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HDMI® Over Cat 5e/6 Extender | 50m

Actual product may vary from photos

User Manual
SKU#: ST121SHD50

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Compliance Statements

FCC Compliance Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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 A digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe [A] est conforme à la norme NMB-003 du Canada.

CAN ICES-3 (A)/NMB-3(A)

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Safety Statements

Safety Measures

- Wiring terminations should not be made with the product and/or electric lines under power.
- Cables (including power and charging cables) should be placed and routed to avoid creating electric, tripping or safety hazards.

Mesures de sécurité

- Les terminaisons de câblâge ne doivent pas être effectuées lorsque le produit et/ou les câbles électriques sont sous tension.
- Les câbles (y compris les câbles d'alimentation et de chargement) doivent être placés et acheminés de façon à éviter tout risque électrique, de chute ou de sécurité

安全対策

- 電源が入っている状態の製品または電線の終端処理を行わないでください。
- ケーブル（電源ケーブルと充電ケーブルを含む）は、適切な配置と引き回しを行い、電気障害やつまづきの危険性など、安全上のリスクを回避するようにしてください。

Misure di sicurezza

- I terminali dei fili elettrici non devono essere realizzate con il prodotto e/o le linee elettriche sotto tensione.
- I cavi (inclusi i cavi di alimentazione e di ricarica) devono essere posizionati e stesi in modo da evitare pericoli di inciampo, rischi di scosse elettriche o pericoli per la sicurezza.

Säkerhetsåtgärder

- Montering av kabelavslutningar får inte göras när produkten och/eller elledningarna är strömförda.
- Kablar (inklusive elkablar och laddningskablar) ska dras och placeras på så sätt att risk för snubblingsolyckor och andra olyckor kan undvikas.

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Introduction

The ST121SHD50 HDMI® over CAT5e/6 Video Extender kit lets you extend HDMI® video and audio up to 165 feet (50 Meters) (1080i) over 2 CAT5e Ethernet cables, or up to 130 Feet (40 Meters)(1080p) over 2 CAT6 Ethernet cables.

Package Contents

- HDMI over CAT5e/6 UTP transmitter x 1
- HDMI over CAT5e/6 UTP receiver x 1
- Universal power adapter (NA / EU / UK / AU) x 1
- Mounting brackets x 2
- Foot pad set x 2
- User Manual x 1

Requirements

Requirements are subject to change. For the latest requirements, please visit www.startech.com/ST121SHD50.

Video Device

- HDMI® enabled video source device (i.e. computer, Blu-ray Player)

Display Device

 • HDMI® enabled display device (i.e. television, projector)

Cables

 • HDMI® cables for Receiver and Transmitter
 • CAT5e/CAT6 Cables x 2

   Note: *Two cables are necessary for transmitting video signal and DDC data.*

Installation

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.

   Note: *This HDMI® extender kit features Power over cable, allowing both the Transmitter and Receiver to be powered from a single power source that can be connected at either end of the connection. Please ensure that either the Transmitter or the Receiver Unit is situated near an available AC electrical outlet. Make sure all devices are turned off before beginning installation.*

Hardware Installation

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

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

3. (Optional) If you've chosen to power the kit from the Transmitter side, connect the provided power supply.

4. Connect an RJ45 terminated Cat5e/6 Ethernet cable (not included) to the LINK OUT A (RJ-45 connector) on the Transmitter unit.

5. Connect another RJ45 terminated Cat5e/6 Ethernet cable (not included) to the LINK OUT B (RJ-45 connector) on the Transmitter unit.

   Note: *If you are using surface cabling, ensure you have enough Category 5e 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).

6. Connect the other end of the Cat5e/6 cable (from LINK OUT A) to the LINK IN A (RJ-45 connector) on the Receiver Unit.

7. Connect the other end of the Cat5e/6 cable (from LINK OUT B) to the LINK IN B (RJ-45 connector) on the Receiver Unit.

   Note: *If extending a 1080p signal over CAT6 cables, the maximum distance is 40m (130 ft).*

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

9. Connect the video source to the HDMI® OUT on the Receiver Unit using an HDMI® cable.

10. (Optional) If you've chosen to power the kit from the Receiver side, connect the provided power supply.

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

Operation

Video Adjustment (Receiver Unit Only)

This function allows adjustments in sharpness of the video image for better clarity. If necessary, adjust the EQ Selector at the Receiver Unit to compensate cable length. Turn the EQ Selector one notch at one time and wait for 10~12 sec. For HDMI cable length (Rx-to-monitor) less than 8 meters, the selector position is around 0~7 (depends on video resolution). For HDMI cable length (Rx-to-monitor) greater than 8 meters, the selector position is around 8, 9, A~F (depends on video resolution).

For example, if using a 1.8M (or 3.0M) HDMI cable, a CAT5 cable and a display with resolution of Full HD (1920 x 1080), you may adjust video according to its CAT5 cable length as follows:

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CAT5 Cable Length/EQ Postion

CAT5 Cable Length	EQ Selector Position
0M~15M	0,1
15M~25M	1,2
25M~30M	2,3

CAT cable Length/Resolution

Cable Type	Resolution	Cable Length (max.)
CAT6	1080i	50M
CAT6	1080p	40M
CAT5 (solid)	1080i	50M
CAT5 (solid)	1080p	20M
CAT5 (stranded)	1080i	40M
CAT5 (stranded)	1080p	16M

EDID Configuration

If you are experiencing poor resolution or inconsistent audio or video output, you can specify EDID settings or copy EDID settings using the EDID button. The EDID Copy function

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automatically provide the necessary EDID data to connected displays or allows you to manually copy EDID data from an EDID compliant display.

Auto EDID Configuration

The Transmitter can automatically copy EDID settings from the connected display. In order for this function to work both Link Out A and Link Out B Ports on the Transmitter need to be connected to the Link In A and Link In B Ports of the Receiver via Cat5e/Cat6 Cables.

1. Connect a Cat5e/Cat6 Cable (sold separately) to the Link Out A port on the Transmitter.

2. Connect the other end of the Cat5e/Cat6 Cable to the Link In A Port on the Receiver.

3. Connect a Cat5e/Cat6 Cable to the Link Out B Port on the Transmitter.

4. Connect the other end of the Cat5e/Cat6 Cable to the Link In B Port on the Receiver.

5. Connect an HDMI Cable to the Video Out Port on the Receiver.

6. Connect the other end of the HDMI Cable to the HDMI port on the Display.

Manual EDID Configuration (EDID Copy/EDID Ghost)

1. Connect a Cat5e/Cat6 Cable (sold separately) to the Link Out A port on the Transmitter.

2. Connect the other end of the Cat5e/Cat6 Cable to the Link In A Port on the Receiver.

3. Connect the Universal Power Adapter to the Power Jack on either the Transmitter or Receiver and the other end into a power supply to power on the unit.

4. Connect an HDMI Cable to the Video Out Port on the Receiver.

5. Connect the other end of the HDMI Cable to the HDMI port on the Display.

6. On the Transmitter, press the EDID Copy button. Release the EDID Copy button once the LED Indicator flashes green. The LED Indicator will flash green, red and blue, indicating that the copy was successful.

7. If the LED Indicator flashes red:

   • The display is may not be properly connected to the Video Out Port on the Receiver.

   • The display is may not be powered On.

   • The display's EDID data may not be compatible with the Receiver. Connect a different display.

8. Correct the issue and repeat Step 3 to 4 until the LED flashes green & red and then blue.

EDID Factory Default Setting

To avoid confusion in which EDID information has been copied or for more purposes, this function enables to reset the state to factory default.

1. Follow the instructions in the Hardware Installation section to connect the Transmitter to the Receiver.

2. On the Transmitter, press the EDID Copy button. Release the EDID Copy button once the LED Indicator flashes red. The LED Indicator will flash green and red indicating that the EDID settings were reset to the factory default settings.

DDC Pass Mode

Press the button for more than 15 sec. and release right after the LED flashes green. The LED lights blue indicating setting successfully. To exit this mode, follow "EDID Factory Default Setting" steps.

LED Indicators

Status	Transmitter
DVI EDID content configured	*Emit blue with green flashing twice
HDMI EDID content configured	*Emit blue with green flashing three times
HDCP syncing	**Purple
Status	Receiver
Video Linking	***Steady Blue
Video unlinking	Steady Red

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.

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