Long Range HDMI Extender over Single Cat5/6 with IR/RS-232, and Ethernet Quick Installation Guide

Introduction

The *Long Range HDMI Extender over Single Cat 5/6 with IR/RS-232, and Ethernet* provides an easy extension of HDMI signal over one Cat5/6 cable up to 330ft and also provides bi-directional RS-232, IR and Ethernet extension function.

Features and Benefits

- Unaltered, uncompressed HDMI signal over Cat5/6 cable transmission
- Supports HDMI Deep Color, full 3D, Full HD 1080p & 4Kx2K
- Extends data transmission up to 330ft (100m) at Full HD 1080p
- Integrated Ethernet port for network capability
- Full Duplex RS-232 control up to 115,200 bps through connector
- Supports Bi-Directional IR pass-through
- Metal housing with wall mount mechanism

Package Contents

- *Long Range HDMI Extender over Single Cat5/6 with IR/ RS-232, and Ethernet* (Transmitterx1, Receiverx1)
- Power adapter 24V/1A (2)
- IR blaster cable & IR receiver cable
- Screw kit
- Quick installation guide

Layout

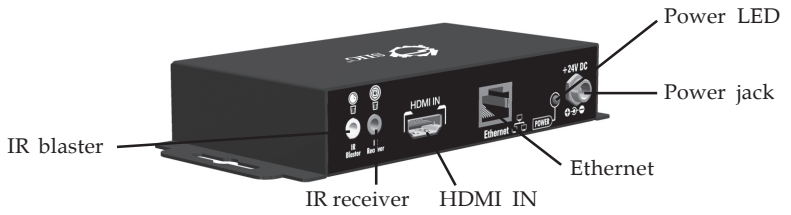


Figure 1: Transmitter_Rear

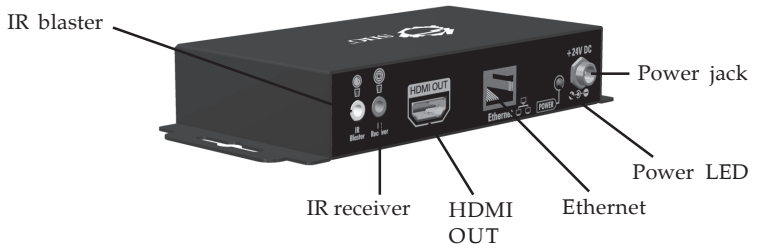


Figure 2: Receiver _Rear

- HDMI IN: HDMI signal input port. Connect this port to your HDMI source device by using an HDMI cable (not included)

- HDMI OUT: HDMI signal output port. Connect this port to your HDMI display by using an HDMI cable (not included)
- Ethernet: Connect your Ethernet cable here to establish an extended network connection
- Power jack: Plug the included power adapter here
- Power LED: On when power adapter is connected

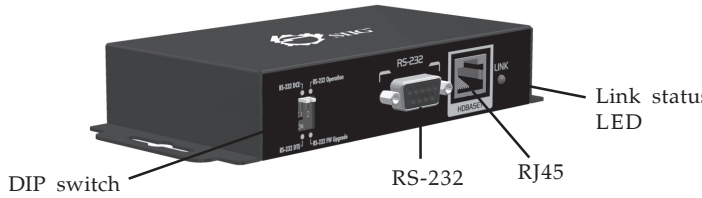


Figure 3: Transmitter & Receiver_Front

- DIP switch: Switch the DIP switch to change the mode between RS-232 Operation mode for normal data transfer and firmware update mode
- RS-232: Connect to a serial port device or computer here for normal data transferring or for firmware update, if needed. Refer to **DIP Switch** section on next page for further information
- HDBASET: HDMI signal output port for Transmitter; HDMI signal input port for Receiver. Connect your Transmitter's and Receiver's HDBASET ports by using an RJ45 cable (not included)
- Link status LED: On when HDBASET connection is established

IR Extension Cables

IR Blaster cable:

Connect the IR blaster cable to your HDMI Extender's IR Blaster connector to send out IR command signals, if needed

Figure 4

IR Receiver cable:

Connect the IR receiver cable to your *HDMI Extender*'s IR Receiver connector to receive IR command signals, if needed

Figure 5

DIP Switch

Refer to **Figure 6** and **Table 1** for the instructions for changing RS-232 mode by using DIP switch.

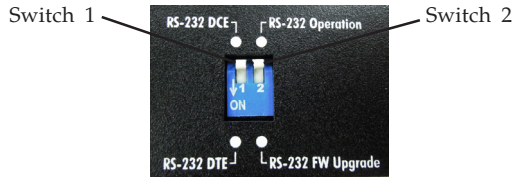


Figure 6

- **Firmware update mode**: Push down **DIP switch 2** to change to firmware update mode. Connect the RS-232 connector on *HDMI Extender* to your computer for further firmware update.

  Note: Download firmware updates, as they become available, at www.siig.com.

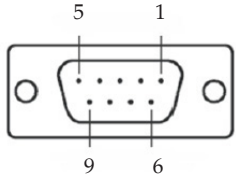
- **RS-232 operation mode**: Push up **DIP switch 2** for RS-232 operation mode. Adjust the position of **DIP Switch 1** to change between DCE(Data communication equipment) mode and DTE (Data terminal equipment) mode. See **Table 1**.

	Switch 2	
Switch 1	**Up**	**Down**
Up	**RS-232 opration mode (DCE)**	**Firmware update mode**
Down	**RS-232 opration mode (DTE)**	

Table 1

NOTE: When the Transmitter is in DTE mode, **Pin-2** of the RS-232 is in charge of sending data; when in DCE mode, **Pin-3** is in charge of sending data.
When Receiver is in DTE mode, the **Pin-3** of the RS-232 is in charge of receiving data; when in DCE mode, the **Pin-2** is in charge of receiving data.

RS-232 PIN Assignment



Pin	Name
1	CD
2	RX
3	TX
4	DTR
5	Ground
6	DSR
7	RST
8	CTS
9	RI

Figure 7

Hardware Installation

1. Power off all devices, including the source HDMI device and display.
2. Connect your HDMI source (such as a Blu-ray player) to the transmitter's **HDMI IN** connector.
3. Connect your HDMI display (such as a LCD TV) to the receiver's **HDMI OUT** connector.
4. Connect your RS-232 ports on the Transmitter and Receiver to the serial port devices separately if you want to extend serial signal transmission. Please adjust the DIP switch to the right position.

   Skip this step if RS-232 device connection is not needed.
5. Connect your Ethernet ports on the Transmitter to a router or switch on your Ethernet network, and connect the Receiver to your computer by using an Ethernet cable.

   Skip this step if network extension is not needed.
6. Connect the IR extension cables to the IR blaster and IR receiver connector on the Transmitter and Receiver separately.

   Skip this step if IR transmission is not needed.
7. Connect your CAT5/6 LAN cable between the transmitter and receiver. Make sure your CAT5/6 LAN cable is securely connected and not loose.
8. Plug one of the included power adapters into the **+24V DC** power jack of the transmitter, plug the second power adapter into the **+24V DC** power jack of the receiver, then plug both power adapters into reliable power sources.
9. After the transmitter and receiver are connected, the HDMI extender is ready for use.

Application

Basic connection

HDMI signal extended over Cat5/6 cable

Ⓐ : HDMI OUT
Ⓑ : HDBASET
Ⓒ : HDMI IN

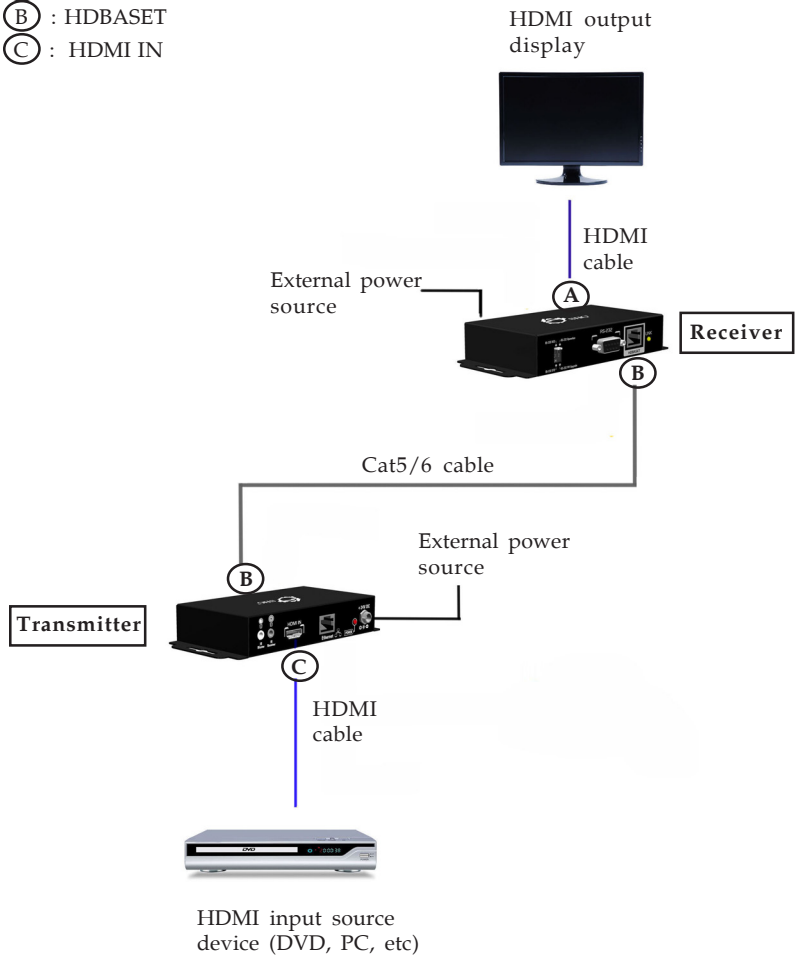
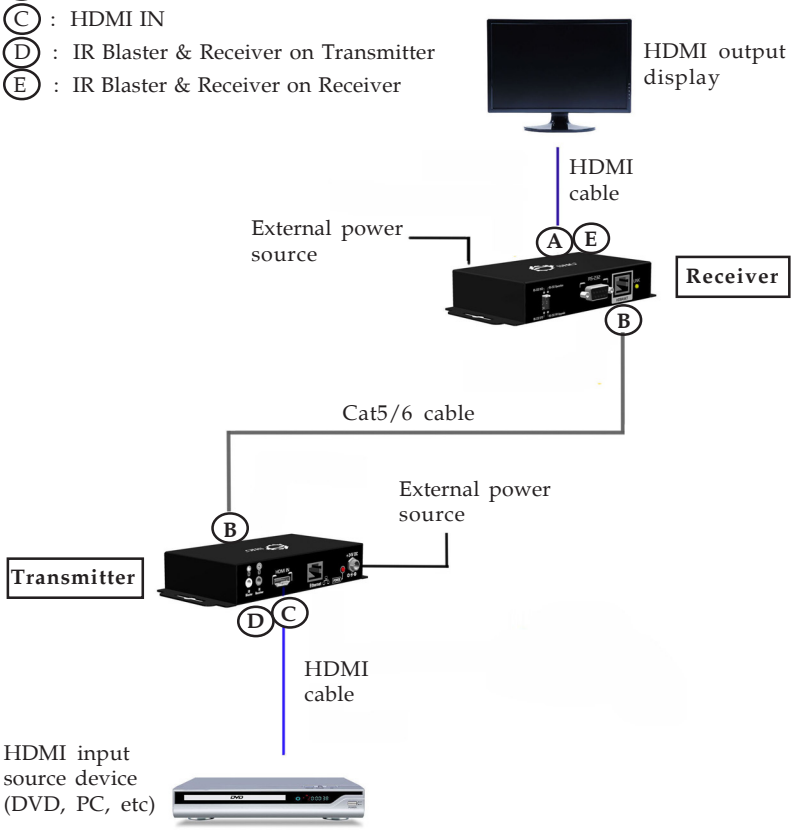


Figure 8

Optional connections

Bi-directional IR connection

Ⓐ : HDMI OUT
Ⓑ : HDBASET
Ⓒ : HDMI IN
Ⓓ : IR Blaster & Receiver on Transmitter
Ⓔ : IR Blaster & Receiver on Receiver



* Connect IR blaster cable to Ⓓ and IR Receiver cable to Ⓔ to control HDMI display from Transmitter's side. Connect IR receiver cable to Ⓓ and IR blaster cable to Ⓔ to control the HDMI input device from the Receiver's side.

Figure 9

Bi-directional RS-232 connections

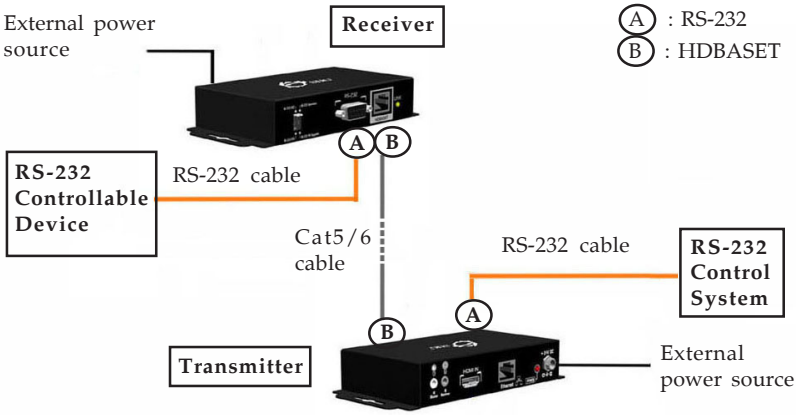


Figure 10

Bi-directional Ethernet connections

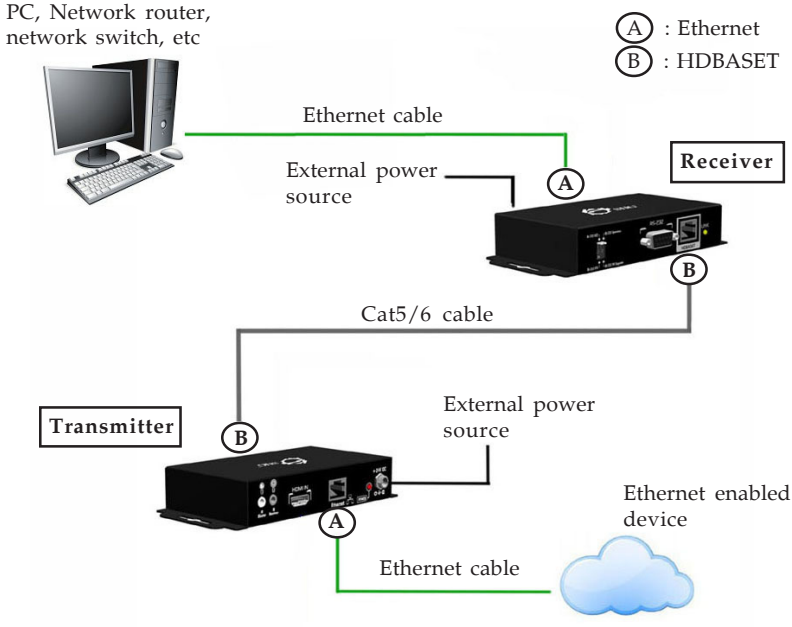


Figure 11

Technical Support and Warranty

QUESTIONS? SIIG' s **Online Support** has answers! Simply visit our web site at ***www.siig.com*** and click **Support**. Our online support database is updated daily with new drivers and solutions. Answers to your questions could be just a few clicks away. You can also submit questions online and a technical support analyst will promptly respond.

SIIG offers a 3-year manufacturer warranty with this product. This warranty covers the original purchaser and guarantees the product to be free of any defects in materials or workmanship for three (3) years from the date of purchase of the product.

SIIG will, at our discretion, repair or replace (with an identical product or product having similar features and functionality) the product if defective in materials or workmanship. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Please see our web site for more warranty details.

If you encounter any problems with this product, please follow the procedures below.

A) If it is within the store's return policy period, please return the product to the store where you purchased it.

B) If your purchase has passed the store's return policy period, please follow these steps to have the product repaired or replaced.

Step 1: Submit your RMA request. Go to **www.siig.com**, click **Support**, then **Request A Product Replacement** to submit a request to SIIG RMA or fax a request to 510-657-5962. Your RMA request will be processed, if the product is determined to be defective, an RMA number will be issued.

Step 2: After obtaining an RMA number, ship the product.

- Properly pack the product for shipping. All software, cable(s) and any other accessories that came with the original package must be included.
- Clearly write your RMA number on the top of the returned package. SIIG will refuse to accept any shipping package, and will not be responsible for a product returned without an RMA number posted on the outside of the shipping carton.
- You are responsible for the cost of shipping to SIIG. Ship the product to the following address:

  SIIG, Inc.
  6078 Stewart Avenue
  Fremont, CA 94538-3152, USA
  RMA #: _____

- SIIG will ship the repaired or replaced product via Ground in the U.S. and International Economy outside of the U.S. at no cost to the customer.

About SIIG, Inc.

Founded in 1985, SIIG, Inc. is a leading manufacturer of IT connectivity solutions (including Serial ATA and Ultra ATA Controllers, FireWire, USB, and legacy I/O adapters) that bridge the connection between Desktop/ Notebook systems and external peripherals. SIIG continues to grow by adding A/V and Digital Signage connectivity solutions to our extensive portfolio. All centered around the distribution and switching of A/V signals over CAT5/6, these products include matrix switches, distribution amplifiers, extenders, converters, splitters, cabling, and more.

SIIG is the premier one-stop source of upgrades and is committed to providing high quality products while keeping economical and competitive prices. High-quality control standards are evident by one of the lowest defective return rates in the industry. Our products offer comprehensive user manuals, user-friendly features, and most products are backed by a lifetime warranty.

SIIG products can be found in many computer retail stores, mail order catalogs, and e-commerce sites in the Americas, as well as through major distributors, system integrators, and VARs.

PRODUCT NAME

Long Range HDMI Extender over Single Cat5/6
with IR/RS-232, and Ethernet

FCC RULES: TESTED TO COMPLY WITH FCC PART 15, CLASS B OPERATING ENVIRONMENT: FOR HOME OR OFFICE USE

FCC COMPLIANCE STATEMENT:

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.

THE PARTY RESPONSIBLE FOR PRODUCT COMPLIANCE

SIIG, Inc.
6078 Stewart Avenue
Fremont, CA 94538-3152, USA
Phone: 510-657-8688

April, 2013