



**NTI**® NETWORK  
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# SM-2X4-4K-LC

## HDMI Matrix Switch

### Operating Instructions



# Notice:

We reserve the right to make changes in the hardware, packaging and any accompanying documentation without prior written notice.

## **Warning**

### To reduce the risk of fire,electric shock or product damage:



1.Do not expose this apparatus to rain, moisture, dripping or splashing and that no objects filled with liquids,such as vases, shall be placed on the apparatus



6.Clean this apparatus only with dry cloth



2.Do not install or place this unit in a bookcase,built-in cabinet or in another confined space. Ensure the unit is well ventilated.



7.Unplug this apparatus during lightning storms or when unused for long periods of time.



3.To prevent risk of electric shock or fire hazard due to overheating,do not obstruct the unit's ventilation openings with newspapers, tablecloths, curtains,and similar items



8.Protect the power cord from being walked on or pinched particularly at plugs.



4.Do not install near any heat sources such as radiators heat registers, stoves, or other apparatus(including amplifiers). that produce heat.



9.Only use attachments/ accessories specified by the manufacturer



5.Do not place sources of naked flames,such as lighted candles, on the unit.



10.Refer all servicing to qualified service personnel.

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# Product Overview

SM-2X4-4K-LC is a matrix with 2 input and 4 output, which support 4K \*2K@30Hz. It can be switched between the input and output channels whether HDMI Input source is encrypted or not. It supports Local IR Extension, EDID Management. For easy operation, it is widely applied in home, theatre, shopping mall, school, conference, hotel installation industry.

## Features

- Support up to 4K x 2K@30Hz.
- Support local IR extension.
- Support Bi-directional IR: IR transport channels to control Source device . and Display
- Support HDCP 1.3 version 3D and EDID Management.
- Support 12V power supply, 2 HDMI Input, 4 HDMI Output..
- Easy installation and operation.

## Package Contents

- ① Main unit
- ② Operating instructions
- ③ 1x 12V/2A power supply
- ④ 1x AC Power Cord
- ⑤ 1x IR Receiver (38KHz for IR local control)
- ⑥ 1x IR Remote(with Button Cell)

## Specifications

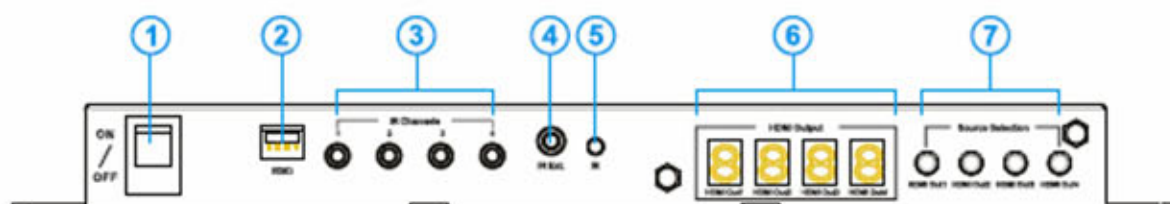
<b>Operating Temperature Range</b>	<b>-5 to +35°C (-41 to +95 °F)</b>
<b>Operating Humidity Range</b>	<b>5 to 90 % RH (no condensation)</b>
<b>Input Video Signal</b>	<b>0.5-1.0 volts p-p</b>
<b>Input DDC Signal</b>	<b>5 volts p-p (TTL)</b>
<b>Video Format Supported</b>	<b>4K x 2K /1080p/1080i/720p/576p/480p/576i/480i</b>
<b>Output Video</b>	<b>HDMI 1.4</b>
<b>Output Audio</b>	<b>Support DTS-HD, Dolby-HD</b>
<b>Transmission Distance</b>	<b>4K x 2K ≤8m , 1080P≤15m</b>
<b>Power Supply</b>	<b>DC 12V</b>
<b>Power Consumption</b>	<b>18Watts</b>
<b>Dimensions</b>	<b>L317mm×W156mm×H28mm</b>
<b>Net Weight (Main unit)</b>	<b>1.3Kg</b>

# Panel Descriptions

## TOP Panel



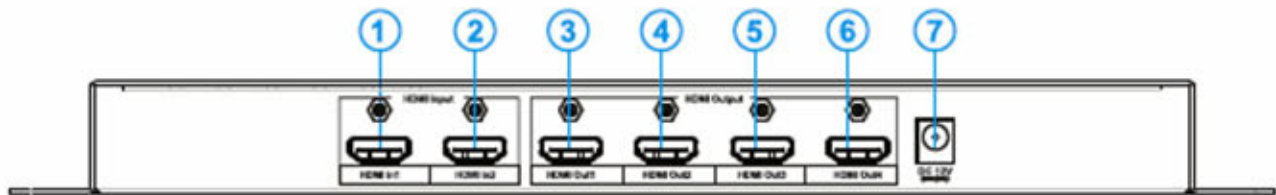
## Front Panel



- ①: Power Switch
- ②: EDID Management
- ③: IR Channels
- ④: Local IR Extension Port
- ⑤: Local IR Control
- ⑥: LED Digital Display
- ⑦: Source Selection



# Back Panel



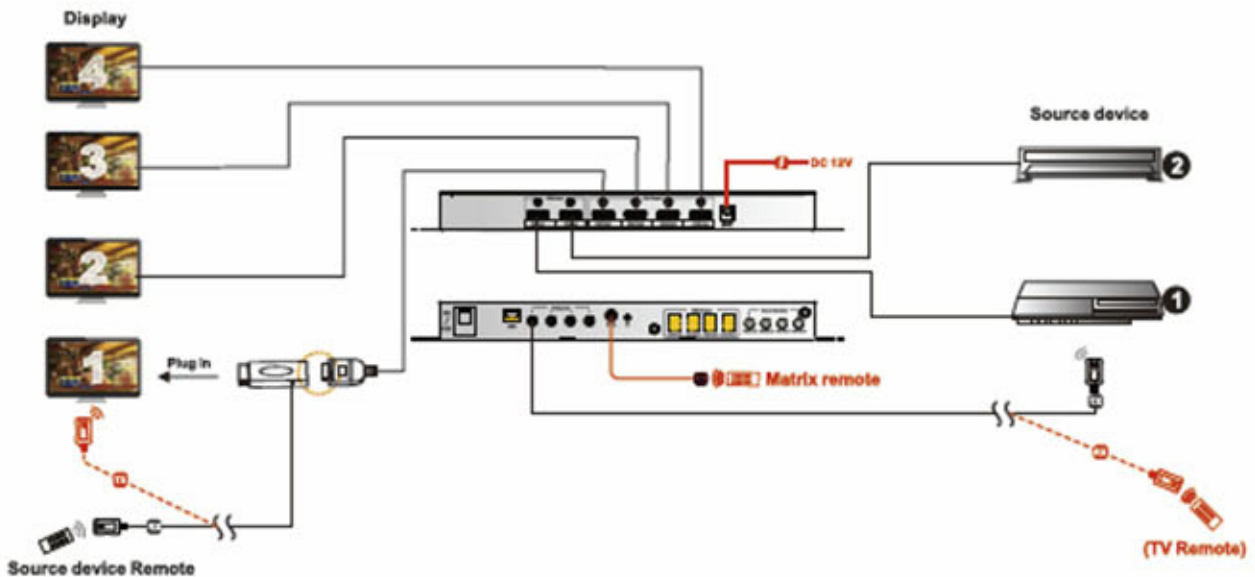
①.②: HDMI In1 - HDMI In2

③.④.⑤.⑥: HDMI Out1 - HDMI Out4

⑦: Power Input Port (DC12V/2A)

## Connections and Operations

### 1. Connection diagram:



## 2. Installation:

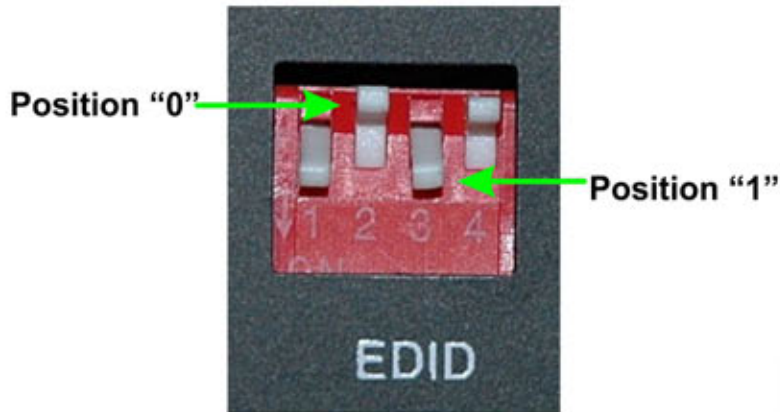
- ①. Connect the Matrix's HDMI Input to signal source (eg. DVD, STB) with HDMI cable.
- ②. Connect the Matrix's HDMI Output to display device (eg. TV set) with HDMI cable.
- ③. Turn on DVD, TV set and Matrix Switch.
- ④. Switch and select the Input source by button or IR remote.

## 3. Operation

- ① **Manual Control:** You can operate HDMI source switching manually by using the buttons labeled "HDMI out" located on the front panel. Press the button that corresponds to the output that you want to change the HDMI source on and toggle through until the desired HDMI input source video is being displayed. A numerical LED indicates which HDMI source is being shown on each output. On the Matrix Switch, long press the "HDMI out1" button longer than 3 seconds, the analog audio outputs and TOSLINK fiber optical digital audio output will be open and the audio output provides audio from source device used by Output 1. long press the "HDMI out1" button longer than 3 seconds again, the analog audio outputs and TOSLINK fiber optical digital audio output will close.
- ② **Remote Control:** Included with the Matrix is a remote control. The remote control can control the matrix by pointing it at the front of the matrix. Targeting the integrated IR receiver labeled IR. IR uses line-of-sight between the remote control (or IR-TX) and the receiver. The angle which the remote will work is at about a 15 degree angle in either direction to the receiver. If the receiver is positioned such that there is not line-of-sight, the port labeled "IR EXT." accepts an optional IR receiver. The receiver enables line-to-sight if the matrix is out of position.



# EDID Management



**EDID DIP Switch**

EDID Information DIP Switch Settings:				
DIP Switch1	DIP Switch2	DIP Switch3	DIP Switch4	EDID Information
0	0	0	N/U	720p/60Hz
1	0	0	N/U	1080p/60Hz 24bit 2d 2.1ch
0	1	0	N/U	1080p/60Hz 24bit 2d 7.1ch
1	1	0	N/U	1080p/60Hz 36bit 2d 7.1ch
0	0	1	N/U	1080p/60Hz 36bit 2d 2.1ch
1	0	1	N/U	4Kx2K/30Hz
0	1	1	N/U	1080p/30Hz 1080i/60Hz 720p/60Hz 24bit 2d 2.1ch
1	1	1	N/U	Press and hold the active output button for more than 3 seconds, then release. The EDID for the display connected to the active output will be copied to the matrix switch.
N/U= Not Used				

## **Warning and Precautions**

1. Keep the Matrix away from any heat source and avoid storing or operating it in direct sunlight for long periods of time.
2. To ensure proper heat dissipation, avoid poorly ventilated spaces and do not block the vents.
3. To prevent electrical shock and fire, do not store or operate the unit in wet locations.
4. Do not move the device or make cable connections while the unit is connected to power.
5. Do not touch the power supply with wet hands.
6. Do not spill liquids of any kind on the unit as it may cause it to short circuit or cause fire.
7. Do not attempt to disassemble. Please contact qualified service personnel for all repairs.