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StarTech.com ST121HD20L HDMI over CAT6 Extender Quick-Start Guide

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StarTech.com ST121HD20L HDMI over CAT6 Extender

Transmitter and Receiver Front View

Component		Function
Transmitter and Receiver		
1	Power LED Indicator	• Solid green when the **Universal Power Adapter** is connected
Transmitter		
2	Link LED Indicator	• Solid green when the **HDMI Source Device** is connected
Receiver		
2	Link LED Indicator	• Solid green when the **CAT6 Cable** is connected and the **HDMI Source Device Video Signal** is active

Transmitter and Receiver Rear View

Port		Function
Transmitter and Receiver		
3	DC IN Ports	• Power the **Transmitter** and **Receiver** • Secure the **Universal Power Adapters** into the **DC IN Ports** by inserting the **Barrel Connectors** on the **Universal Power Adapters** and turning the **Screw Locks** clockwise
4	HDMI IN and OUT Ports	• Connect an **HDMI Source** and **HDMI Display Device**
5	IR TX and RX Ports	• Connect the **IR** (Infrared) **Blasters** and **Receivers** to control the **HDMI Source** and **HDMI Display Device** from the **Transmitter** or **Receiver** • Bi-directional to support different IR configurations
6	RS-232 Extension Ports	• Connect any **Serial Device** to extend the signal over **CAT6 Cable**
7	RJ45 Ports	• Connect the **CAT6 Cable** to extend the signal from the **Source Device** to the **HDMI Display Device**

Requirements

For the latest requirements and to view the full User Manual, please visit **www.startech.com/ST121HD20L**.

- HDMI Source Device x 1
- HDMI Display Device x 1
- CAT6 Cable x 1
- (Optional) Surface for Mounting x 1

Installation

Installing the HDMI Transmitter and Receiver

1. Position the Transmitter near the HDMI Source Device.

2. Connect an HDMI Cable to the HDMI Source Device and to the HDMI IN Port on the back of the HDMI Transmitter.

3. Connect a CAT6 Cable (included) to the RJ45 Port on the back of the HDMI Transmitter and to the RJ45 Port on the back of the HDMI Receiver.
   Note: The cabling should not go through any networking equipment (e.g. router, switch, etc.).

4. Position the HDMI Receiver near the HDMI Display Device.

5. Connect an HDMI Cable to the HDMI OUT Port on the back of the HDMI Receiver and to the HDMI Display Device.

6. Connect the Universal Power Adapters to the DC IN Ports on the Transmitter and Receiver and to two AC Electrical Outlets.

Installing the IR Blaster and IR Receiver

Control the HDMI Display Device from the Transmitter

1. Connect the Infrared Receiver (oval-shaped) to the IR – TX Port on the Transmitter.

2. Peel the Film off of the Adhesive Pad that is located on the Infrared Receiver. Stick the Infrared Receiver in a location where there is a clear path to the Remote Control.
   Note: Ensure there is an unobstructed path to the Infrared Receiver. Infrared signals require a direct line of sight to function.

3. Connect the Infrared Blaster (L-shaped) to the IR – RX Port on the Receiver.

4. Peel the Film off of the Adhesive Pad that is located on the Infrared Blaster. Stick the Infrared Blaster on the HDMI Display Device so that it is pointing directly at the IR Sensor on the Display.
   Note: Consult the HDMI Display Device's manual to determine the location of the IR Sensor.

5. Use the Remote Control for the HDMI Source Device to control the HDMI Display Device from the Transmitter's location.

Control the HDMI Source Device from the Receiver

1. Connect the Infrared Blaster (L-shaped) to the IR – RX Port on the Transmitter.

2. Peel the Film off of the Adhesive Pad that is located on the Infrared Blaster. Stick the Infrared Blaster so that it is pointing directly at the IR Sensor on the HDMI Source Device.
   Note: Consult the HDMI Source Device's manual to determine the location of the IR Sensor.

3. Connect the Infrared Receiver (oval-shaped) to the IR – TX Port on the Receiver.

4. Peel the Film off of the Adhesive Pad that is located on the Infrared Receiver. Stick the Infrared Receiver in a location where there is a clear path to the Remote Control.
   Notes: Infrared signals require a direct line of sight to function. Consult the manual for the HDMI Display Device to determine the location of the IR Sensor.

5. Use the Remote Control for the HDMI Source Device to control the HDMI Source Device from the Receiver's location.

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 the receiver.
- Connect the equipment to 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 B digital apparatus complies with Canadian ICES-003.
- This device complies with Industry Canada license-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.

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Warranty Information

This product is backed by a two-year warranty. For further information on product warranty terms and conditions, please refer to **www.startech.com/warranty**.

Limitation of Liability

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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.

Safety Measures

If the product has an exposed circuit board, do not touch the product under power.

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FAQ's

What is the StarTech.com ST121HD20L HDMI over CAT6 Extender?

The StarTech.com ST121HD20L is a device that extends HDMI signals over CAT6 Ethernet cables to transmit high-definition video and audio over longer distances.

What is the maximum distance this extender supports?

The ST121HD20L can extend HDMI signals up to 330 feet (100 meters) over CAT6 Ethernet cables.

What type of HDMI signals does it support?

The extender supports HDMI 1.4 signals, including resolutions up to 1080p (1920x1080) at 60Hz.

Does the extender require external power?

Yes, both the transmitter and receiver units require external power through the included power adapters.

Can I use CAT5e cables instead of CAT6?

While CAT6 cables are recommended for optimal performance, CAT5e cables can also be used for shorter distances, but the overall performance might be slightly reduced.

Does it support IR pass-through for remote control?

Yes, the ST121HD20L supports IR pass-through, allowing you to control your source device remotely from the display location.

Can I use this extender for 4K video signals?

No, this extender is designed for HDMI 1.4 signals, which do not support 4K resolutions. It's suitable for up to 1080p resolutions.

Does it support audio transmission as well?

Yes, the extender supports both video and audio transmission over the CAT6 cable.

Is the setup process complicated?

The setup process is relatively straightforward. It involves connecting the transmitter and receiver units, CAT6 cables, HDMI cables, and power adapters.

Can I use shielded CAT6 cables for better performance?

Yes, using shielded CAT6 cables can help reduce interference and maintain signal integrity, especially in environments with high electromagnetic interference.

What happens if the CAT6 cable length exceeds the maximum supported distance?

Extending beyond the recommended distance might result in signal degradation or loss. Stick to the specified distance for optimal performance.

Can I use this extender for gaming consoles?

Yes, the extender can be used for gaming consoles that output HDMI signals, but keep in mind the potential latency introduced by the extender.

Is this extender HDCP compliant?

Yes, the ST121HD20L extender is HDCP compliant, which means it can transmit encrypted content over the HDMI connection.

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