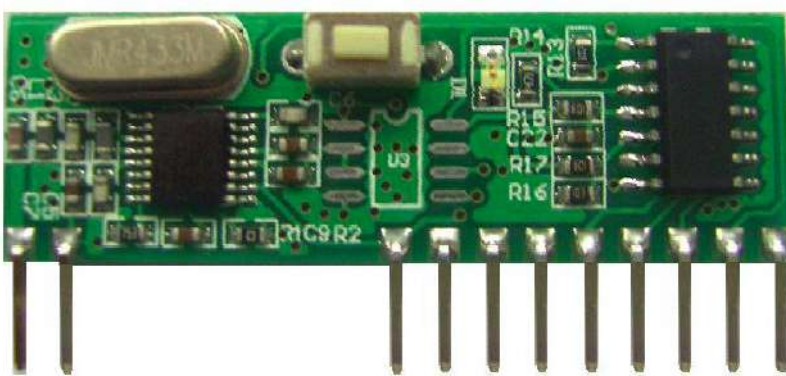


**Type: ASK/OOK Super-Heterodyne Receiver Module**  
**Model: CYRM02-XXX**

## 1. DESCRIPTION:

CYRM02 is an ISM frequency band high quality super heterodyne decoding wireless data transfer receiving module. This module adapts UHF wireless communication technology and low noise large scale integrated circuit, so it has a perfect antistatic protection, high reliability and very competitive in terms of pricing and performance. It can be used in a large number of applications such as remote control garage doors, extendable doors, brake, industrial control, communications, security, home automation, GSM/GPS on-board system and etc fields. The receiving system is an ideal choice for high demand system with a complex environment.



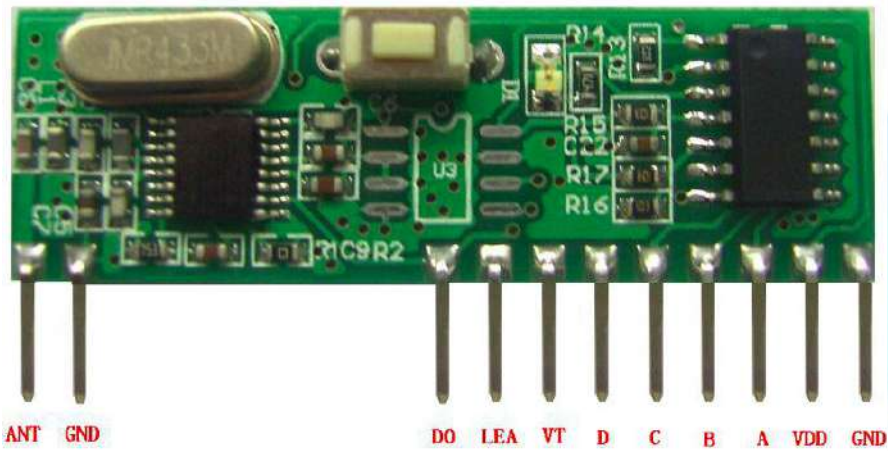
## 2. FEATURES:

- Frequency: 315MHz/433.92MHz/ (custom frequency is available);
- High sensitivity -114dBm;
- Supply voltage: VCC= 3.0 to 5.5 V;
- 4 Channel output, Self setting for Latches and Temporary Storage Mode;
- Can custom design different type of decoding receiving module: EV1527 (Learning Code), PT2272 (Fixed Code) and HS301 (Rolling Code). Currently, CYRM02 is available in EV1527 (Learning Code) and HS301 (Rolling Code).
- Decoding the decoder can support up to seven encoder, when the encoder learning overflow (i.e. more than seven encoder), decoder will start automatically covered and scrapped the encoder that has been studied at the earliest.
- Low power consumption: 5.0V/7mA@433Mhz, continuously data rate to 2.4kbps (Manchester encoding)
- Good selectivity and stray radiation inhibition ability.
- Temperature range -40-85°C (industrial grade) , It can work normal even under harsh environment.

### 3. APPLICATION:

- Remote gate controls, Brake
- Remote keyless entry (RKE)
- Wireless control Curtain device
- Wireless security systems
- Wireless Industrial Control
- Wireless parking lot barrier

### 4. PIN DEFINITION:



PIN	PIN NAME	PIN DEFINITION
1	ANT	Antenna In
2	GND	Ground
3	DO	Wireless data testing port
4	LEA	Connecting port to learning key. Connect a key to Ground as a learning key.
5	VT	Remote Signal Indication. It will flash when received remote signal
6	D	D Channel output, self setting for latches and temporary storage mode
7	C	C Channel output, self setting for latches and temporary storage mode
8	B	B Channel output, self setting for latches and temporary storage mode
9	A	A Channel output, self setting for latches and temporary storage mode
10	VDD	Positive Power Supply
11	GND	Ground



## 5. ELECTRICAL CHARACTERISTICS:

Condition: Temperature =25°C Vcc=5.0V Frequency=315MHz

Parameter	Symbol	Condition	Reference Value			Unit
			Min	Typ	Max	
Working Freq.	Fc		314.90	315.00	315.10	MHz
Modulation			ASK			
Sensitivity		50 Ohm antenna input directly/1K Kbps		-114		dBm
Receiving Bandwidth				200		KHz
Working Voltage			3.0	5.0	5.5	V
Working Current	IRC				5.5	mA
Image Rejection		293.6MHz		20		dB
Decoding the highest output voltage		RL=500K	2.8	3.75	5	V
Decoding the lowest output Voltage					0.5	V
Working Temperature			-40		+85	°C

Condition: Ta=25°C Vcc=5.0V Frequency=433.92MHz

Parameter	Symbol	Condition	Reference Value			Unit
			Min	Typ	Max	
Working Freq.	Fc		433.82	433.92	434.02	MHz
Modulation			ASK			
Sensitivity		50 Ohm antenna input directly/1K Kbps		-114		dBm
Receiving Bandwidth				200		KHz
Working Voltage			3.0	5.0	5.5	V
Working Current	IRC				7	mA
Image Rejection		412.52MHz		20		dB
Decoding the highest output voltage		RL=500K	2.8	3.75	5	V
Decoding the lowest output Voltage					0.5	V
Working Temperature			-40		+85	°C

## 6. CYRM02 Super heterodyne receiver module remote control code and delete methods

Before using, CYRM02 receiving module needs to pair with remote control by learning code.  
---To set the receiver module into learning receiving mode. (Press learning key VT, learning indication light flash once and then off)

---Press any key on the remote control, learning indication LED on and last for 1 second and then automatically off.

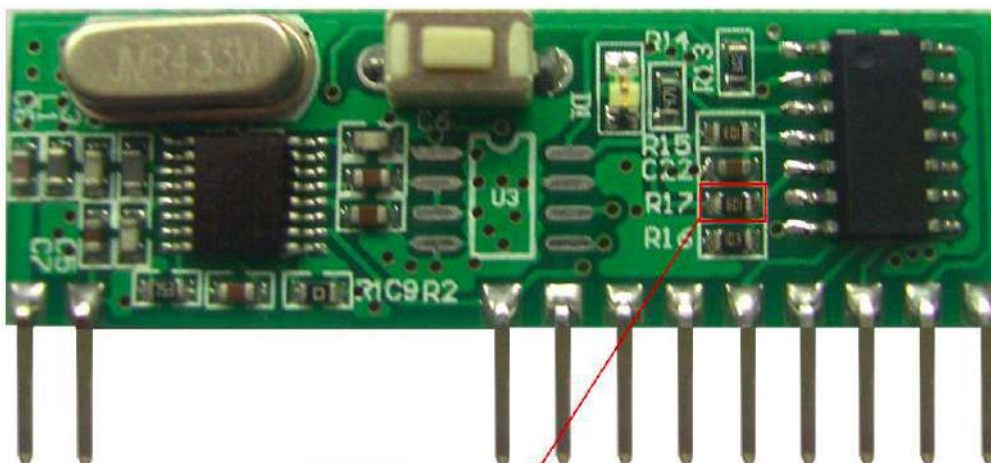
---When the remote control output code been learning successfully, the whole learning process is done.

---Or after pressing the learning key, the receiver module didn't receive signal within 30 seconds, the decoder will automatically abandon this learning.

---If you have multiple remote control, you can use the above mentioned method to do the pairing and then you can have more than one remote control.

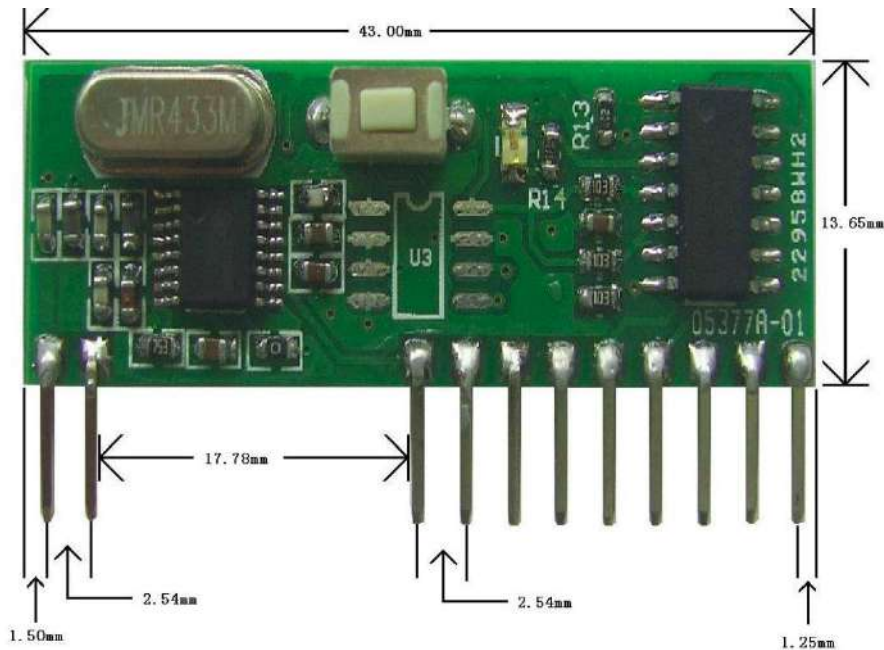
---If you accidentally lost one or a few remote control, you can let all remote control failure (Press learning key over 8 seconds, after the learning light LED off, the receiving module will automatically remove the memory in the memory capacity), and then re-pairing the rest of the remote controls. After the process is done, it can let the lost remote control failure and invalid.

## 7. Latches and Temporary Storage Mode Setting



Select:  
Soldering resistor is Latch Mode  
Remove resistor is Temporary Mode

## 8. MECHANICAL SIZE: (UNIT: mm)



## 9. ORDER INFORMATION:

**CYRM02-315M**

CYRM---Receiving Module

02-----Model Number

315M---Working frequency is 315Mhz

For more information and assistance, please contact us as follows:

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