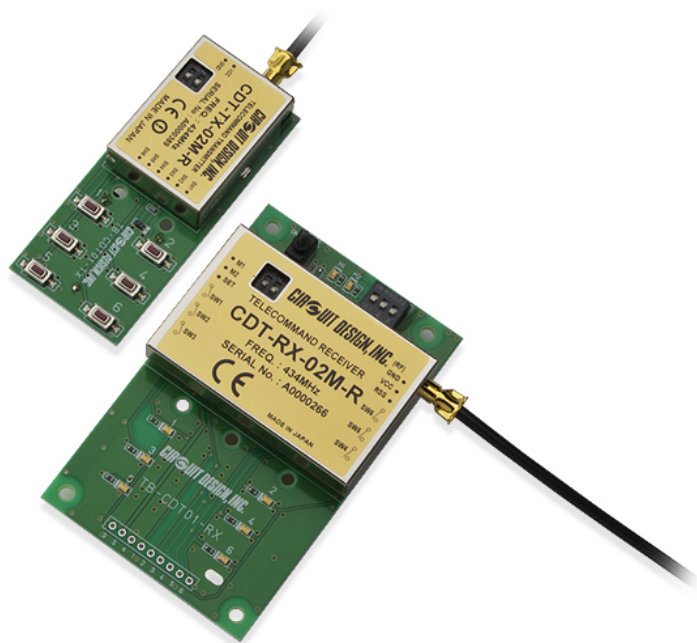


TEST board for CDT modules TB-CDT-TX-01/TB-CDT-RX-01



Operation Guide

Version 1.1 (May 2014)

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GENERAL DESCRIPTION & FEATURES**General description**

The test board will save your time and effort for evaluation of CDT-TX-01 / CDT-RX-01 or CDT-TX-02M-R / CDT-RX-02M-R modules. Communication range can be tested easily by checking the LEDs on the decoder board TB-CDT-RX-01.
TB-CDT-TX-01 and TB-CDT-RX-01 do not include the RF modules. Please make sure to order them if needed.

Features

- 6-push buttons and output LEDs.
- Dip switch for receiver mode setting.

TB-CDT-TX-01 / TB-CDT-RX-01 BOARD OPERATION

Power Supply

| | |
|--------------|-----------------------------|
| TB-CDT-TX-01 | 3V (2 x 1.5 AAA battery) |
| TB-CDT-RX-01 | 4.5V (3 x 1.5V AAA battery) |

Main Switch

Power ON/OFF

Receive setting switch

M1/M2/SET

ID registration

Registers transmitter ID in receiver.

LED1-6 output indicator

Turns on when corresponding switch pressed on TX board.

SW1-6

When pressed, corresponding LED lights on RX board.

M1 and M2 indicator LED

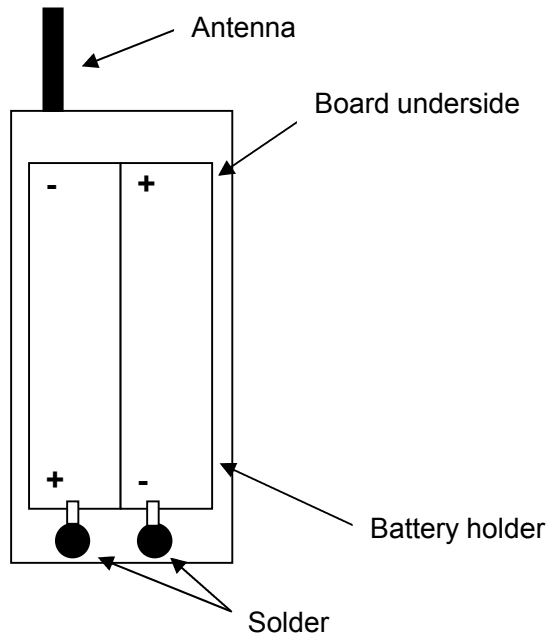
9 pin output interface

Allows connection to external output devices.

ATTACHING BATTERY HOLDER

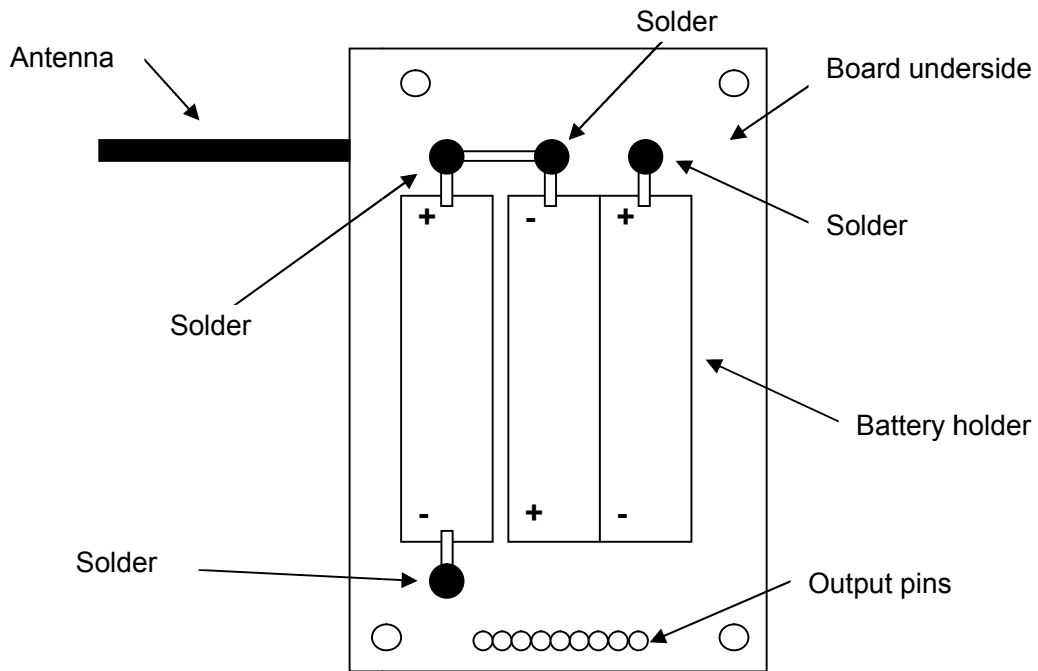
TB-CDT-TX-01

Attach the battery holder to the underside of the board and solder into position.



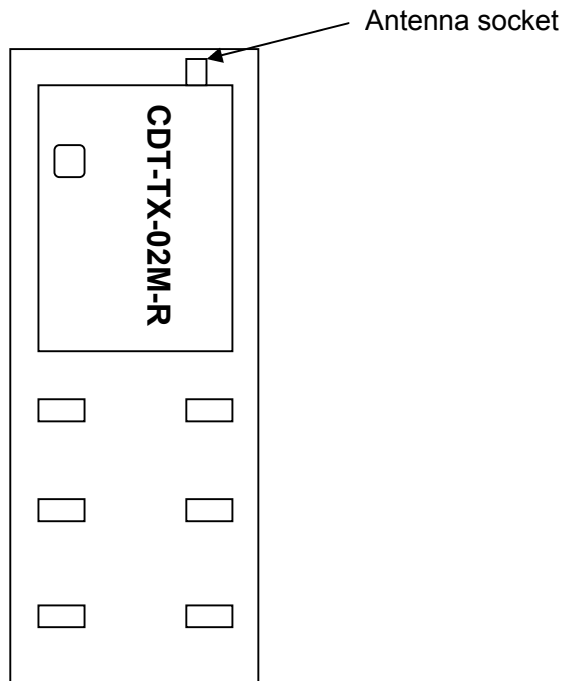
TB-CDT-RX-01

Attach the battery holder as shown below:

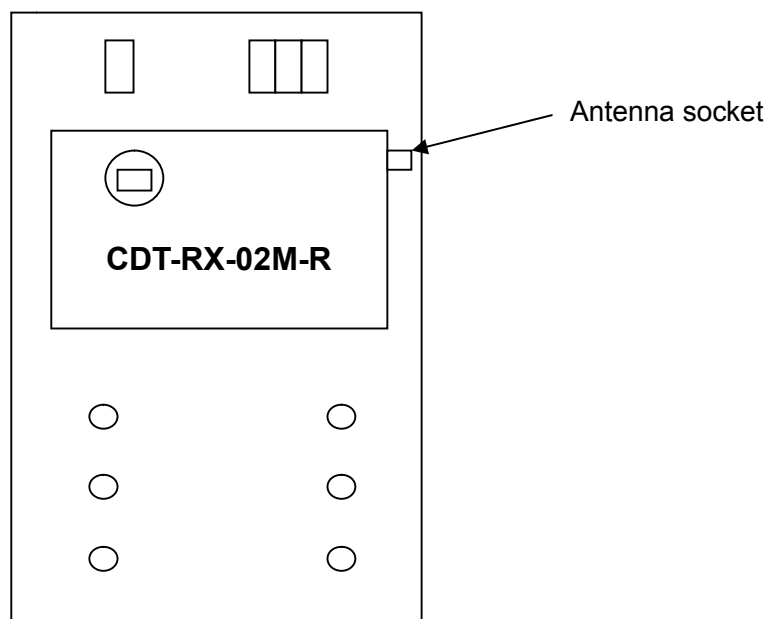


MODULE INSERTION WITH ANTENNA

TB-CDT-TX-01



TB-CDT-RX-01



ID REGISTRATION

Please refer to the module's manual for method of ID registration.

ID Registration mode switch setting

| | | |
|-----|-----|-----|
| M1 | M2 | SET |
| OFF | OFF | ON |

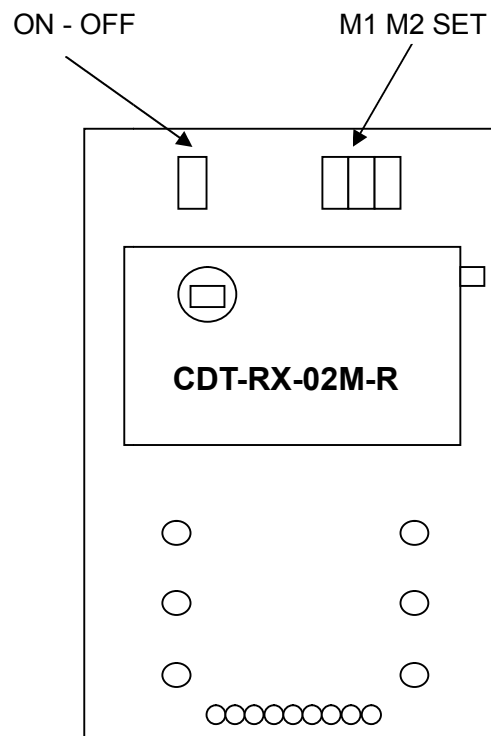
ID Erase mode switch setting

| | | |
|----|-----|-----|
| M1 | M2 | SET |
| ON | OFF | ON |

ID all Erase mode switch setting

| | | |
|-----|----|-----|
| M1 | M2 | SET |
| OFF | ON | ON |

OFF = OPEN
ON = GND



If receiver and transmitter IDs do not match, then receiver will not respond to transmitter signal.

RECEIVER MODE SETTING

| Receiver module operation | Mode Setting | | |
|---------------------------|--------------|-----|-----|
| | M1 | M2 | SET |
| One shot | OFF | OFF | OFF |
| Toggle | ON | OFF | OFF |
| Switching | OFF | ON | OFF |
| Continuous | ON | ON | OFF |

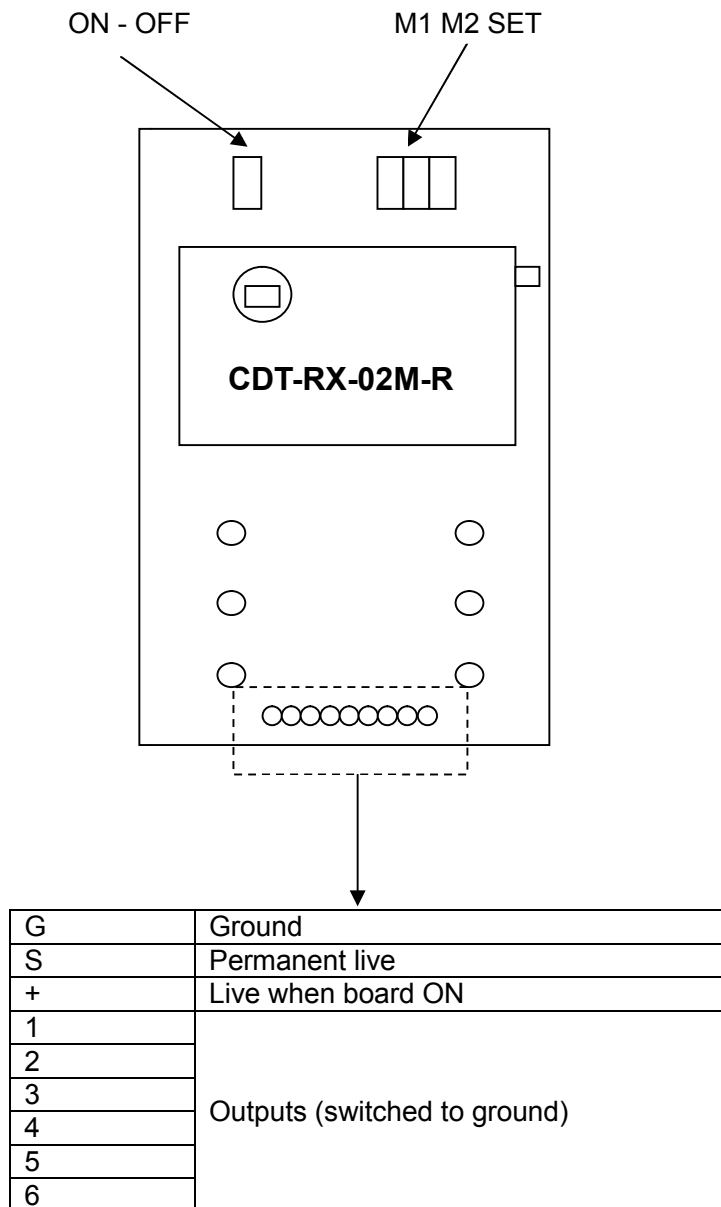
OFF = OPEN

ON = GND

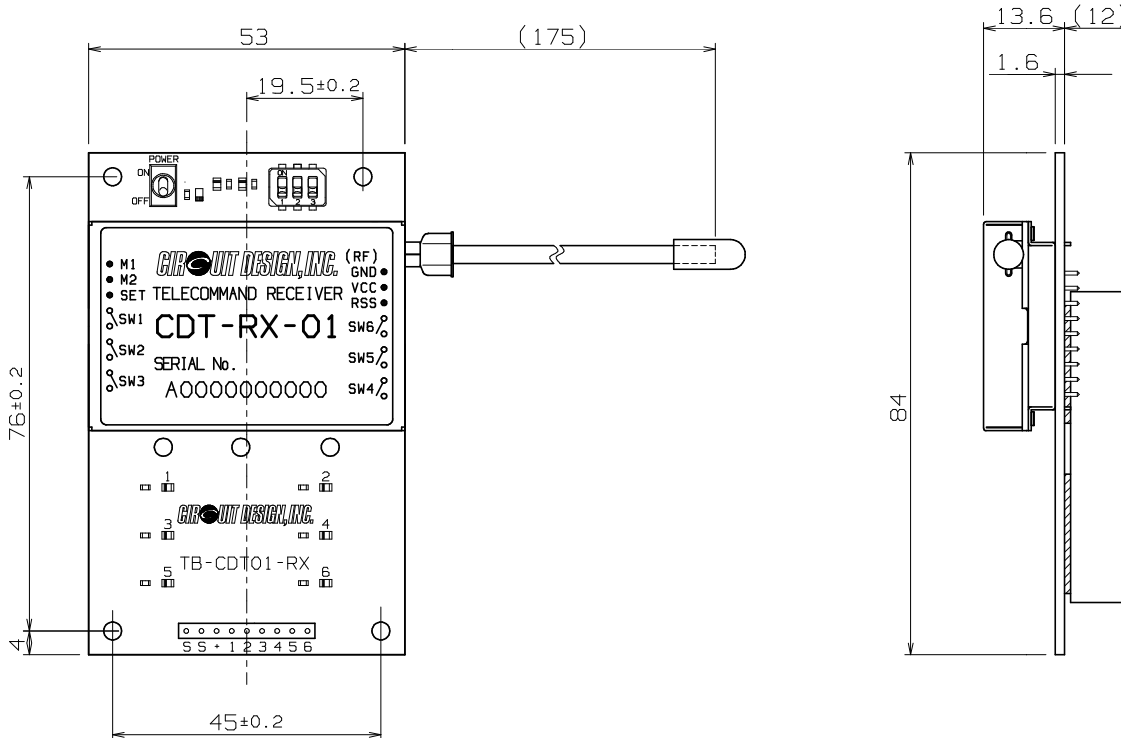
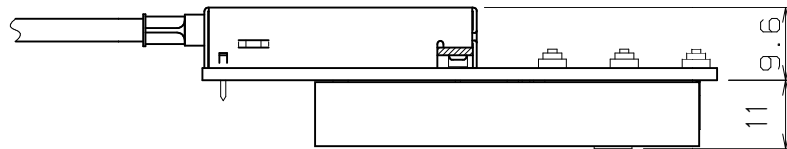
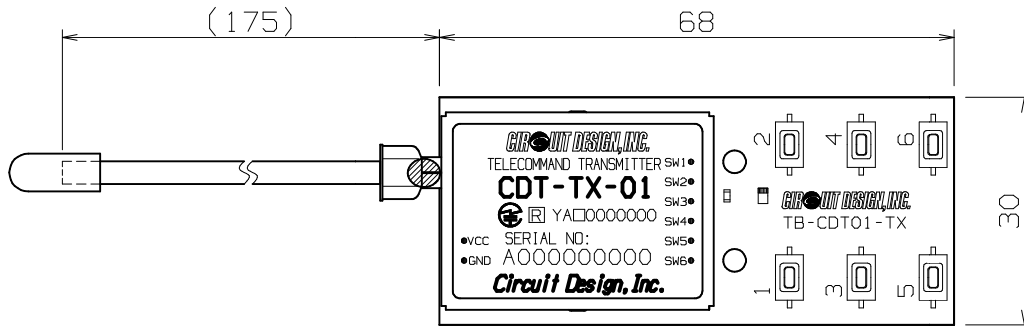
- In normal operation, SET is always in the OFF position.
- Make sure to set the mode before activating power.

CONNECTION FOR EXTERNAL DEVICE

The RX board allows connection to output devices, eg. external LEDs, relays. Outputs 1-6 switches to ground when output is activated. Starting from the left, the pins are labelled as follows.

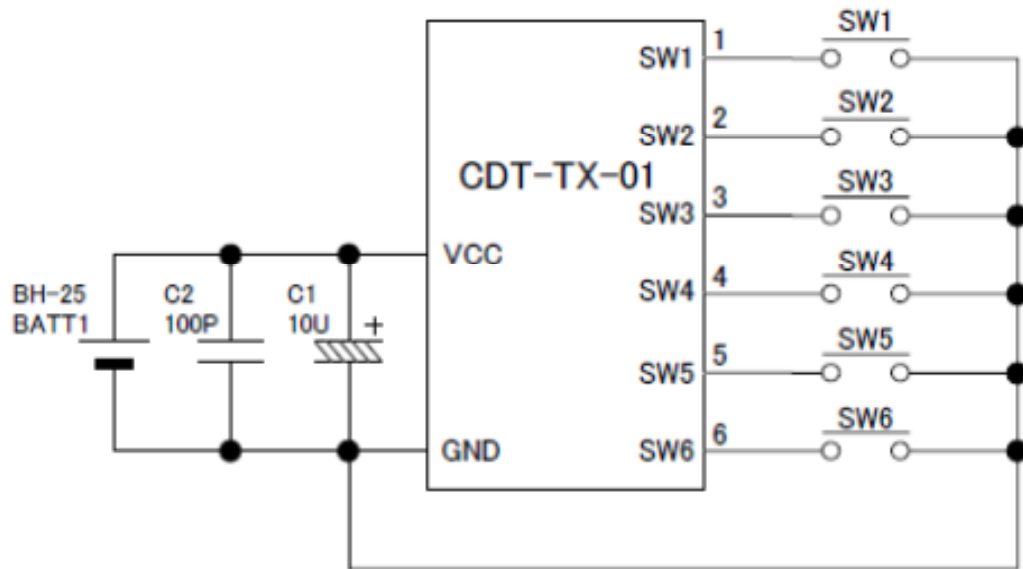


DIMENSIONS

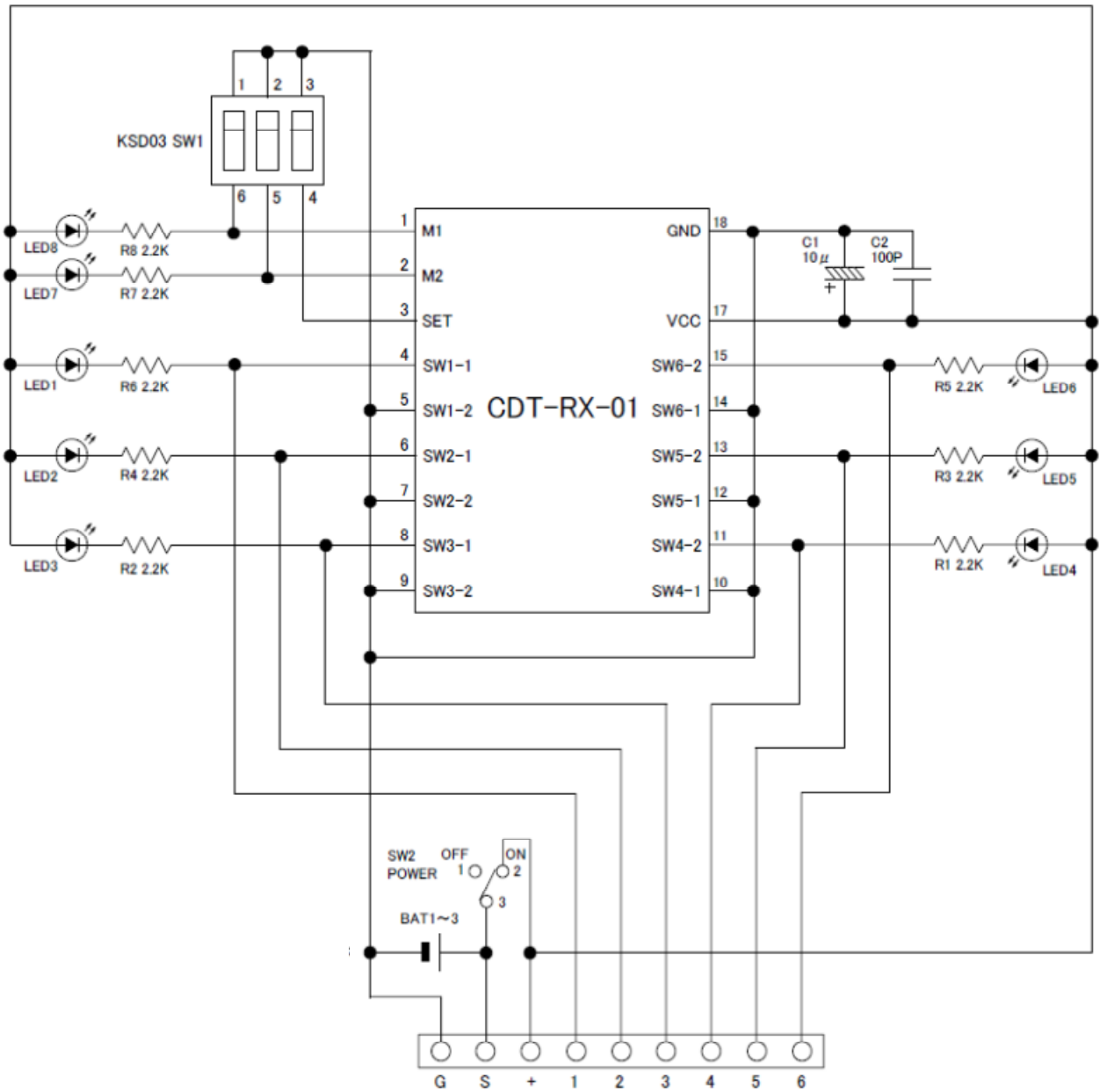


CIRCUIT DIAGRAM

● **TB-CDT01-TX**



● TB-CDT01-RX



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 product 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 soot 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.
- The GND for the product will also affect communication performance. If possible, ensure that the case GND and the circuit GND are connected to a large GND 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.

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Circuit Design, Inc. believes the furnished information is accurate and reliable. However, Circuit Design, Inc. reserves the right to make changes to this product without notice.

REVISION HISTORY

| Version | Date | Description | Remark |
|----------------|-------------|----------------------------------|---------------|
| 1.0 | Dec. 2012 | The first issue | |
| 1.1 | May. 2014 | TB-CDT-TX-01 Board image updated | |