CLUX-14W

1 by 4 HDMI 1.3 Splitter

Operation Manual

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

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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

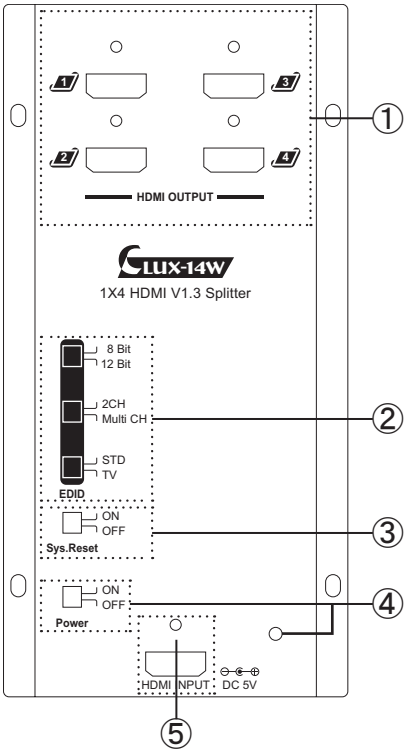
- HDMI v1.3, HDCP1.1 and DVI1.0 compliant .
- Supports Deep Color video up to 12bit, 1080p(24/60Hz).
- One HDMI source can simultaneously connect with four HDMI displays.
- HDCP keysets allow each output to work independently when connecting to an HDMI display.
- Splits an HDMI source on up to four outputs 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

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.

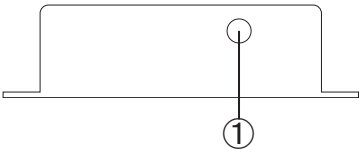
② EDID selection:
STD/TV – By switching to STD you can select both deep color and audio channel functions, if switching to TV the unit first reads the TV's EDID and will then send an image from the connected source.
Note: When in STD mode it is suggested to switch deep color to 8-bit in order to operate 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.

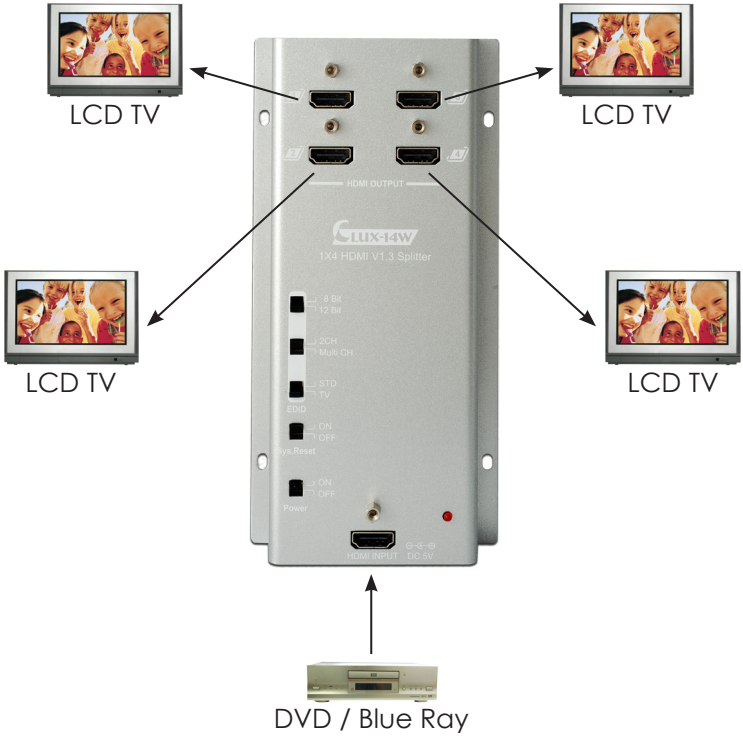
⑤ HDMI INPUT: Connect your source device with HDMI cables.

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



Acronyms

A

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

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Home page: http://www.cypress.com.tw

20090814 MPM-CLUX14W

CLUX-18W

1 by 8 HDMI 1.3 Splitter

Operation Manual

CLUX-18W

Revision History

Version No	*Date*	*Summary of Change*
V1	*20090209*	*Preliminary Release*
V2	*20090403*	*Cable Distance* *1080p/8bit 10M in/15M out* *1080p/12bit 6M in/10M out*

Precautions

Failure to follow the precautions described below may cause damage to 1 by 8 HDMI 1.3 Splitter and void the warranty.

- DO NOT open the case. Doing so will void the warranty. If you find problem with it, please return back to your retailer or seller who will assist you or provide you with solution.
- DO NOT use third-Party AC adapter or power cord. Doing so may damage 1 by 8 HDMI 1.3 Splitter.
- DO NOT bump, jar or drop contents of the products as it may damage it and result in warranty void.
- DO NOT set any liquids or beverages on the drive as they may damage 1 by 8 HDMI 1.3 Splitter.

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1. Introduction

The HDMI v1.3 Splitter is the most advanced solution for HDMI signal distribution. This device supports Deep Color (8 bit & 12 bit) video and a 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 splitting and distributing, this device also does signal amplification and equalization to provide you with high performance I/O of audio and video. With added features like EDID, CEC and system reset this device is made to support your signal distributing needs.

2. Applications

- Simultaneous multi channel display
- Show room display control
- Educational demonstration
- Installation usage

3. Package contents

- 1 by 8 HDMI 1.3 Splitter
- Power adaptor
- Operational Manual

4. System Requirements

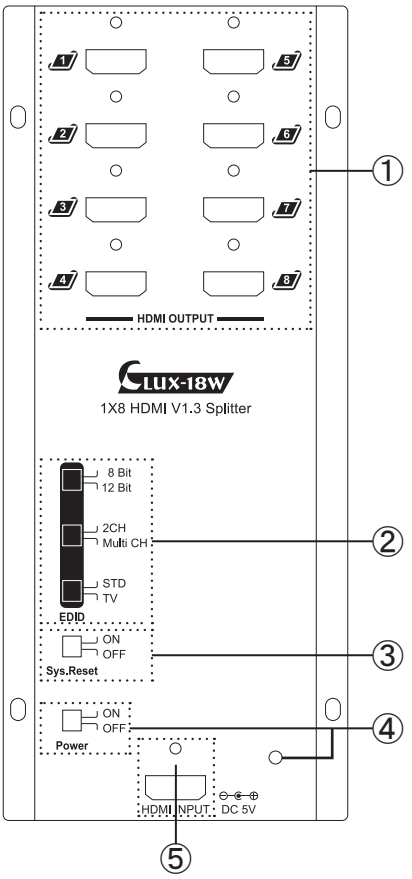
Input source equipments with HDMI cable and output displayers with HDMI cables.

5. Features

- HDMI v1.3, HDCP1.1 and DVI1.0 compliant Receiver.
- Deep Color video up to 12bits, 1080p(24/60Hz).
- One HDMI source simultaneously connected to eight displays
- HDCP keysets allows each output to work independently when connected to an HDMI display.
- Can split an HDMI source eight times without any signal loss.
- Supports both DVI source/display by using 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 to1080p.
- HDMI cable distance test with 1080p/8bit resolution, showed the i/o distance can run up to 10/15m. If 1080p/12bit, the i/o distance can run up to 6/10m.
- Supports EDID. The unit will detect the first HDMI/DVI output display's EDID and record it in the unit. If the first detected output is empty or DVI, it will pass on to the next output until the first HDMI/DVI display has been detected. When users reconnect all the output displays or re-plug the power cables, the system will automatically recover the EDID.
- Supports xvYCC and CEC bypass.
- Switch Reset button on to restore the system every 8-10mins
- EDID settings for fast recognition between the source and display.

6. Installation

Front Panel



①. HDMI OUTPUT 1~8:
Connect your LCD TV or HD monitor with HDMI cables.

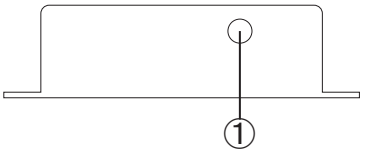
②. EDID selection:
STD/TV – By switching to STD the user can select the deep color and audio channel functions, if switching to TV the unit will read the TV's EDID and will then send the image from the HDMI source.
Note: When in STD mode it is suggested switching to 8 bit when displaying media from the system.
2CH/Multi CH – Supports either 2 channels or Multi audio channels. This option is only available when EDID is in STD mode.
Note: Before selecting Multi CH please be sure the connected TV/display supports it, otherwise the TV/display will have no audio output unless HDMI output connects to an AVR and then to the TV/display.
8/12 bit – Support 8 or 12 bit's deep color function. This selection 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 output will display properly, please switch the first HDMI output to 8bits. On the other hand when all outputs are of the same strength, then switch to either 12 bit or 8 bit accordingly. The splitter will not function properly if the displays are of different bit strength, it cannot output two different bit strengths at the same time.

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

④. Power & LED: Power switch On/Off Red LED illuminate when power is on.

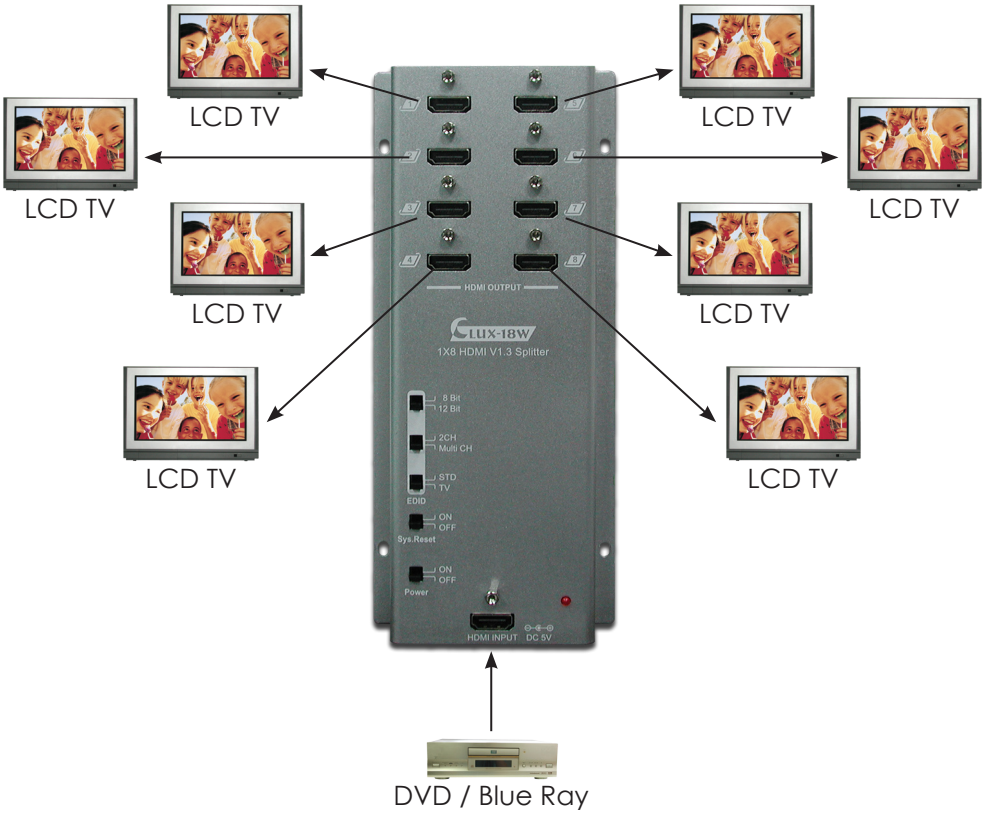
⑤. HDMI INPUT: Connect your source equipment with HDMI cables.

Bottom Panel



①. DC 5V: Plug the 5VDC power supply into the unit and connect the adaptor to AC outlet. Red LED will switch on when the Power is on.

7. Connection and Installation



8. Specifications

Frequency bandwidth	2.25Gbps (single link)
Input port	1 x HDMI Female port
Output ports	8 x HDMI Female ports (single link)
HDMI output resolution	480i~1080p, 1080p24, VGA~UXGA
Power Supply	5VDC/3.2A (US/EU standards, CE/FCC/UL certified)
Dimensions (mm)	93 (W) x 220 (D) x 31 (H)
Weight (g)	300
Chassis Material	Aluminum
Silkscreen Color	Silver
Operating Temperature	0˚C~40˚C
Power Consumption	10W (max)

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