StarTech.com

Hard-to-find made easy®

HDMI® over Cat 5e/6 Extender - 70m

ST121HDBTE

*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

Manual Revision: 04/14/2022

FCC Compliance Statement

This equipment has been tested and found to comply with the limits for a Class A 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.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Changes or modifications not expressly approved by StarTech.com could void the user's authority to operate the equipment.

Industry Canada Statement

This Class A digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe [A] est conforme à la norme NMB-003 du Canada. CAN ICES-3 (A)/NMB-3(A).
This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:
(1) This device may not cause interference, and (2) This device must accept any interference, including interference that may cause undesired operation of the device.
Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:
(1) L'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

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.
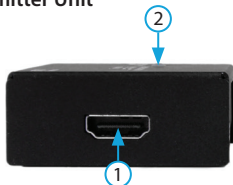
StarTech.com
Hard-to-find made easy®

Table of Contents

StarTech.com

Hard-to-find made easy®
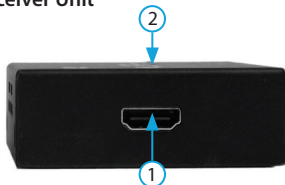
Product Diagram

Front View – Transmitter/Receiver Unit

Transmitter Unit

Receiver Unit

1. HDMI® IN
2. Status LED

1. HDMI® OUT
2. Status LED

Rear View – Transmitter/Receiver Unit
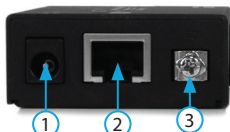
Transmitter Unit

Receiver Unit

1. Power Jack
2. LINK (RJ-45 Connector)
3. Optional grounding bolt
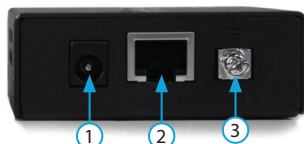
1. Power Jack
2. LINK (RJ-45 Connector)
3. Optional grounding bolt

LED Indicator

Unit / LED	Status		
	Power On	**Link OK**	**No video source or monitor connected**
Tx	Green	Blue	Flashing Blue & Green
Rx	Red	Blue	Flashing Blue & Red

StarTech.com
Hard-to-find made easy®

Introduction

The ST121HDBTE HDMI® over CAT5e/6 Video Extender kit lets you extend HDMI video and audio up to 230 feet (70 Meters) over a single Cat5 cable. For added versatility both the Transmitter and Receiver can be powered by the same single power source using Power Over Cable (POC).

With support for resolutions up to 4096 x 2160 (4K) and the accompanying digital audio, this HDMI extender is a plug-and-play solution that can easily be installed using new or existing Ethernet infrastructure wiring.

Backed by a StarTech.com 2-year warranty and free lifetime technical support.

Packaging Contents

- 1x HDMI over CAT5e/6 transmitter unit
- 1x HDMI over CAT5e/6 receiver unit
- 1x universal power adapter (NA/EU/UK/AU)
- 1x mounting bracket kit
- 2 x grounding wires
- 1x instruction 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 either the transmitter or receiver
- HDMI® cables for receiver and transmitter

StarTech.com
Hard-to-find made easy®

Installation

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: This HDMI® extender kit features Power over cable, allowing both the transmitter and Receiver to be powered from a single power source that can be connected at either end of the connection. Please ensure that either the Transmitter or the Receiver Unit is 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) (Optional) If you've chosen to power the kit from the Transmitter side, connect the provided power supply.

2. Install RJ45 terminated Cat5e/6 Ethernet Cable

   a) Connect an RJ45 terminated Cat5e/6 Ethernet cable (not included) to the RJ45 connector on the Transmitter unit.

NOTE:

If you are using surface cabling, ensure you have enough Category 5e unshielded twisted pair (UTP) network cabling to connect the Transmitter Unit to the Receiver Unit's location, and that each end is terminated with a RJ45 connector. The cabling should not go through any networking equipment (i.e. router, switch).

OR

If you are using premises cabling, ensure that the Category 5 unshielded twisted pair (UTP) network cabling between the Transmitter Unit and the Receiver Unit has been properly terminated in a wall outlet in each location and there is a patch cable long enough to connect the Receiver Unit and the Transmitter Unit to their respective outlets. The cabling should not go through any networking equipment (i.e. router, switch).

b) Connect the other end of the Cat5e/6 cable run to the RJ45 connector on the Receiver Unit.

StarTech.com
Hard-to-find made easy®

3. Install Receiver Unit

   a) Position the Receiver Unit near the video display (i.e. television, projector).

   b) Connect the video source to the HDMI® OUT on the Receiver Unit using an HDMI® cable.

   c) **(Optional)** If you've chosen to power the kit from the Receiver side, connect the provided power supply.

4. **(Optional)** Install the grounding wires.

   Note: Installation of the grounding wires is optional but recommended in environments with high levels of electromagnetic interference (EMI), or frequent electrical surges.

   Transmitter

   a) Using a Phillips type screw driver (sold separately) remove the optional grounding bolt from the Transmitter Unit.

   b) Attach the loop of one of the grounding wires to the shaft of the grounding bolt that was removed.

   c) Using the Phillips type screw driver (sold separately)drive the grounding bolt back into the hole it was removed from, on the Transmitter Unit.

   d) Attach the other end of the grounding wire (that's not connected to the Transmitter Unit) to an earth ground connection.

   Receiver

   a) Using a Phillips type screw driver (sold separately) remove the optional grounding bolt from the Receiver Unit.

   b) Attach the loop of one of the grounding wires to the shaft of the grounding bolt that was removed.

   c) Using the Phillips type screw driver (sold separately)drive the grounding bolt back into the hole it was removed from, on the Receiver Unit.

   d) Attach the other end of the grounding wire (that's not connected to the Receiver Unit) to a proper earth-ground connection.

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

StarTech.com
Hard-to-find made easy®

Video Resolution Performance

The video resolution performance of this extender will vary depending on the length of your network cabling. Please review the chart below to determine the best solution for your setup. For best results, StarTech.com recommends shielded CAT6 cable.

Distance	Maximum resolution
35 m (115 ft.) or less	4K x 2K at 30 Hz
Up to 70 m (230 ft.)	1080p at 60 Hz

Specifications

AV Input	HDMI®
AV Output	HDMI®
Interface	HDMI®
Cabling	Cat 5e/Cat 6 UTP
Audio	Yes
Audio Specifications	7.1 Surround Sound
Max Distance	70m / 230ft
Max Resolution	4K
Wide Screen Supported	Yes
Power Adapter Included	Two
Input Voltage	110~240 AC
Input Current	0.3A
Output Voltage	12 DC V
Output Current	1.5A
Power Consumption	3W Max Watts

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.

Reviews

Share your experiences using StarTech.com products, including product applications and setup, what you love about the products, and areas for improvement.

StarTech.com Ltd.	StarTech.com LLP	StarTech.com Ltd.	StarTech.com Ltd.
45 Artisans Crescent London, Ontario N5V 5E9 Canada	4490 South Hamilton Road Groveport, Ohio 43125 U.S.A.	Unit B, Pinnacle 15 Gowerton Road Brackmills, Northampton NN4 7BW United Kingdom	Siriusdreef 17-27 2132 WT Hoofddorp The Netherlands

FR: fr.startech.com

DE: de.startech.com

ES: es.startech.com

NL: nl.startech.com

IT: it.startech.com

JP: jp.startech.com