

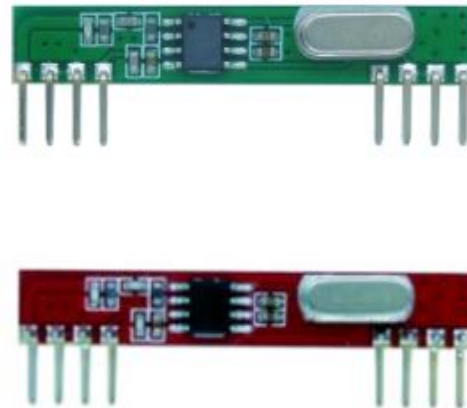


Type: ASK/OOK Super-Heterodyne Receiver Module**Model: CY28-XXX**

Description:

CY28 is an ASK/OOK receiver super-heterodyne module, which is designed specifically for universal remote control and wireless security receiver operating at 315/433.92MHz under FCC Part 15 regulation or pass ETSI certification. The CY28 is based on a single-conversion, super-heterodyne receiver architecture and incorporates an entire Phase-Locked Loop (PLL) for precise local oscillator generation. It can be used in OOK/ HCS/ PWM modulation signal and demodulate to digital signal.

CY28 is a high performance module at a competitive cost and easily to design for your product. The CY28 module can be also a RoHS compliance product.

**Order Information:**

Model NO.	Frequency
CY28-315	315 MHz
CY28-433	433.92 MHz

Features:

- Frequency: 315M/433.92MHz (custom frequency is available);
- Low cost ASK/OOK radio superhet receiver;
- Up to -110dBm high sensitivity;
- Continuous data rate: 2.4K;
- Low power consumption: 5.0mA @ 315MHz, 4.8mA; 5.0V @ 433.92MHz, 6.8mA.
- Supply voltage: 3.6~5.5V;
- 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;

Application

- Smart home system
- Remote controls
- Remote fan and light control
- Garage door and gate openers
- Alarm and security system
- RKE

Pin Description

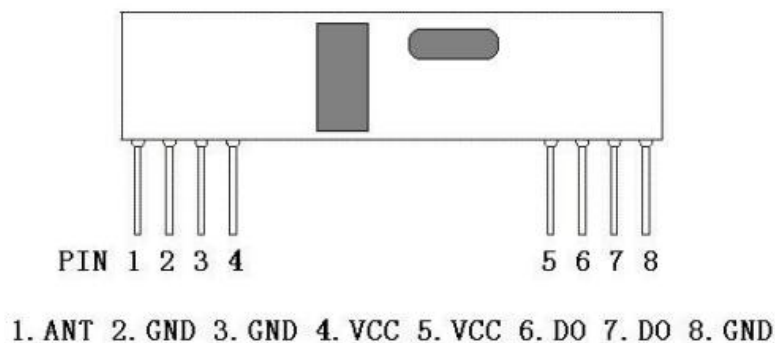


Figure1 CY28 Shape & Pins

Pin-out as showed in figure 1 above

Pin Name	Pin Definition
ANT	RF signal input pin, connect antenna outside(Note1)
GND	Connect to negative power supply
GND	Connect to negative power supply
VDD	Connect to positive power supply
VDD	Connect to positive power supply
DATA	Data output pin, connect to MCU or decoder's input pin
DATA	Data output pin, connect to MCU or decoder's input pin
GND	Connect to negative power supply



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	314.9	315	315.1	MHz	
Modulation	ASK				
Receiver Sensitivity		-110		dBm	50 ohm antenna direct input /1K Kbps
Data Rate		2.4		Kbps	
Supply Voltage, VDD	3.6	5.0	5.5	V	DC
Current	4.6	4.8	5.0	mA	
Receiving Bandwidth		200		kHz	
Receiving Start Time			5	ms	
Decoding Output Max. Voltage	3.5		5.0	V	RL=500K
Decoding Output Min. Voltage			0.5	V	
Operating 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	50 ohm antenna direct input /1K Kbps
Data Rate		2.4		Kbps	
Supply Voltage, VDD	3.6	5.0	5.5	V	DC
Current	6.5	6.8	7.0	mA	
Receiving Bandwidth		200		kHz	
Receiving Start Time			5	ms	



CY28

Decoding Output Max. Voltage	3.5		5.0	V	RL=500K
Decoding Output Min. Voltage			0.5	V	
Operating Temperature	-20		70	°C	

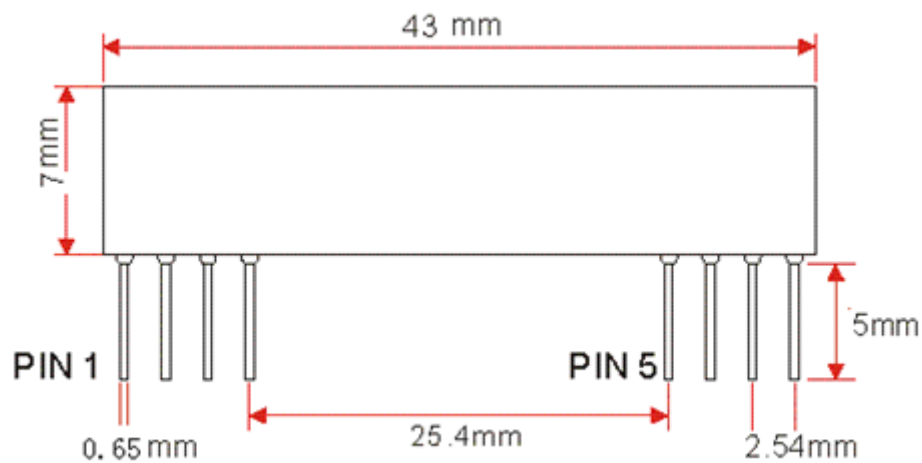
Mechanical Size: (Unit: MM)

Figure2 CY28 Dimension

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

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