

SC05.7150

HDMI Extender (HDBaseT), 150m 18Gbps, 4K/60Hz, 4:4:4, HDR



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.

Table of Contents

1. Introduction.....	3
2. Features.....	3
3. Package Contents.....	3
4. Specifications.....	4
5. Panel Description (Transmitter).....	5
6. Panel Description (Receiver).....	6
7. IR Pin Connections.....	7
8. Cable Lengths, CAT5e/6 and HDMI In/Out.....	7
9. Connecting the Transmitter.....	7
10. Connecting the Receiver.....	7
11. Application Drawing.....	8
13. Maintenance and Warranty.....	9

1. Introduction

The SC05.7150 extends the distance between the HDMI source and display using a single CAT5e/6 cable by up to 150m. 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 and the transmitter has a looped HDMI output for connecting a local screen.

The extenders use HDBaseT technology to achieve Ultra HD 4K@60Hz, RGB / YCbCr 4:4:4 to achieve zero latency and loss less signal quality. The units are only 18mm thick which is ideal for mounting behind screens or confined spaces.

PoC (power over cable) means only one device requires power.

The SC05.7150 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 over CAT5e/6/7 up to 150m
- Resolution: 4K/60Hz, RGB/YCbCr 4:4:4, YCbCr 4:2:2, YUV 4:2:0
- Standards: HDMI 2.0, HDCP 2.2, HDR10+
- Uncompressed zero frame latency
- Audio: LPCM, Dolby Digital™, DTS Surround Sound
- Full Duplex RS232 pass-through
- Bi-Directional IR
- PoC (power over cable) only one device requires power
- Ultra slim design, only 18mm thick

3. Package contents

Transmitter

1. 1 x Main unit (SC05.7150)
2. 1 x IR Blaster cable
3. 1 x IR Receiver cable
4. 1 x 3 pin Phoenix Terminal
5. 1 x Mounting ears
6. 1 x DC 24V/1A Power Adaptor
7. 1 x User Manual

Receiver

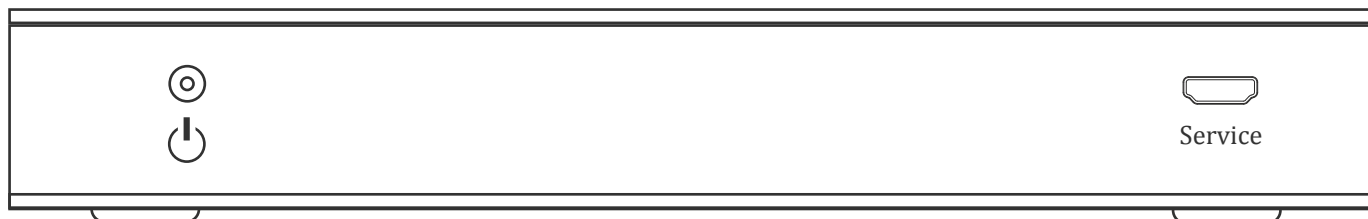
1. 1 x Main Unit (SC05.7150)
2. 1 x IR Blaster cable
3. 1 x IR Receiver cable
4. 1 x 3 pin Phoenix Terminal
5. 1 x Mounting ears
6. 1 x User Manual

4. Specifications

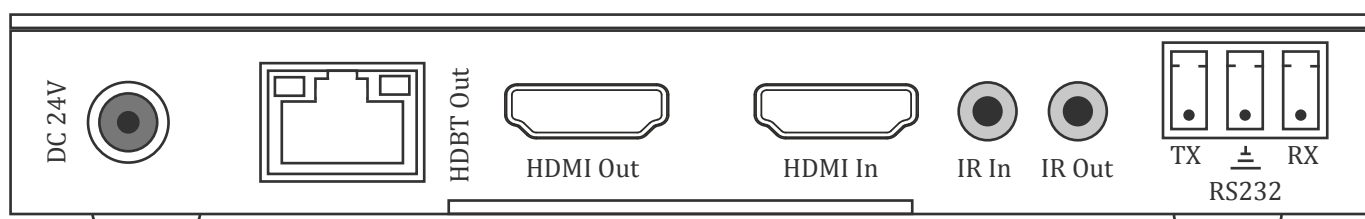
Technical	
HDMI Compliance	HDMI 2.0
HDCP Compliance	HDCP 2.2
Bandwidth	18Gbps
Video Resolutions	4K/60Hz
HDMI Audio Formats	LPCM 2.0/2.1/5.1/6.17.1 channel, Dolby Digital™, Dolby True HD™, Dolby Digital Plus (DD+)™, DTS HD Master Audio™, DTS HD-HRA, DTS-X
Transmission Distance	150m@1080p / 120m@4K over CAT6
Colour Space	RGB/YCbCr 4:4:4, YCbCr 4:2:2, YUV 4:2:0, HDR10+
Colour Depth	/8/10/12-bit (1080p/60Hz, 4K/30Hz, 4K/60Hz, YCbCr 4:2:2/4:2:0), 8-bit (4K/60Hz 4:4:4)
Stereo Audio (Extracted)	PCM 2.0
Connectors	
Transmitter	2 x HDMI Input/Output Type A (19-Pin Female)
	1 x RJ45 Data Socket
	2 x 3.5mm Jack Sockets
	1 x 3 Pin Phoenix Terminal
	1 x DC Jack Socket
Receiver	1 x HDMI Input Type A (19-Pin Female)
	1 x RJ45 Data Socket (1G and 10G LAN)
	1 x 3 Pin Phoenix Terminal
	3 x 3.5mm Jack Socket
	1 x DC Jack Socket
Power	
Transmitter - Power Adaptor	Input - 110~240V, 50/60Hz Output - DC 24V/1A Consumption - 4.5 Watts
Receiver - Power Adaptor	Input - 110~240V, 50/60Hz Output - DC 24V/1A Consumption - 4.5 Watts
Environmental	
Operating Temperature	-0 to 40°C
Storage Temperature	-20 to 60°C
Relative Humidity	20 to 90% RH (no condensation)
ESD Protection	Human body model +/- 8kV (air gap discharge) and +/-4kV (contact discharge)
Mechanical	
Housing	Black Metal (Steel) Enclosure
Dimensions - Tx and Rx	(W) 140 x (D) 65 x (H) 18mm (both ends)
Weight - Tx and Rx	Tx = 160g and Rx = 160g

5. Transmitter Panel Description

Front Panel



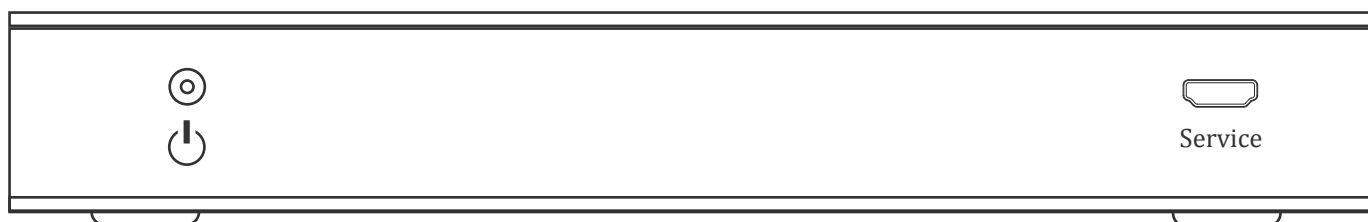
Rear Panel



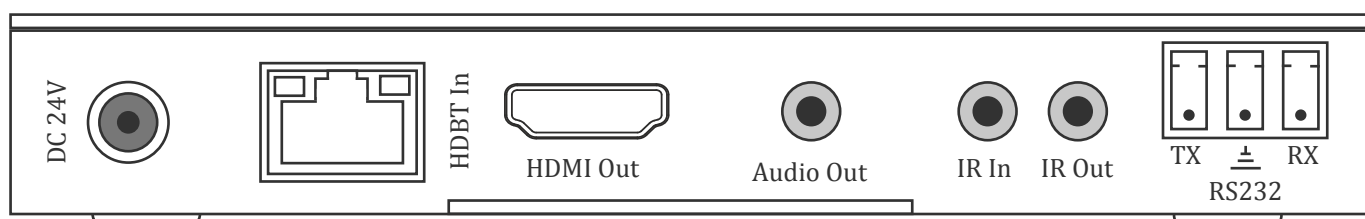
Name	Function
Power LED	Red LED illuminates when powered.
Service Port	Used for firmware updates only.
DC 24V	Power input. The extenders support PoC (power over cable), only one end needs a power supply.
HDBT Output	RJ45 port for connecting HDBT to receiver using CAT5e/6.
LED (RJ45 Left)	On: Good connection between transmitter and receiver Flashing: Poor connection between transmitter and receiver. Off: No connection between transmitter and receiver.
LED (RJ45 Right)	On: HDMI signal with HDCP. Flashing: HDMI signal without HDCP. Off: No HDMI signal.
HDMI Out	HDMI looped output for local display.
HDMI In	HDMI input from source device.
IR In	IR sender cable. Sends signal to receiver.
IR Out	IR emitter cable. Receives IR from receiver for controlling the source device.
RS232	Full duplex RS232 data passed in both directions.

6. Receiver Panel Description

Front Panel

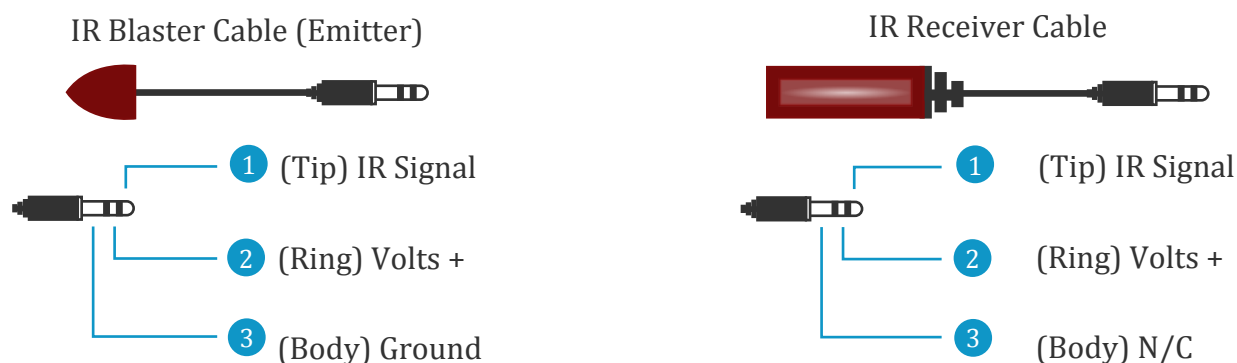


Rear Panel



Name	Function
Power LED	Red LED illuminates when powered.
Service Port	Used for firmware updates only.
DC 24V	Power input. The extenders support PoC (power over cable), only one end needs a power supply.
HDBT In	RJ45 port for connecting HDBT to transmitter using CAT5e/6.
LED (RJ45 Left)	On: Good connection between transmitter and receiver Flashing: Poor connection between transmitter and receiver. Off: No connection between transmitter and receiver.
LED (RJ45 Right)	On: HDMI signal with HDCP. Flashing: HDMI signal without HDCP. Off: No HDMI signal.
HDMI Out	HDMI looped output for local display.
Audio Out	Extracted analogue stereo audio output.
IR In	IR sender cable. Sends signal to receiver.
IR Out	IR emitter cable. Receives IR from receiver for controlling the display device.
RS232	Full duplex RS232 data passed in both directions.

7. IR Pin Connections



8. Cable lengths

Resolution / Distance			
4K	394ft / 120m		
1080p	492ft / 150m		
Resolution / HDMI Cable Length	4K/60Hz	4K/30Hz	1080p/60Hz
HDMI input & output	10ft / 3m	30ft / 10m	50ft 15m
Note: Premium high speed HDMI cables are recommended.			

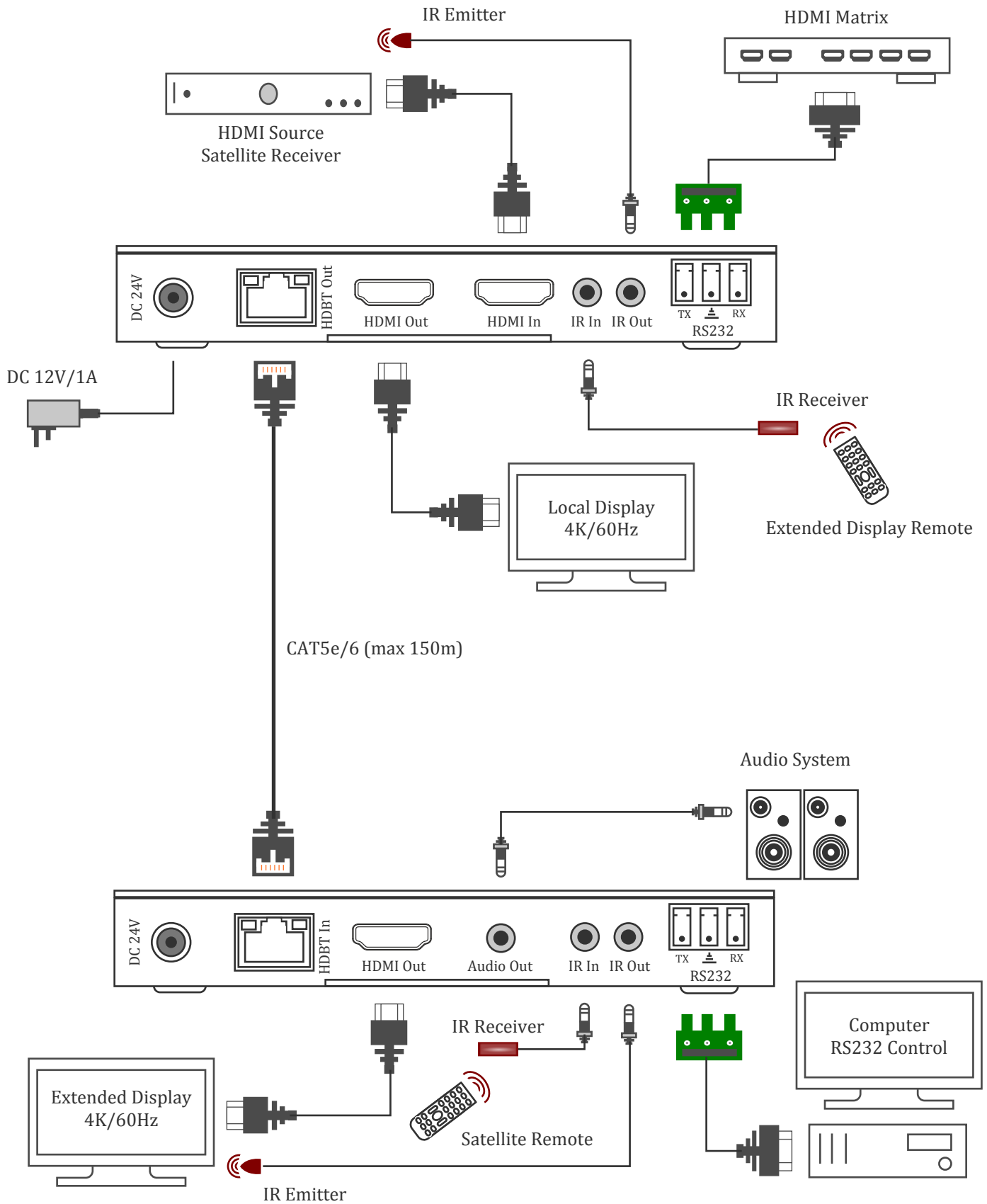
9. Connecting Transmitter

1. Connect the HDMI cable to the **HDMI In** port and the source device, a premium quality HDMI cable should be used for 4K resolutions.
2. (Optional) Connect the HDMI cable to the **HDMI Out** port and the sink device, a premium HDMI cable should be used for 4K resolutions.
3. (Optional) Connect the IR emitter to the **IR Out** port and position the emitter in front of the source device IR window for remote end control.
4. (Optional) Connect the IR receiver cable to the **IR In** port and position the receptor in sight of the IR remote.
5. (Optional) Connect the **RS232** cables to the 3 pin Phoenix terminal and the control device.
6. Connect and power the transmitter using the 24V/1A power adaptor supplied, the extenders have the option to power either end using the same power supply provided.

10. Connecting Receiver

1. Connect the HDMI cable to the **HDMI Out** port and the display device, a premium quality HDMI cable should be used for 4K resolutions.
2. (Optional) Connect the audio cable to the **Audio Out** port and the display or amplifier.
3. (Optional) Connect the IR emitter to the **IR Out** port and position the emitter in front of the displays IR window for remote end control.
4. (Optional) Connect the IR receiver cable to the **IR In** port and position the receptor in sight of the IR remote. This will send IR data back to the source device.
5. (Optional) Connect the **RS232** cables to the 3 pin Phoenix terminal and the control device.
6. Connect and power the transmitter using the 24V/1A power adaptor supplied, the extenders have the option to power either end using the same power supply provided.

11. Application Drawing



12. Maintenance

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

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 servicing 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.

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.

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.

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.