

# CMIR-44

## 4 by 4 Infrared Matrix

### Operation Manual



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## • **Safety Precautions**

Please read all instructions before attempting to unpack or install or operate this equipment, and before connecting the power supply. Please keep the following in mind as you unpack and install this equipment:

- Always follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Never spill liquid of any kind on or into this product.
- Never push an object of any kind into this product through module openings or empty slots, as you may damage parts.
- Do not attach the power supply cabling to building surfaces.
- Do not allow anything to rest on the power cabling or allow it to be abused by persons walking on it.
- To protect the equipment from overheating, do not block the slots and openings in the module housing that provide ventilation.

## • **Revision History**

<u>Version No</u>	<u>Date</u>	<u>Summary of Change</u>
V1	20100201	Preliminary Release

# ***Table of Contents***

<b>1. Introduction.....</b>	<b>1</b>
<b>2. Applications.....</b>	<b>1</b>
<b>3. Package Contents.....</b>	<b>1</b>
<b>4. System Requirements.....</b>	<b>1</b>
<b>5. Features.....</b>	<b>1</b>
<b>6. Specifications.....</b>	<b>2</b>
<b>7. Hardware Description.....</b>	<b>3</b>
7.1 Front Panel .....	3
7.2 Rear Panel .....	4
<b>8. IR Cable Pin Definitions.....</b>	<b>5</b>
8.1 IR Receiver.....	5
8.2 IR Blaster.....	5
<b>9. Remote Control .....</b>	<b>6</b>
<b>10. Connection and Installation.....</b>	<b>7</b>
<b>11. Acronyms .....</b>	<b>8</b>

## **1. Introduction**

The Infrared 4 by 4 Matrix box is design to control the source equipments from display/receiver side. Users can use exiting source's remote controls to control DVD player, VCR, satellite and etc...anywhere in the distance range. With cross matrix design and a main total control this device allows user with maximum control ability for their infrared sending. In cooperate with HDMI matrix or converter matrix box this device will allow user to manage the display source freely with remote control. Simply place the IR receiver near the display or in the control room and set the IR blaster in the distance for source to receive the IR signal and the device will follow user's choice to send the content.

## **2. Applications**

- Multi-sources control
- System Control
- Showroom control

## **3. Package Contents**

- 4 by 4 Infrared Matrix
- Remote Control CR33 with battery
- 5V DC power adaptor
- Operation Manual
- 5 \* IR Receiver cables
- 5\* IR Blaster cables

## **4. System Requirements**

Source equipments, display TV/monitors and HDMI/video matrix box devices.

## **5. Features**

- Supports independent and total IR receiver and IR bluster selection and control
- Does NOT send audio/video signal. Only infra-red signals to control and remote equipments with IR Eye extender cables.
- Support 20KHz ~ 70KHz IR frequency.
- Use your existing remote controls.

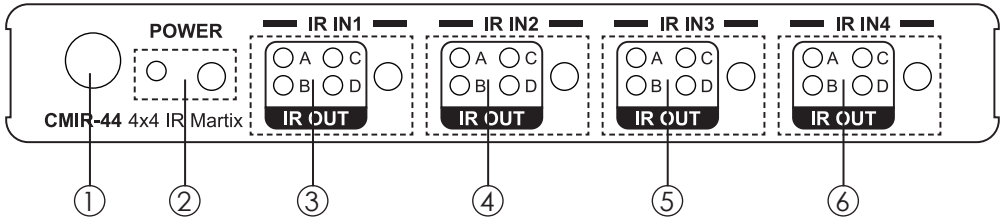
## 6. Specifications

IR Frequency	20KHz to 70KHz
Input port	4 x independent IR Blasters; 1 x total IR blaster control
Output port	4 x independent IR Receiver; 1 x total IR receiver control
Power Supply	5VDC/1A (US/EU standards, CE/FCC/UL certified)
ESD Protection	Human body model: $\pm 8\text{kV}$ (air-gap discharge) $\pm 4\text{kV}$ (contact discharge)
Dimensions (mm)	180(W) x 124(D) x 25(H)
Weight(g)	450
Chassis Material	Aluminum
Silkscreen Color	Silver
Power Consumption	0.86W
Operating Temperature	0°C~40°C / 32°F ~ 104°F
Storage temperature	-20°C~60°C / -4°F ~ 140°F
Relative Humidity	20~90% RH (non-condensing)

## 7. Hardware Description

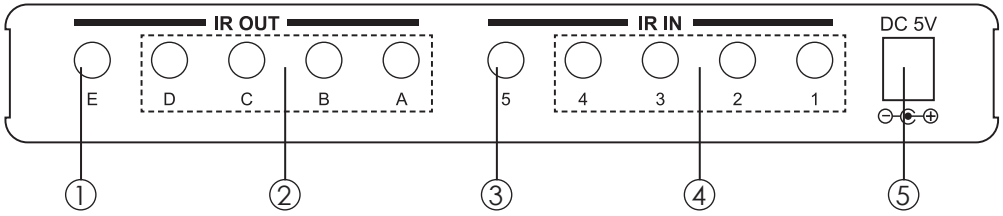
The following sections describe the hardware components of the unit.

### 7.1 Front Panel



- ① IR sensor: To control the system itself.
- ② POWER Button & LED: Press to turn on or set it to standby. When system is ON the LED will illuminate in GREEN color. Press again to enter into STANDBY mode, the LED will illuminate in RED color.
- ③ IR IN 1 & output LED: Press the button to select which output IR signal is to send and the LED will illuminate according to the selection.
- ④ IR IN 2 & output LED: Press the button to select which output IR signal is to send and the LED will illuminate according to the selection.
- ⑤ IR IN 3 & output LED: Press the button to select which output IR signal is to send and the LED will illuminate according to the selection.
- ⑥ IR IN 4 & output LED: Press the button to select which output IR signal is to send and the LED will illuminate according to the selection.

## 7.2 Rear panel

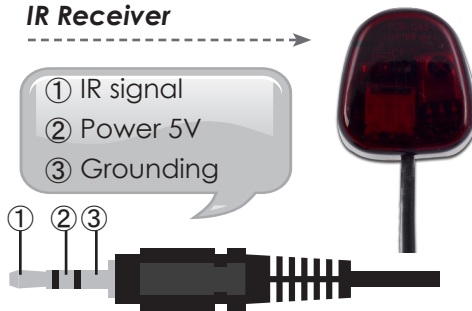


- ① IR OUT ALL: This slot is where you connect the IR blaster cable included in the package. Place it in the distance that all sources and device are able to receive the infrared signal.
- ② IR OUT A~D: These slots are where you connect with IR blaster cables included in the package. Place it in the distance that only the designated source equipment is able to receive the infrared signal.
- ③ IR IN ALL: This slot is where you connect the IR receiver cable included in the package. Place it in the control room or anywhere you wish to remote control the source equipments and send the IR signal through the existing remote controls.
- ④ IR IN 1~4: These slots are where you connect with IR receiver cables included in the package. Place it near each display for receiving the IR signal through the existing source remote control.
- ⑤ DC 5V: Plug the 5V DC power supply into the unit and connect the adaptor to AC wall outlet.

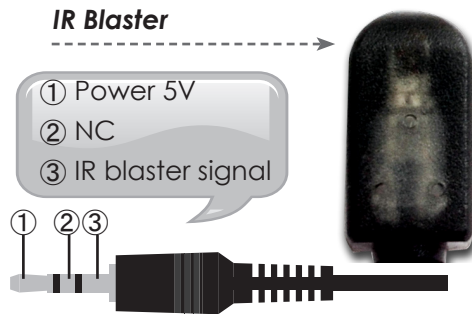


## 8. IR Cable Pin Definitions

### 8.1 IR Receiver



### 8.2 IR Blaster



Note: The frequency on both IR Receiver & Blaster can support 20~70KHz.

### 8.3 IR Functioning Chart

	IR OUT A	IR OUT B	IR OUT C	IR OUT D	IR OUT E
IR IN 1	⊙	⊙	⊙	⊙	▲
IR IN 2	⊙	⊙	⊙	⊙	▲
IR IN 3	⊙	⊙	⊙	⊙	▲
IR IN 4	⊙	⊙	⊙	⊙	▲
IR IN 5	△	△	△	△	△ ▲
IR Sensor	X				

⊙: IR IN can select IR OUT

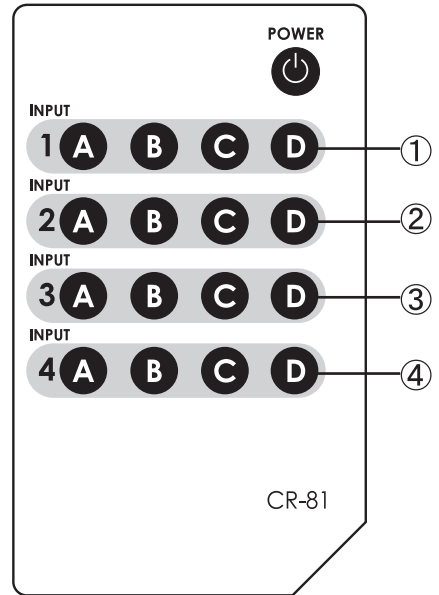
X: Only accept IR signal from the remote control included in this product package.

△: No need to select input IR and can receive IR signal from all remote controls with frequency between 20KHz~70 KHz

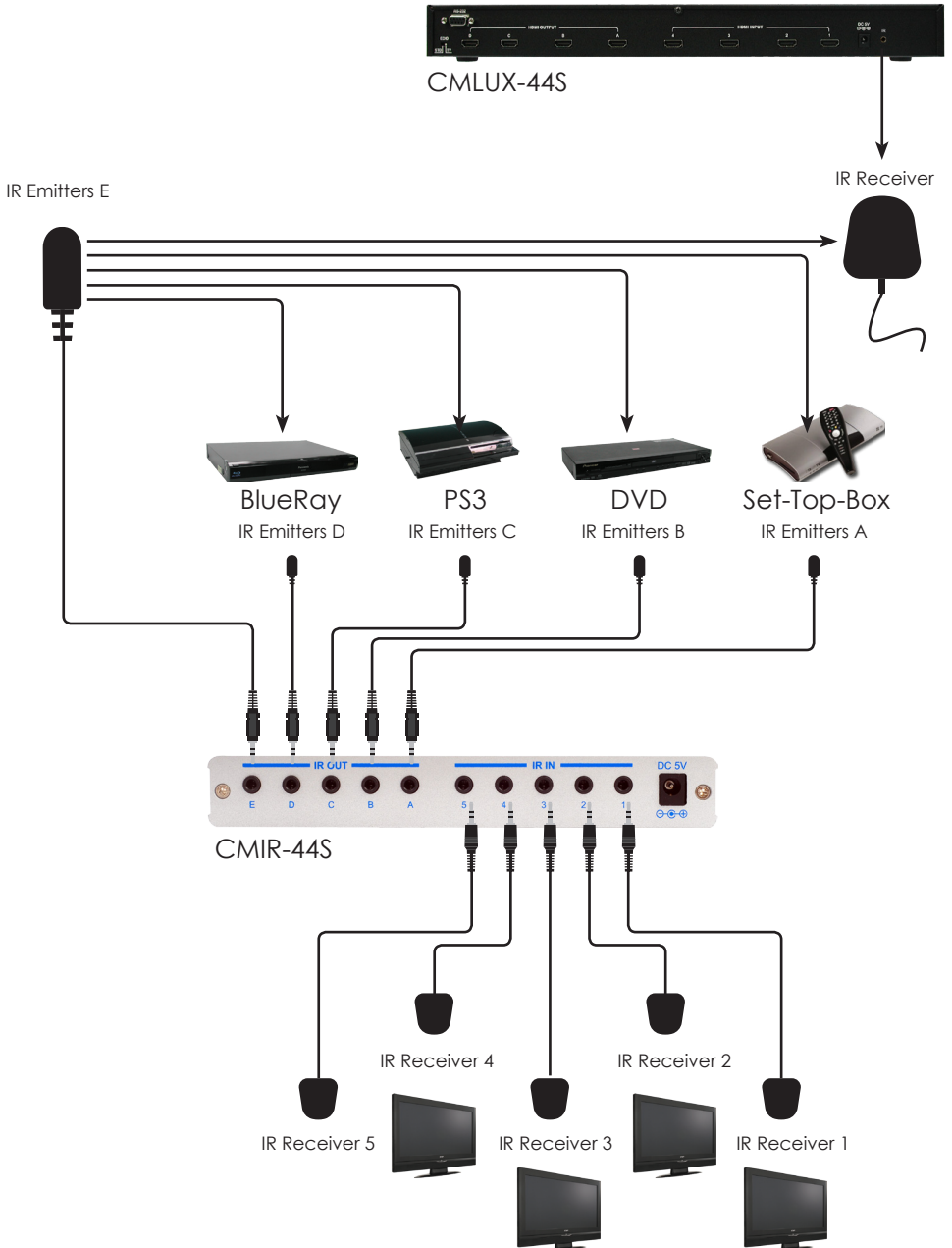
▲: No need to select output IR and can send IR signal to all source equipments or device box with frequency between 20KHz~70 KHz

## 9. Remote Control

1. Power: Press the button to turn on/ Standby the unit.
2. IR IN 1 Select for IR OUT A~D: Press A, B, C or D to select the desired output IR signal sending.
3. IR IN 2 Select for IR OUT A~D: Press A, B, C or D to select the desired output IR signal sending.
4. IR IN 3 Select for IR OUT A~D: Press A, B, C or D to select the desired output IR signal sending.
5. IR IN 4 Select for IR OUT A~D: Press A, B, C or D to select the desired output IR signal sending.



## 6. Connection and Installation





# Acronyms

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## **Acronym**

IR

## **Complete Term**

Infrared

