## **RF Wireless Receiver Module With Decode**

Feature:

Model No.: 0020245

Type: Receiver module with decode for fixed code Modulation Method: Amplitude modulation (ASK or OOK)

Working Voltage: DC 9~12V Working Current: 5~8mA RF Sensitivity: -103dBm

Coding Method: Learning fixed code

Decoding Outputs: 5V

Working Temperature: -20°C ~ +70°C

Size: 40x39x17mm With 12 decoding outputs

Control Modes: Toggle, Momentary, Latched

Frequency: We can offer 315 MHz or 433.92 MHz, you can choose one.

### Application:

The RF receiver modules are widely used for remote controls, remote control toys, anti-theft alarms, garage doors, roller shutter, road barrier, retractable doors and so on.

### Notes:

It is best to use the antenna of 1/4 wavelength, for antenna has a great impact on receiving effect of the module; normally using  $50\Omega$  single core cable. For frequency 315MHz, the length of antenna is about 23cm; for 433MHz, it is about 17cm. The position of antenna also affects the receiving effect of the module. When installing the antenna should be extended as much as possible and be away from the shield and the place in high pressure and interference.

The receiving frequency, decoding mode and timing resister should be compatible with the transmitter.

### Learning methods and steps for 3 control models:

Press and hold the button of receiver, then release the button when LED flashes once, it means the receiver is in the status of LEARNING. Press any button of 1~12 of remote control in 10 seconds, if LED flashes quickly and then off, it means LEARNING is successful. If LED flashes once after 10 seconds, it means LEARNING is failed and the receiver will quit the status of learning.

The receiver can learn several remote controls of different codes.

We have set the receiver as Toggle control mode before delivery. If you want to use other control modes, please delete all codes stored in the receiver before you learn other control modes.

## Delete codes:

Press the button of the receiver for about 3 seconds until the LED light flashes quickly, and then release the button, the LED light will flash slowly, it means all stored codes have been deleted successfully. At this time, remote control cannot control the receiver.

# Setting different control modes:

1. Learning method of control mode Momentary: When the receiver in the status of LEARNING, press button 2 or 8 of the remote control. Control mode Momentary (Channel 1~12): Press and hold -> On; Release -> Off.

Such as:

Press button 1 and hold: D1 output; Release button 1: D1 no output Press button 2 and hold: D2 output; Release button 2: D2 no output

2. Learning method of control mode Latched: When the receiver is in the status of LEARNING, press button 1 of the remote control.

Control mode Latched (Channel 1~12): Press -> On, other outputs Off; Press other button -> Off.

Channels 1~4 are interlocked; Channels 5~8 are interlocked; Channels 9~12 are interlocked.

Such as:

Press button 1: D1 output; others no output Press button 2: D2 output; others no output

3. Learning method of control mode Toggle: When the receiver is in the status of LEARNING, press button 4 of the remote control.

Control mode Toggle (Channel 1~12): Press -> On; Press again -> Off.

Such as:

Press button 1: D1 output; Press button 1 again: D1 no output Press button 2: D2 output; Press button 1 again: D2 no output

# Introduction of pin (from left to right)

Pins	Function
D1~ D12	Data output
VCC	Positive power supply
GND	Negative power supply

