CMLUX-44S
4 to 4 HDMI V1.3 Matrix

Operation Manual

CMLUX-44S

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1. Introduction

This is a high performance HDMI Matrix with remote control. This is compatible to HDMI v1.3 specifications, a cutting-age technology which defines the support to transfer Deep Color (10 bits/color) video and new lossless compressed (Dolby TrueHD, Dolby Digital Plus and DTS-HD Master Audio) digital audio. It offers you maximum convenience in HDMI signal distribution when you have multiple HDMI sources and displays to connect together. Each of the four HDMI sources can be directed to any one of the four HDMI displays so each can show different sources.
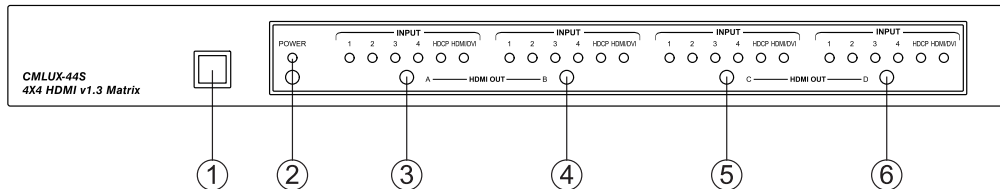
2. Features

- HDMI 1.3, HDCP 1.1 and DVI 1.0 compliant.
- Supports digital video formats in Deep Color Mode at up to 30 bits (10bits/color) and new lossless compressed (Dolby TrueHD, Dolby Digital Plus and DTS-HD Master Audio) digital audio.
- The HDMI input is compensated, clock / phase adjusted, and jitter eliminated so the output is a brand new standard HDMI signal.
- Supports input source LED indicators on each output select.
- Compatible with all HDMI sources and displays.
- Supports a wide range of PC and HDTV resolutions from VGA to UXGA and 480i to 1080p.
- Supports RS-232 control.
- Supports IR remote control and IR extender.
- Dolby Digital, DTS digital audio transmission (32-192 kHz Fs sample rate).
- Supports LPCM7.1 channels output from each independent HDMI ports.
- HDMI cable distance test with 1080p/8bits resolution, the Input/Output source can run up to 20/15 meters. If 1080p/10bits the Input/Output source can run up to 15/15 meters.
  [Note]: When input is 1080p/12bits, the output will down covert to 1080p/10bits.
- Supports EDID functionality.

3. Package Contents

- 4 to 4 V1.3 HDMI Matrix.
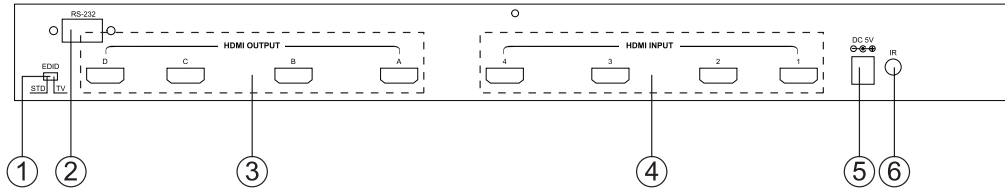- 5V DC power supply adaptor.
- Operation Manual.

4. Operation Controls and Functions

4.1 Front Panel

①. Remote control sensor.

②. Power switch & LED Indicator: The LED will illuminate when the power is turned on.

③. Input Select/Indicators (A): Press the "HDMI out A" button repeatedly to switch to your desired source and the LED will illuminate to indicate which input source is being selected and routed to HDMI A display. Also, when the input source is HDMI the HDMI/DVI LED will illuminate, when the input source is DVI the LED will not illuminate. Meanwhile, the input source if with the HDCP protection the HDCP LED will illuminate.

④. Input Select/Indicators (B): Press the "HDMI out A" button repeatedly to switch to your desired source and the LED will illuminate to indicate which input source is being selected and routed to HDMI B display. Also, when the input source is HDMI the HDMI/DVI LED will illuminate, when the input source is DVI the LED will not illuminate. Meanwhile, the input source if with the HDCP protection the HDCP LED will illuminate.

⑤. Input Select/Indicators (C): Press the "HDMI out A" button repeatedly to switch to your desired source and the LED will illuminate to indicate which input source is being selected and routed to HDMI C display. Also, when the input source is HDMI the HDMI/DVI LED will illuminate, when the input source is DVI the LED will not illuminate. Meanwhile, the input source if with the HDCP protection the HDCP LED will illuminate.

⑥. Input Select/Indicators (D): Press the "HDMI out A" button repeatedly to switch to your desired source and the LED will illuminate to indicate which input source is being selected and routed to HDMI D display. Also, when the input source is HDMI the HDMI/DVI LED will illuminate, when the input source is DVI the LED will not illuminate. Meanwhile, the input source if with the HDCP protection the HDCP LED will illuminate.
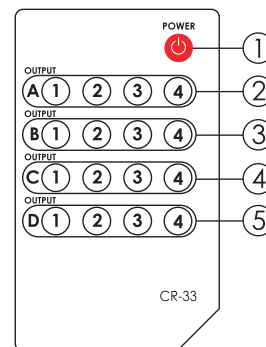
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4.2 Rear Panel

①. EDID Control Switcher: Default factory setting is TV, leave as if the display is properly. Switch to STD to use build-in EDID if the display has problems. When the select in TV mode, the unit will detect the first HDMI v1.2/8bits, HDMI v1.3 (10bits or 12bits) or DVI output source's EDID and record in the unit. When the output sources connected with the entire combination version (HDMI v1.2/8bits, v1.3/10bits, v1.3/12bits or DVI), the system can automatically to support HDMI v1.2/8bits, v1.3/10bits, v1.3/12bits or DVI to expect ports.
[Note]: The detection priority is HDMI v1.3 > HDMI v1.2 > DVI.

②. RS-232 communication port: Connect to the COM port of your PC for the distant control over RD-232 channel.

③. HDMI outputs: Connect each of these output ports to the HDMI display.

④. HDMI inputs: Connect input ports to the HDMI or DVI output of your source equipment such as DVD player or set-top-box.

⑤. Power: Plug the 5VDC power supply into the unit and connect the adaptor to AC wall outlet.

⑥. IR extender

4.3 Remote Control

1. Power: Press the button to turn on/ff the unit.
2. Input Select for HDMI OUT A: Press 1, 2, 3 or 4 to select the desired input source for HDMI OUT A.
3. Input Select for HDMI OUT B: Press 1, 2, 3 or 4 to select the desired input source for HDMI OUT B.
4. Input Select for HDMI OUT C: Press 1, 2, 3 or 4 to select the desired input source for HDMI OUT C.
5. Input Select for HDMI OUT D: Press 1, 2, 3 or 4 to select the desired input source for HDMI OUT D.

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4.4 RS-232 Protocol
4.4.1 Pin Definition

CMLUX-44S			Remote Control Console	
PIN	Definition		PIN	Definition
1	NC		1	NC
2	Tx		2	Rx
3	Rx		3	Tx
4	NC		4	NC
5	GND		5	GND
6	NC		6	NC
7	NC		7	NC
8	NC		8	NC
9	NC		9	NC

* RS-232 transmission format:
   Baud Rate: 9600 bps
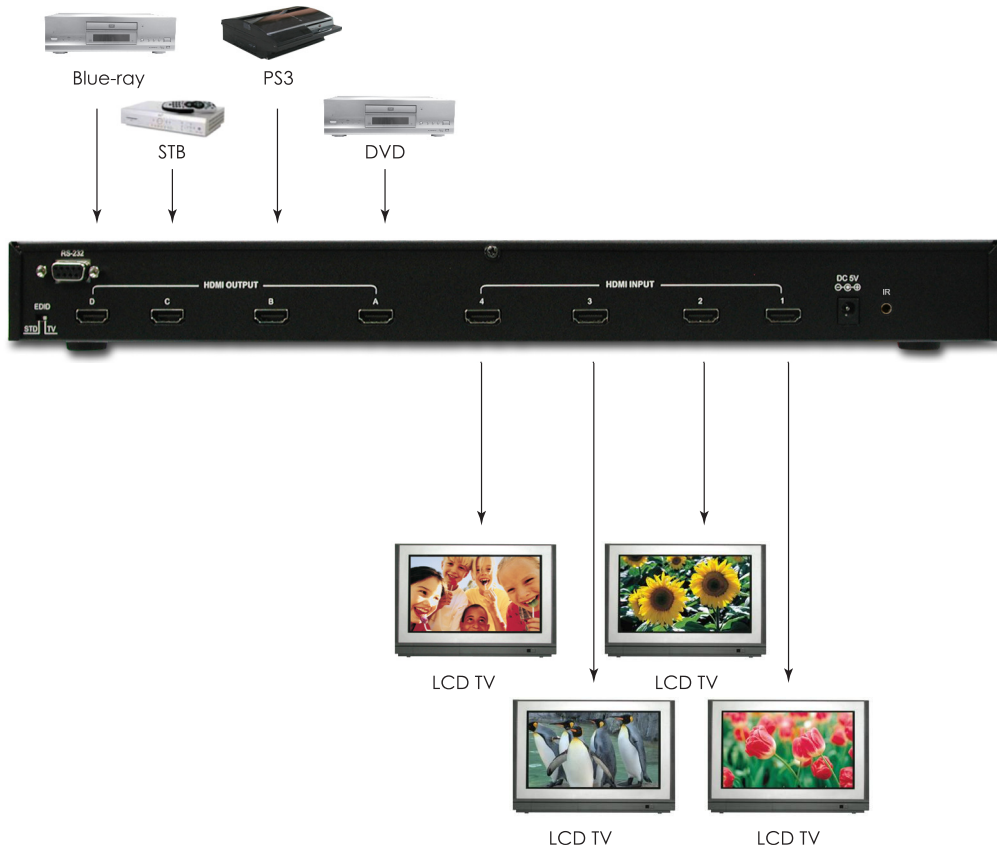   Data bit: 8 Bits
   Parity: None
   Stop Bit: 1 bit

4.4.2 Commands

COMMAND	ACTIONPower Off (standby)
POWER 00	Power Off (standby)
POWER 01	Power On
PORT 11	Output A select Input1
PORT 12	Output A select Input2
PORT 13	Output A select Input3
PORT 14	Output A select Input4
PORT 21	Output B select Input1
PORT 22	Output B select Input2
PORT 23	Output B select Input3
PORT 24	Output B select Input4
PORT 31	Output C select Input1
PORT 32	Output C select Input2
PORT 33	Output C select Input3
PORT 34	Output C select Input4
PORT 41	Output D select Input1
PORT 42	Output D select Input2
PORT 43	Output D select Input3
PORT 44	Output D select Input4

5. Specifications

Frequency bandwidth	2.25Gbps (single link)
Input ports	4 x HDMI female ports,
Output ports	4 x HDMI female ports
Power Supply	5VDC/5A (US/EU standards, CE/FCC/UL certified)
Dimensions (mm)	438(W) x 175(D) x 49(H)
Weight(g)	3100
Chassis Material	Metal
Silk Skin Color	Black
Operating Temperature	Operating from 0°C ~ 48°C

6. Connection and Installation

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