

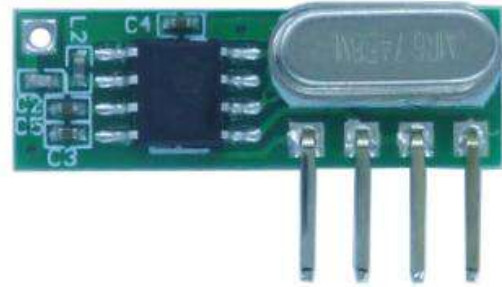


Type: ASK/OOK Super-Heterodyne Receiver Module

Model: CY45-V2.1-XXX

Description:

The CY45-V2.1 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. CY45-V2.1 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.	Frequency
CY45-V2.1-315	315 MHz
CY45-V2.1-433.92	433.92 MHz

Features:

- High sensitivity: -114dBm;
- Frequency: 315M/433.92MHz (custom frequency is available)
- Low operation voltage: VCC= 1.8-5.5 V;
- Low Current: 5.0V @ 315MHz, 4.9mA; 5.0V @ 433.92MHz, 5.4mA;
- Operating Temperature: -20°C~+70°C, can work normally even in the harsh environment temperature.
- Small Size of PCB: 23×7.5×5 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

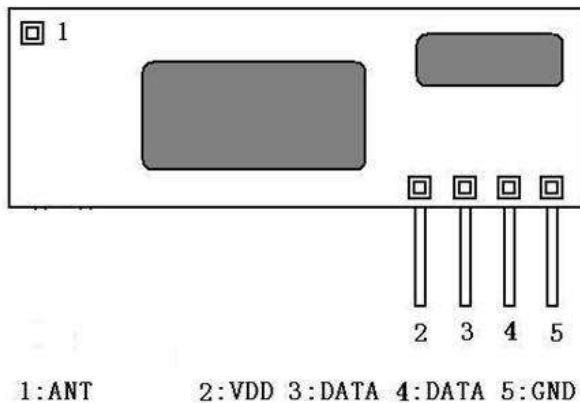


Figure1 CY45-V2.1 Shape & Pins

Pin-out as showed in figure 1 above

Pin Name	Pin Definition
ANT	Antenna In
VDD	Positive Power Supply
DATA	Data output



DATA	Data output
GND	Ground

Note 1: 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	315.00	315.10	MHz	
Modulation	ASK				
Receiver Sensitivity		-114		dBm	50Ohm Antenna direct input/1K Kbps
Data Rate		2.4		Kbps	
Receiver Bandwidth		200		KHz	
Working Current	4.5	4.9	6	mA	
Working Voltage	1.8	5	5.5	V	
Decoding output max. voltage	1.8		5	V	RL=500K
Decoding output min. voltage			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		-114		dBm	50Ohm Antenna direct input/1K Kbps
Data Rate		2.4		Kbps	
Receiver Bandwidth		200		KHz	



CY45-V2.1

Working Current	4.5	5.3	6	mA	
Working Voltage	1.8	5	5.5	V	
Decoding output max. voltage	1.8		5	V	RL=500K
Decoding output min. voltage			0.5	V	
Working Temperature	-20		+70	°C	

Mechanical Size: (Unit: MM)

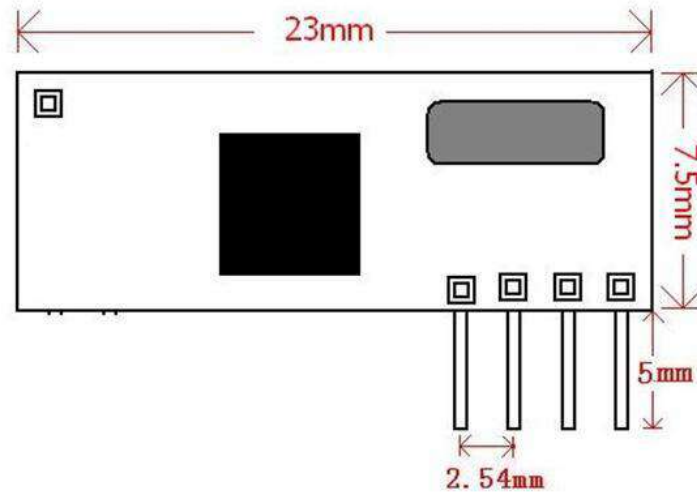


Figure2 CY45-V2.1 Dimension

PRE-CAUTION:

The driven current of CY45-V2.1 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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