SHENZHEN

JMRTH TECH. CO., LTD

SPECIFICATION

RXB90

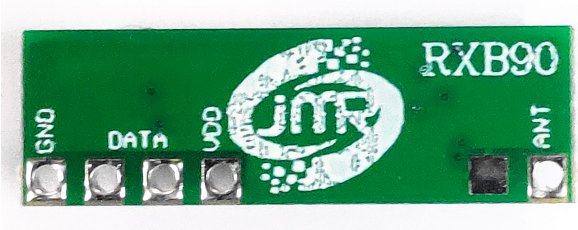
ASK Superheterodyne wireless receiving module

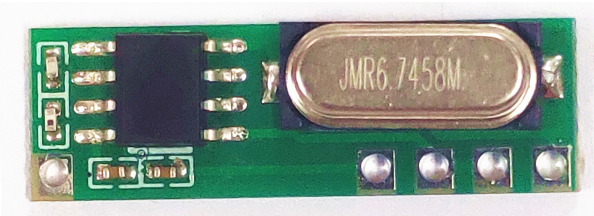
V1.0

Directory

1. Overview

RXB90 superheterodyne wireless receiving module adopting branded RF wireless data transmission and receiving chips , it is a cost-effective ISM frequency band receiving module.With high receiving sensitivity and low price, some low-end products can overcome the limitation of using ultra regenerative modules due to price reasons, improving the stability and reliability of low-end wireless products, improving product quality and image, and enhancing product competitiveness. Wireless signal input to data signal output can be achieved without the need for any additional circuits. Users only need to add a simple data decoding circuit to easily develop wireless products.





2. Product Characteristcs

（1）Receiving sensitivity up to -115dBm;

（2）Operating Frequence：315 MHz;433 MHz; (Special frequencies can be customized according to customer requirements)

（3）Power supply voltage input range：1.8V-5.5V;

（4）Low power consumption ,5.0V @ 315MHz, 5.3mA; 5.0V @ 433.92MHz, 5.3mA continuous data transfer rate up to 2.4K;

（5）Good selectivity and stray radiation suppression ability, easy to pass CE/FCC international certifications.

（6）Good local oscillator radiation suppression ability,Multiple receiving modules can work together (i.e. single transmit multiple receive) without mutual interference, and using them together does not affect the receiving distance.

（7）Temperature Range：-20-70℃ , capable of working normally even in harsh ambient temperatures ;

（8）24×7.6×5（mm）;

应用范围：

（1）Auto Remote Door Switch（RKE）；

（2）Remote Door Opener；

（3）Wireless security alarm ；

（4）Wireless Doorbell；

（5）Wireless controller；

（6）Wireless data transmission；

3. Product Pin Description

Pin	Name	Function Description
1	ANT	Antenna Input
2	VCC	Power supply positive
3	DATA	Data Output
4	DATA	Data Output
5	GND	Power supply ground

4. Electrical Parameter

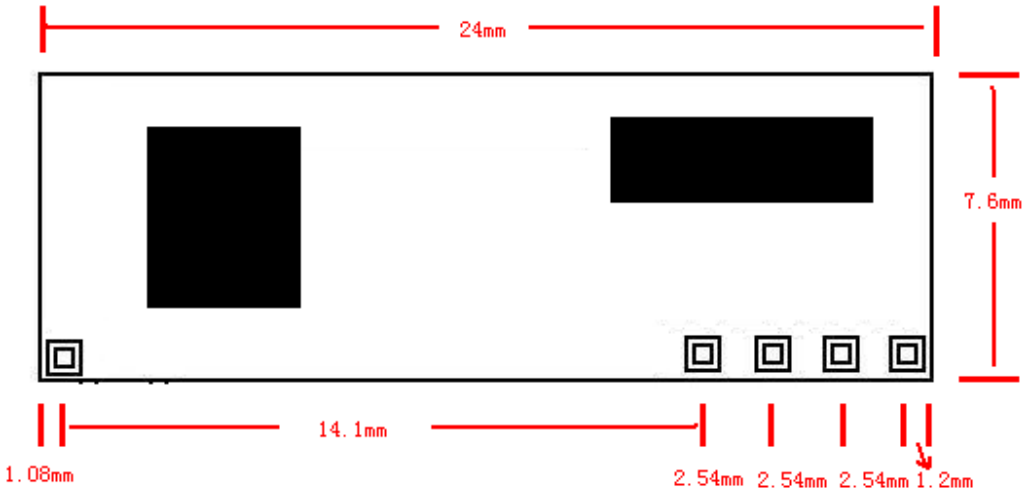
Test under 5V power supply 25℃ temperature 315MHz frequence condition.

Parameter	Symbol	State	Reference Value			Unit
			Mini	Typ	Max	
Operating Frequency	Fc		314.90	315.00	315.10	MHz
Modulation Mode				ASK		
Receiving Sensitivity		50 ohm antenna direct input / 1k Kbps		-115		dBm
Receiving Bandwidth				200		KHz
Operating Voltage			1.8	5.0	5.5	V
Operating Current	IRC		4.5	5.3	6.0	mA
Decoding output max voltage		RL=500K	1.8		5	V
Decoding output min voltage					0.5	V
Operating Temperature			-20		+70	℃

Test under 5V power supply 25℃ temperature 433.92MHz frequence condition.

Parameter	Symbol	State	Reference Value			Unit
			Mini	Typ	Max	
Operating Frequency	Fc		433.82	433.92	434.02	MHz
Modulation Mode				ASK		
Receiving Sensitivity		50 ohm antenna direct input / 1k Kbps		-115		dBm
Receiving Bandwidth				200		KHz
Operating Voltage			1.8	5.0	5.5	V
Operating Current	IRC		4.5	5.3	6.0	mA
Decoding output max voltage		RL=500K	1.8		5	V
Decoding output min voltage					0.5	V
Operating Temperature			-20		+70	℃

5.Module Outline Dimension



6.Module Name Explanation

RXB90-315M

RX. represent recieving

B90. represent the model no of the module

315M. represent the frequence of the module is 315MHz

Attention :

The driving current of the RXB90 module data output pin is weak. If the microcontroller is directly driven, the I/O port of the micro controller cannot be connected to a pull-up or pull-down resistor. The pull-up or pull-down resistor inside the microcontroller must also be set to a disabled state .

The allowable deviation of PCB size is plus or minus 3% .