

# CIR-03 Infrared Extender Box and CIR-12 Infrared Repeater

*Operation Manual*



*CIR-03 & CIR-12*

## ● **Disclaimers**

The information in this manual has been carefully checked and is believed to be accurate. Cypress Technology assumes no responsibility for any infringements of patents or other rights of third parties which may result from its use.

Cypress Technology assumes no responsibility for any inaccuracies that may be contained in this document. Cypress also makes no commitment to update or to keep current the information contained in this document.

Cypress Technology reserves the right to make improvements to this document and/or product at any time and without notice.

## ● **Copyright Notice**

No part of this document may be reproduced, transmitted, transcribed, stored in a retrieval system, or any of its part translated into any language or computer file, in any form or by any means - electronic, mechanical, magnetic, optical, chemical, manual, or otherwise - without express written permission and consent from Cypress Technology.

© Copyright 2009 by Cypress Technology.  
All Rights Reserved.  
Version 1.0 July 2009

## ● **Trademark Acknowledgments**

All products or service names mentioned in this document may be trademarks of the companies with which they are associated.

## • **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**

<b><i>Version No</i></b>	<b><i>Date</i></b>	<b><i>Summary of Change</i></b>
<b><i>V1</i></b>	<b><i>20090701</i></b>	<b><i>Preliminary Release</i></b>

# ***Table of Contents***

<b>1.</b>	<b>Introduction.....</b>	<b>1</b>
<b>2.</b>	<b>Applications.....</b>	<b>1</b>
<b>3.</b>	<b>Contents.....</b>	<b>1</b>
<b>4.</b>	<b>System Requirement.....</b>	<b>1</b>
<b>5.</b>	<b>Features.....</b>	<b>1</b>
<b>6.</b>	<b>Specifications.....</b>	<b>2</b>
<b>7.</b>	<b>Operation Controls and Functions.....</b>	<b>3</b>
	7.1 Front Panel .....	3
	7.2 Rear Panel .....	3
<b>8.</b>	<b>IR Cable Pin Definition.....</b>	<b>4</b>
<b>9.</b>	<b>3.5Ø Connectors Pin Definition.....</b>	<b>4</b>
	9.1 IR IN Pin Definition .....	4
	9.2 IR OUT Pin Definition .....	4
	9.3 RJ-45 Pin Definition .....	4
<b>10.</b>	<b>Connection and Installation .....</b>	<b>5</b>

## **1. Introduction**

The IR Extender and the Repeater Box are two perfect devices for controlling source equipments over long distance. Through the built-in IR receiver of IR Repeater and CAT5 cable, users are able to control up to five source equipments at the same time that can reach up to a distance of 250 meters with existing remote controls. There is no space limitation with the devices, which means even if the source equipments are placed in a different room or different floor from the display, the performance stays the same. The IR extender and the repeater box grant users a great convenience, allow users to control and display their desired source instantly. If however, users only wish to control the sources within a room area then the IR Repeater Box will be enough to control up to 2 sources. IR Extender Box is design for long distance and extra sources control over IR Repeater Box.

## **2. Applications**

- TV exhibitions at consumer electronic stores
- Home theater installation
- Lecture room display
- Home entertainment

## **3. Contents**

- Infrared Extender Box (CIR-03)
- Infrared Repeater Box (CIR-12)
- 1pc IR Eye Receiver cable (CIR-12)
- 5pcs IR Eye blaster cables (3pcs for CIR-03, 2pcs for CIR-12)
- 1pc 5V DC power supply adaptor (for CIR-12)
- Operation Manual

## **4. System Requirement**

Input source equipments connected with output displays through CAT 5 cable.

## **5. Features**

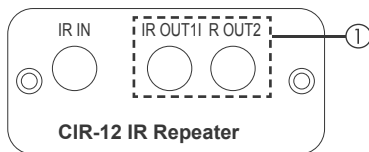
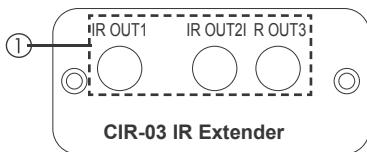
- Support five(5) outputs (3 from CIR-03, 2 from CIR-12).
- Control source equipments anywhere within 250 meters, piercing through walls and ceilings.
- Transmits infrared signals only.
- It allows the use of existing remote controls.
- Only one IR Receiver is needed.
- IR Receiver's frequency is at 20~60 KHz.

## 6. Specifications

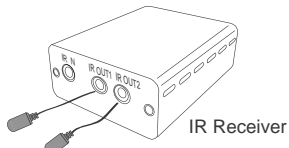
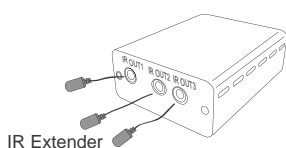
Input Port	1 x IR receiver (CIR-12)
Output Ports	1 x CAT5 (CIR-03, CIR-12) 5 x IR extender (3 x CIR-03, 2 x CIR-12)
Power Supply	1 x 5V/1A DC (US/EU standards, CE/FCC/UL certified)
ESD Protection	Human body model: $\pm 10\text{kV}$ (air-gap discharge) $\pm 6\text{kV}$ (contact discharge)
Dimensions (mm)	62(W) x 50(D) x 23(H)/each
Weight(g)	78/each
Chassis Material	Aluminum
Silkscreen Color	Silver
Operating Temperature	0°C ~ 40°C / 32°F~104°F
Storage Temperature	-20°C~60°C / -4°F~140°F
Power Consumption	0.5w
Relative Humidity	20~60%RH (non-condensing)

## 7. Operation Controls and Functions

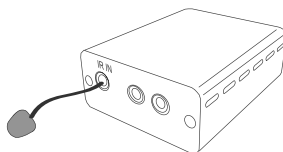
### 7.1 Front Panels



- ① IR OUT1, 2 and 3: Connect your IR Eye Blaster cables each at 2M long to control source equipments.

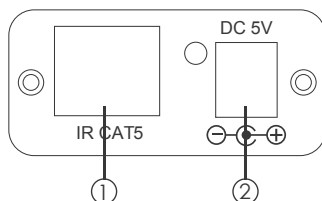


- ② IR IN: Connect to IR Eye receiver cable each at 2M long for receiving IR remote control signal.

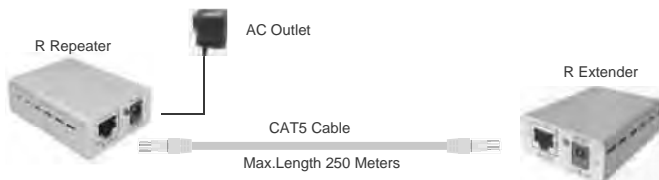


**Note:** Please be very careful when plugging in the blaster and receiver cables. Wrong connection may damage or burn both cable and device.

### 7.2 Rear Panels

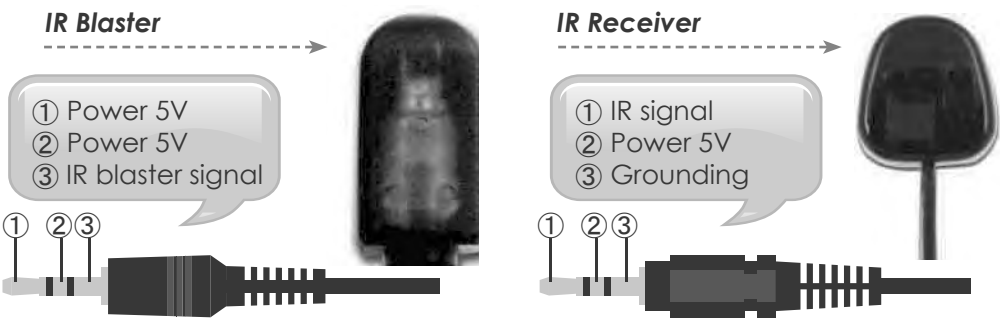


- ① IR CAT5: Connect CAT 5 cable to next Infrared Extender Box with IR receiver.
- ② Power: Plug the 5VDC power supply into the unit and connect the adaptor to an AC wall outlet.



**Note:** Only one power adaptor is required for both devices to work. Connect the power adaptor to the IR Repeater Box.

8. IR Cable Pin Definition



9. 3.5Ø Connectors Pin Definition

9.1 IR IN Pin Definition

Pin	Assignment
1	Power 5V
2	IR Signal
3	GND

9.2 IR OUT Pin Definition

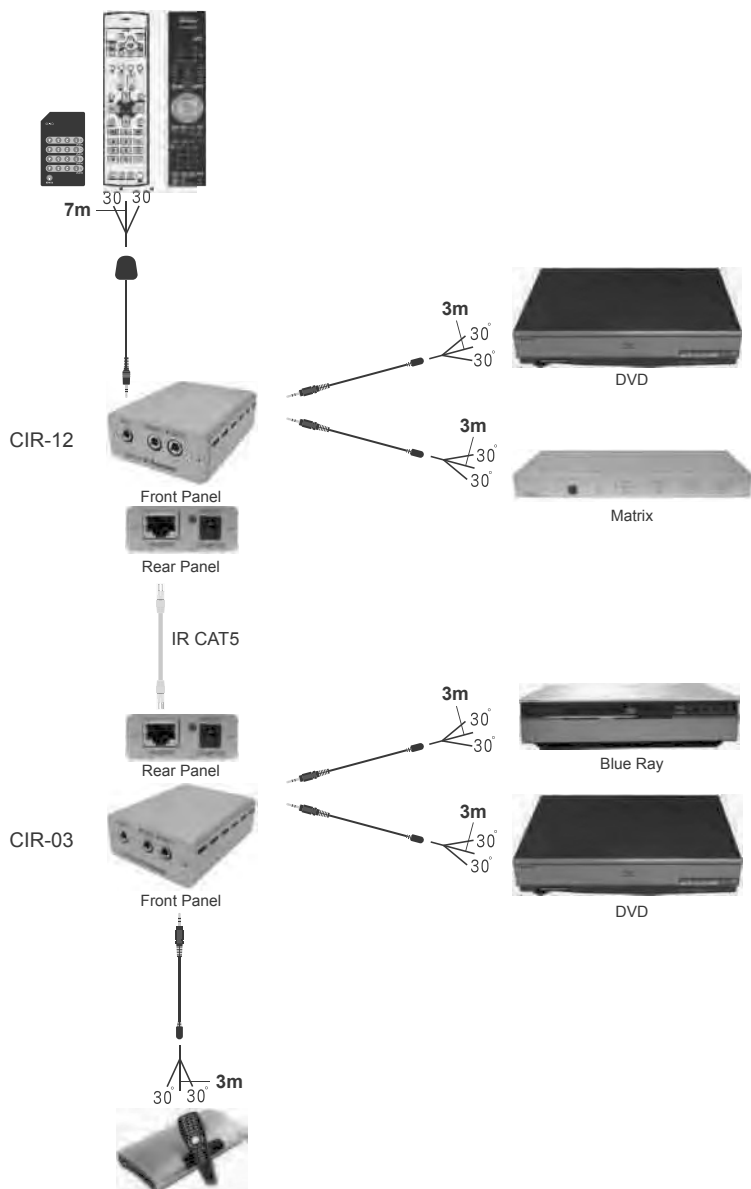
Pin	Assignment
1	Power 5V
2	Power 5V
3	IR Blaster Signal

9.3 RJ-45 Pin Definition

Pin	Assignment
1	GND
2	GND
3	GND
4	IR Blaster Signal
5	IR Blaster Signal
6	GND
7	Power
8	Power



## 10. Connection and Installation



Note: A. IR receiver's control distance can reach up to 7 meters long with open space and direct angle.

B. IR extender's control distance can reach up to 3 meters with open space and direct angle.



# Acronyms

---

<b>Acronym</b>	<b>Complete Term</b>
CAT5	Category 5 Cable
IR	Infrared
DC	Direct Current
GND	Ground





**CYPRESS TECHNOLOGY CO., LTD.**

Home page: <http://www.cypress.com.tw>

20081202 MPM-CIR03