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HDMI® over Cat5 Video Extender with RS232 and IR Control

ST121UTPHD2

*actual product may vary from photos

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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.

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Introduction

The ST121UTPHD2 HDMI® over Cat5 Extender Kit can extend the audio and video signal output from an HDMI®-equipped device by up to 330 feet (100 Meters), over a single CAT5 cable. The extender supports full High-Definition video (1080p) and HD 3D, and also extends the accompanying digital audio signal.

For convenient, time-saving control of the media source, the CAT5 HDMI extender offers bi-directional RS232 serial and Infrared (IR) interfaces, which enable you to control the HDMI audio-video source from either end of the connection.

The HDMI over CAT5 Extender Kit includes both the HDMI® to CAT5 transmitter and the Cat5 to HDMI receiver needed for a cost-effective, ready-to-use digital signage solution.

To help ensure seamless performance without any unexpected or unnecessary interruptions, the HDMI Ethernet transmitter and receiver units are fully compliant with High Speed HDMI® and HDCP standards, and each unit features lockable power connectors to prevent accidental disconnections.

The ST121UTPHD2 HDMI over Cat5 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
- 1x HDMI Cable - 4 ft (1.2 Meters)
- 2x Universal Power Adapter NA / UK / EU
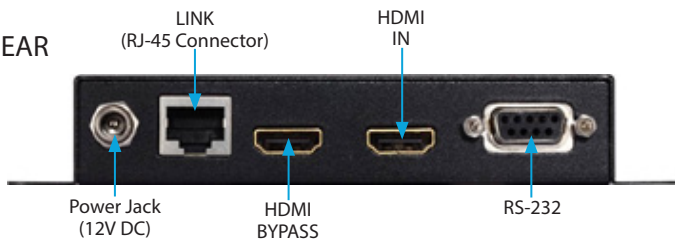- 1x User Manual

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
- HDMI® cable from receiver to display (HDMI® cable from video source to transmitter is provided)

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Transmitter Unit

FRONT

LINK
LED

POWER
LED

IR OUT

HDCP
LED

MODE
LED

REAR

LINK
(RJ-45 Connector)

HDMI
IN

Power Jack
(12V DC)

HDMI
BYPASS

RS-232

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Receiver Unit

FRONT

LINK LED
POWER LED
HDCP LED
MODE LED
IR1 IN
IR2 IN

REAR

LINK (RJ-45 Connector)
Power Jack (12V DC)
HDMI OUT
RS-232

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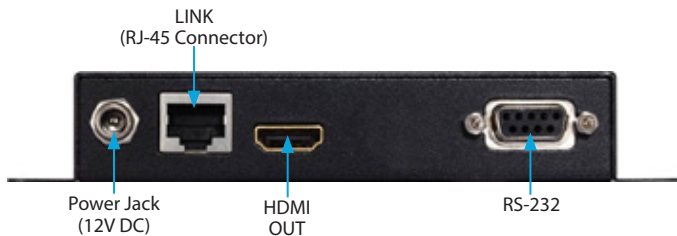
Preparing Your Site

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.

Notes: Ensure the Extender 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 the provided 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 ST121UTPHD2 to extend an infrared (IR) device signal. Connect the IR Transmitter Cable to the IR OUT 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.

   e) (Optional) If you would like to use a local display, connect an HDMI® cable (Not provided) from the display to HDMI® bypass.

Note: Only the local or remote display can work at one time. Connecting a display to the HDMI® bypass will result in the remote display losing signal.

   f) (Optional) If also transmitting RS232 signals over Cat5, connect the transmitting RS232 device to the "RS232" connector on the Transmitter Unit using a DB9 cable (Not included).

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2. Install RJ45 terminated Cat5 Ethernet Cable

    a) Connect an RJ45 terminated Cat5 Ethernet cable (not included) to the RJ45 connector on the Transmitter unit.

Note: If you are using surface cabling, ensure you have enough Category 5 unshielded twisted pair (UTP) network cabling to connect the Host Unit to the Remote 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 Host Unit and the Remote Unit has been properly terminated in a wall outlet in each location and there is a patch cable long enough to connect the Remote Unit and the Host 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 Cat5 cable run to the RJ45 connector on the Receiver Unit.

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 (Not included).

    c) (Optional) If using the ST121UTPHD2 to extend an infrared (IR) device signal. Connect the IR Receiver Cable to the IR IN 1 on the Receiver Unit, and Position the IR sensor where the remote control will point.

Note: If you intend to point the remote control directly at the Receiver Unit, the IR Receiver cable is not required, as IR IN 2 is physically embedded into the device.

    g) (Optional) If also transmitting RS232 signals over Cat5, connect the receiving RS232 device to the "RS232" connector on the Receiver Unit using a DB9 cable (Not included).

    d) Connect the provided Receiver Unit power supply. The Power LED will light, and LINK & HDCP LEDs will turn on after a successful connection between both units is established. This may take several seconds.

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

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Specifications

Local Unit Connectors	1x IrDA (Infrared; SIR/FIR)
	2x HDMI (19 pin) Female
	1x DB-9 (9 pin; D-Sub) Female
	1x RJ-45 Female
Remote Unit Connectors	2x IrDA (Infrared; SIR/FIR)
	1x HDMI (19 pin) Female
	1x DB-9 (9 pin; D-Sub) Male
	1x RJ-45 Female
Maximum Data Transfer Rate	HDMI® - 3.4Gbps
	RS232 - 115200bps baud
Max Distance	100 m / 330 ft
Maximum Digital Resolutions	1080p @ 60Hz, 48-bit
Wide Screen Supported	Yes
Audio Specifications	Supports Dolby® TrueHD, DTS-HD MA
General Specifications	IR Interface: Bi-directional
	38Khz / ±10° / 5M

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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.

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