4-in 1-out HDMI v1.3 With Digital Audio Switcher

CLUX-41AT

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1. Introduction

CLUX-41AT is a high performance HDMI v1.3 switcher with separate digital audio input and output. It allows your various HDMI sources to share one HDTV display. Simply pressing one button you can select your desired HDMI source for display on the HDTV, meanwhile the selected digital audio will be passed through the Toslink (Optical Fiber) or Coaxial channel to play on your audio amplifier.
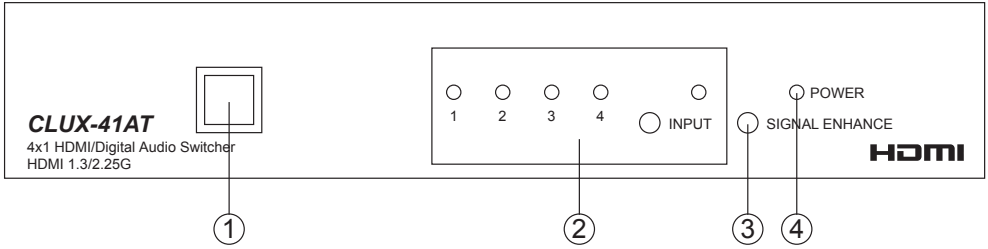
2. Features

* HDMI 1.3, HDCP 1.1 and DVI 1.0 compliant.
* Supports 30/36/48 bit color depth display.
* Supports High Definition audio - Dolby Digital TrueHD and DTS-HD Master Audio.
* Auto Signal Enhancement feature can improve signal quality after long distance transmission.
* LED indicators.
* Ideal for home theater integration, conference room and retail stores.
* Supports high resolution input:
  PC: VGA, SVGA, XGA, SXGA, UXGA (1600 x 1200) and 1920 x 1200 &
  HDTV: 480i, 480p, 576i, 576p, 720p, 1080i and 1080p
* Remote control.
* Easy to install and simple to operate.

3. Package Contents

1. CLUX-41AT
2. 5VDC Power Supply Adaptor
3. Operation Manual

4. Operation Controls and Functions

4.1 Front Panel

1. Remote control sensor.
2. Input select/Indicators:
   Press the "INPUT" button repeatedly to switch to your desired input source (HDMI/Toslink/Coaxial) and the LED will illuminate to indicate which input source is being selected.
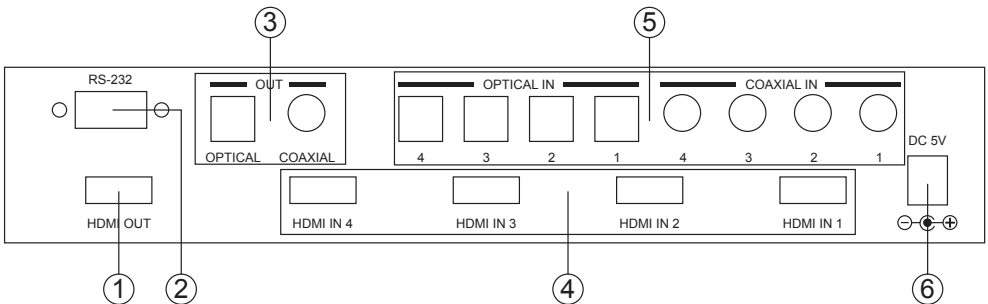3. Signal Enhancement/Indicator:
   Press the "Signal Enhance" button to turn on this feature to improve signal quality after long distance transmission. Press again to turn off. The LED will illuminate when the signal is enhanced.
   This feature is useful when encountering poor picture quality, if an appropriate picture quality is displayed, the use of the SIGNAL ENHANCE button will not produce a visible change.
4. Power LED Indicator:
   The LED will illuminate when the power is connected.

4.2 Rear Panel

1. HDMI output:
   Connect the HDMI output to the HDMI input of your display using HDMI cable.
2. RS-232:
   Connect the 9-pin D-sub female connector to your other control console for remote control.

3. Digital audio output:
   - Connects the Toslink output to the Toslink input of your display using optical cable.
   - Connects the digital SPDIF output to the digital coaxial input of the display using coaxial cable.
4. HDMI inputs:
   Connect your various HDMI sources to each of the HDMI input of the unit using HDMI cables.
5. Digital audio inputs:
   - Connects your various Toslink sources to each of the Toslink input of the unit using optical cables.
   - Connects your various S/PDIF sources to each of the coaxial input of the unit using coaxial cables.
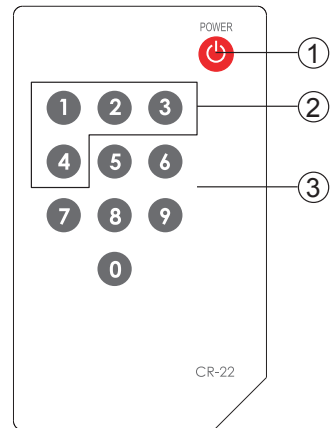6. Power:
   Plug the supplied 5VDC power supply into the unit.

4.3 Remote Control

1. Power:
   Press the button to turn on/off the unit.
2. Direct input selector:
   Press 1, 2, 3 or 4 to select the desired input source.
3. Void buttons (No function).

POWER

① ② ③
④ ⑤ ⑥
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4.4 RS-232 Protocol
4.4.1 Pin Definition

CLUX-41AT			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	ACTION
"I" + "1"	PORT 1 ON
"I" + "2"	PORT 2 ON
"I" + "3"	PORT 3 ON
"I" + "4"	PORT 4 ON
"S" + "1"	ENABLE SIGNAL ENHANCE
"S" + "0"	DISABLE SIGNAL ENHANCE
"P" + "1"	POWER ON
"P" + "0"	POWER OFF

5. Specifications

5.1 General Specification

* Frequency bandwidth: 2.25 Gbps (single link)
* Inputs:
   4 x HDMI female ports (Type A connector)
   4 x Toslink digital audio out
   4 x Coaxial digital audio out
* Outputs:
   1 x HDMI female port (Type A connector)
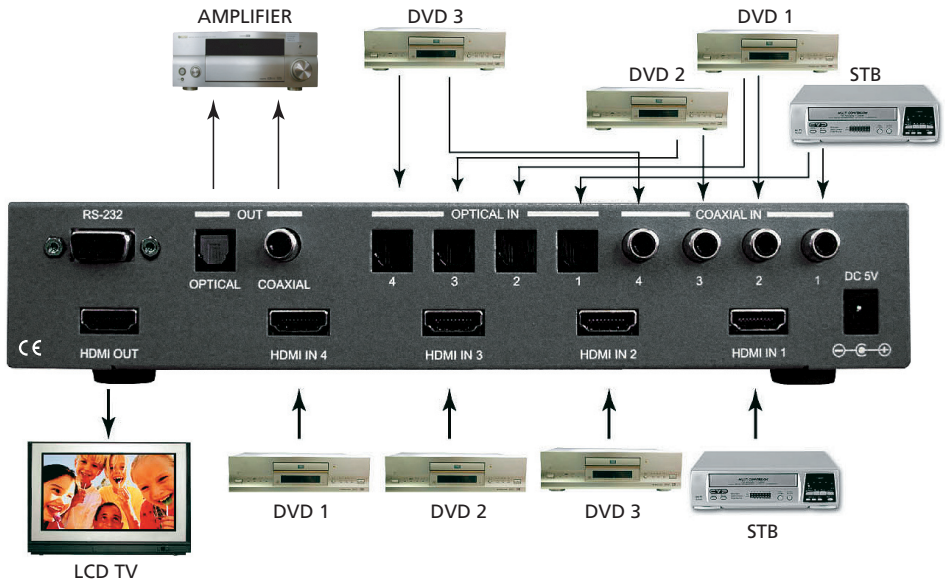   1 x Toslink digital audio out
   1 x Coaxial digital audio out
* 5VDC power supply
* Weight: 0.85kgs
* Dimension: 240 (W) x 90 (D) x 43 (H)mm

6. Connection and Installation

HDMI v1.3 Series:

Product	Description
CLUX-21SY	2x1 HDMI V1.3 Switcher
CLUX-31S	3x1 HDMI V1.3 Switcher
CLUX-31SY	3x1 HDMI V1.3 Switcher
CLUX-41SY	4x1 HDMI V1.3 Switcher
CLUX-42S	4x2 HDMI V1.3 Switcher
CLUX-41AT	4x1 HDMI V1.3 Switcher with Digital Audio
CLUX-210T	2x10 HDMI V1.3 Splitter with Digital Audio