

Smart-e

# 444K-TX960

100m Cat 6 1x4 HDBaseT Splitter

User manual



44<sup>k</sup>

Smart-e

For more information visit our website, or talk to one of our technical team  
tel: +44 (0) 1306 628264 [www.smart-e.co.uk](http://www.smart-e.co.uk)

## Notice

The information in this document is subject to change without notice. Every effort has been made in the preparation of this document to ensure accuracy of the contents, but all statements, information, and recommendations in this document do not constitute the warranty of any kind, express or implied.

## Features

- Incorporates HDBase-T technology
- Distributes 1 HDMI source to 4 HDBaseT Output with 1xlooping HDMI output
- Bandwidth up to 18Gbps, resolution up to 4k @60hz YUV 4:4:4
- Transmit up to 100m under 1080p, 70m under 4k
- Support HDR10; HDCP2.2/1.4
- Bi-Directional wide band IR and RS232 pass through
- Support Micro USB updating
- Power adapter 24V2A
- Support POC remote power supply 24V2A

## Package Contents

- 1 x HDMI Splitter
- 1 x 24V DC Adapter
- 1 x User Manual
- IR TX cable x1; RX cable x1
- Fixed hanger x2
- Phoenix terminal x2
- 3.5mm stereo cable (cascading IR) x2

## MAIL-IN SERVICE

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 and/or email address where you can be reached.

## LIMITED WARRANTY LIMITS AND EXCLUSIONS

1) 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 center or other Authorized Servicer, or damage that is attributable to acts of God.

2) 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.)

3) PARTS AND SERVICE, WHICH ARE NOT COVERED BY THIS LIMITED WARRANTY, ARE YOUR RESPONSIBILITY.

## SPECIFICATIONS

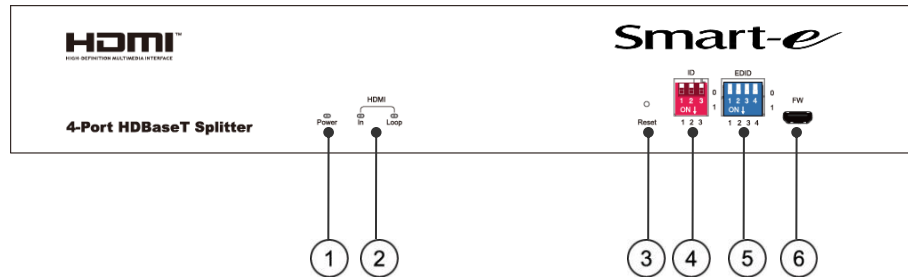
Operating Temperature Range	-5 to +40°C(+23 to +104°F)
Operating Humidity Range	5 to 90%RH (No Condensation)
Input Video format	720P / 1080P / 4K@60hz
Data transfer speed rate	18 Gbps(Maximum)
Input port	1xHDMI
Output ports	4xHDBaseT port, 1xHDMI loop out
Output Video Format Supported	DTV/HDTV:480i/576i/480P/576P/720P/1080i/1080P, 4K VESA resolution:1920x1200
Transmission Distance	100m under 1080P 70m under 4K
Power consumption	15W(HOST); 30 W(POC)
Dimension (L×W×H)	270x190x44mm
Net Weight	1640g

## Connecting and operating

- 1) Connect the HDMI input sources into HDBaseT Splitter.
- 2) Connect HDMI receiver over Cat5e/Cat6 cables to both the Cat5e/6 port of HDBaseT Splitter and Cat5e/6 port of Receiver, The RJ45 connections must follow EIA-TIA 568b standards.
- 3) Connect the HDMI output from the Receiver(RX) into the display HDMI input.
- 4) Connect the IR TX receiving cables into Splitter IR TX port on the back panel and affix the emitter on to the source IR windows.
- 5) Connect the IR RX cable into IR RX port on the receiver and affix the IR receiver in direct line of side with the hand held remote control. It is recommended to affix the receiver on the display frame/bezel or the display stand

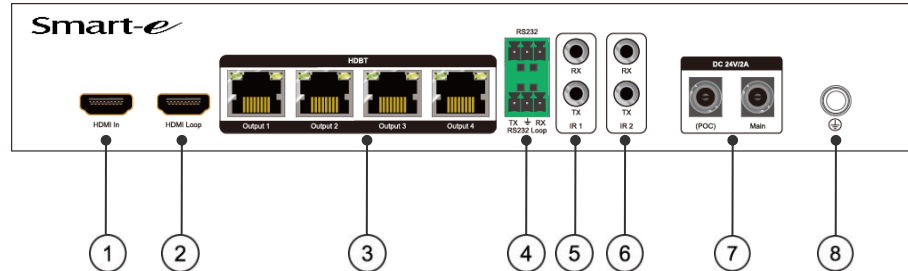
Note: POC need to use the specific receivers.

## PANEL DESCRIPTIONS



- ① Power indicator
- ② HDMI input and loop indicator
- ③ Reset button
- ④ ID Switch button
- ⑤ EDID switch button
- ⑥ Firmware update port

Rear Panel



- ① HDMI input port
- ② HDMI loop out port
- ③ HDBT output 1~4 ports
- ④ RS232 port
- ⑤ IR1 in and loop port
- ⑥ IR2 in and loop port
- ⑦ DC 24V port (if the receiver have power supplier, DON'T use POC port)
- ⑧ Grounding

## MAINTENANCE

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

## PRODUCT SERVICE

1) Damage requiring service:

The unit should be serviced by qualified service personnel if:

- (a) The DC power supply cord or AC adaptor has been damaged;
- (b) Objects or liquids have gotten into the unit;
- (c) The unit has been exposed to rain;
- (d) The unit does not operate normally or exhibits a marked change in performance;
- (e) The unit has been dropped or the cabinet damaged.

2) Servicing Personnel: Do not attempt to service the unit beyond that described in these operating instructions. Refer all other servicing to authorized servicing personnel.

3) Replacement parts: When parts need replacing ensure the servicer uses parts specified by the manufacturer or parts that have the same characteristics as the original parts. Unauthorized substitutes may result in fire, electric shock, or other hazards.

4) Safety check: After repairs or service, ask the servicer to perform safety checks to confirm that the unit 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 3 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.

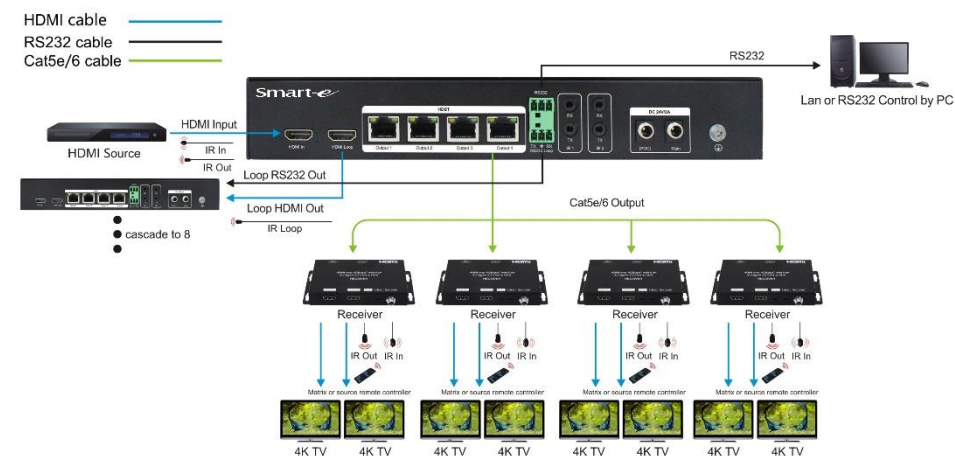
During the warranty period, there will be no charge for parts or labour. You must mail-in your product during the warranty period. This Limited Warranty is extended only to the original purchaser and only covers product purchased as new. A purchase receipt or other proof of original purchase date is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

EDID Setting					
No.	Switch button				Resolution
	1	2	3	4	
1	0	0	0	0	4K60-444-2.0
2	0	0	0	1	4K60-444-2.0-HDR
3	0	0	1	0	4K60-444-5.1-HDR
4	0	0	1	1	4K60-444-7.1-HDR
5	0	1	0	0	4K30-444-2.0CH
6	0	1	0	1	4K60-420-2.0CH
7	0	1	1	0	1080P-2.0CH
8	0	1	1	1	Copy LOOP
9	1	0	0	0	Copy HDBT1
10	1	0	0	1	Copy HDBT2
11	1	0	1	0	Copy HDBT3
12	1	0	1	1	Copy HDBT4

### Factory data reset

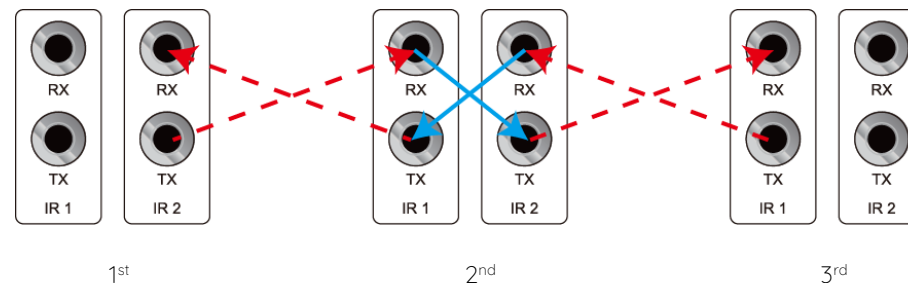
Function description: factory Settings can be restored through host RESET and long press 3S, HDMI input and output indicator lights flicker for 4 times, and the back-end TV screen goes black.

### Connection Diagram



### IR Cascading:

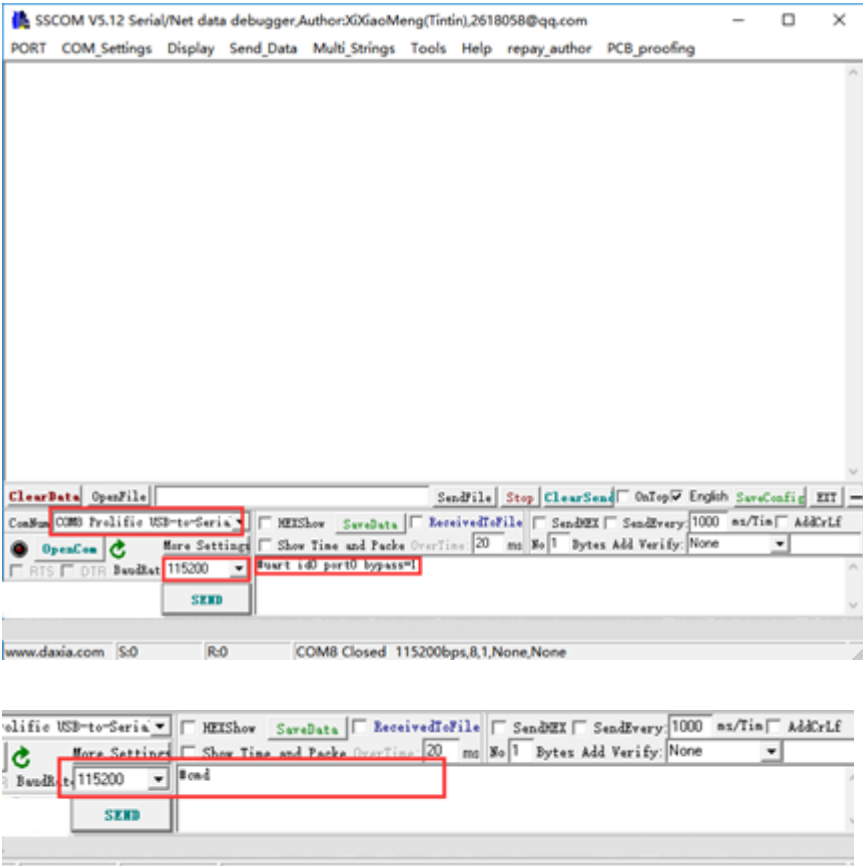
Infrared is divided into two groups IR1 and IR2. The upper interface of each group IR is IR RX, and the lower interface is IR TX. IR2 is the infrared loop out, used to connect the next level of IR1.



Note: the red arrow indicates the two-way 3.5mm infrared 3-section connector; The blue arrow indicates the direction of infrared in the product

The RS232 PASS THROUGH

Basic Settings: double-click the software in the installation package to install RS232 software on the computer. Select the serial port number connecting the serial port line to PC in the parameter configuration area. Fill in the baud rate of the communication protocol: 115200. Data bit: 8. Stop bit: 1. Check bit: none. And then input the instruction in the command input area to realize the bidirectional transmission of the serial port between the local receiver and the remote receiver. Or the bidirectional transmission of the serial port between the remote and remote terminals. Support pass through baud rate: 115200576 00384 00192 00144 00960 0480 0240.



Command list:

Command head	Device ID No.	HDBT Port	Connecting
#uart	id%d&%d...&%d	port%d&%d...&%d	bypass=%d
	0: all	0: all	0: Disconnect the port of the selected ID from the port that sent this instruction
	1: ID 000	1: HDBT 1	1: Connect the port of the selected ID to the port that sent this instruction
	2: ID 001	2: HDBT 2	
	3: ID 010	3: HDBT 3	
	4: ID 011	4: HDBT 4	
	5: ID 100		
	6: ID 101		
	7: ID 110		
	8: ID 111		

Note:  
The id% d % d...&%d can select multiple device IDs at the same time (%d cannot exceed 8)  
Port% d % d...&%d can select multiple HDBT ports at the same time (%d cannot exceed 4)  
The instruction is only valid if the baud rate is set to 115200

For example: Type #uart id1 port0 bypass=1 to indicate that all ports of HOST with ID 1 are connected to the machine (HOST which is connected to the computer). Then, in the instruction input bar, send the RS232 bypass instruction: # CMD, as shown in page 6.

RS232 cascade

Host's upper RS232 ring outlet and next RS232 serial port are connected by RS232 male wires on both sides. Connect channels by sending instructions (note: the ID number of any two SPH05 cannot be set to the same). It can realize bidirectional transmission of serial port between any two products or any HDBT receiver with any ID number.

