-to-find **made easy**®

Hard-to-find made easy. At StarTech.com, that isn't a slogan. It's a promise.

StarTech.com is your one-stop source for every connectivity part you need. From the latest technology to legacy products — and all the parts that bridge the old and new — we can help you find the parts that connect your solutions.

We make it easy to locate the parts, and we quickly deliver them wherever they need to go. Just talk to one of our tech advisors or visit our website. You'll be connected to the products you need in no time.

Visit www.startech.com for complete information on all StarTech.com products and to access exclusive resources and time-saving tools.

*StarTech.com is an ISO 9001 Registered manufacturer of connectivity and technology parts. StarTech.com was founded in 1985 and has operations in the United States, Canada, the United Kingdom and Taiwan servicing a worldwide market.*