

# USER MANUAL

## CSM 2 A

### Table of Contents

<b>1.0 Introduction.....</b>	<b>1</b>
<b>2.0 Specifications.....</b>	<b>1</b>
<b>3.0 Package Contents.....</b>	<b>2</b>
<b>4.0 Panel Descriptions.....</b>	<b>2</b>
<b>5.0 Connection and Operation.....</b>	<b>3</b>

# HDMI SWITCH SPLITTER

## Dear customer

Thank you for purchasing this product. For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

## INTRODUCTION

The Switch Splitter routes high definition video in multiple resolutions up to 1080p plus multichannel digital audio from any of the four HDMI sources to the displays. Four outputs give you the choices of sending high definition audio and video signals up to four displays in any combinations. Any four to any four true matrix switching allows for maximum versatility for integrated systems. It eliminates the need to disconnect and reconnect sources to a display equipped with one input. It works with HD-DVD players, TiVo systems, HT PCs, and satellite set top boxes that connect to an HDMI display. Every source is accessible at all times by any display by selecting it with an IR remote or through RS232 port.

## 1.1 FEATURES

This product has many features that enable it to perform in a superior manner. Among those features you will find:

- Allows any HDMI display to view any source at any time
- Allows any source to be displayed on multiple displays at the same time
- HDMI or DVI to HDMI cables are used to connect the inputs and the matrix output
- Each display's inputs can be switched with the IR remote control or through RS232
- Supports highest video resolution 1080p.
- Supports 225MHz/2.25Gbps per channel (6.75Gbps all channel) bandwidth.
- Supports 12bit per channel (36bit all channel) deep color.
- Supports HDCP
- Supports uncompressed audio such as LPCM.
- Supports compressed audio such as DTS Digital, Dolby Digital (including DTS-HD and Dolby True HD) .
- Support 3D all format, including 1080p@23.98/24Hz, 720p@59.94/60Hz/50Hz, bandwidth up to 225MHz.

## 2.0 SPECIFICATIONS

<b>Signal Inputs/Output</b>	
HDMI Connector	type A 19 pin female
Input DDC Signal	5 volts p-p (TTL)

Remote Control Port	RS-232 Female, Mini-Stereo
<b>Operating Frequency</b>	
Vertical Frequency Range	50/60Hz
Video Amplifier Bandwidth	2.25Gbps/225MHz
<b>Resolutions(HDTV)</b>	
Interlaced(50&60Hz)	480i,576i,1080i
Progressive(50&60Hz)	480p,576p,720p,1080p
<b>Mechanical</b>	
Size(L-W-H)	441×202×45MM
Weight(Net)	2218g
<b>Environmental</b>	
Operating Temperature	0 °C to +70°C
Operating Humidity	10% to 85 % RH (no condensation)
Storage Temperature	-10°C to +80°C
Storage Humidity	5% to 90 % RH (no condensation)
<b>Power Requirement</b>	
External Power Supply	5V DC@4A
Power Consumption(max)	15W
User Manual	English version

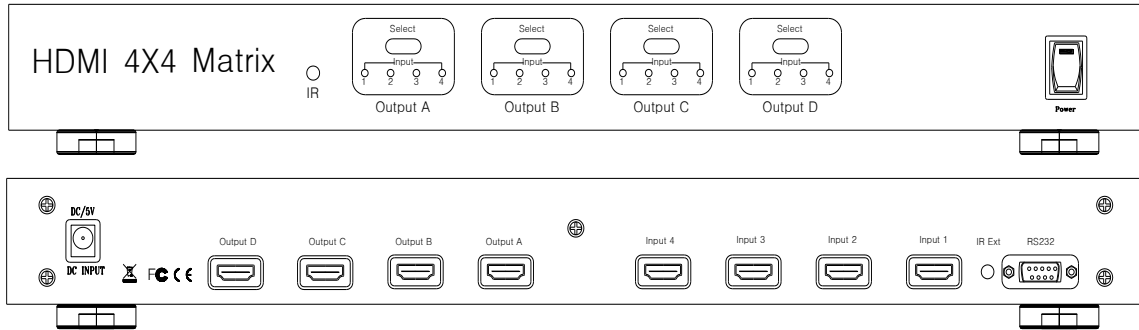
**Note: Specifications are subject to change without notice.**

### **3.0 Package Contents**

Before attempting to use this unit, please check the packaging and make sure the following items are contained in the shipping carton:

- 1) Main unit.
- 2) 5V DC Power Supply.
- 3) Remote Control.
- 4) IR extender (Infrared Extender).
- 5) User's Manual.

### **4.0 PANEL DESCRIPTIONS**



## 5.0 Connection and Operation

### 5.1 Connection

Before installation, please make sure all devices you wish to connect have been turned off.

- 1) Connect all source devices to the HDMI inputs on the Switch Splitter, using the supplied cables.
- 2) Connect the HDMI/DVI displays to the outputs on the Switch Splitter.
- 3) Connect the 5VDC power supply to the Switch Splitter.
- 4) Turn on the Power

Note: 1) Please make sure to cut off the power before insert IR Extender into the Converter.

2) Please make sure to insert the plug of IR Extender into the Converter completely.

Attention: Insert / Extract cable gently.

### 5.2 Operation

- 1) The automatic connection when supplied with power

The available outputs will automatically connect to the available inputs according to their sequence number. Meanwhile, the redundant available ports (input or output) or unavailable ports will not be connected.

For example:

1. If outputs A, B, D are connected to three power-on TVs separately, and the four inputs are all have its own source devices (work-on mode), then the power-on Switch Splitter will make a connection as follow:

1→A    2→B    3→D

(Output C and input 4 are not connected)

2. If outputs A, C, D are connected to three power-on TVs separately, and only three inputs have its source devices (work-on mode), then the power-on Switch Splitter will make a connection as follow:

1→A    3→C

(Output B, output D, input2 and input4 are not connected)

- 2) Selecting source devices by buttons  
Four buttons on the Switch Splitter are used to select source devices circularly for inputs A, B, C, and D. Once you press the button, it will select next available source device.
- 5) Selecting source devices by IR remote
1. Power button  
The power button of the IR remote can control the power of the Switch Splitter. Pressing this button, the power-on unit will be turned off. If you press it again, the unit will be turned on.
  2. Other buttons  
Depending on outputs A, B, C, D, the other buttons of the IR remote can be divided into four groups. Each group has five buttons: 'off'— turn off its outputs. 1, 2, 3, 4 are used to select input port accordingly.
- 6) Selecting source devices by RS232
- . Introduction of RS232 remote operation:  
RS232 remote operation is mainly based on the “super terminal” of Windows operation system. Its parameter should be: **ANSI 4800 8-N-1-non**
  - ②. Operation
    - A. Connect the switch splitter to the COM of PC with a RS232 cable.
    - B. Chose the right COM when you setting “super terminal” and then set the parameter as follow:  
Baud frequency: 4800  
Data bit: 8  
Parity bit: N  
Stop bit: 1  
Data stream: NON
    - C. Inputting your instruction. The instruction should be two or three letter, and finish with “Enter” button.  
Please input next instruction in three seconds or the “**Overtime instruction**” will appear.  
The input instruction should be right, or you will be rejected with the “**wrong instruction**”

If the input or output that you chose is not connected to devices or not in power-on mode, “**ineffective instruction**” will inform you.  
If your instruction is performed, you can see the instruction of “**successful operation**”.

    - ③. Instruction input method
      - A. Selecting source device  
**Sequence number of output (A/B/C/D) + sequence number of the input (1/2/3/4) + “Enter”**  
For example: If you want display B to view source 3, then you can input “B3” and finish with “Enter”.
      - B. Turning off an output  
**C + Sequence number of the output that you want to turn off (A/B/C/D) +**

**“Enter”**

For example: If you want to turn off output B, then you can input CB, and finish with “Enter”.

C. Turning off the Switch Splitter:

**OFF + “Enter”**

D. Turning on the Switch Splitter:

**ON + “Enter”**

E. Inquiry:

**QS + “Enter”**

This order enables you know which input and output are available and the connections of input and output.

**5.3 CONECTION DIAGRAM**

