

Type: ASK/OOK Super-Heterodyne Receiver Module

Model: CY38-V4.0

Description:

CY38-V4.0 is an ASK/OOK receiver super-heterodyne module, which is designed specifically for unlicensed remote-control and wireless security receiver operating at 315/433.92MHz under FCC Part 15 regulation or pass ETSI certification. The CY38-V4.0 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. CY38-V4.0 is a high performance module at a competitive cost and easily to design for your product. The CY38-V4.0 module can be also a RoHS compliance product.



Order Information:

Model NO.	Frequency
CY38-V4.0-315	315 MHz
CY38-V4.0-433	433.92 MHz

Features:

- High sensitivity: -110dBm;
- Frequency: 315M/433.92MHz (custom frequency is available)
- Low operation voltage: VCC= 3.3-5.5 V;
- Low Current: 3.5mA 5V@315MHZ / 4.6mA [5V@433.92MHZ](#), when the continuous data transmission rate reaches 2.4k(Manchester code)
- 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

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

Pin Description

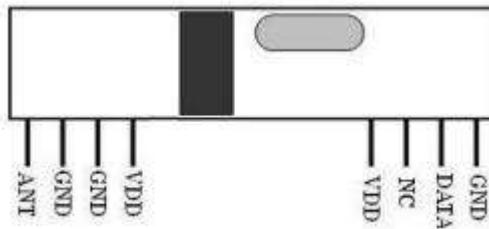


Figure1 CY38-V4.0 Shape & Pins

Pin-out as showed in figure 1 above

Pin Name	Pin Definition
ANT	Antenna
GND	Connect to negative power supply
GND	Connect to negative power supply
VDD	Connect to positive power supply
VDD	Connect to positive power supply
NC	No connect
DATA	Data output
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



CY38-V4.0

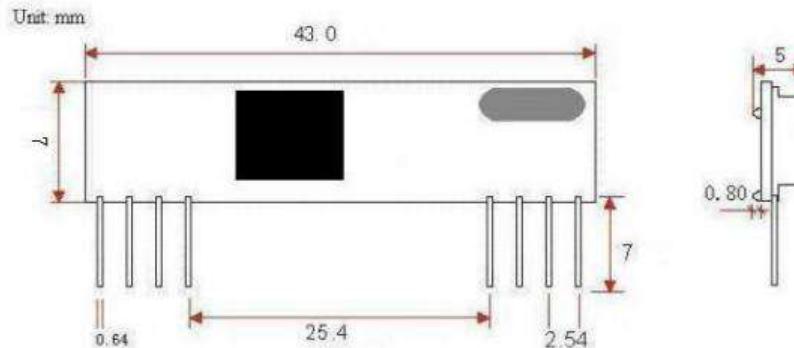
Electrical Characteristics:

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		300		KHz	
Working Current	3	3.5	4	mA	
Working Voltage	3.3	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	

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		300		KHz	
Working Current	4	4.6	5	mA	
Working Voltage	3.3	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 CY38-V4.0 Dimension**

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

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