# **HDMI Matrix – Router Type 4:2**

Model No. CSM 1



#### **Features**

- Simple usage: installation possible within seconds.
- Up to four HDMI source devices can be switched independently to two HDMI monitors, HDTVs or projectors.
- The two outputs can show the same or different sources at the same time, whether the source is conforming to HDCP or not.
- Supports high definition resolutions such as 1080p, 1080i, 720p and other standard video formats.
- Three switching modes: panel buttons, local IR, IR extension.
- With extra infrared receiver extension and IR emitter extension for IR call back function to control the HDMI source or HDMI MATRIX from remote rooms.
- HDCP compliant.
- HDMI version Highspeed.

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#### **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.

#### NOTICE

The manufacturer reserves the right to change the hardware, packaging and any accompanying documentation without prior written notice.



## **WARNING:**

# TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR PRODUCT DAMAGE:

- DO NOT EXPOSE THIS DEVICE TO RAIN, MOISTURE, DRIPPING OR SPLASHING AND DO NOT PLACE OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, ON THE DEVICE.
- 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.
- 3) TO PREVENT THE RISK OF ELECTRIC SHOCK OR FIRE HAZARD DUE TO OVERHEATING, DO NOT OBSTRUCT THE UNIT'S VENTILATION OPENINGS WITH NEWSPAPERS, TABLECLOTHS, CURTAINS OR SIMILAR ITEMS.
- 4) DO NOT INSTALL THE DEVICE NEAR ANY HEAT SOURCES SUCH AS RADIATORS, HEAT REGISTERS, STOVES, OR OTHER DEVICES (INCLUDING AMPLIFIERS) THAT PRODUCE HEAT.
- 5) DO NOT PLACE SOURCES OF NAKED FLAMES, SUCH AS LIGHTED CANDLES, ON THE UNIT.
- 6) CLEAN THIS DEVICE ONLY WITH DRY CLOTH.
- 7) UNPLUG THIS DEVICE DURING LIGHTNING STORMS OR WHEN UNUSED FOR LONG PERIODS OF TIME.
- 8) PROTECT THE POWER CORD FROM BEING WALKED ON OR PINCHED, PARTICULARLY AT PLUGS.
- 9) ONLY USE ATTACHMENTS/ACCESSORIES SPECIFIED BY THE MANUFACTURER.
- 10) REFER ALL SERVICING TO QUALIFIED SERVICE PERSONNEL.

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#### INTRODUCTION

CSM 1 is a 4-by-2 HDMI true matrix. It allows any source (Blue-Ray player, HD DVD player, satellite receiver, game system, etc.) to be shown on two displays simultaneously, whether the source is conforming to HDCP or not. Extra infrared receiver extension and IR emitters can be used to control the HDMI source and the HDMI MATRIX.

CSM 1 has the ability of equalization and amplification to ensure the transmission of the HDMI signal through long cables without quality loss.

CSM 1 offers solutions for digital entertainment centers, HDTV retail and show sites, HDTV, STB, DVD and projector factories, noise, space and security concerns, data center control, information distribution, conference room presentation, school and corporate training environments.

#### PACKAGE CONTENTS

- 1. Main unit. CSM 1.
- 2. 5VDC Power Supply.
- 3. 1x Remote.
- 4. 4x (IR receiver) extension cable
- 5. 4x (IR emitter) extension cable
- 6. 2x cable extender jack pair. (refer to page 6)
- 7. Operating Instructions CSM 1.
- 8. 2x Mounting Ear

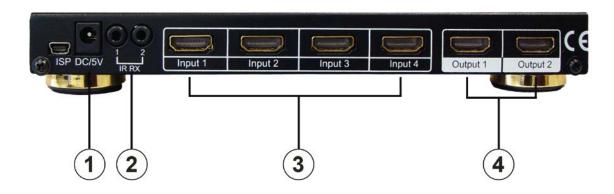
# **PANEL DESCRIPTIONS**

## Front panel



- 1. IR receiver.
- 2. Indicator of inputs.
- 3. Selection of inputs.
- 4. IR extension transmitter.

# Rear panel



- 1. Power input.
- 2. IR extension receiver.
- 3. HDMI inputs.
- 4. HDMI outputs.

## **CONNECTION AND OPERATION**

- 1) Connect the HDMI input sources (such as HD-DVD, PS3, STB etc) into the CSM 1.
- 2) Connect the HDMI outputs (such as HD-LCD, HD-DLP) into the CSM 1.
- 3) Power on the input source you want to show. (Keep the unused input power off, otherwise it may interfere the normal display.)
- 4) Connect the power supply into the CSM 1 and turn on the display you want to watch.
- 5) Use the remote or push the button on the device to choose the input source. Extra infrared receiver extension and IR emitter are supplied for remote control.
- 6) IR call back to control the HDMI Matrix function from remote rooms.

#### Attention:

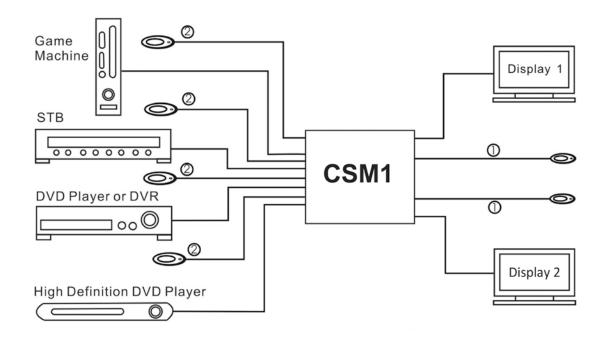
1. Insert / Extract cables gently.

## **SPECIFICATIONS**

Operating Temperature Range	-5 to +35°C(-41 to +95 °F)
Operating Humidity Range	5 to 90 % RH (no condensation)
Input Video Signal	0.5-1.0 volts p-p
Input DDC Signal	5 volts p-p (TTL)
Signaling Rate	2.25Gbit/s
Video Format Supported	DTV/HDTV:1080P/1080i/720P/576P/480P/576i/48 0i
Output Video	HDMI1.2 and HDMI Highspeed
Audio Format Supported	DTS-HD、Dolby trueHD
Audio Format Supported  Maximum Transmission Distance	DTS-HD \ Dolby trueHD <15m (If needed, HDMI extender is optional)
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Maximum Transmission Distance	<15m (If needed, HDMI extender is optional)
Maximum Transmission Distance Power Consumption	<15m (If needed, HDMI extender is optional)  10wtts (Max)  204mmL×95mmW×23mmH

\*Note: Specifications are subject to change without notice. Mass and dimensions are approximate.

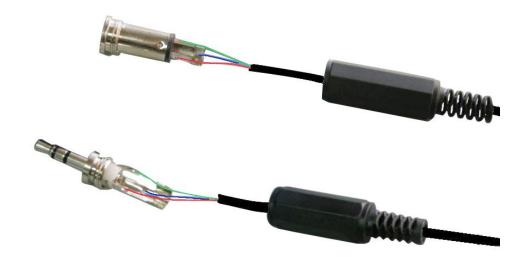
# **TYPICAL APPLICATION**



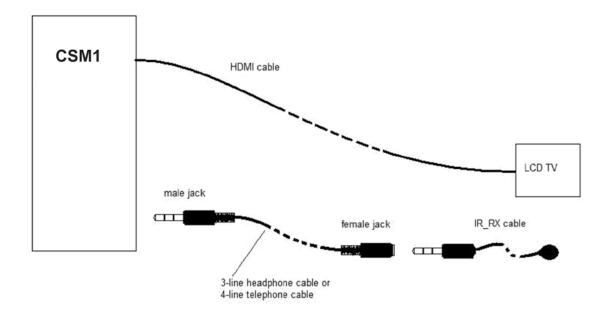
## IR receiver cable extender jacks.

When the display device is not near to the matrix, the IR\_RX cable will be too short. There is a pair of jacks to extend the IR\_RX cable. Customers or installers can use the headphone cable or a 4-line telephone cable to extend the IR cable.





Use the male jack and female jack to extend the IR\_RX cable like the picture below.



## **MAINTENANCE**

Clean this unit with a soft, dry cloth. Never use alcohol, paint thinner or gas to clean this unit.

#### PRODUCT SERVICE

- 1) The unit should be serviced by qualified service personnel if:
  - (a) The DC power supply cord or AC adaptor has been damaged;
  - (b) Objects or liquids have gotten into the unit;
  - (c) The unit has been exposed to rain;
  - (d) The unit does not operate normally or exhibits a marked change in performance:
  - (e) The unit has been dropped or the cabinet has been damaged.
- 2) **Servicing Personnel:** Do not attempt to service the unit beyond the descriptions in these operating instructions. Refer all other servicing to authorized service personnel.
- 3) **Replacement parts:** When parts need to be replaced ensure the servicer uses parts specified by the manufacturer or parts that have the same characteristics as the original parts. Unauthorized substitutes may result in fire, electric shock, or other hazards.
- 4) **Safety check:** After repairs or service, ask the servicer to perform safety checks to confirm that the unit is in proper working condition.









# Thank you for your purchase.

Please contact us with your question and comments!

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