

HDMI® to CAT5 Extender with Optional Repeater Functionality and Audio – 1080p / 1920x1080

ST12MHDDC



*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 ST12MHDDC HDMI® to CAT5 Extender kit lets you extend an HDMI® audio and video signal over a single Cat5 or Cat6 cable up to 330 feet (100 meters). The extender offers a highly scalable installation when used with the optional ST12MHDDCRP repeater units, which can be daisy-chained to additional displays at greater distances.

Using ST12MHDDCRP repeater units (sold separately), you also have the option to daisy-chain the HDMI® over Cat 5/6 up to 30 broadcasting levels to over 100 displays. With 2 RJ45 to HDMI® output ports per unit, each repeater allows you to output to a display - and also extend the HDMI® signal to 2 additional HDMI® repeaters at up to an additional 330 feet (100 meters) at each level, making this the perfect solution for large-scale digital signage applications that require maximum HDMI® signal quality.

For further scalability, the ST12MHDDC kit can be used with existing network cable for a cost-effective and flexible extension. Plus, because the HDMI® signal is extended over standard Cat5/Cat6 Ethernet cable with RJ45 connectors, proprietary cables aren't necessary which eliminates both expense and the hassle of running specialized cable.

The HDMI® over Ethernet Extender kit includes optional mounting hardware and features an HDMI® output on the local transmitter unit, which allows you to keep a display or projector near your video source.

Ideal for High-Definition applications, the HDMI® over UTP extender supports 1080p video resolutions, 7.1 digital audio and features built-in EDID monitor emulation, which ensures native resolution and maximum compatibility with your display or projector, for a convenient plug-and-play installation.

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

Packaging Contents

- 1x HDMI® Over CAT5 Transmitter
- 1x HDMI® Over CAT5 Receiver
- 2x Universal Power Adapter (NA / UK / EU)
- 2x Foot Pad Set
- 1x Instruction Manual

System Requirements

- HDMI® enabled video source (i.e. computer, Blu-ray Player)
- HDMI® enabled display device(s) One for each Receiver/Repeater (i.e. television, projector)
- Available AC electrical outlet for transmitter, receiver and optional repeaters
- HDMI® cable from for each display

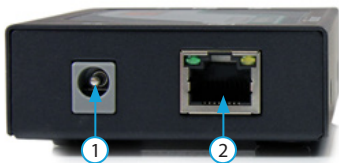
Transmitter Unit

Front View of Transmitter



1. HDMI® IN
2. Power Status LED
3. Link Status LED

Back View of Transmitter



1. Power Jack
2. HDMI® Out Link (RJ-45 Connector)

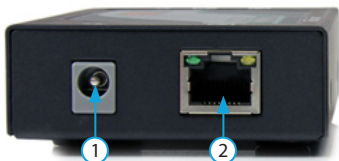
Receiver Unit

Front View of Receiver



1. HDMI® OUT
2. Power Status LED
3. Link Status LED
4. EDID Copy Button

Back View of Receiver



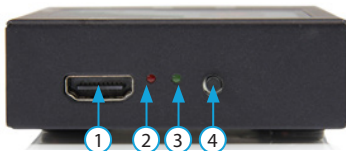
1. Power Jack
2. HDMI® Out Link (RJ-45 Connector)

ST12MHDDCRP Repeater

Unit (Sold Separately)

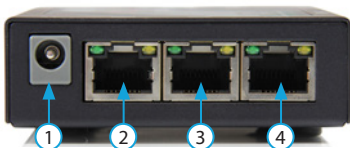
The ST12MHDDDC HDMI extender kit allows for additional displays to be added between the extender and receiver at any time using ST12MHDDCRP repeater units. Repeaters provide an HDMI output for a display, as well as 2 additional RJ-45 Jacks to potentially be daisy chained to 2 additional repeaters.

Front View of Repeater



1. HDMI® OUT
2. Power Status LED
3. Link Status LED
4. EDID Copy Button

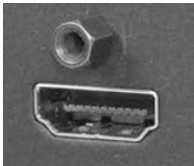
Back View of Repeater



1. Power Jack
2. HDMI® Out Link #1 (RJ-45 Connector)
3. HDMI® Out Link #2 (RJ-45 Connector)
4. HDMI® IN Link (RJ-45 Connector)

(Optional) Locking Connection Installation

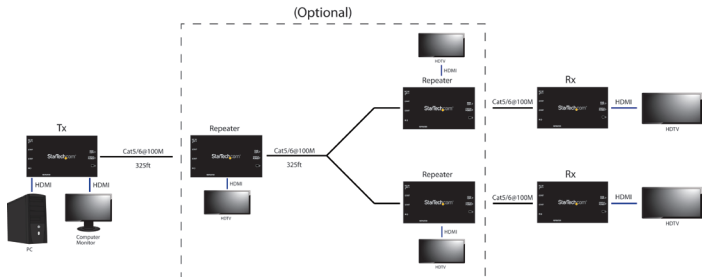
To include support for screw lock HDMI cables, some models of the ST12MHDDDC and ST12MHDDCRP include hex jack screws for each HDMI port on the extender, receiver and repeater units. If any of the HDMI cables in your application support the screw locking feature it is recommended you install the hex jack above the corresponding HDMI port.



Note: Some models of the ST12MHDDDC do not include hex screws or necessary hex screw mounting hardware.

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(s) will be located and place/ mount the display appropriately.
3. **(Optional)** If using ST12MHDDCRP Repeater unit(s) (**sold separately**), determine where the remote display will be located in relation to the other displays and place/ mount the display(s) appropriately. Repeaters allow for an additional 330 ft. (100 meters) of Cat5/6 between each device. The repeater(s) must be situated between the extender and the receiver, as the receiver does not have an RJ45 out port to continue the chain.



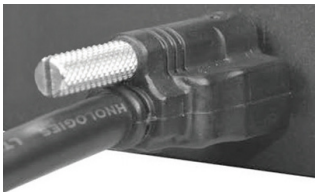
NOTE: Ensure the Transmitter Unit, the Receiver Unit, and any Repeater Units are all situated near an available AC electrical outlet. Make sure all devices are turned off before beginning installation.

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.

Note: If you have installed the hex jack screw for a locking HDMI cable, please ensure you lock the cable into place by screwing the thumb screw into the hex jack.



- c) Connect the provided Transmitter Unit power supply.

2. Install RJ-45 terminated Cat5/6 Ethernet Cable

- a) Connect an RJ-45 terminated Cat5/6 Ethernet cable to the HDMI® Out Link (RJ-45 Connector) on the Transmitter unit.

NOTE: If you are using surface cabling, ensure you have enough Category 5/6 unshielded twisted pair (UTP) network cabling to connect the Transmitter Unit to the Remote Unit's (Repeater/Receiver) 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 5/6 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 Cat5/6 cable run to the RJ45 connector on the remote Unit (Receiver/Repeater) Unit.
- c) (optional) When adding multiple repeaters, a run of Cat 5/6 cable will be required from and to each device.

3. (Optional) Install Repeater Unit(s) (sold separately)

- a) Position the Repeater Unit near the video display (i.e. television, projector) within 330 ft. (100 meters) from the level up device be it the initial transmitter or another repeater.
- b) Connect the display to the HDMI® Out on the Repeater Unit using an HDMI® cable.
- c) Connect the Cat5/6 cable positioned in Step 2 to the "HDMI® In Link (RJ-45 Connector)" on the Repeater. Connect the Receiver Unit power supply. The Power LED will light, and LINK LED will turn on after a successful connection between both units is established. This may take several seconds.

NOTE: These steps can be repeated at each level when adding additional Repeaters up to 30 levels. Each Repeater has two HDMI® out Links (RJ-45 Connectors) allowing for the same signal to go in 2 different directions at each level.

4. Install Receiver Unit

- a) Position the Receiver Unit near the video display (i.e. television, projector) within 330 ft. (100 meters) from the level up device be it the initial transmitter or another repeater.
- b) Connect the display to the HDMI® out on the Receiver Unit using an HDMI® cable.
- c) Connect the provided Receiver Unit power supply. The Power LED will light, and Link LED will turn on after a successful connection between both units is established. This may take several seconds.

NOTE: The Receiver should only be used as the last device in the chain as it does not have an HDMI® out port (RJ-45 Connector).

5. Your source video image will now appear on the remote unit(s) attached video display.

EDID Copy

EDID allows the video source to output the most ideal signal to the video display. The "EDID Copy" function on the ST12MHDDC ensures that EDID is still active through the Ethernet extender.

1. Press the "EDID copy" button on one of the Receiver or Repeater until "Handle EDID Now" appears on the display.

NOTE: If you using multiple repeaters the EDID can only be copied from one receiver/repeater, the signal customized for that display will be applied to all displays connected.

2. "EDID has been updated OK" will appear on the display. EDID is now active through the Ethernet extender.

Specifications

Local Unit Connectors	1x HDMI (19 pin) 1x RJ-45
Remote Unit Connectors	1x RJ-45 Female 1x HDMI (19 pin) Female
Max Distance	100 m / 330 ft
Maximum Digital Resolutions	1920x1200 @60Hz
Supported Resolutions	1920 x 1200 1920 x 1080 / 1080p 1600 x 1200
Wide Screen Supported	Yes
Audio Specifications	7.1 Surround Sound

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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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