CLUX-14W

1 by 4 HDMI 1.3 Splitter

CLUX-14W

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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

Revision History

Version No	Date	Summary of Change
V1	*20091001*	Preliminary Release

Table of Contents

1. Introduction

The HDMI v1.3 Splitter is an advanced solution for HDMI signal distribution. This device supports deep color (10 & 12-bit) video with new lossless compressed (Dolby TrueHD, Dolby Digital Plus and DTS-HD Master Audio) digital audio, with a high bandwidth up to 225MHz (6,75Gbps). Besides just splitting and distributing, this device also amplifies and equalizes your signal to provide high performance I/O of audio and video. With great features like EDID, CEC and system reset this device will fully support your HDMI splitting needs.

2. Applications

- Simultaneous multi channel display
- Show room display
- Educational demo
- Installation usage

3. Package contents

- 1 by 4 HDMI 1.3 Splitter
- Power supply adaptor
- Operational Manual

4. System Requirements

Input source devices with HDMI cable and output displays with HDMI cables.

5. *Features*

- HDMI v1.3, HDCP1.1 and DVI1.0 compliant .
- Supports Deep Color video up to 12bit, 1080p(24/60Hz).
- One HDMI source can simultaneously connect with four HDMI displays.
- HDCP keysets allow each output to work independently when connecting to an HDMI display.
- Splits an HDMI source on up to four outputs without any signal loss.
- Supports DVI source and display by using an 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 WUXGA and 480i to1080p.
- HDMI cable distance testing showed that with 1080p/8bit resolution, the input distance is 15 meters. If 1080p/12bit, the input distance is10 meters.
- HDMI cable distance testing showed that with 1080p/8bit resolution, the output distance can be up to 10 meters. If 1080p/12bit, the output distance can be up to 10 meters.
- EDID function. This unit is designed to detect the first HDMI/DVI output display's EDID and record it in the unit. If the first detected output is empty it will pass on to the next output until the first HDMI/DVI display has been detected. When users re-plug the power, the system will automatically recover the EDID.
- Supports xvYCC and CEC bypass.
- Switch Reset button on to restore the system every 8-10mins.
- Buttons for EDID settings allow for fast recognition between the source and display.

6. *Specifications*

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Frequency bandwidth	2.25Gbps (single link)
Input port	1 x HDMI Female port
Output ports	4 x HDMI Female ports (single link)
ESD Protection	Human body model: ± 10kV (air-gap discharge)
	± 6kV (contact discharge)
PCB stack - up	4-layer board impedance control - differential 100 ohm
	- sigle 50 ohm
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~WUXGA
Power Supply	5VDC/2.6A (US/EU standards, CE/FCC/UL certified)
Dimensions (mm)	93 (W) x 187 (D) x 30 (H)
Weight (g)	240
Chassis Material	Aluminum
Silkscreen Color	Silver
Operating Temperature	0°C ~ 40°C / 32°F ~ 104°F
Storage Temperature	-20°C~60°C / -4°F ~ 140°F
Relative Humidity	20% ~90% RH (non-condensing)
Power Consumption	5.5W (max)

7. *Operation Controls and Functions*

7.1 Front Panel
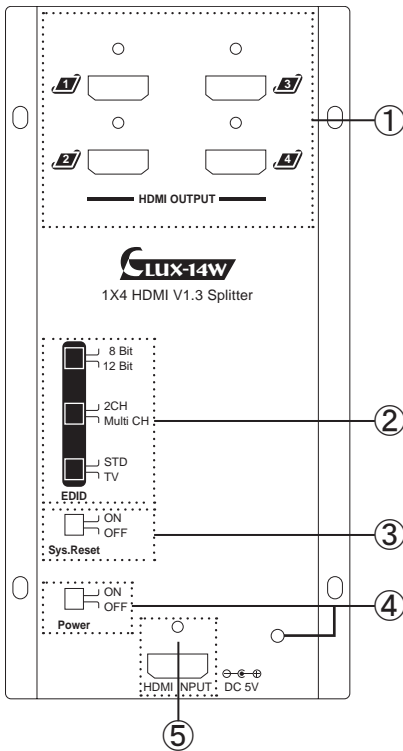
① HDMI OUTPUT 1~4:
Connect your LCD TV or HD monitor with HDMI cables.

② EDID selection:
STD/TV – By switching to STD you can select both deep color and audio channel functions, if switching to TV the unit first reads the TV's EDID and will then send an image from the connected source.
Note: When in STD mode it is suggested to switch deep color to 8-bit in order to operate displays at long distances.
2CH/Multi CH – Supports 2 channel or Multi audio channels. This option is only available when EDID is in STD mode.
Note: When Multi CH is selected the TV/display must also support this function, otherwise the TV/display will have no audio output, unless the HDMI output is connected to AVR and then to the TV/display.
8/12 bit – Supports 8 or 12 bit deep color. This is only available when EDID is in STD mode.
Note: When HDMI output has both 8-bit and 12-bit displays, in order to ensure all outputs will display properly it is suggested to switch to 8bit display. On the other hand, when all outputs are within the same bit range of 8 or 12 bits then it is advised to switch all outputs to the same bit ratio. The splitter will not function properly if the display bit ratios are different.

③ Sys. Reset: System reset function. It is suggested to always have this function switched off except when doing a system reset. By switching this on the system will reset each TV to HDMI 1 within 8~10 minutes (TV must support CEC), switching this OFF means CEC bypass.
Note: The system reset function only works when the display has a built in CEC function.

④ Power & LED: Power switch on/off, the red LED will switch on when power is on.

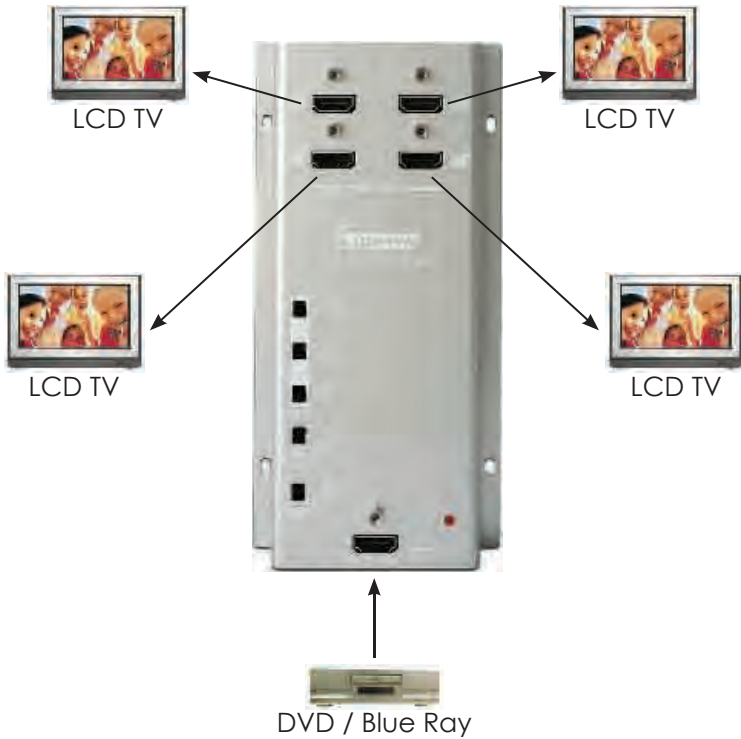⑤ HDMI INPUT: Connect your source device with HDMI cables.

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7.2 Bottom Panel
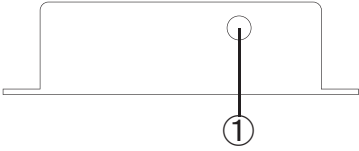
① DC 5V: Plug the 5VDC power supply into the unit and connect the adaptor to an AC outlet. A red LED will turn on when the Power is on.

8. Connection and Installation

LCD TV   LCD TV

LCD TV   LCD TV

DVD / Blue Ray

Acronyms

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Acronym	*Complete Term*
CEC	Consumer Electronics Control
DVI	Digital Visual Interface
EDID	Extended Display Identification Data
HDCP	High-bandwith Digital Content Protection
HDMI	High-Definition Multimedia Interface
Multi CH	Multiple Channel
STD	Standard