

**Type: ASK/OOK Super-Heterodyne Receiver Module**  
**Model: CY09-XXX**

## 1. DESCRIPTION:

CY09 is a superior performance receiver module for ISM band. With the adoption of UHF technology of wireless communication, low noise large scale integrated circuit. It has cost effective, perfect ability of ESD and high reliability. Its superior performance makes rolling codec remote control and electric door-controller adopt this



module. This module is widely applied in Remote control garage door, Retractable door, Barrier and so on. Used for the GSM / GPS car system supporting, Industrial control, communications and security fields, Used in complex systems environment requires by this receiving system is good choice. It can do wireless signal input to the data signal output without any external circuit. Users only need to decode the data plus a simple circuit and then any wireless products development can be easily achieved.

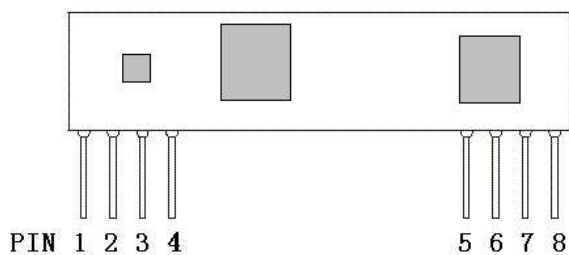
## 2. FEATURES:

- Receiver sensitivity to--114dBm;
- Frequency: 315M/433.92MHz (custom frequency is available);
- Voltage input range: 4.5V-5.5V;
- Low power consumption,5.0 V/12mA;
- Good selectivity and inhibition of stray radiation, easy to get CE/Fcc
- Temperature Range: -40-85°C

## 3. APPLICATION:

- RKE/PKE;
- Remote control door opener、Barrier;
- Wireless alarm and security system; ;
- Remote control curtains;
- Wireless industrial controllers;
- Wireless data transmission;

#### 4. PIN DEFINITION:



1. ANT 2. GND 3. GND 4. VCC 5. VCC 6. DO 7. DO 8. GND

Figure1 CY09 Shape & Pins

Pin-out as showed in figure1 above.

Pin Name	Pin Definition
ANT	RF signal input pin, connect antenna outside( <b>Note1</b> )
GND	Connect to negative power supply
GND	Connect to negative power supply
VCC	Connect to positive power supply
VCC	Connect to positive power supply
DO	Data Output
DO	Data Output
GND	Connect to negative power supply

**Note1:** ANT pin is a 50 ohm antenna input. The length is about:

23cm for 315MHz

7cm for 433.92MHz

**5. ELECTRICAL CHARACTERISTICS:**

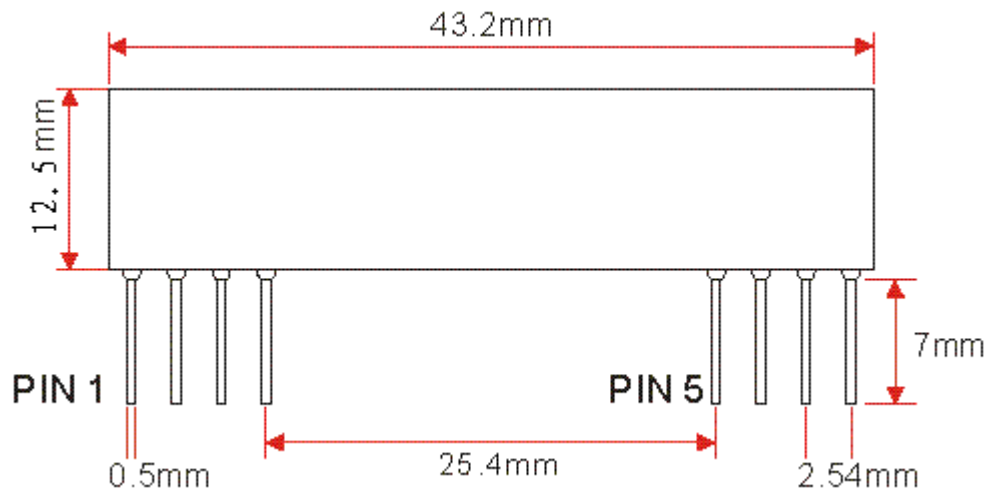
Condition: Ta=25°C Vcc=5.0V Frequency=315MHz

Parameters	Symbol	Status	Reference Value			Unit
			Minimum	Standard	Maximum	
Working Frequency	Fc		314.90	315.00	315.10	MHz
Modulation			ASK			
Receiver Sensitivity		50Ohm antenna input /1K Kbps		-114		dBm
Receiving Bandwidth				200		KHz
Receive on-time						
Working Voltage			4.5	5.0	5.75	V
Working Current	IRC				12	mA
Image Rejection		293.6MHz		20		dB
Decoding output maximum voltage		RL=500K	2.8	3.75	5	V
Decoding output minimum voltage					0.5	V
Working Temperature			-40		+85	°C
Data Rate				2.4	4.8	Kbps

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

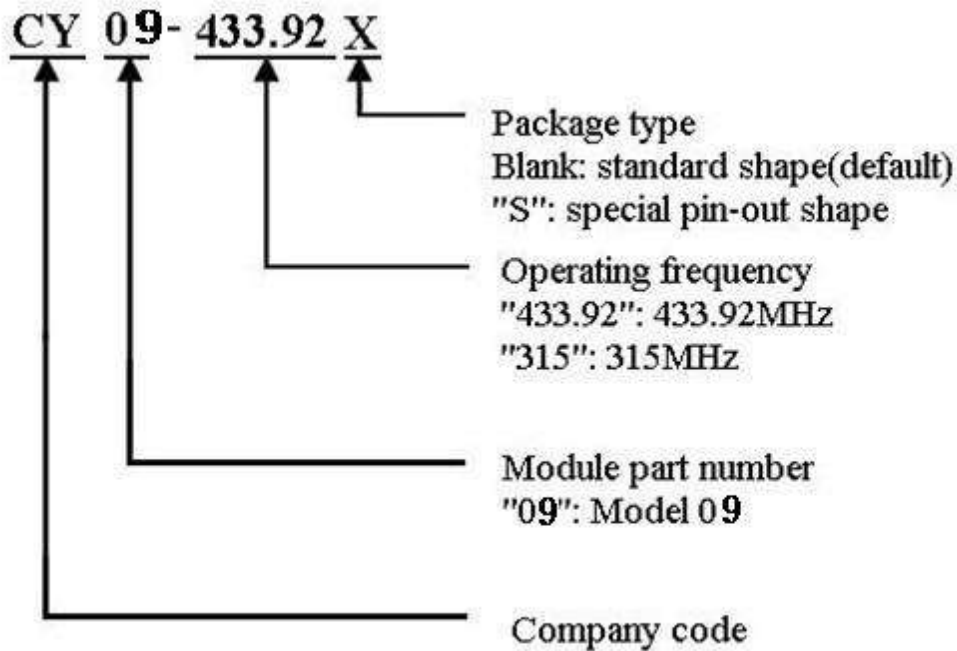
Parameters	Symbol	Status	Reference Value			Unit
			Minimum	Standard	Maximum	
Working Frequency	Fc		433.82	433.92	434.02	MHz
Modulation			ASK			
Receiver Sensitivity		50Ohm antenna input /1K Kbps		-114		dBm
Receiving Bandwidth				200		KHz
Receive on-time						
Working Voltage			4.5	5.0	5.75	V
Working Current	IRC				9.6	mA
Image Rejection		412.52MHz		20		dB
Decoding output maximum voltage		RL=500K	2.8	3.75	5	V
Decoding output minimum voltage					0.5	V
Working Temperature			-40		+85	°C
Data Rate				2.4	4.8	Kbps

**6. MECHANICAL SIZE: (UNIT: mm)**



**Figure2 CY09 Dimension**

**7. ORDER INFORMATION:**





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

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