



1. Introduction

Fixed code remote control is a transmitting device that uses fixed PT2262/HS2260 and other chip codes. It is a cost-effective and widely used wireless remote control coding method. This product has 6561 different address codes and 4 fixed key values, can be combined up to 15 different key values. The product has different casings to choose from, and can be customized or developed according to the customer's transmitting format to meet the needs of different customers.

2. Product Features:

- Frequency: 315MHZ/433.92MHZ (customized frequency is available)
- Frequency Deviation: ± 0.2 MHZ
- Modulation: ASK
- Working Current: 18MA (12V battery) /10MA (3V_6V battery)
- Quiescent Current: 0UA
- Transmitting Power: 10-15MW
- Transmitting Range: About 50m in open space
- Coding Chip: PT2262/PT2264/HS2260/PT2260/SCT2260

3. Application:

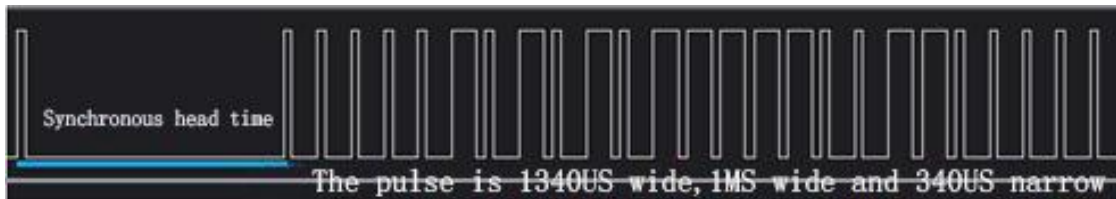
- Shutter door, shutter window controller;
- Road gate, telescopic door controller;
- Bus door control system;
- Remote control system
- Intelligent housing system
- Remote control door opening machine;
- Wireless security alarm;
- Remote control curtain machine;
- Wireless industrial controller;
- RGB lamp strip, lamp strip, lighting lamp control;



4. Transmitting format specification

The following only provides the emission pulse width data of 1-2 common resistors. Different oscillation resistors will have different emission pulse width data, and the specific samples shall prevail.

Chip/ Resistance	Synchronous head time	Wide level time	Narrow level time
PT2262/4.7M	14.5MS	1.43MS	480US
PT2262/3.3M	10.5MS	1MS	340US
HS2260/11M	14.5MS	1.4MS	480US
HS2260/7.5M	10.5MS	1MS	340US



The fixed code remote control is a remote control with 24-bit data, the first 16 bits are the address data of the remote control, and the last 8 bits are the key value of the remote control. The first 16 bits can realize 6561 different address encodings through peripheral hardware. The last 8 key values can combine up to 15 different key values. Common four-button remote control, the key value is 1000, 0100, 0010, 0001

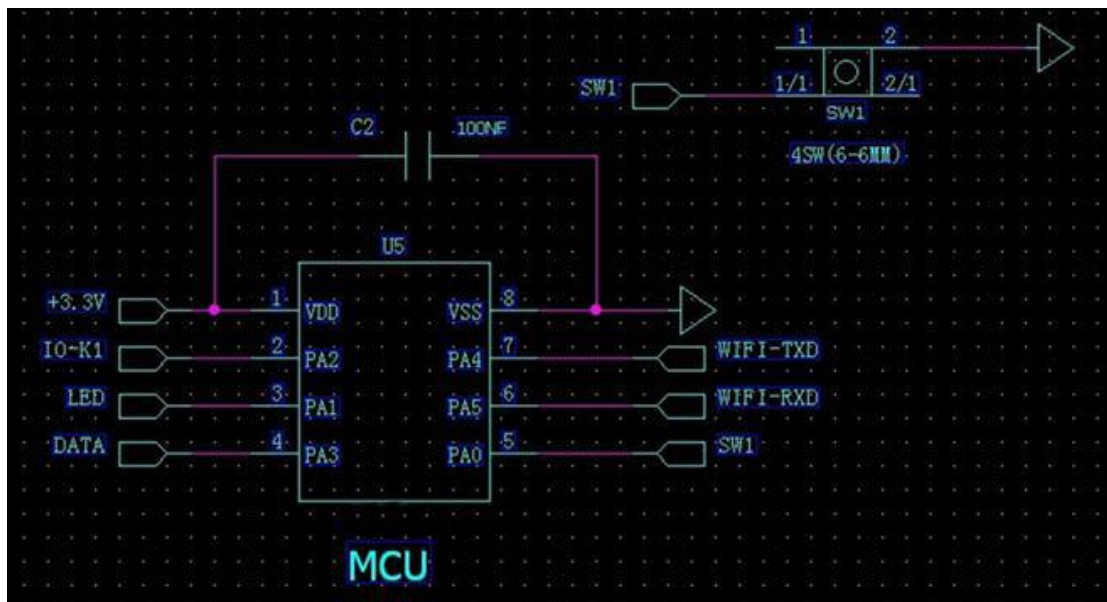


To encode different address codes, the decoder needs to use PT2272 to decode the corresponding address code or a single-chip microcomputer to interpret the address code to achieve one-to-one remote control. The fixed PT2262 decoding method is relatively rare, and most of them use single-chip microcomputers for decoding. During the decoding process, the remote control must first perform remote pairing operation with the receiving end to



Fixed Code Remote Control

realize one-to-one remote control. The common pairing operation method is to connect a learning button externally to the microcontroller. When the learning button is pressed, the corresponding microcontroller pin has The high and low levels change, at this time the program considers it to be in the learning state, and then press any key on the remote control, and the pairing operation is successful. This kind of pairing operation is a relatively common method in our industry. Programmers can also define their own operation methods according to their own products. The above are only parameters. As shown below.



The fixed code remote control can also be programmed with the same code for application. All remote controls are made with the same address code, so that the program does not need to design code matching operations, and the program can fix this address to achieve universal control of all remote controls.

The fixed code remote control can also be used without coding, and the address code is fixed by default 5555 (hexadecimal data), so as to realize the universal control of remote control products.

On the basis of the sample pulse width, the single-chip decoding is relaxed by plus or minus 20%.



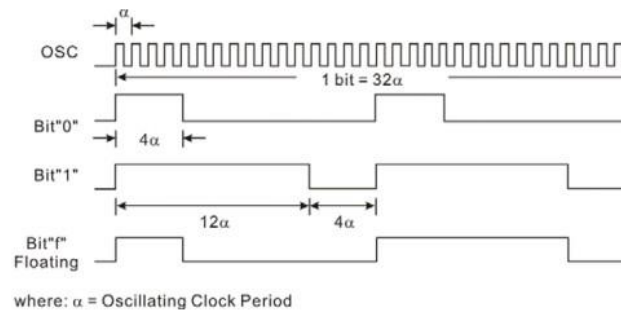
RF OPERATION

CODE BITS

A Code Bit is the basic component of the encoded waveform, and can be classified as either an AD (Address/Data) Bit or a SYNC (Synchronous) Bit.

ADDRESS/DATA (AD) BIT WAVEFORM

An AD Bit can be designated as Bit "0", "1" or "f" if it is in low, high or floating state respectively. One bit waveform consists of 2 pulse cycles. Each pulse cycle has 16 oscillating time periods. For further details, please refer to the diagram below:



SYNCHRONOUS (SYNC.) BIT WAVEFORM

The Synchronous Bit Waveform is 4 bits long with 1/8 bit width pulse. Please refer to the diagram below:

