# SC&T

## HDMI Distribution Amplifier

# User Manual

Model : HE04SEK

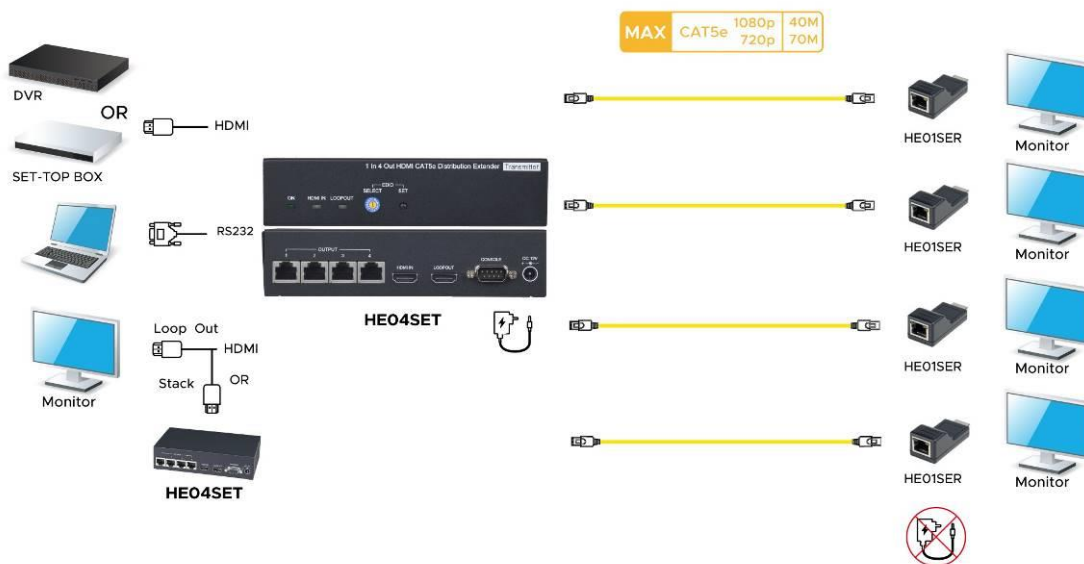## 1x4 Out HDMI Distribution Amplifier CAT5e Extender Kit

## Introduction

HE04SEK is an HDMI distribution extender that can use CAT5e cables to not only extend one HDMI but also split it into 4 HDMI signal for remote displays. Its RX units don't require external power supplies. and have built-in HDMI connectors that allow the RX to directly connect to HDMI devices. TX is an expandable unit that can stack another TX to get 1 HDMI input and up to 12 HDMI outputs and can display one HDMI video at different HDMI displays at the same time. It's a perfect solution for sports bar, churches, conference rooms, classrooms, and security rooms…etc.
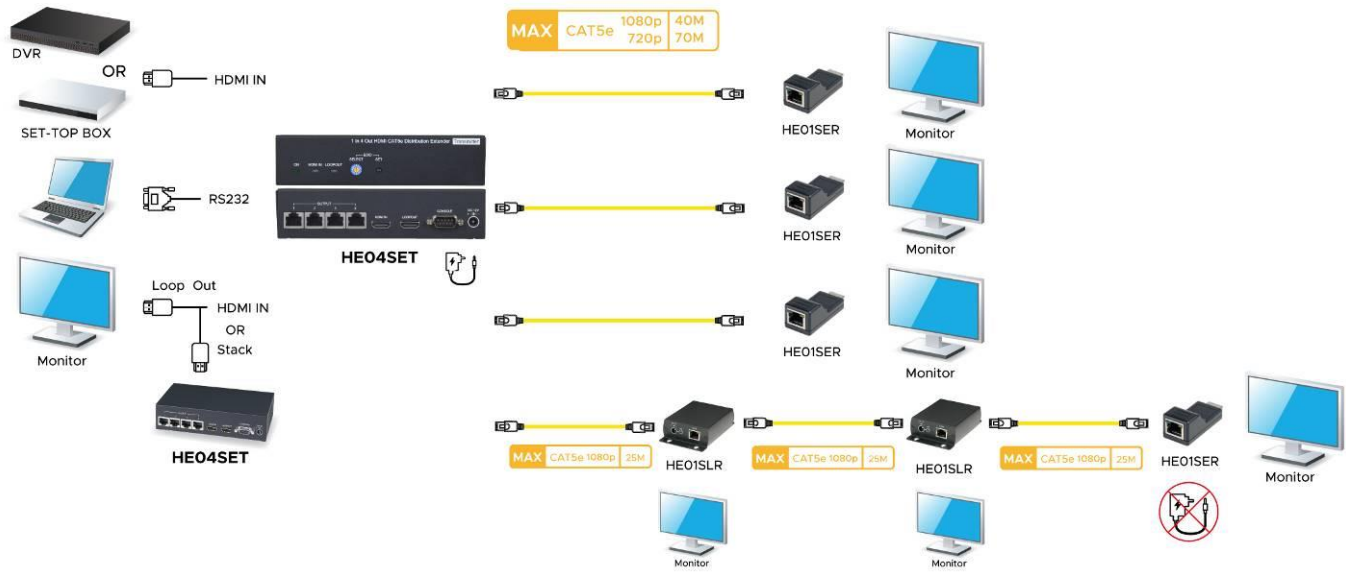
## Features

- Resolution up to 1080p@60Hz.
- Signal extension up to 70M.
- No external power required for RX unit.
- Built-in loop out port at TX unit for an extra HDMI display.
- Stackable for another TX for 1 in 8/ 12 out.
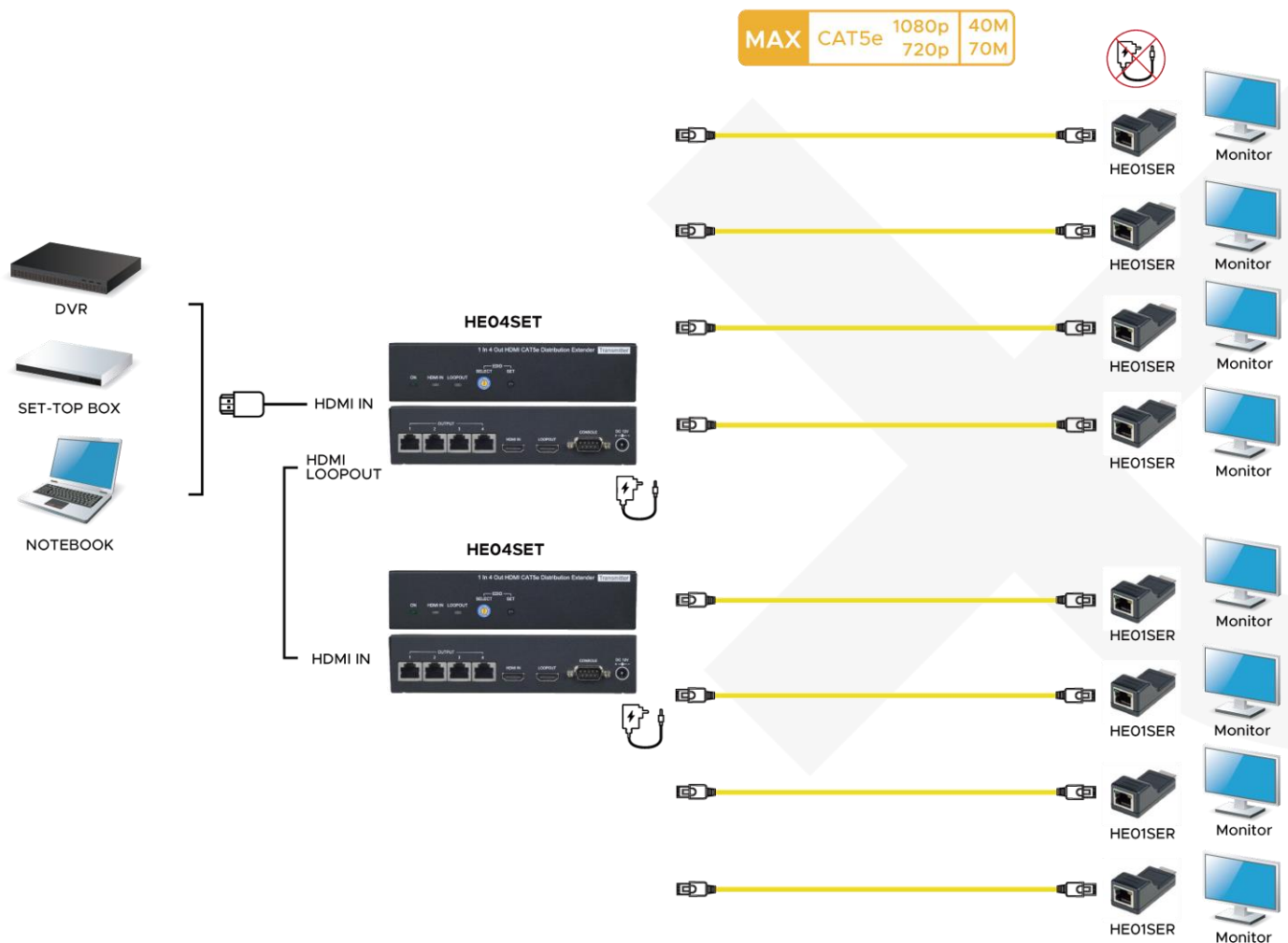- Supports RS232, CEC, EDID management.

## Installation View

(1)Extends and distributes 1 HDMI source to remote 4 HDMI displays.

(2) Works with chainable receiver HE01SLR (Max. 3pcs) to get extra transmission distance and outputs.
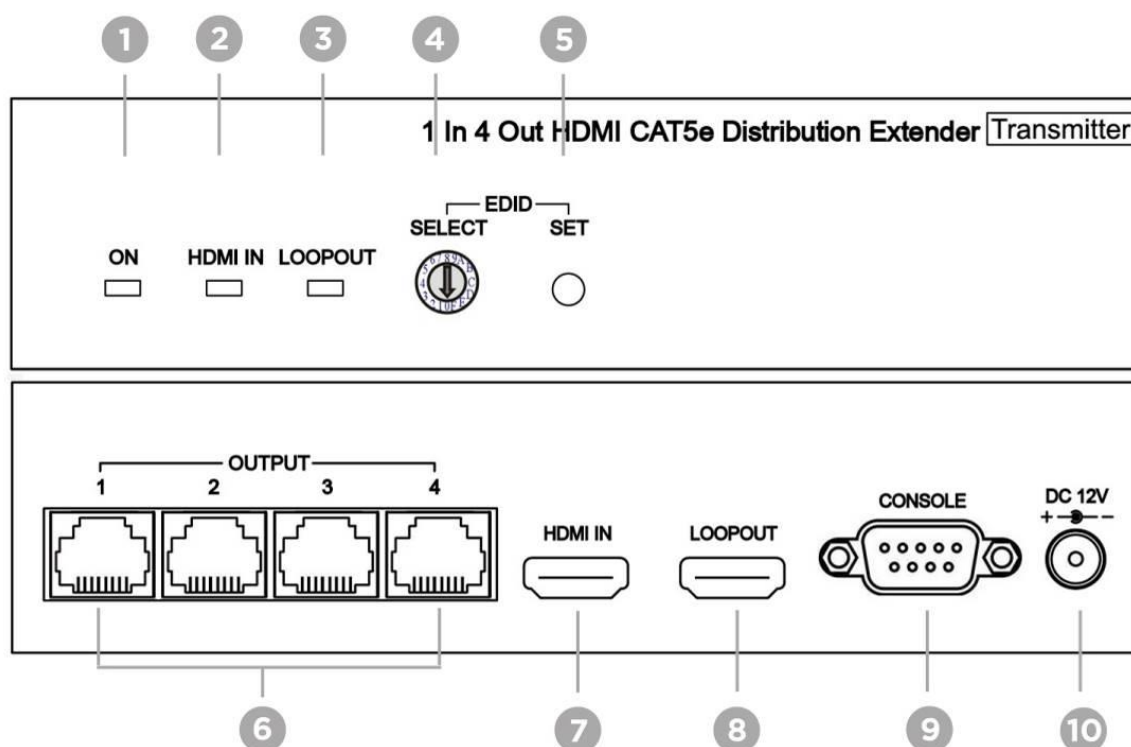


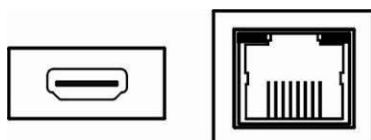(3)Stack to another HE04SET through HDMI loop out port to get configuration of 1 in 8 out.

## Panel Review

(1) HE04SET



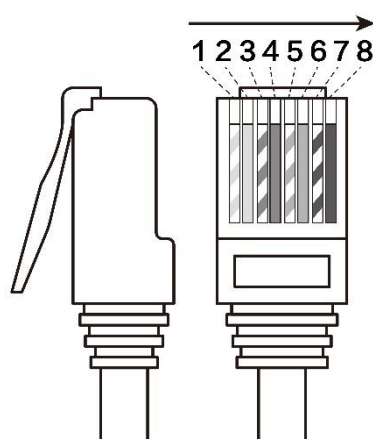| No. | Interface | Description |
|---|---|---|
| 1 | Green LED | Green light indicates "ON" status. |
| 2 | Blue LED | Blue light indicates "HDMI IN" is connected to HDMI source. |
| 3 | Blue LED | Blue light indicates "LOOPOUT" is connected to HDMI display. |
| 4 | Rotary Switch | To select EDID by rotating the switch from 0 to F. (please refer to EDID setting) |
| 5 | SET Button | Press 1 second to copy selected EDID. |
| 6 | Output 1~4 | Connects to remote receivers (HE01SER, HE01SLR) with CAT5e cables. (please refer to Note 2-4) |
| 7 | HDMI Input | Connects to HDMI source with HDMI cable. |
| 8 | Loop Out | Connects to HDMI display or another HE04SET with HDMI cable. (please refer to Note 1) |
| 9 | Console | Connects to RS232 control device with DB9(F) cable for controlling HE04SET or updating firmware. (please refer to RS232 setting) |
| 10 | Power Input | Connects to DC12V 1A adapter. |

(2) HE01SER



| No. | Interface | Description |
|---|---|---|
| 1 | Green LED | Green light indicates receiving power and video signals. |
| 2 | Yellow LED | Yellow light indicates no signal input or receiving an unsupported format. |

## Notes

1.   When connect HDMI display with loop out port, please make sure HDMI cable connects to the Input 1 of HDMI display.
2.   It is recommended using UTP cable.
3.   When using the STP cable, the transmission distance might be shorter. (CAT6a: 25-30M, CAT7:25- 40M)
4.   The cable must be straight, do not roll the cable to avoid crosstalk interference.

## RJ45 Pinout

(PIN TIA/EIA-568B)

| (PIN TIA/EIA-568B) | |
|---|---|
| PIN | Wire Color |
| 1 | Orange-white |
| 2 | Orange |
| 3 | Green-white |
| 4 | Blue |
| 5 | Blue-white |
| 6 | Green |
| 7 | Brown-white |
| 8 | Brown |

## RS232 Wiring

Terminal setting:〔**57600bps (8-N-1)**〕

| RS232 | |
|---|---|
| Pin | Definition |
| 2 | TX |
| 3 | RX |
| 5 | GND |

Note: Pins not shown in table have no connection

## RS232 Command Table

| Command | Description |
|---|---|
| OFF   1(Enter) | OUTPUT 1 OFF |
| OFF   2(Enter) | OUTPUT 2 OFF |
| OFF   3(Enter) | OUTPUT 3 OFF |
| OFF   4(Enter) | OUTPUT 4 OFF |
| OFF   5(Enter) | HDMI LOOPOUT OFF |
| ON   1(Enter) | OUTPUT 1 ON |
| ON   2(Enter) | OUTPUT 2 ON |

| ON  3(Enter) | OUTPUT 3 ON |
|---|---|
| ON  4(Enter) | OUTPUT 4 ON |
| ON  5(Enter) | HDMI LOOPOUT ON |

## EDID Table

| Number | EDID | Number | EDID |
|---|---|---|---|
| 0 | Customize EDID #1 | 8 | 1920x1080 |
| 1 | Customize EDID #2 | 9 | 1920x1200 RGB LPCM 2CH |
| 2 | 1024x768 | A | 720p 50Hz LPCM 2CH |
| 3 | 1280x720 | B | 720p 60Hz LPCM 2CH |
| 4 | 1280x1024 | C | 1080p 50Hz LPCM 2CH |
| 5 | 1366x768 | D | 1080p 60Hz LPCM 2CH |
| 6 | 1600x900 | E | 1080p 50Hz MULTI |
| 7 | 1680x1050 | F | 1080p 60Hz MULTI |

## EDID Settings

Step1:    Refer to EDID list at last page and find the number of which EDID is needed. (0~F)

Step2:    Rotate the rotary dip switch arrow to the selected number.

Step3:    Click "SET" button, and the two blue LEDs will flash quickly.

Step4:    Wait for HE04SET to restart, and the process of EDID setting is done.

## Customize EDID Settings

Step1:    Connects display and loop out port through HDMI cable.

Step2:    Press and Hold "SET" button for approximately 3 second, and the two blue LEDs will flash slowly then quickly.

Step3:    Wait for HE04SET to restart, and the process of copying EDID is done.

## Caution

1. The wiring must be away from any equipment with electromagnetic wave, i.e.: mobile phone, microwave, radio equipment, fluorescent lamp, high voltage power lines.

2. HE04SEK isn't networking device, please do not connect with Ethernet device to avoid damages.

## Package Contents

1 x HE04SET
4 x HE01SER
1 x DC12V 1A power supply
4 x Rubber cushions
2 x Screws/ Screw hole plugs

## Specification:

| ITEM NO. | HE04SET | HE01SER |
|---|---|---|
| Support | | |
| Compliance | HDMI 1.4, CEC | |
| Max. Video Resolution | 1080p@60Hz | |
| Max. Transmission Distance | 40M over CAT5e or Greater | |
| RS232 Baud Rate | 57600 bps | |
| Audio Format | AC3, DTS, Dolby TrueHD, DTS-HD | |
| Ports & Interfaces | | |
| Video Input | 1 x HDMI Type A | 1 x RJ45 |
| Video Output | 4 x RJ45 | 1 x HDMI Type A |
| Video Loop-out | 1 x HDMI Type A | |
| RS232 Interface | 1 x DB9 Female | |
| Power Interface | | 1 x Micro USB |
| Power | | |
| Power Supply | DC 12V 1A | |
| Power Consumption | 96W 0.8A | 320mA |
| Ambient Temperature | | |
| Operation | 0 to 70℃ | |
| Storage | -20 to 125℃ | |
| Humidity | Up to 95% | |
| Physical Characteristics | | |
| Dimensions | 167 x 101 x 40mm | 57.5 x 24 x 20.2mm |
| Weight | 460g | 20g |

RoHS $C\epsilon$