

# SCION

## SC05.3100

### HDMI (HDBaseT) Extender, 100m

### 4K/60Hz. 4:4:4



## User Manual

Version 1.0

## Thank you for purchasing this product

For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

## Surge protection device recommended

This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, lightning strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment.

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## 1. Introduction

The SC05.3100 extends the distance between the HDMI source and display using a single CAT5e/6 cable by up to 100m. Uncompressed Ultra HD 4K signals are transmitted without signal loss and automatically adjusts for CAT5e/6 cable lengths. Bi-Directional Infra-Red provides control for both the source and screen. The extenders use HDBaseT Class A technology to achieve Ultra HD 4K@60Hz.

The SC05.3100 is supplied as a pair and contains Tx/Rx infra-red cables and PSU . These units are ideal for home, office and general retail display screens.

## 2. Features

- Extends HDMI up to 100m@1080p/60Hz and 70m@4K/60Hz
- Resolution: 4K/60Hz, YUV 4:2:0
- Standards: HDMI 2.0, HDCP 2.2, CEC, 3D
- Uncompressed zero delay video
- Audio: LPCM, Dolby Digital™, DTS Surround Sound
- Full Duplex RS232 pass-through
- Bi-Directional IR
- PoC (power over cable) receiver is powered by the transmitter

## 3. Package contents

1. 1 x Transmitter SC05.3100-TX
2. 1 x Receiver SC05.3100-RX
3. 2 x Infra-Red Sender Cable
4. 2 x Infra-Red Receiver Cable
5. 2 x 3-Pin Phoenix Terminal
6. 1 x User Manual

## 4. Specifications

### TRANSMITTER

#### Connectivity

**Signal input:** 1 x HDMI Type A, 19-Pin Female

**Signal output:** 1 x RJ45 Data Socket

**Infra-Red:** 2 x 3.5mm Jack Socket

**RS232:** 1 x 3-Pin Phoenix Terminal

**Power:** 1 x DC Jack Socket 2.1mm

#### Signal

**Input:** HDMI

**Output:** HDBaseT

**Standards:** HDMI 2.0, HDCP 2.2

**Bandwidth:** 10.2Gbps

**Video resolution:** Up to 4K/60Hz

**Colour space:** YUV 4:2:0

**Colour depth:** 8/10/12-bit

**Audio:** DTS-HD™, Dolby-HD™

**Infra-Red:** 30KHz to 56KHz (940nm)

**RS232:** Full Duplex

#### Power

**Type:** AC to DC Mains Adaptor

**Input:** 100 ~ 240V AC 50/60Hz

**Output:** DC 12V / 2A

**Consumption:** 5 Watts

#### Environment

**Storage temperature:** -20° to 60°C

**Operating temperature:** -0° to 40°C

**Operating humidity:** 20% to 90% RH (no condensation)

**Dimensions:** (W) 105 x (D) 71 x (H) 25mm

**Weight:** 700g

**ESD:** Human body +/-8Kv, (air gap discharge) and +/-4Kv (contact discharge)

**Safety and Emissions:** CE, FCC, RoHS

### RECEIVER

#### Connectivity

**Signal input:** 1 x RJ45 Data Socket

**Signal output:** 1 x HDMI Type A, 19-Pin Female

**Infra-Red:** 2 x 3.5mm Jack Socket

**RS232:** 1 x 3-Pin Phoenix Terminal

#### Signal

**Input:** HDBaseT

**Output:** HDMI

**Standards:** HDMI 2.0, HDCP 2.2

**Bandwidth:** 10.2Gbps

**Video resolution:** Up to 4K/60Hz

**Colour space:** YUV 4:2:0

**Colour depth:** 8/10/12-bit

**Audio:** DTS-HD™, Dolby-HD™

**Infra-Red:** 30KHz to 56KHz (940nm)

**RS232:** Full Duplex

#### Power

**Type:** Receives power from the transmitter

#### Environment

**Storage temperature:** -20° to 60°C

**Operating temperature:** -0° to 40°C

**Operating humidity:** 20% to 90% RH (no condensation)

**Dimensions:** (W) 105 x (D) 71 x (H) 25mm

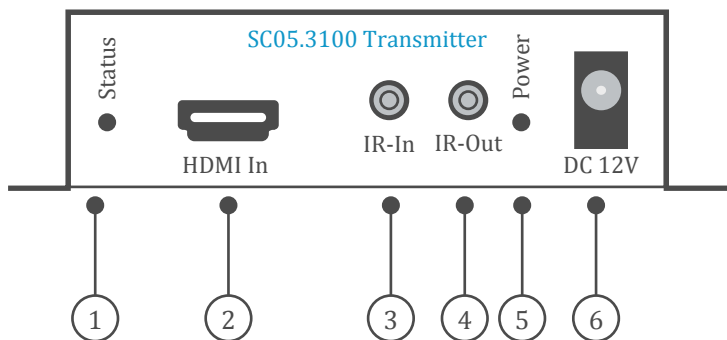
**Weight:** 700g

**ESD:** Human body +/-8Kv, (air gap discharge) and +/-4Kv (contact discharge)

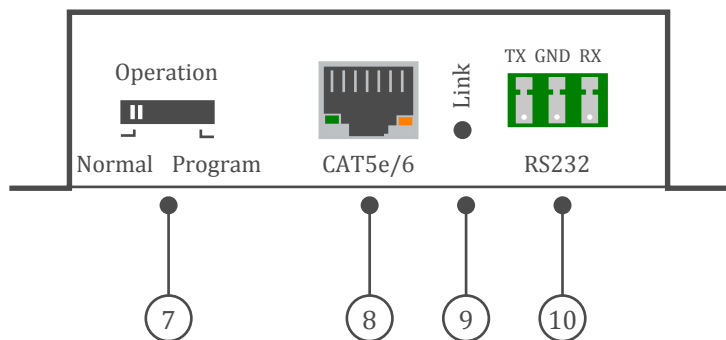
**Safety and Emissions:** CE, FCC, RoHS

## 8. Panel Description

Transmitter Front Panel



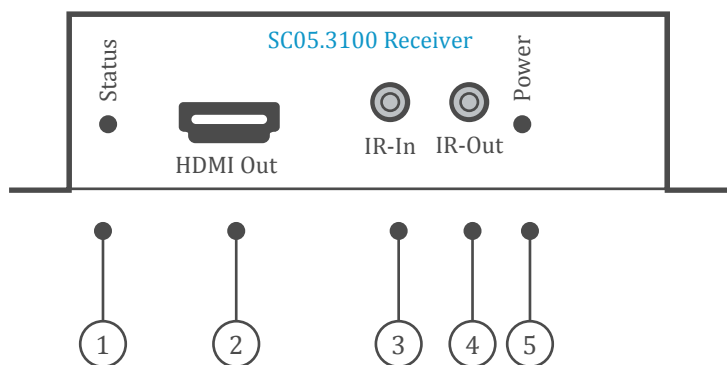
Transmitter Rear Panel



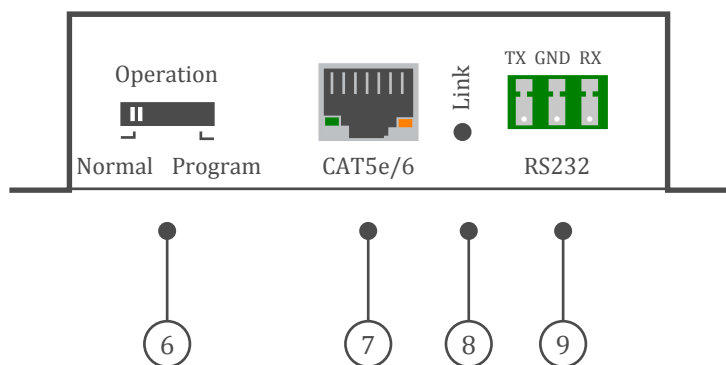
1. Status LED for HDMI Input
2. HDMI Input
3. Connect IR RX cable to IR-In port
4. Connect IR TX cable to IR-Out port
5. Power LED

6. Power DC 12V Input
7. Operation switch for RS232 pass-through
8. HDBaseT output CAT5e/6
9. HDBaseT Link LED indicator
10. RS232

Receiver Front Panel



Receiver Rear Panel



1. Status LED for HDMI Output
2. HDMI Output
3. Connect IR RX cable to IR-In port
4. Connect IR TX cable to IR-Out port
5. Power LED

6. Operation switch for RS232 pass-through
7. HDBaseT output CAT5e/6
8. HDBaseT Link LED indicator
9. RS232

## 6. Connecting

### Important:

These extenders are designed to work over a point to point connection using Category 5e or greater twisted pair cable, under no circumstances should they be used with third party equipment including network switches, modems or another manufacturers similar product.

1. Connect a HDMI cable to your source device and the transmitters input using a premium quality HDMI cable.
2. Connect a HDMI cable to the display or sink device and the receivers output using a premium quality HDMI cable.
3. Transmitter IR connections: The “IR TX” cable connects to the “IR-Out” port for transferring IR to your source device IR sensor window. The “IR TX” emitter LED should be attached to IR sensor window using the 3M™ sticker provided. The “IR RX” cable connects to the “IR-In” port for sending IR to the receiver for controlling devices at the remote end.
4. Receiver IR connections: The “IR RX” cable connects to the “IR-In” port for sending IR to the transmitter for controlling the source devices. The “IR TX” cable connects to the “IR-Out” port for transferring IR to the remote end device. The “IR TX” emitter LED should be attached to IR sensor window using the 3M™ sticker provided.
5. Using the 3-pin Phoenix terminals provided, connect the “Tx, Rx & Ground” cables to the transmitter and receiver taking care to follow the correct polarisation.
6. Connect one end of the CAT5e patch cable to the transmitter and the other end to your wall outlet or patch panel.
7. Connect one end of the CAT5e patch cable to the receiver an the other end to your wall outlet.
8. The default setting for the “operating” switch is “Normal”, check to make sure this hasn’t moved in transit. The other setting “Program” is used for firmware updates only and should only be used with a technicians support.
9. Connect the power supply to the transmitter and lock the DC connector for added security.

## 7. LED Indicators

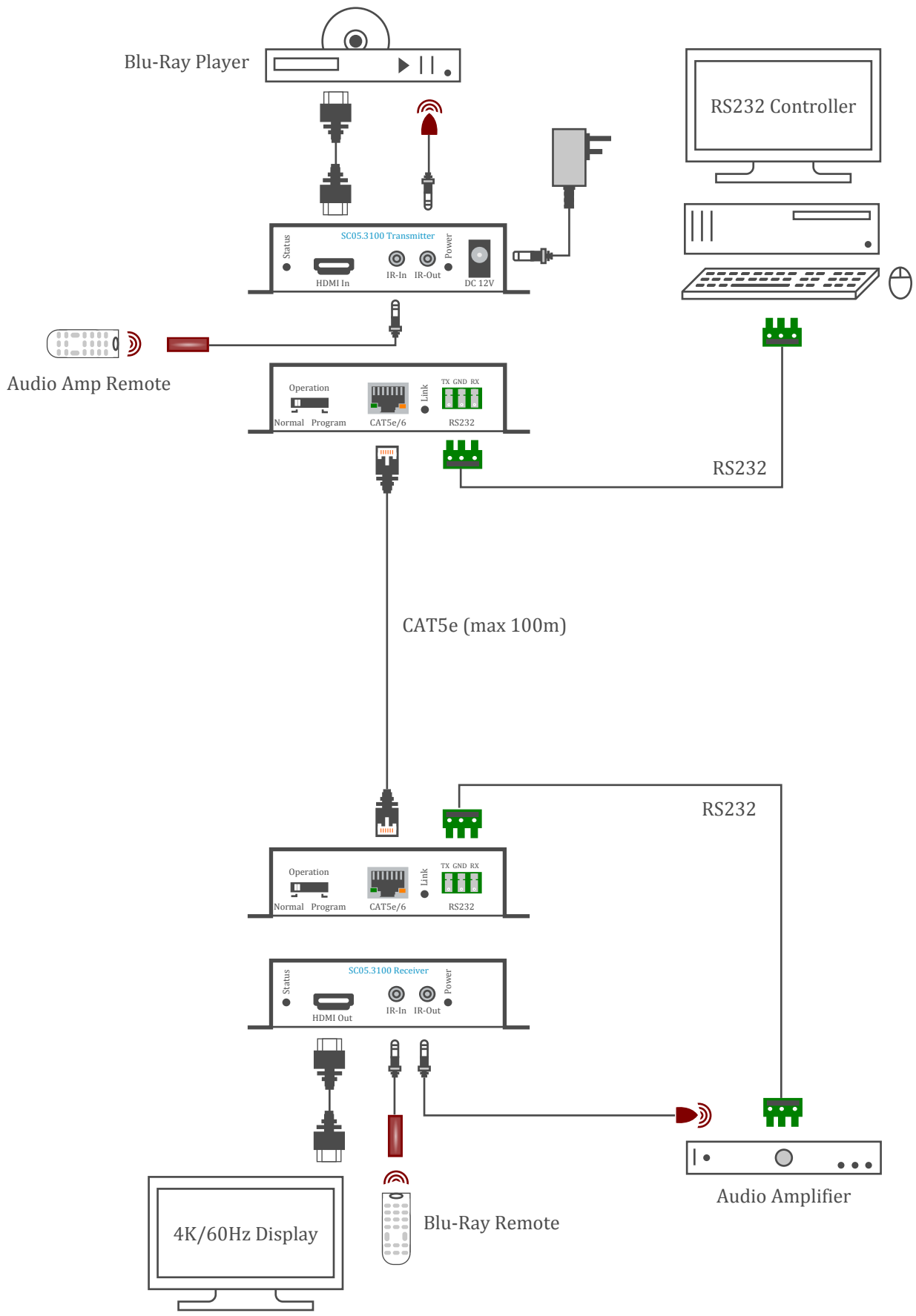
### Transmitter

- Power: Illuminates when the power supply in connected and switch on.
- Status: The LED will illuminate when a HDMI signal is detected.
- HDBaseT Link: Illuminates when a connection is made with the receiver.

### Receiver

- Power: Illuminates when the transmitter is powered on and the CAT5e cable is connected to both devices.
- Status: The LED will illuminate when a HDMI signal is detected.
- HDBaseT Link: Illuminates when a connection is made with the transmitter

8. Application Drawing



## 9. Maintenance

Clean this unit with a soft, dry cloth. Never use alcohol, paint thinner or benzene to clean these devices.

### 9.1 Servicing

Damage requiring service: This product should be serviced by a qualified service engineer if:

- The DC power cord or AC adaptor has been damaged.
- Objects or liquids have entered the housings.
- The product has been exposed to rain.
- The product has stopped working or shows signs of significant change in operating performance or function.
- The unit has been dropped or severely damaged externally.

Servicing personnel: Do not attempt to service the product beyond that described in these instructions. Refer all other servicing to authorised serving personnel.

Replacement parts: When parts need replacing ensure the service engineer uses parts specified by the manufacture or parts that have the same characteristics as the original parts. Unauthorised substitutes may result in fire, electric shock or other hazards.

Safety check: After a repair or service, ask the engineer to perform safety checks to confirm the product is in proper working condition.

### 9.2 Warranty

If your product does not work properly because of a defect in materials or workmanship, our Company (referred to as "the warrantor" ) will , for the length of the period indicated as below, (Parts and labour 2 years) which starts with the date of original purchase ("Limited Warranty period"), at its option either (a) repair your product with new or refurbished parts, or (b) replace it with a new or a refurbished product. The decision to repair or replace will be made by the warrantor.

During the "Labour" Limited Warranty period there will be no charge for labour. During the "Parts" warranty period, there will be no charge for parts. You must mail-in your product during the warranty period. This Limited Warranty is extended only to the original purchaser and only covers product purchased as new. A purchase receipt or other proof of original purchase date is required for Limited Warranty service.

### 9.3 Returning a Product

When shipping the unit carefully pack and send it prepaid, adequately insured and preferably in the original carton. Include a letter detailing the complaint and provide a day time phone number and/or email address where you can be reached.



## 9.4 Limited warranty limits and exclusions

This Limited Warranty ONLY COVERS failures due to defects in materials or workmanship, and DOES NOT COVER normal wear and tear or cosmetic damage. The Limited Warranty ALSO DOES NOT COVER damages which occurred in shipment, or failures which are caused by products not supplied by warrantor, or failures which result from accidents, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, set-up adjustments, maladjustment of consumer controls, improper maintenance, power line surge, lightning damage, modification, or service by anyone other than a Factory Service centre or other authorized service engineer, or damage that is attributable to acts of God.

THERE ARE NO EXPRESS WARRANTIES EXCEPT AS LISTED UNDER "LIMITED WARRANTY COVERAGE". THE WARRANTOR IS NOT LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY. (As examples, this excludes damages for lost time, cost of having someone remove or re-install an installed unit if applicable, travel to and from the service, loss of or damage to media or images, data or other recorded content. The items listed are not exclusive, but are for illustration only).

PARTS AND SERVICE, WHICH ARE NOT COVERED BY THIS LIMITED WARRANTY, ARE YOUR RESPONSIBILITY. This returns policy does not affect your legal rights. Details of your legal rights are available from Trading Standards or Citizens Advice Consumer Service.

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