SYS COM TEC

SCT-HDBTL522

40m for 4K & 70m for 1080P Ultra-slim HDBase-T Extender

Preface

Read this user manual carefully before using the product. Pictures shown in this manual are for reference only. Different models and specifications are subject to real product.

This manual is only for operation instruction, please contact the local distributor for maintenance assistance. The functions described in this version were updated till May, 2024. In the constant effort to improve the product, we reserve the right to make functions or parameters changes without notice or obligation. Please refer to the dealers for the latest details.

SAFETY PRECAUTIONS

To ensure the best from the product, please read all instructions carefully before using the device. Save this manual for further reference.

- Unpack the equipment carefully and save the original box and packing material for possible future shipment.
- Follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- Do not dismantle the housing or modify the module. It may result in electrical shock or burn.
- Using supplies or parts not meeting the products' specifications may cause damage, deterioration or malfunction.
- Refer all servicing to qualified service personnel.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Do not put any heavy items on the extension cable in case of extrusion.
- Do not remove the housing of the device as opening or removing housing may expose you to dangerous voltage or other hazards.
- Install the device in a place with fine ventilation to avoid damage caused by overheat.
- Keep the module away from liquids.
- Spillage into the housing may result in fire, electrical shock, or equipment damage. If an object or liquid falls or spills on to the housing, unplug the module immediately.
- Do not twist or pull by force ends of the cable. It can cause malfunction.
- Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.
- Unplug the power cord when left unused for a long period of time.
- Information on disposal for scrapped devices: do not burn or mix with general household waste, please treat them as normal electrical wastes.

Table of Contents

1. Introduction

1.1. Overview

Thank you for purchasing this product. For proper installation and optimum performance, please read the instructions in this manual carefully.

This product is a slim transmitter receiver pair, which can extend HDMI 1080P@60Hz signals up to 70m/230ft and 4K@60Hz (chroma sub-sampling 4:2:0 8-bit only) signals up to 40m/130ft via a single Cat 6A/7 cable. The kit features bi-directional PoC. It also supports bi-directional IR and RS232 pass-through.

1.2. Features

- Supports resolutions up to 4K@60Hz 4:2:0 8bit and HDCP 2.2.
- Over a Cat 6A/7 cable, extends 4K@60Hz 4:2:0 8bit up to 40m/130ft and 1080P up to 70m/230ft.
- Over a Cat 5e/6 cable, extends 4K@60Hz 4:2:0 8bit up to 35m/115ft and 1080P up to 60m/200ft.
- Bi-directional PoC, one power adapter at either transmitter or receiver side can power both units.
- Supports bi-directional IR and RS232 pass-through.

1.3. Package Contents

- 1 x Extender Set
- 1 x Power Adapter (DC 18V 1A)
- 1 x IR Emitter
- 1 x Broadband IR Receiver (30-50 KHz)
- 2 x 3.5mm 3-Pin Phoenix Connector
- 4 x Mounting Brackets (with Screws)
- 1 x User Manual

1.4. Specifications

Video	
Input/Output Signal Type	HDMI with 4K@60Hz 4:2:0, HDCP 2.2
Input/Output Resolution Supported	Up to 4096x2160@60Hz, including 4K@60Hz/4K@30Hz/1080P/1080i/720P **Note:** 4096x2160/3840x2160@50/60Hz is based on chroma sub-sampling 4:2:0 8-bit only.
Deep color	4K: 8/10/12 bit 1080P: up to 16 bit
Maximum Data Rate	10.2 Gbps
Maximum Pixel Clock	340MHz
Audio	
Audio Format Supported	Supports multichannel audio up to PCM 7.1, Dolby True HD, DTS HD Master Audio, Dolby Atmos and DTS:X
General	
Operating Temperature	0°C to 45°C (32°F to 113°F)
Storage Temperature	-20°C to 70°C (-4°F to 158°F)
Humidity	10% to 90%, non-condensing
ESD Protection	Human-body Model: ±8kV (Air-gap discharge)/ ±4kV (Contact discharge)
Power Supply	DC 18V 1A
Power Consumption (Maximum)	8.88W (Pair, PoC)
Device Dimension (W x H x D)	108.8mm x 15mm x 64.2mm/ 4.3" x 0.6" x 2.5'' each for TX/RX
Product Weight	0.18kg/0.4lb each for TX/RX

Transmission Distance:

Note: T568B straight-through Category cable is recommended.

Cable Type	Range	Supported Video
HDMI	Input/Output:15m/50ft	1080P@60Hz
	Input: 10m/33ft Output: 15m/50ft	4K@60Hz
Cat 5e/6	60m/200ft	1080P@60Hz
	35m/115ft	4K@60Hz
Cat 6A/7	70m/230ft	1080P@60Hz
	40m/130ft	4K@60Hz

1.5. Panel Descriptions

1.5.1. Front Panel

TX & RX

1 2 3 4

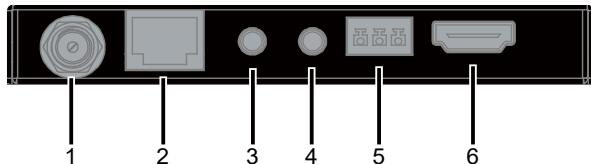| No.	Name	Description
1	Power LED	**On/Off:** The device is powered on/off.
2	Status LED	**On:** The device is working properly. **Off:** The device is not working properly.
3	HDCP LED	**On:** HDCP protected content is being transmitted. **Blinking:** Non-HDCP protected content is being transmitted. **Off:** No content is being transmitted.
4	Link LED	**On:** HDBT link is normal. **Blinking/Off:** No HDBT link or link error.

1.5.2. Rear Panel

TX

a   b   c   d   e   f
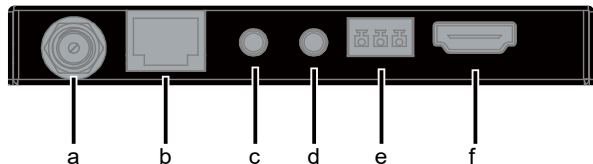
RX

| No.	Name	Description
a & 1	DC 18V	Connect to the power adapter provided. With bi-directional PoC function supported, one power adapter is needed to be connected to the transmitter or receiver to power both units.
b	HDBT OUT	Connect to the receiver via a Cat 5e/6/6A/7 cable.
c & 3	IR IN	Connect to the IR receiver provided.
d & 4	IR OUT	Connect to the IR emitter provided.
e & 5	RS232	For RS232 pass-through.
f	HDMI IN	Connect to an HDMI source device.
2	HDBT IN	Connect to the transmitter via a Cat 5e/6/6A/7 cable.
6	HDMI OUT	Connect to an HDMI display device.

2. Wiring
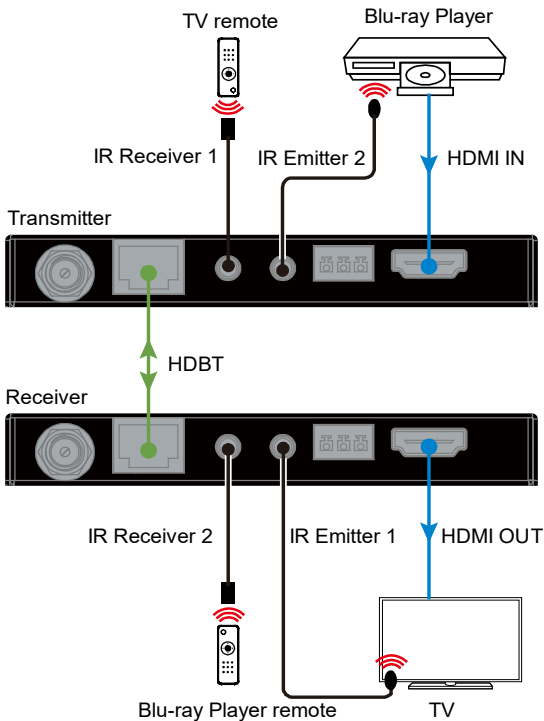
Note: Connect the broadband IR receiver to IR IN and the IR emitter to IR OUT.

3. RS232 Operation

RS232 ports can be used for bi-directional RS232 signal pass-through between the transmitter and receiver.
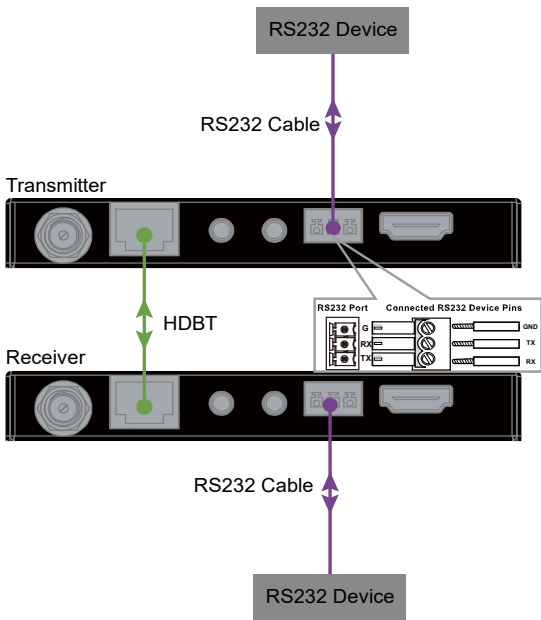
4. Troubleshooting

1. **No Power**
   - Ensure the power is on.
   - Ensure you use the power adapter provided in the package.
2. **No Picture or Video Flash**
   - Ensure all devices are on, and all cables are qualified and connected properly. Ensure all the cables' length are within the maximum distance (refer to **Specification** table).
   - Ensure all the LED indicators are normal.
   - When connecting source to display directly, ensure them can work properly.
   - Ensure the input resolution is supported by the device.
   - Ensure the input resolution is within 4K@30Hz when Dolby vision signal is input.
3. **Weak or Not Working IR Signal**
   - Ensure the devices support IR control (not Bluetooth/WIFI).
   - Ensure you use the IR cables provided in the package, and install them correctly according to the Application Diagram.
   - Pay attention to the control angle and distance.

IR Cable	IR Emitter	IR Receiver
Suggested Angle	0°	0°
Distance (Max)	30cm	8m

   - When work with the third-party device, ensure it follows the pin definition below.
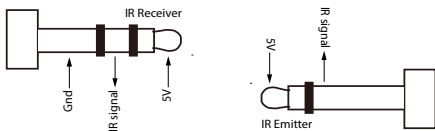
5. Customer Service

The return of a product to our Customer Service implies the full agreement of the terms and conditions hereinafter. There terms and conditions may be changed without prior notice.

5.1. Warranty

The limited warranty period of the product is fixed three years.

5.2. Scope

These terms and conditions of Customer Service apply to the customer service provided for the products or any other items sold by authorized distributor only.

5.3. Warranty Exclusion:

- Warranty expiration.
- Factory applied serial number has been altered or removed from the product.
- Damage, deterioration or malfunction caused by:
  - ✓ Normal wear and tear.
  - ✓ Use of supplies or parts not meeting our specifications.
  - ✓ No certificate or invoice as the proof of warranty.
  - ✓ The product model showed on the warranty card does not match with the model of the product for repairing or had been altered.
  - ✓ Damage caused by force majeure.
  - ✓ Servicing not authorized by distributor.
  - ✓ Any other causes which does not relate to a product defect.
- Shipping fees, installation or labor charges for installation or setup of the product.

5.4. Documentation:

Customer Service will accept defective product(s) in the scope of warranty coverage at the sole condition that the defeat has been clearly defined, and upon reception of the documents or copy of invoice, indicating the date of purchase, the type of product, the serial number, and the name of distributor. Remarks: Please contact your local distributor for further assistance or solutions.

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