



SHENZHEN
JMRTH TECH. CO., LTD

SPECIFICATION

RXB45 V3.0

ASK Superheterodyne wireless receiving module

V1.0

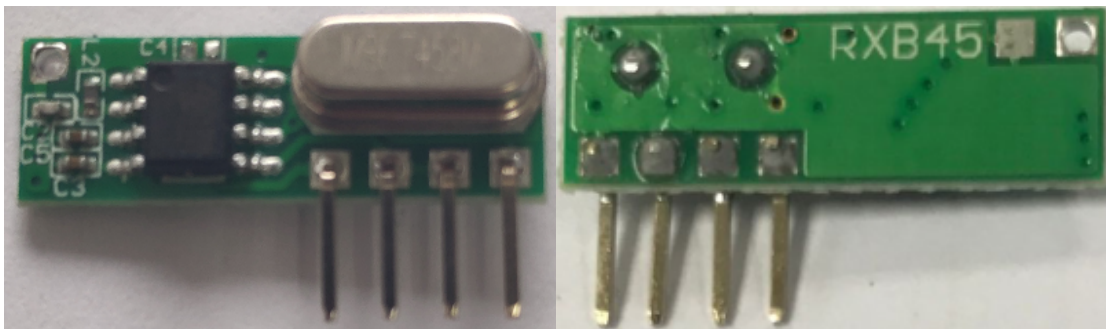
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1. Overview

RXB45 V3.0 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 Characteristics

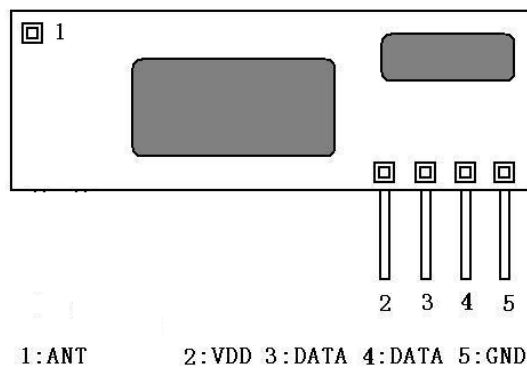
- (1) Receiving sensitivity up to -115dBm
- (2) Operating Frequency: 315 MHz; 433 MHz; (Special frequencies can be customized according to customer requirements)
- (3) Power supply voltage input range: 1.8V–5.5V;
- (4) Low power consumption, 5.0V @ 315MHz, 5.3mA; 5.0V @ 433.92MHz, 5.3mA, continuous data 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: $-20\text{--}70^{\circ}\text{C}$, capable of working normally even in harsh ambient temperatures;
- (8) $23 \times 7.5 \times 5$ (mm);



Application :

- (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	VDD	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°C temperature 315MHz frequency condition.

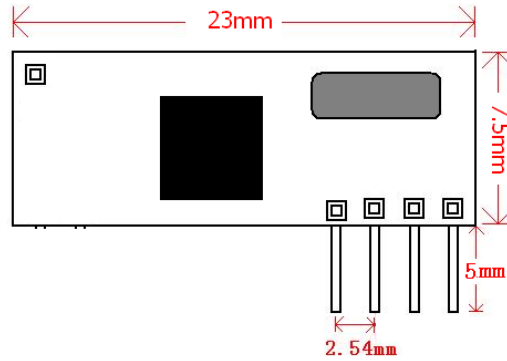
Parameter	Symbol	State	Reference Value			Unit
			Min	Typ	Max	
Operating Frequency	Fc		314.90	315.00	315.10	MHz
Modulation Mode			ASK			
Receiving Sensitivity		50 ohm antenna direct input / 1k Kbps		-115		dBm
Receiving Bandwidth				200		KHz
Operating Voltage			1.8	5.0	5.5	V
Operating Current	IRC		4.5	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	°C

Test under 5V power supply 25°C temperature 433.92MHz frequency condition

Parameter	Symbol	State	Reference Value			Unit
			Min	Typ	Max	
Operating Frequency	Fc		433.82	433.92	434.02	MHz
Modulation Mode			ASK			
Receiver 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	°C



5. Module Outline Dimension



6. Module Name Explanation

RXB45 V3.0-315M

RX. represent receiving

B45 V3.0. represent the model no of the module

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

Attention:

The driving current of the RXB45 V3.0 module data output pin is weak. If the microcontroller is directly driven, the I/O port of the microcontroller 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% .