TEST board for CDP-TX/RX-05M-R CDP-TX/RX-07M

TB-CDP-TX-04S
TB-CDP-RX-03AS

Operation Guide

Version 2.0 (Apr 2019)

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CONTENTS

GENERAL DESCRIPTION & FEATURES

General description

The evaluation board was developed to demonstrate and test the radio data modules CDP-TX/RX-05M-R and CDP-TX/RX-07M. This set will save your time and effort for evaluation of CDP radio modules.

The TX board includes switches, a PIC u-controller for encoding and ID dip-switches. The RX board includes LEDs, PIC u-controller for decoding and ID dip-switches.

In combination with the radio modules, it functions as a full 4 command radio remote control which can be practically used for various applications.

Features

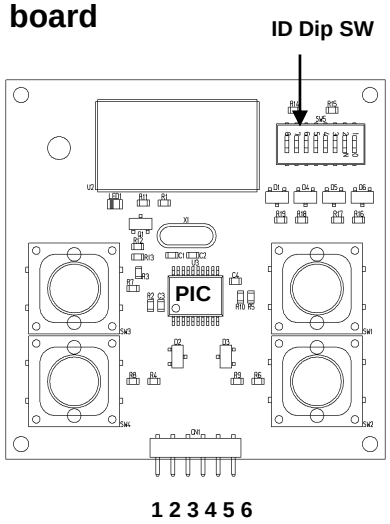
4 inputs & outputs, activated by 4 push buttons.
3V operation
8-bit ID dip-switch
4 monitoring LEDs on the decoder board
Easy operation
50mm x 50mm square size (both TX and RX)
Antenna is included

Note

Antenna for 434MHz band and that for 869MHz band is different. When you order the TB-CDP-TX-04S and TB-CDP-RX-03AS, please specify the frequency so that you can get correct antenna for testing.

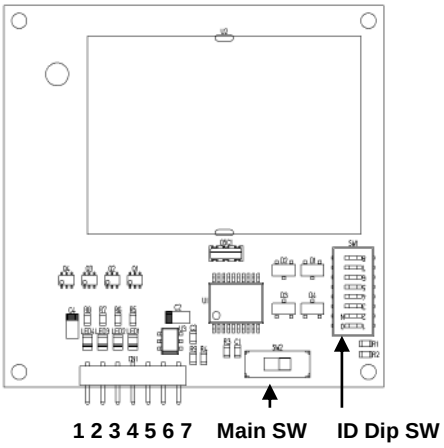
PIN DESCRIPTION

TX board



Pin No.	Name	Description
1	SW 1	High (Vcc) = SW ON
2	SW 2	High (Vcc) = SW ON
3	SW 3	High (Vcc) = SW ON
4	SW 4	High (Vcc) = SW ON
5	VCC	Supply voltage 2.7 – 3V
6	GND	GND

RX board



Pin No.	Name	Description
1	OUT 1	Open collector Low (ON)/Open (OFF)
2	OUT 2	Open collector Low (ON)/Open (OFF)
3	OUT 3	Open collector Low (ON)/Open (OFF)
4	OUT 4	Open collector Low (ON)/Open (OFF)
5	MAIN	MAIN SW ON (low)
6	GND	GND
7	VCC	Supply voltage 3 – 12V

ID SETTING

IDs of transmitter and reciever need to be the same to establish communication. Use the 8-bit DIP switches to set the board ID. Any number of transmitters can be paired to a single reciever or vice versa. The ID switches works as follows:

ID value (0 ~ 16)	[Sw 1 ~ 4]	[Sw 5 ~ 8] (must be set the same as [Sw 1 ~ 4])
0	0000	0000
16	1111	1111

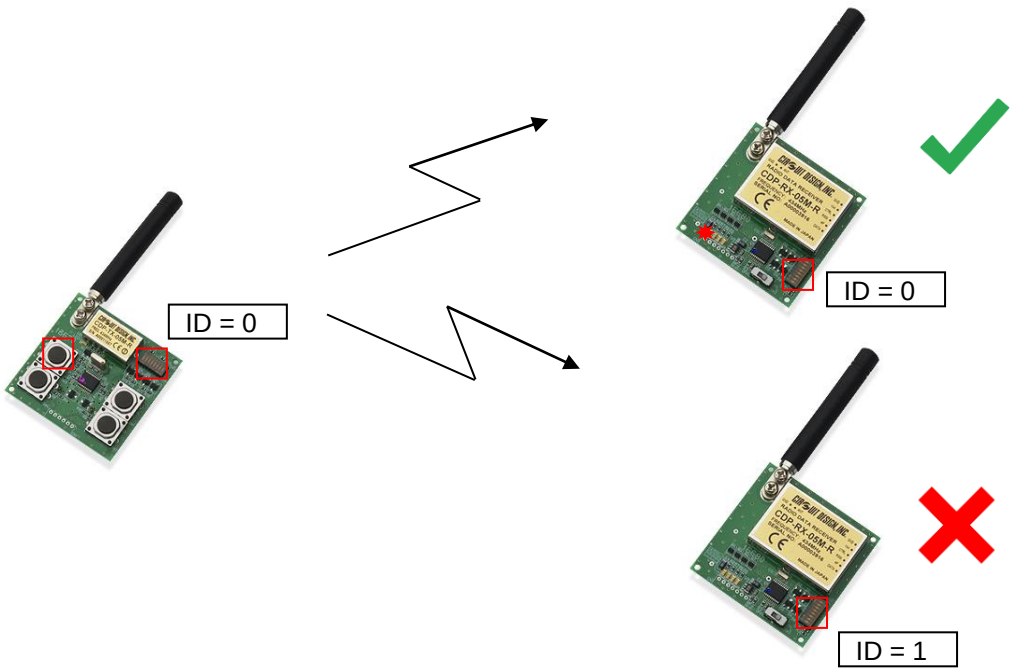
1 = Sw ON, 0 = Sw OFF

Example: Set ID of both Tx and Rx to 10. This is value 1010:

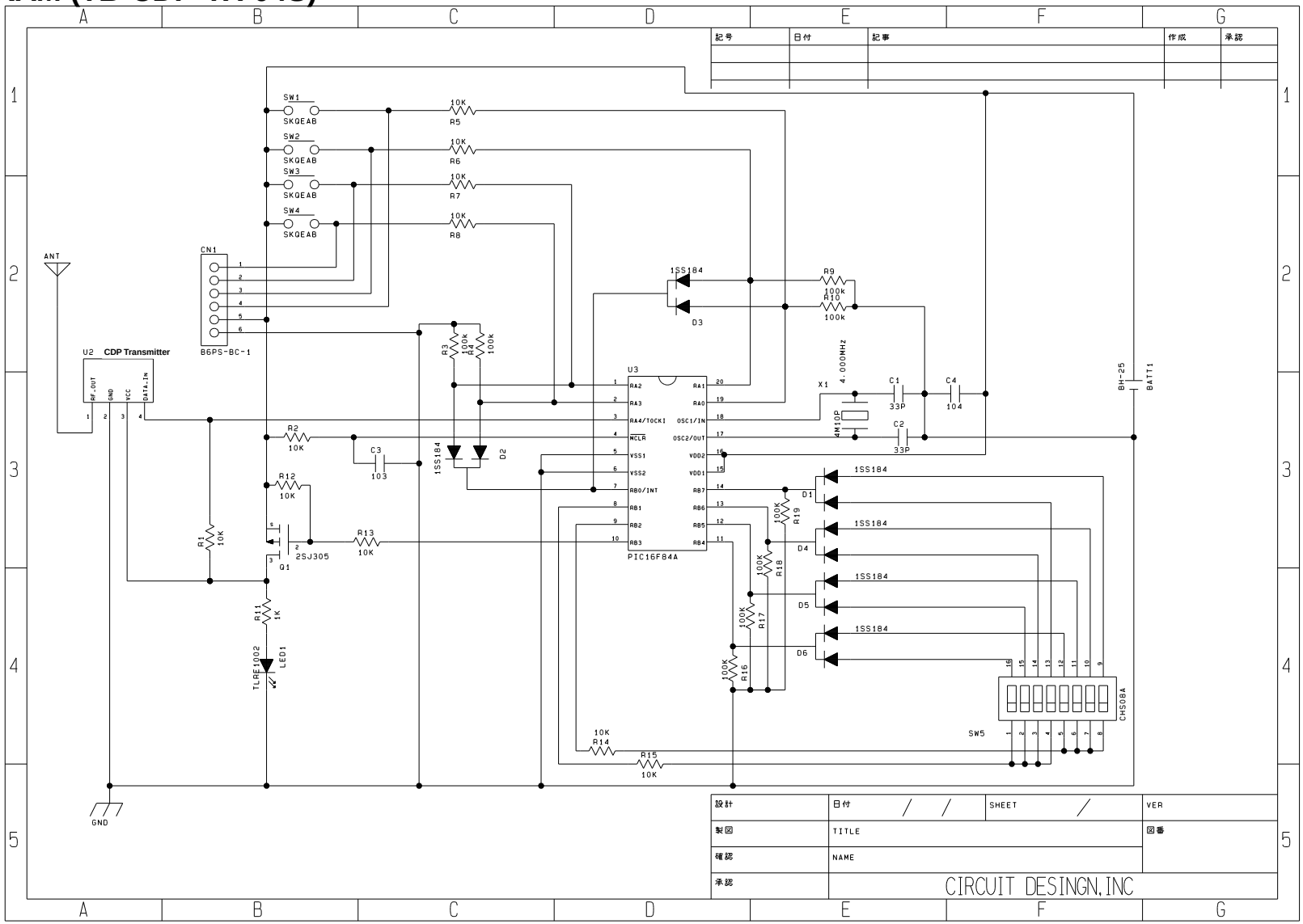
Tx board: Sw[1 ~ 4] set to ON, OFF, ON, OFF and Sw[5 ~ 8] set to ON, OFF, ON, OFF
Rx board : Sw[1 ~ 4] set to ON, OFF, ON, OFF and Sw[5 ~ 8] set to ON, OFF, ON, OFF

OPERATION

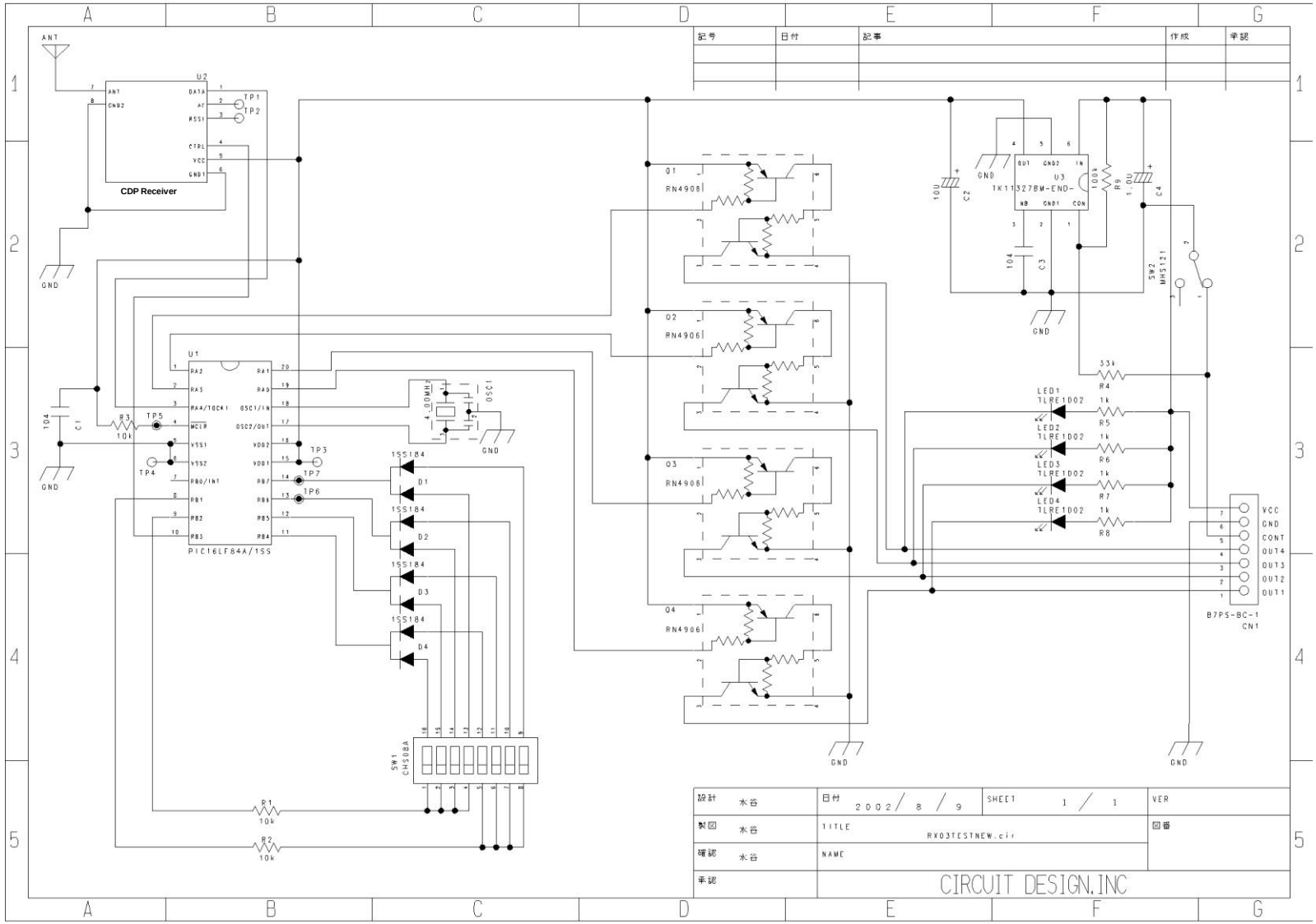
Operation is by pressing the switches SW1-4 causing the corresponding LED to turn on. The DIP switches are for the ID setting which allow other units with matching ID to respond.



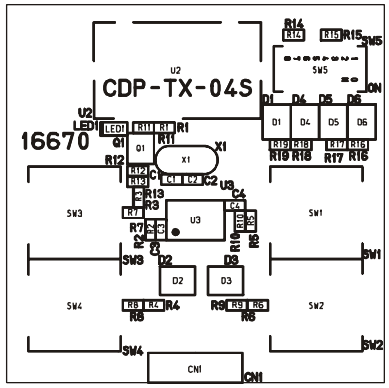
CIRCUIT DIAGRAM (TB-CDP-TX-04S)



CIRCUIT DIAGRAM (TB-CDP-RX-03AS)



PCB PATTERN



CDP-TX-04S-TestBoard
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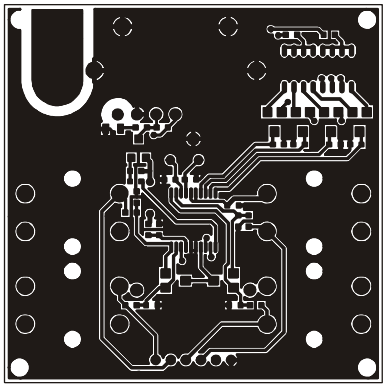

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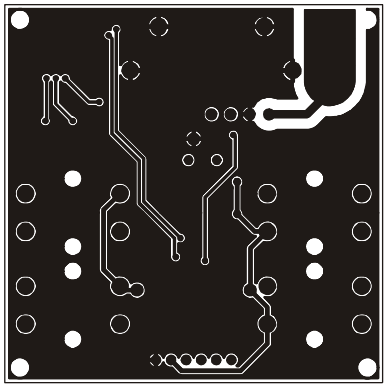

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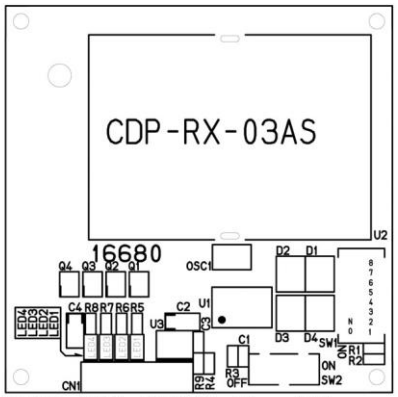

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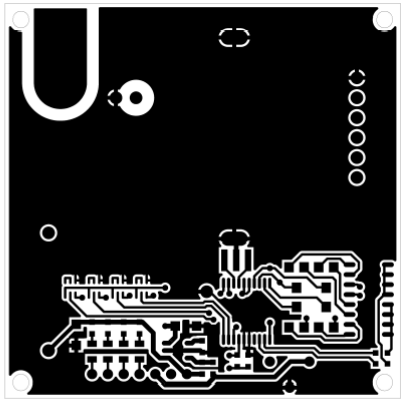

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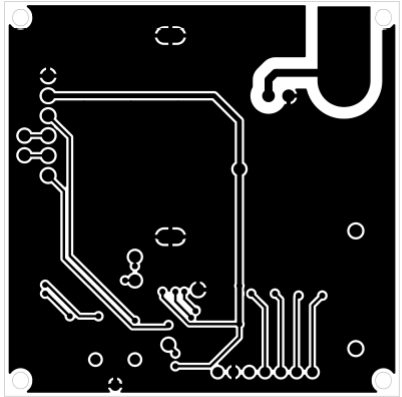

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Cautions

- As the product communicates using electronic radio waves, there are cases where transmission will be temporarily cut off due to the surrounding environment and method of usage. The manufacturer is exempt from all responsibility relating to resulting harm to personnel or equipment and other secondary damage.
- Do not use the equipment within the vicinity of devices that may malfunction as a result of electronic radio waves from the product.
- The manufacturer is exempt from all responsibility relating to secondary damage resulting from the operation, performance and reliability of equipment connected to the product.
- Communication performance will be affected by the surrounding environment, so communication tests should be carried out before actual use.
- Ensure that the power supply for the product is within the specified rating. Short circuits and reverse connections may result in overheating and damage and must be avoided at all costs.
- Ensure that the power supply has been switched off before attempting any wiring work.
- The case is connected to the GND terminal of the internal circuit, so do not make contact between the '+' side of the power supply terminal and the case.
- When batteries are used as the power source, avoid short circuits, recharging, dismantling, and pressure. Failure to observe this caution may result in the outbreak of fire, overheating and damage to the equipment. Remove the batteries when the equipment is not to be used for a long period of time. Failure to observe this caution may result in battery leaks and damage to the equipment.
- Do not use this equipment in vehicles with the windows closed, in locations where it is subject to direct sunlight, or in locations with extremely high humidity.
- The product is neither waterproof nor splash proof. Ensure that it is not splashed with dirt or water. Do not use the equipment if water or other foreign matter has entered the case.
- Do not drop the product or otherwise subject it to strong shocks.
- Do not subject the equipment to condensation (including moving it from cold locations to locations with a significant increase in temperature.)
- Do not use the equipment in locations where it is likely to be affected by acid, alkalis, organic agents or corrosive gas.
- Do not bend or break the antenna. Metallic objects placed in the vicinity of the antenna will have a significant effect on communication performance. As far as possible, ensure that the equipment is placed well away from metallic objects.
- The ground for the product will also affect communication performance. If possible, ensure that the case ground and the circuit ground are connected to a large ground pattern.

Warnings

- Do not take apart or modify the equipment.
- Do not remove the product label (the label attached to the upper surface of the product.) Using a product from which the label has been removed is prohibited.

REVISION HISTORY

Version	Date	Description	Remark
1.0	Aug. 2003	The first issue	
1.1	Feb. 2007	Changes in circuit diagram of TB-CDP-RX-03AS	
1.2	Jan. 2013	Title change and addition of ID Setting chapter	
1.3	Jun. 2016	ID switch information updated	
2.0	Apr. 2019	CDP-TX/RX-07M information added Operation information added Circuit Diagram change	