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HDMI® Audio/Video Over IP Extender Kit

ST12MHDLAN

*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 ST12MHDLAN HDMI® Over IP Extender kit lets you extend an HDMI® audio and video signal over a Gigabit LAN network. The kit includes both the extender and receiver for a complete all-in-one solution, and offers a highly scalable installation when used with additional ST12MHDLANRX receiver units (sold separately). The ST12MHDLANRX receivers can be connected to the same network to output the HDMI® signal to over 100 additional displays.

This flexible HDMI® extender can be connected through a Gigabit LAN portal and span the entire distance of your network, or connected point-to-point with no network hub for a small scale one-to-one extension of up to 330 feet (100 meters). Plus, because the HDMI® signal is extended over standard Cat5e/Cat6 Ethernet cable with RJ45 connectors, proprietary cables aren't necessary, eliminating both the expense and hassle of running specialized cables. For added versatility, up to 16 different ST12MHDLAN Transmitter units can be added to a single network (IGMP Network support required).

The HDMI® over IP Extender kit includes optional mounting hardware for a professional and tidy installation.

Ideal for High-Definition applications, the extender supports 1080p video resolutions, digital stereo 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.
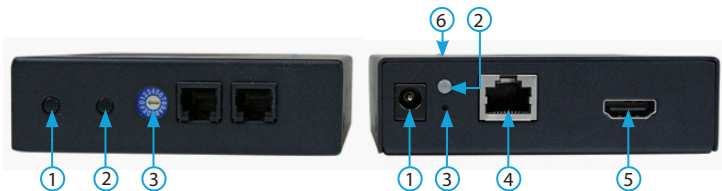
Packaging Contents

- 1 x HDMI® over IP Transmitter Unit
- 1 x HDMI® over IP Receiver Unit
- 2 x Mounting Bracket Kit
- 2 x Foot Pad Set
- 2 x Power Adapters
- 1 x Instruction Manual

System Requirements

- HDMI® enabled video source (i.e. computer, Blu-ray Player)
- HDMI® enabled display device(s) One for each Receiver (i.e. television, projector)
- Available AC electrical outlet for the Transmitter, and each Receiver
- HDMI® cable for each display
- Gigabit Networking devices and cabling

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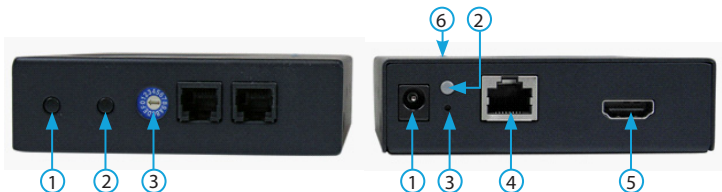
Transcriter Unit

Transmitter Unit

1. F2 (Not Active)
2. F1 (Used during factory default setting)
3. Dip Rotary Switch (Used to pair Transmitter to Receiver)

1. Power Jack
2. Network Status LED
3. Reset Button
4. LAN Port (RJ-45 Connector)
5. Video In
6. Link OK POWER LED

Receiver Unit
(Additional Receiver units sold seperately ST12MHDLANRX)

1. F2 (Used during EDID Copy procedure)
2. F1 (Used during factory default setting)
3. Dip Rotary Switch (Used to pair Transmitter to Receiver)

1. Power Jack
2. Network Status LED
3. Reset Button
4. LAN Port (RJ-45 Connector)
5. Video Out
6. Link OK POWER LED

NOTE: Serial 1 (Control) Ports, and Serial 2 (AUX/EXT) Ports are not active

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Preparing Your Site

NOTE: The ST12MHDLAN HDMI® extender kit can use a Gigabit LAN Network to extend the signal. Most Gigabit Network portals have a cable length restriction of 330 ft. (100m). Refer to the manufacturer of the equipment to determine the length restriction and ensure the Transmitter Unit, and Receiver Unit(s) are all within the restricted range of the nearest network portal.

Ensure the Transmitter Unit, and Receiver Unit(s) are all situated near an available AC electrical outlet.

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.
3. **(Optional)** If using additional receiver units (ST12MHDLANRX sold separately), determine where the remote displays will be located in and place/ mount the displays appropriately.

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Hardware Installation Using Gigabit LAN Network

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 "Video In" port on the Transmitter Unit.

   c) Connect the provided Transmitter Unit power supply.

2. Install Receiver Unit(s)

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

   b) Connect an HDMI cable from the display Input to the "Video Out" port on the Receiver Unit.

   c) Connect the provided Receiver Unit power supply.

   d) **(optional)** If using additional ST12MHDLANRX Receivers (sold separately), repeat steps for each additional Receiver.

NOTE: The "Dip Rotary Switch" on the Extender and each Receiver connected to the network must be set in the same position for the devices to communicate.

3. Connect the devices to a Gigabit LAN Network

   a) Connect an RJ-45 terminated Cat5e/6 Ethernet cable to the "LAN Port" (RJ-45 Connector) on the Transmitter unit, and all receiver units.

NOTE: If you are using surface cabling, ensure you have enough Category 5e/6 unshielded twisted pair (UTP) network cabling to connect the Transmitter Unit to the Gigabit LAN hub, router, or switch.

OR

If you are using premises cabling, ensure that the Category 5e/6 unshielded twisted pair (UTP) network cabling between the Transmitter and Gigabit LAN hub, router, or switch has been properly terminated in a wall outlet in each location and there is a patch cable long enough to connect the Network portal and Transmitter Unit to their respective outlets.

   b) Connect the other end of the Cat5e/6 cable run to a Gigabit LAN hub, router or switch.

   c) (optional) When adding additional Receiver Units (ST12MHDLANRX – Sold separately), a run of Cat 5e/6 cable will be required from each device to the Gigabit LAN hub, router or switch.

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

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(Optional) Point to Point Hardware Installation without Gigabit LAN Network

NOTE: While range is reduced to a maximum of 330 feet (100 Meters) the ST12MHDLAN HDMI® extender kit also allows for extending the signal without a Gigabit LAN Network by connecting the Transmitter directly to the Receiver using CAT5e/6 cabling. This eliminates the ability to add additional Receivers.

1. Install Transmitter Unit

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

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

   f) Connect the provided Transmitter Unit power supply.

2. Install Receiver Unit(s)

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

   f) Connect an HDMI® cable from the display Input to the "Video Out" port on the Receiver Unit.

   g) Connect the provided Receiver Unit power supply.

NOTE: The "Dip Rotary Switch" on the Extender and Receiver connected must be set in the same position for the devices to communicate.

3. Install RJ-45 terminated Cat5e/6 Ethernet Cable

   d) Connect an RJ-45 terminated Cat5e/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 5e/6 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.

OR

If you are using premises cabling, ensure that the Category 5e/6 unshielded twisted pair (UTP) network cabling between the Transmitter and Receiver Units have 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.

   e) Connect the other end of the Cat5/6 cable run to the RJ45 connector on the remote Unit Receiver Unit.

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

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Hardware Reset Procedure

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

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

EDID Copy

EDID allows the video source to output the most ideal signal to the video display. The "EDID Copy" function on the ST12MHDLANRX ensures that EDID is still active through the Ethernet extender.

NOTE: If you using multiple receivers the EDID can only be copied from one unit, the signal customized for that display will be applied to all displays connected through additional receivers.

1. Disconnect the power cable from the Receiver.

2. Hold down the F2 button

3. Reconnect the Power while holding down the F2 button

4. Release F2 button after the power has been reconnected for 12 seconds (the Network Status LED flashes yellow), EDID is now active through the Ethernet extender.

Factory Default Setting

1. Disconnect the power cable from the Transmitter/Receiver.

2. Hold down the F1 button

3. Reconnect the Power while holding down the F1 button

4. Release F1 button after the power has been reconnected for 17 seconds (the Link OK POWER LED flashes green and blue)

5. Reconnect the Power again.

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Specifications

Maximum Digital Resolutions	1920x1200 @60Hz
Supported Resolutions	1920 x 1200 (1080p)
Wide Screen Supported	Yes
Audio Specifications	Stereo Sound
Interface	HDMI®
Cabling	Cat 5e UTP or better
Audio	Yes
Rack-Mountable	Yes
Industry Standards	HDMI® HDCP
Daisy-Chain	Yes
Transmitter Connectors	1x HDMI® (19 pin) 1x RJ-45
Receiver Connectors	1x HDMI® (19 pin) 1x RJ-45
Power Adapter Input Voltage	100~240V
Power Adapter Input Current	0.4 A
Power Adapter Output Voltage	5 DC V
Power Adapter Output Current	2 A
Center Tip Polarity	Positive
Plug Type	M

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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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