

ST121UTPHDMI
ST121UTPHDGB
ST121UTPHDEU
Instruction Manual

HDMI Video Extender

HDMI Audio/Video Extender
over Cat5 with RS232 and
IR Control

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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 ST121UTPHDMI HDMI Audio Video Extender over Cat5 with RS232 and IR extends an HDMI source signal up to 80 meters (260 feet) using a standard Cat5 or better UTP/STP cable, giving you the freedom to optimize the placement of your display without sacrificing image quality. Compliance with High Speed HDMI (1.3) as well as HDCP ensures that even the latest devices will be able to pass a signal with support for full 1080p resolutions and the accompanying digital audio.

This HDMI A/V extender also features bi-directional RS232 serial and Infrared (IR) interfaces allowing you to communicate with and control your media source from either end of the connection.

Comprised of a transmitter and receiver unit this HDMI, RS232 and IR extender kit is a complete, cost-effective solution for digital signage, tradeshow demo stations or video conferencing.

Backed by a StarTech.com 1 year warranty and free lifetime technical support.

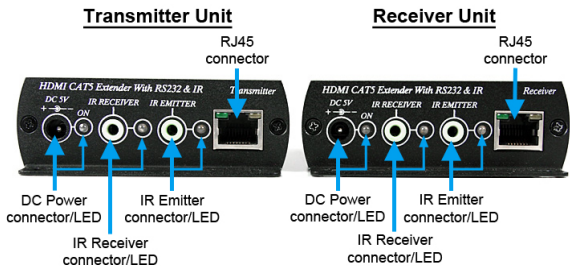
Packaging Contents

- 1 x Transmitter Unit
- 1 x Receiver Unit
- 2 x IR Emitter cable
- 2 x IR Receiver cable
- 2 x Power Adapter
- 1 x Instruction Manual

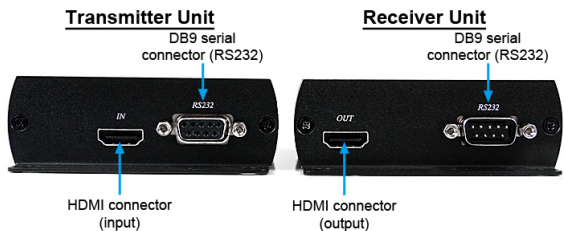
System Requirements

- HDMI enabled video source (i.e. computer, game console, etc)
- HDMI enabled display device (i.e. monitor, projector, HDTV, etc)
- Available AC power outlet at transmitter/receiver locations

Front View- Transmitter/Receiver Unit



Rear View- Transmitter/Receiver Unit



Installation

Make sure all devices are turned off before beginning installation.

Hardware Installation


1. Connect an HDMI cable from the video source device (i.e. computer, game console, PVR/DVR) to the “In” HDMI connector on the Transmitter unit.
2. **OPTIONAL:** If also transmitting IR control over Cat5, connect the IR emitter and receiver probes to the corresponding connectors on the Transmitter unit. The emitter should be placed near the IR sensor on the video source device. The receiver should be placed in a visible location so as to be accessible to the IR remote control for the video source device.
3. **OPTIONAL:** If also transmitting RS232 signals over Cat5, connect the transmitting RS232 device to the “RS232” connector on the Transmitting unit using a DB9 cable.
4. Connect an RJ45 terminated Cat5 Ethernet cable to the RJ45 connector on the Transmitter unit.

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).

5. Connect the other end of the Cat5 cable run to the RJ45 connector on the Receiver unit.
6. Connect an HDMI cable from the “Out” HDMI connector on the Receiver unit the HDMI input connector on the display device (i.e. monitor, HDTV).

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7. If Step 2 previously performed, connect and position the IR emitter/receiver probes appropriately from the Receiver unit.
 8. If Step 3 previously performed, connect a male DB9 serial cable from the Receiver unit to the RS232 serial device. The male pinout on the DB9 connector is identical to that of the pinout on the male cable plugged into the Transmitter unit.
 9. Turn the extender units on by plugging in the power adapters. The power LED should light up and stay solid. The Link LED on the RJ45 connector will light up to indicate a proper connection.
 10. Turn on the display device and make sure it's set to the HDMI input.
 11. Turn on video source device. The video output should appear on the display on the Receiver unit.

Driver Installation

No driver or software installation is required.

Specifications

	ST121UTPHDMI ST121UTPHDGB ST121UTPHDEU
Video Signal	High Speed HDMI (1.3)
Connectors (Transmitter)	1 x HDMI type A female 1 x RJ45 female 1 x DB9 female 2 x IR probe connector 1 x DC Power
Connectors (Receiver)	1 x HDMI type A female 1 x RJ45 female 1 x DB9 male 2 x IR probe connector 1 x DC Power
LEDs (per unit)	1 x Power 1 x RJ45 Link 1 x IR Emitter Activity 1 x IR Receiver Activity
Compatible Cabling	Cat5/5e/6/6a/7 UTP/STP/FTP
Maximum Cable Length	80 m / 260 ft
Maximum Video Resolution	1080p @ 60Hz, 48-bit
Audio Support	Yes (Dolby TrueHD, DTS-HD MA)
HDCP Compliant	Yes
DDC Support	Yes



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Supported Protocols	RS232
Maximum Serial Baud Rate	115, 200 Kbps
IR Interface	Bi-directional 38Khz / $\pm 10^\circ$ / 5m
Power Adapter	5VDC, 2000mA, center positive
Operating Temperature	0°C ~ 55°C (32°F ~ 131°F)
Storage Temperature	-20°C ~ 85°C (-4°F ~ 185°F)
Humidity	0% ~ 95%
Dimensions (LxWxH)	130.0mm x 88.0mm x 30.0mm
Weight (per unit)	500 g

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.

Warranty Information

This product is backed by a one 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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