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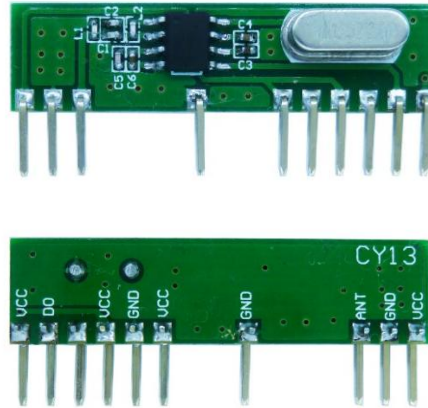
**Type: ASK/OOK Super-Heterodyne Receiver Module**

**Model: CY13-XXX**

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### Description:

CY13 is an ASK/OOK receiver super-heterodyne module is designed specifically for remote-control and wireless security receiver operating at 315/433.92MHz in ISM frequency band. It has high receiving sensitivity and low price. Any circuit that can be done without additional wireless signal input to the data signal output. Users only need to add simple data decoding circuit and it can easily achieve the development of wireless products.



### Order Information:

Model NO.	Frequency
CY13-315	315 MHz
CY13-433	433.92 MHz

### Features:

- Receiving Sensitivity: -110dBm
- Frequency: 315M/433.92MHz (custom frequency is available)
- Low cost ASK radio super-heterodyne receiver
- Low Power consumption, 5.0V@315Mhz, 4.8mA. 5.0V@433.92Mhz, 6.8mA. The continuously data transmission data rate can reach 2.4K, when it's in energy saving mode, the consumption can be as low as 50nA.
- Good selectivity and stray radiation inhibition ability, it's easy to go through the CE/FCC international certification approval.
- Good capable of suppressing the vibration radiation, can work with multiple receiving module (such as one transmitter with multiple receivers) and they do not interfere with each other and there is no affection over the receiving distance.
- Operation temperature: -20°C ~70°C ( It can custom to -40°C ~ 85°C upon



requests)

- Supply voltage: 3.6~5.5V
- Compatible with most (ASK/OOK) transmitters
- Size: 30\*7.7\*5mm

## Application

- Automotive (RKE)
- Garage Door, Barrier, Roller shutter and gate openers
- Smart home system
- Wireless Door Bell
- Remote controls
- Wireless Controller
- Alarm and security system
- Wireless data transmission

## Pin Description

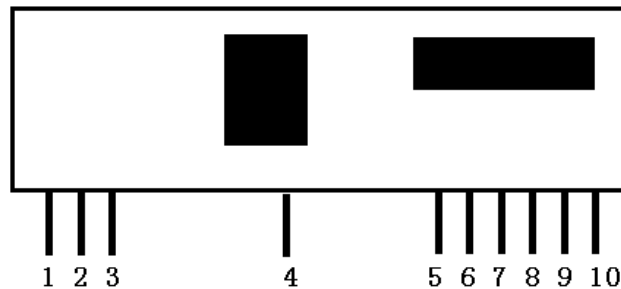


Figure1 CY13 Shape & Pins

Please note: CY13 is come with standard 10 PINs . Please notify us if you would like 10PINs.

Pin	Name	Pin Definition
1	VDD	Connect to positive power supply
2	GND	Connect to negative power supply
3	ANT	RF signal input pin



4	GND	Connect to negative power supply
5	VDD	Connect to positive power supply
6	GND	Connect to negative power supply
7	VDD	Connect to positive power supply
8	NC	
9	DATA	Data output pin
10	VDD	Connect to positive power supply

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

23cm for 315MHz

17cm for 433.92MHz

### Electrical Characteristics:

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

Parameter	Specification			Unit	Condition
	Min	Typ.	Max		
Frequency range	314.90	315	315.10	MHz	
Modulation	ASK				
Receiver sensitivity		-110		dBm	50Ohm Antenna direct input/1K Kbps
Receiver Bandwidth		200		KHz	
Receiver On time			5	ms	
Working Voltage	3.6	5.0	5.5	V	
Working Current	4.6	4.8	5.0	mA	
Highest Output Voltage when Decoding	3.5		5	V	RL=500K
Lowest Output Voltage when Decoding			0.5	V	
Working Temperature	-20		70	°C	



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

Parameter	Specification			Unit	Condition
	Min	Typ.	Max		
Frequency range	433.82	433.92	434.02	MHz	
Modulation	ASK				
Receiver sensitivity		-110		dBm	50Ohm Antenna direct input/1K Kbps
Receiver Bandwidth		200		KHz	
Receiver On time			5	ms	
Working Voltage	3.6	5.0	5.5	V	
Working Current	6.5	6.8	7.0	mA	
Highest Output Voltage when Decoding	3.5		5	V	RL=500K
Lowest Output Voltage when Decoding			0.5	V	
Working Temperature	-20		70	°C	

**Mechanical Size: (Unit: MM)**

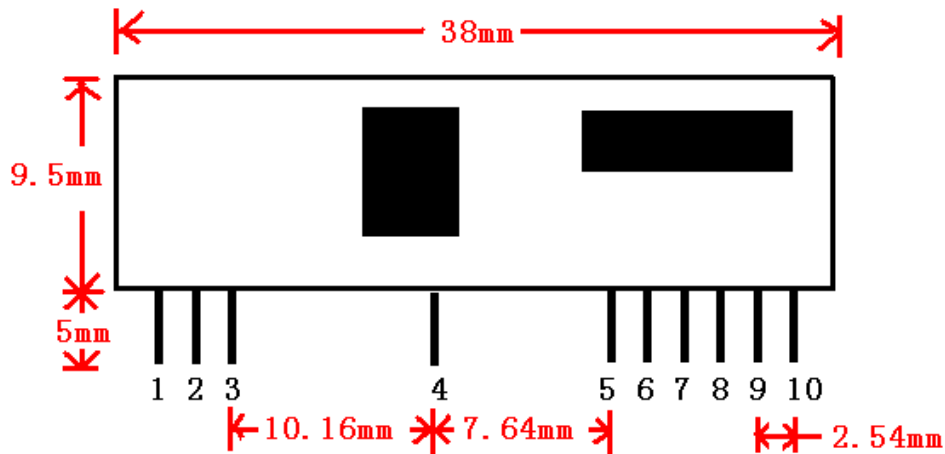


Figure2 CY13 Dimension



**PRE-CAUTION:**

The driven current of CY13 data output pin is weak, so if direct the single chip microcomputer, please don't add any pull up or pull down resistors on the MCU' I/O port. The MCU internal pull-up and pull down resistors need to be in disabled state too.

PCB dimension has tolerance of 3%

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

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