

CLUX-18CEC

1x8 HDMI 1.3 Splitter
with CEC Function

Operation Manual



CLUX-18CEC

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• **Safety Precautions**

Please read all instructions before attempting to unpack or install or operate this equipment, and before connecting the power supply. Please keep the following in mind as you unpack and install this equipment:

- Always follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Never spill liquid of any kind on or into this product.
- Never push an object of any kind into this product through module openings or empty slots, as you may damage parts.
- Do not attach the power supply cabling to building surfaces.
- Do not allow anything to rest on the power cabling or allow it to be abused by persons walking on it.
- To protect the equipment from overheating, do not block the slots and openings in the module housing that provide ventilation.

• **Revision History**

Version No	Date	Summary of Change
V1	20091227	Preliminary Release

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1. Introduction

This HDMI v1.3 Distribution Amplifier is a helpful solution for your HDMI signal distribution needs. From a single HDMI input it can transfer Deep Color (10-bit and 12-bit) video and new lossless compressed (Dolby TrueHD, Dolby Digital Plus and DTS-HD Master Audio) digital audio with high bandwidth up to 225MHz (6.75Gbps) to eight HDMI outputs. Besides splitting and distributing, it also does signal amplification and equalization, providing high I/O performance on both audio and video.

2. Applications

- Simultaneous display one HDMI source on 8 TVs
- Show room display control
- Educational demo
- Installation usage

3. Package Contents

- 1 x 8 HDMI 1.3 Splitter
- 5V DC Power supply adaptor
- Operation Manual

4. System Requirements

- Input source equipments with HDMI output connector(s)
- Output displays with HDMI input connector(s)

5. Features

- HDMI 1.3, HDCP1.1 and DVI1.0 compliant Receiver .
- Deep color video up to 12bit, 1080p@(24/60)Hz.
- Simultaneously displays one HDMI source onto eight HDMI displays.
- HDCP keysets allow each output to work independently when connecting to an HDMI display.
- Splits a single HDMI source into eight outputs(max.) without any signal loss.
- Supports DVI source/display via HDMI to/from DVI adaptor cable.
- Supports LPCM 7.1CH, Dolby TrueHD, Dolby Digital Plus and DTS-HD Master Audio transmission (32-192kHz Fs sample rate).
- Supports a wide range of PC and HDTV resolutions from VGA to UXGA and 480i to 1080p.
- HDMI cable distance testing showed that with 1080p/8bits resolution: the Input/Output source can reach up to 10/10 meters away, and at 1080p/12bits the I/O source can reach up to 6/10 meters.

Note:

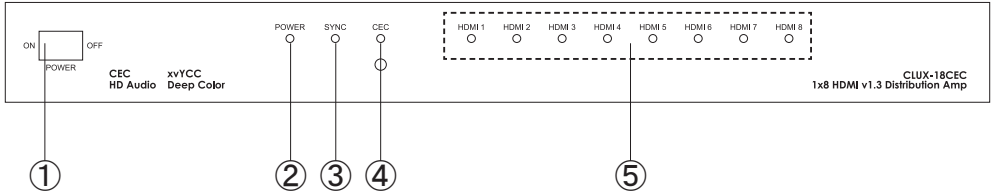
- A. Cable tested with CAT-6E /23AWG/ using cables of another type may result in a different operating distance.
 - B. Cable distance test included the following: PS3 120G and 37" Samsung 12-bit LCD TV.
 - C. Figures provided in this manual are reference figures only, actual figures may depend on source and display use with cable specification.
- Supports EDID bypass, xvYCC and CEC bypass.
 - CEC function support includes one touch play & record, timer programming, menu language, deck & device menu control, OSD display, device OSD transfer, remote control pass through, system audio control and system standby
 - System standby will only be activated when the last TV is switched to standby

6. Specifications

Frequency Bandwidth	2.25Gbps (single link)
Input Port	1x HDMI female port (Type A connector)
Output Ports	8x HDMI female ports (signal link)
HDMI Cable In	1080p 8-bit (10M), 12-bit (10M)
HDMI Cable Out	1080p 8-bit (6M), 12-bit (10M)
ESD Protection	Human body model: $\pm 10\text{kV}$ (air-gap discharge) $\pm 6\text{kV}$ (contact discharge)
PCB Stack - up	4-layer board impedance control – differential 100Ω – Single 50Ω
Input TMDS Signal	1.2 Volts (peak-to-peak)
Input DDC Signal	5 Volts (peak-to-peak, TTL)
HDMI Output Resolution	480i ~ 1080p, 1080p24, VGA ~ UXGA
Power Supply	5VDC/3.2A (US/EU standards, CE/FCC/UL certified)
Dimensions (mm)	436(W) x 120(D) x 44(H)
Weight(g)	1510
Chassis Material	Metal
Silkscreen Color	Black
Operating Temperature	$0^{\circ}\text{C} \sim 40^{\circ}\text{C}$ / $32^{\circ}\text{F} \sim 104^{\circ}\text{F}$
Storage Temperature	$-20^{\circ}\text{C} \sim 60^{\circ}\text{C}$ / $-4^{\circ}\text{F} \sim 140^{\circ}\text{F}$
Relative Humidity	20% ~ 90% RH (non-condensing)
Power Consumption	18W (max)

7. Operation Controls and Functions

7.1 Front Panel

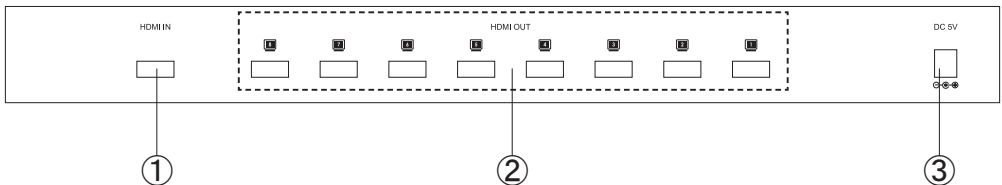


- ① **Power Switch:** This switch turns the system on and off.
- ② **Power LED Indicator:** This LED is green when power is on, and red when power is off.
- ③ **Sync LED:** When an HDMI source is connected to the input port, this LED will turn on once the splitter has established a Link with the source.
- ④ **CEC button & LED:** Press this button to turn the CEC function on or off. The yellow LED will turn on once the CEC is on. Factory default setting is set on.

Note:

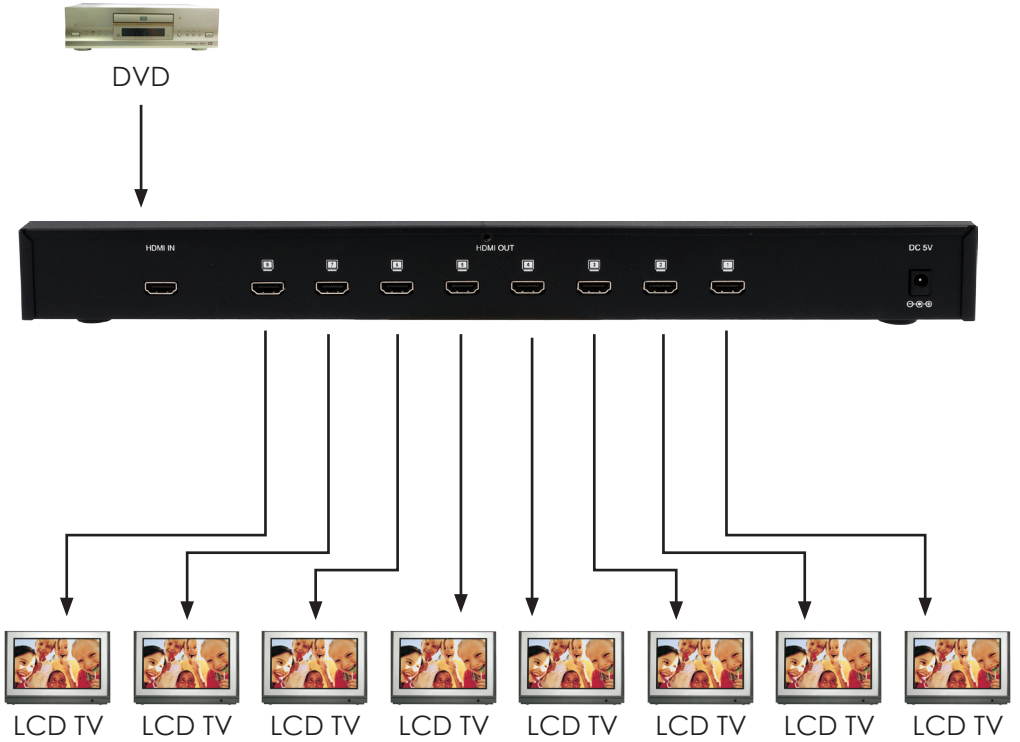
1. In order to perform the CEC function, both source and display must support CEC.
2. The standby mode will only activate when the last TV is switched to standby.
3. All four HDMI outputs must have CEC support.

7.2 Rear Panel



- ① **HDMI Input:** This slot is where you connect the output port of your HDMI/DVI source (i.e., DVD, set-top box) using an HDMI/HDMI to DVI adaptor cable.
- ② **HDMI output 1~8:** These slots connect to the HDMI displays through the splitter, using HDMI cables. If more than one output is connected, all corresponding HDMI outputs will simultaneously display an identical video signal.
- ③ **Power:** This slot is where you insert the 5V DC power supply after its plugged into an AC outlet.

8. Connection and Installation





Acronyms

Acronym	Complete Term
CEC	Consumer Electronics Control
DTS	Digital Theater Systems
DVI	Digital Visual Interface
EDID	Extended Display Identification Data
HDCP	High-Bandwidth Digital Content Protection
HDMI	High-Definition Multimedia Interface
PC	Personal Computer
PCB	Printed Circuit Board
SYNC	Synchronize
TMDS	Transition Minimized Differential Signaling
TTL	Transistor–transistor logic
UXGA	Ultra Extended Graphics Array
VGA	Video Graphics Array



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