

# DCT-31 Coaxial & Optical Switcher/Distributor



Operation Manual





#### **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 2012 by Cypress Technology.

All Rights Reserved.

Version 1.0 October 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, 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 any openings or empty slots in the unit, as you may damage parts inside the unit.
- Do not attach the power supply cabling to building surfaces.
- Use only the supplied power supply unit (PSU). Do not use the PSU
  if it is damaged.
- Do not allow anything to rest on the power cabling or allow any weight to be placed upon it or any person walk on it.
- To protect the unit from overheating, do not block any vents or openings in the unit housing that provide ventilation and allow for sufficient space for air to circulate around the unit.

## **REVISION HISTORY**

VERSION NO.	DATE DD/MM/YY	SUMMARY OF CHANGE
RDV1	10/12/13	Preliminary Release



# **CONTENTS**

1. IIIII OGUCIIOII	I
2. Applications	1
3. Package Contents	1
4. System Requirements	1
5. Features	1
6. Operation Controls and Functions	2
6.1 Front Panel	2
6.2 Rear Panel	2
6.3 RS-232 Protocols	3
6.4 RS-232 & Telnet Commands	3
7. Connection Diagram	4
8. Specifications	5
9. Acronyms	6



#### 1. INTRODUCTION

The Coaxial and Optical Switcher/Distributor allows 4 coaxial and 4 optical audio input selections to be select and distribute to 10 coaxial and 10 optical outputs.

Supporting sampling rate up to 192kHz and audio signal up to 5.1CH, this simple and easy tool can assist you with maximum audio expansion and distribution.

#### 2. APPLICATIONS

- Home sound system
- Conference and meeting room audio system sharing
- Show Room sound system
- Public audio system
- Announcing system

#### 3. PACKAGE CONTENTS

- Coaxial and Optical Switcher/Distributor
- Remote Control CR-137
- 5V/2.6A DC Power Adaptor
- Operation Manual

#### 4. SYSTEM REQUIREMENTS

Input source equipment such as Blu-ray/DVD/PS3 player or Set-Top-Box and output with active speakers or sound systems.

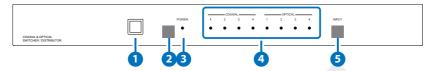
#### 5. FEATURES

- Supports 4 Coaxial and 4 Optical inputs and 10 Coaxial and 10 Optical outputs
- Supports LPCM 2CH audio signal
- Supports sampling rate up to 192kHz
- Supports Dolby and DTS audio signal bypass
- Low power consumption



## 6. OPERATION CONTROLS AND FUNCTIONS

#### 6.1 Front Panel



- 1 IR Window: Receive IR signal from the included Remote Control.
- **2 POWER Button:** Press this button to turn ON or set the device to standby mode.
- **3 POWER LED:** This LED will illuminate in Green when the device is turned ON and in Red when in standby mode.
- 4 COAXIAL & OPTICAL LED 1~4: These LEDs will illuminate according to the input selection.
- 5 INPUT Button: Press this button to select input Coaxial and Optional from 1~4

#### 6.2 Rear Panel



- **1 RS-232:** Connect from a PC/Laptop device with RS-232 tool to send RS-232 command to control the device.
- 2 IR IN: Connect with IR Receiver included in the package for IR signal receiving from the remote control.
- 3 COAXIAL & OPTICAL IN: Connect from source equipment such DVD, Blu-ray, PS3 or etc. with audio signal.
- 4 COAXIAL & OPTICAL OUT: Connect to active speakers or audio equipment for audio distribution.
- 5 5V DC: Connect with power supply from the AC wall outlet.



## 6.3 RS-232 Protocols

DCT-31		
PIN	Assignment	
1	NC	
2	Tx	
3	Rx	
4	NC	
5	GND	
6	NC	
7	NC	
8	NC	
9	NC	

	Remote Control	
	PIN	Assignment
	1	NC
	2	Rx
	3	Tx
<b>▶</b> ◀	4	NC
,	5	GND
	6	NC
	7	NC
	8	NC
	9	NC

Baud Rate: 115200bps

Data bit: 8 bits Parity: None

Flow Control: None

Stop Bit: 1

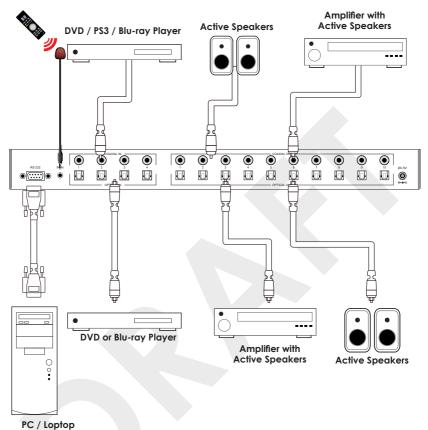
## 6.4 RS-232 & Telnet Commands

Command	Status
POWER OFF/ON	Set Power Status
INPUT COAX 1~4	Choose a Coaxial input
INPUT OPTICAL 1~4	Choose an Optical input
STATUS	Show Current Information
?/H/HELP	Show all commands

All the RS-232 command will be not executed unless followed with a carriage return and all commands are case-sensitive.



## 7. CONNECTION DIAGRAM





## 8. SPECIFICATIONS

Input port 4 x Coaxial

4 x Optical

1 x IR

10 x Coaxial Output port

10 x Optical

32~192kHz Sampling Rate 30~50kHz

**IR Frequency** 

**Output Level** THD+N

SNR

Crosstalk

**ESD Protection** Human body model:

> ±8kV (air-gap discharge) ±4kV (contact discharge)

5VDC/2.6A (US/EU standards, CE/FCC/ **Power Supply** 

UL certified)

**Dimensions** 436mm (W) x 120mm (D) x 44mm (H)/

Jacks Excluded

436mm (W) x 127mm (D) x 48mm (H)/

Jacks Included

Weight 1596 g

**Operating Temperature** 0°C~40°C / 32°F ~ 104°F

 $-20^{\circ}$ C ~  $60^{\circ}$ C /  $-4^{\circ}$ F ~  $140^{\circ}$ F Storage Temperature

**Relative Humidity** 20 ~ 90% RH (non-condensing)

Audio Sampling Rate Up to 192 kHz

Coaxial/Optical Input (Up to 192kHz)	Coaxial output	Optical output
LPCM 2CH	V	V
Dolby Digital 2~5.1CH/ DTS 2~5.1CH	V	V



## 9. ACRONYMS

ACRONYM	COMPLETE TERM



