

# Shenzhen Qiachip Wireless E-commerce Co.,Ltd

|                 |          |
|-----------------|----------|
| Version number: | V1.0     |
| Prepared by:    |          |
| Date:           | 2021/2/1 |

## Product specifications

Product : Wireless Receiver Module

Model: RX480E-4A

Client:\_\_\_\_\_

Confirmation:\_\_\_\_\_

Date:\_\_\_\_\_

### 1. product characteristics

- Working voltage: D C 3V~5 V;
- Operating frequency :433.92 MHz (RX480E-4A);315 MHz (RX480E-3A)
- Acceptance sensitivity :-108 dBm;
- Power supply voltage input range :2.2 V~5.0 V;
- Low Power  $\leq 5$  mA;
- Good selectivity and stray radiation suppression ability, easy to pass CE/FCC international certification;
- Temperature range :-40~85°C can work normally even under harsh ambient temperatures;
- Ultra-small size 28×12×8 mm (with pin thickness)

### 2. Application Scope

- Wireless power switch, socket
- Remote control curtains, access control, electric vehicles
- Security, surveillance systems
- Hotel Room Control
- Smart Home Products

### 3. work model

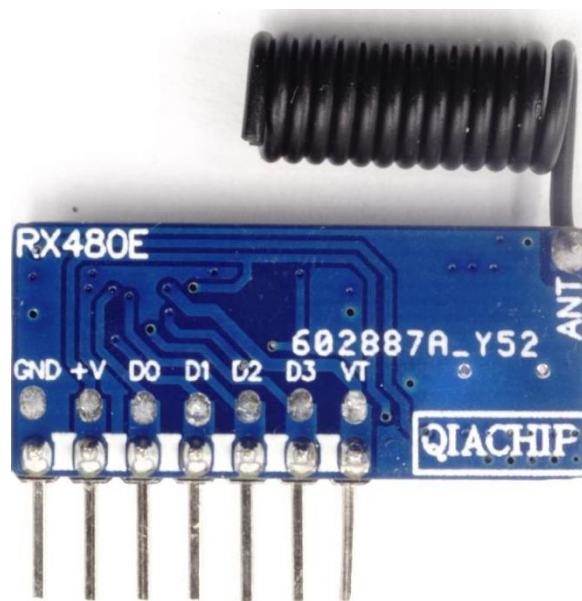
- Reset module: press code button 8 times
- Click mode: press the learning button on the module,;
- Self-locking mode: press the learning button on the module 2
- Interlocking mode: press the learning button on the module 3
- 2-way self-locking +2-way point mode: press the learning button on 4 modules
- Double click + two interlock mode: press the learning button on the module 5
- 2-way self-locking +2-way interlocking mode: press the learning button on 6 modules
- two-way interlocking + two-way interlocking mode: press the learning button on the module 7

Explains the purpose of LED this output signal:

When any key of the remote control is pressed, the receiver decodes and decodes correctly, LED outputs a high level signal 1. When the remote control button is released, the LED output changes to 0.

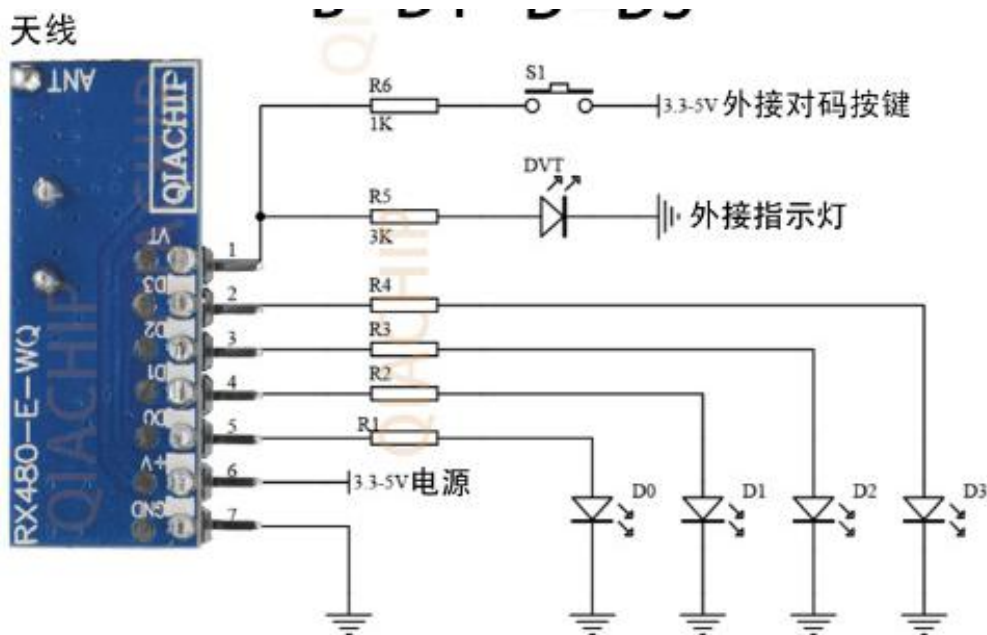
### 4. encapsulation and pin

#### 4.1 Pin definition



| Serial number | Name of name | Description  |
|---------------|--------------|--|
| 1             | GND          | Grounding pins   |
| 2             | +V           | 3 V-5V Supply  |
| 3             | D 0          | High level signal output corresponds to remote control key value 8         |
| 4             | D1           | High-level signal output corresponding to remote control keystroke value 4 |
| 5             | D 2          | High-level signal output corresponding to remote control keystroke 2       |
| 6             | D 3          | High level signal output corresponding to remote control key value 1       |
| 7             | V T          | External keys and indicator lights   |
| 8             | A NT         | Antenna  |

4.2 Application of circuit diagrams



Note :2.54 mm standard spacing 4 Pin for module pin placement

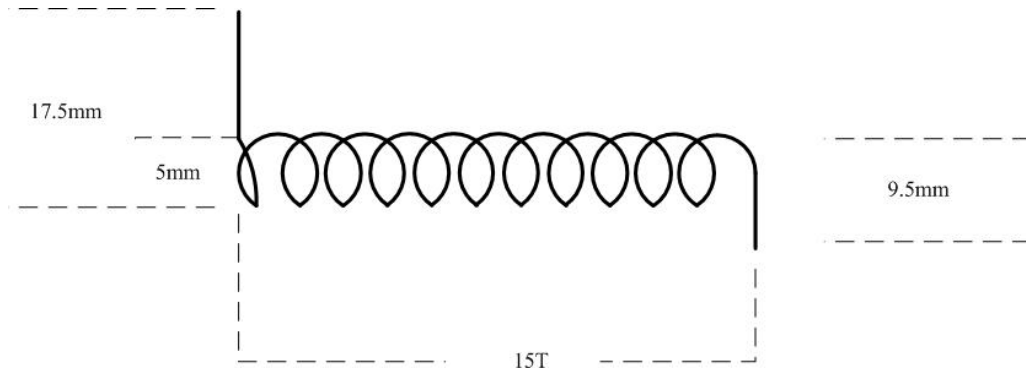
## 5. Antenna

### 5.1 General application

For general applications, the antenna can be directly market-wide specifications, as follows:

#### 315M antenna

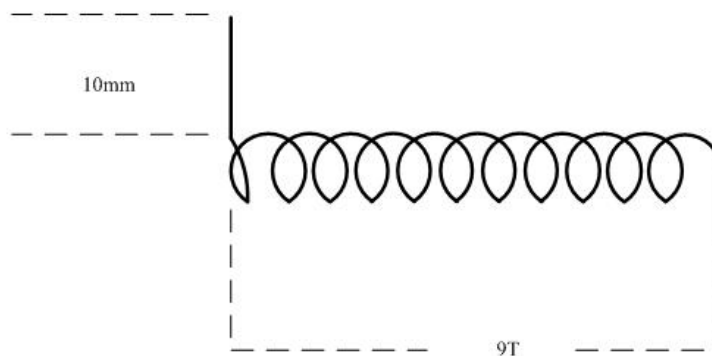
Wire core diameter (including outer skin)1.0 m m ,( excluding outer skin)0.5 m m ; length of welded end wire 17.5 mm, length of antenna end wire 9.5 mm ;  
Antenna winding diameter (including outer skin)5 mm; winding turns 15 turns.



#### 433M antenna

Length of welded wire 10 mm; total length of antenna wire straightening 170 mm;

The winding turns are 9 turns.

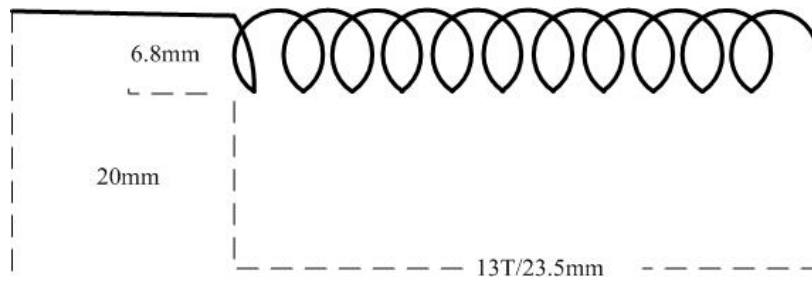


### 5.2 Special Enhanced Type

If a further communication distance is required, the ordinary applied antenna can not be satisfied, and the enhanced antenna can be used to improve the receiving distance, as follows:

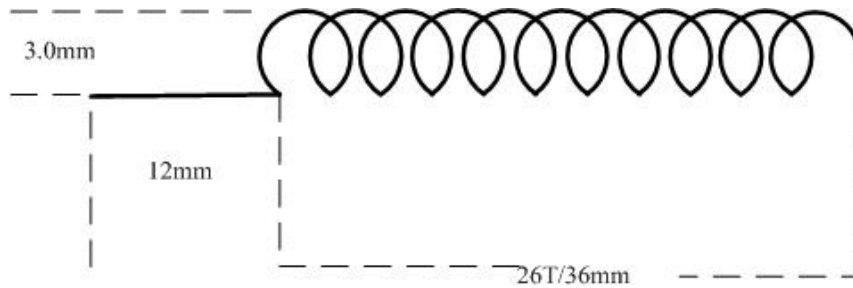
#### 315M antenna

Wire core diameter (including outer skin)1.2 m m ,( excluding outer skin)0.5 m m ; wire length 20 mm ;  
Antenna winding diameter (excluding outer skin)6.8 mm; winding turns 13,  
winding length 23.5 mm.



**433M antenna**

Wire core diameter (including outer skin)1.0 m m ,( excluding outer skin)0.35 mm; wire length 12 mm; Antenna winding diameter (excluding outer skin)3.0 mm; winding turns 26, winding length 36 mm.



**6. Notes**

- (1) As a CMOS device, the product should pay attention to anti-static during storage, transportation and use.
- (2) The device should be grounded well when used.
- (3) RF device is a voltage sensitive device. If the power supply is unstable or the ripple is large, filter should be added to the input of the power supply to ensure that the supply voltage does not exceed the maximum working voltage of the product.