

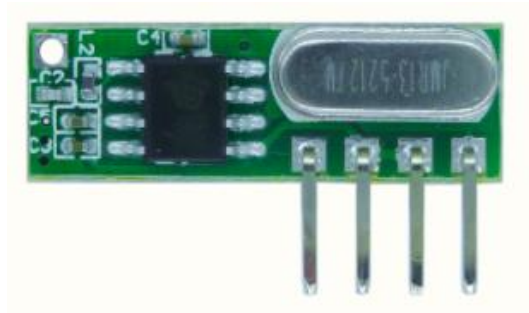


Type: ASK/OOK Super-Heterodyne Receiver Module

Model: CY46-XXX

Description:

The CY46 is a super heterodyne wireless receiving module. This module adopts the RF wireless data transmission receiving chip of French brand, which is a high performance of the receiving module of ISM frequency band. It has higher receiver sensitivity, compact small size, and low price. CY46 makes some low-end products can get rid of the limitation of using super-regenerative because of price reason. This module also improves the stability and reliability of low-end wireless products, improve the image of the product quality and enhance the product competitiveness. Any circuit that can be done without additional wireless signal input to the data signal output. Users only need to plus simple data decoding circuit, can easily achieve the development of wireless products.



Order Information:

Model NO.	Freq.
CY46-315	315MHz
CY46-433	433.92MHz

Features:

- High sensitivity: -110dBm;
- Frequency: 315M/433.92MHz (custom frequency is available)
- Low operation voltage: VCC= 3.6-5.5 V;
- Low Current: 4.8mA. 5V@315MHZ / 6.8mA. 5V@433.92MHZ, when the continuous data transmission rate reaches 2.4k, the power consumption can be a minimum as 50nA in power supply mode.



CY46

- Operating Temperature: $-20^{\circ}\text{C} \sim +70^{\circ}\text{C}$, can work normally even in the harsh environment temperature.
- Small Size of PCB: $23 \times 7.5 \times 5$ MM;
- Good selectivity and stray radiation inhibition ability, it's easy to go through the international standard such as CE/FCC.
- The good radiation suppression ability, can work together with multiple receiving modules without interfering with each other.

Application

- Remote gate controls
- Remote keyless entry
- Car alarm systems
- Wireless security systems
- Automation systems
- Remote control systems

Pin Description

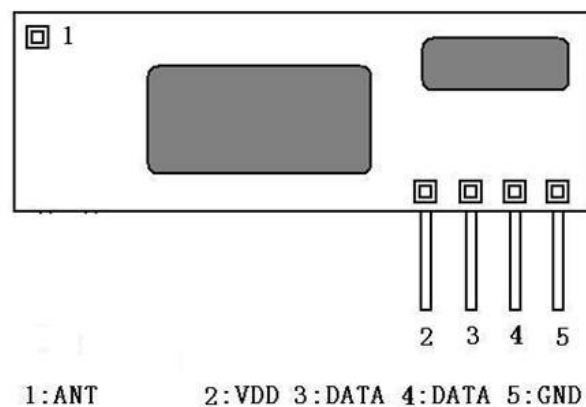


Figure1 CY46 Shape & Pins



Pin Name	Pin Definition
ANT	Antenna In
VDD	Positive Power Supply
DATA	Data Output
DATA	Data Output
GND	Ground

Note1: 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 Current	4.6	4.8	5	mA	
Working Voltage	3.6	5	5.5	V	
Highest Output Voltage when Decoding	3.5		5	V	RL=500K
Lowest Output Voltage when Decoding			0.5	V	
Working Temperature	-20		+70	°C	



CY46

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 Current	6.5	6.8	7.0	mA	
Working Voltage	3.6	5.0	5.5	V	
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)

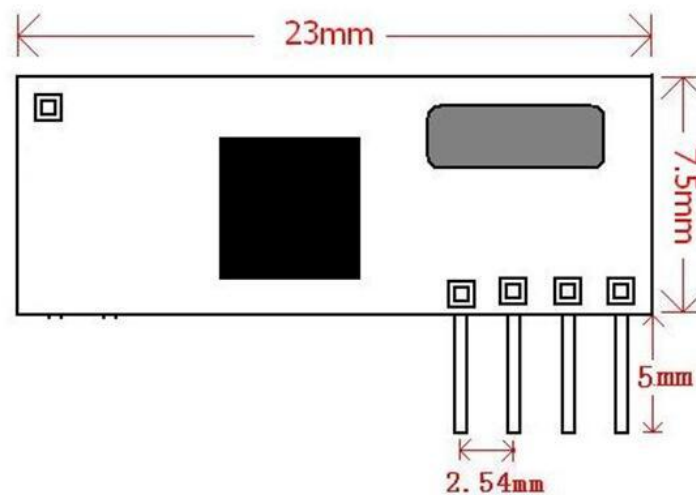


Figure2 CY46 Dimension



PRE-CAUTION:

The driven current of CY46 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:

CY WIRELESS TECHNOLOGY LIMITED

Add: 1407, Block C, Tairan Building, 8th Tairan Road, Futian District,

Shenzhen, Guangdong Province, China

Website: www.rficy.com

Email: info@rficy.com