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## Wireless Narrow Band Receiver Module (RF ASK)

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### Version History

Version	Date	Changes
V1.01	Nov. 23, 2009	1 <sup>st</sup> . Edition
V1.02	Mar. 08, 2010	2 <sup>st</sup> . Edition

### ➤Function Introduction

This wireless high-frequency receiver module RWS-434N is through WENSHING R&D team assembled many years of experience to develop this high sensitivity OOK receive module. Low cost, high stable also can provide the best RF solution in the market.

Design ideal is to use SAW filter, highly suitable for industry control or bad place for use, strong anti-jamming. Built-in automatic gain circuit (AGC), it will automatically change front-end LNA gain among received signal strength also makes signal output will not be strong or weak signals which caused by phase distortion, so that it can rise higher sensitivity. To receive the local oscillation circuit for the PLL lock loop design, no offset, and stability is high.

Frequency is 315MHz and receiver structure is super heterodyne, received signal is OOK. After received signal, it will output TTL signal to external decoder IC for decoding.

It is convenience to use in different products and external components is not necessary to make products be wireless also bring value-added for your products.

### ➤Model: RWS-434N-3

● 315MHz
● Build-in AGC
● Low Working Voltage 3.5V~5.5V
● Low Current 5.7mA
● High Sensitive -118dBm

### ➤Application

Security System

Wireless Remote Control Car

Wireless Remote Control Robot

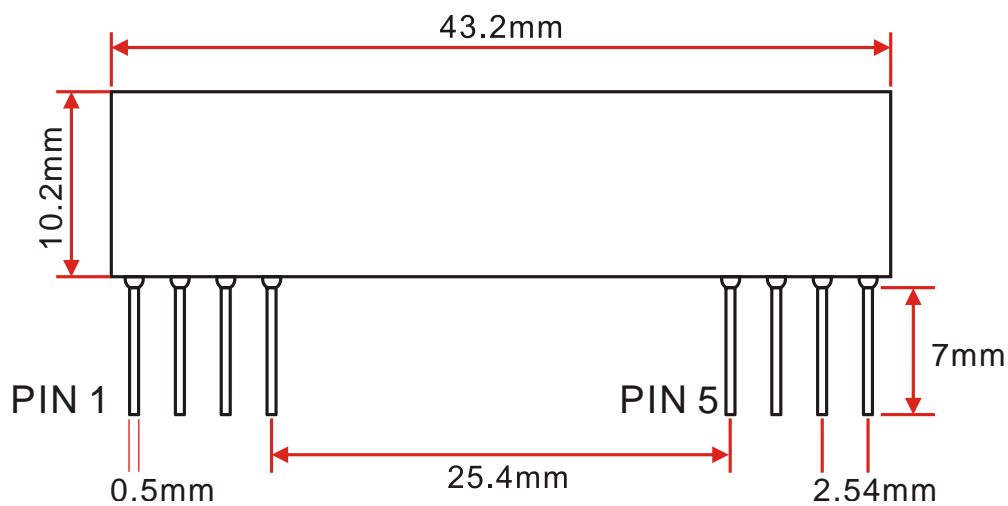
Automatic Power Switch Control

### ➤Electrical Specification

Parameter	Specification			Unit	Condition
	Min	Type	Max		
Frequency Range	314.70	315	315.30	MHz	
Receiver Sensitivity	-114		-118	dBm	
Data Rate	0.058		12	K Baud	
Supply Voltage, VDD	3.5		5.5	V	DC
Current	5.7		7.3	mA	
Operating Temperature	-20		+70	°C	

### ➤Size

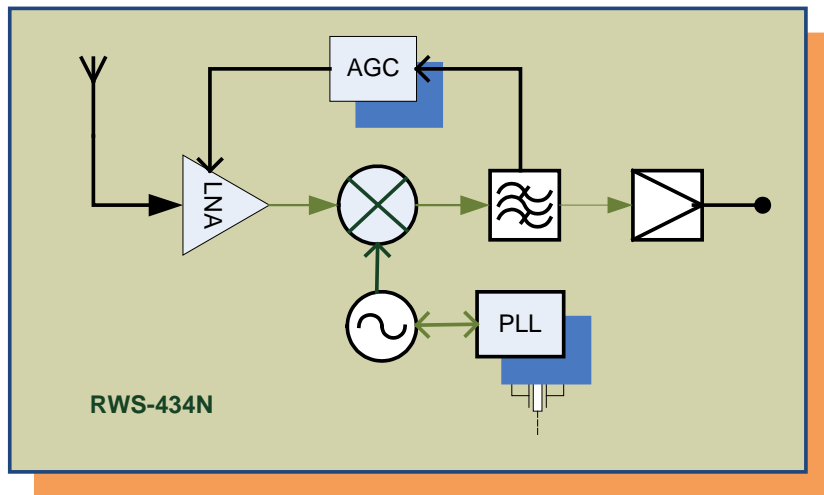
(unit: mm)



### ➤Pin Assignment

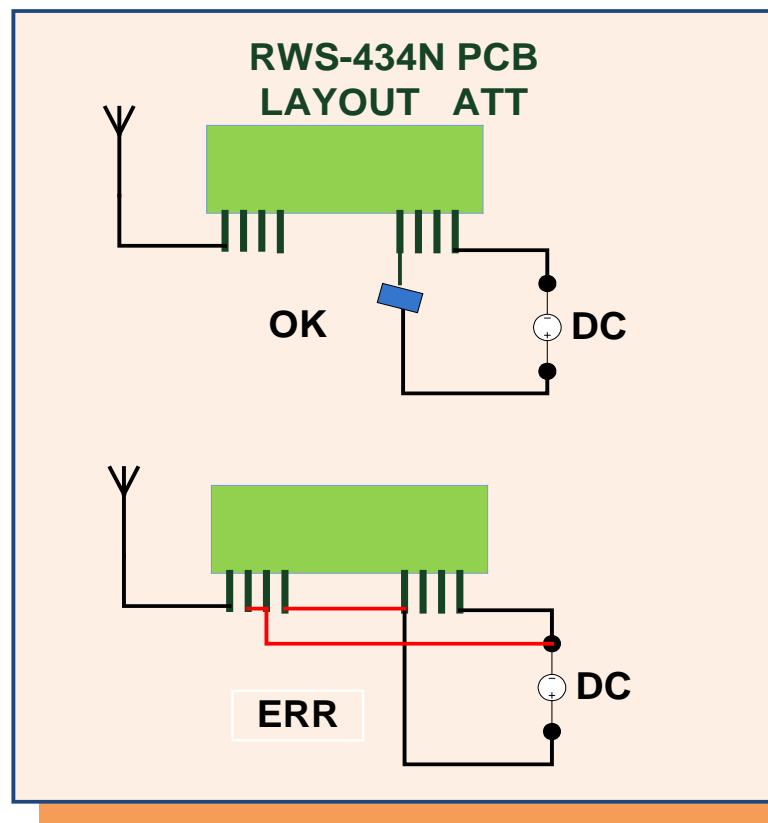
Pin	Pin Name	Description
1	ANT	RF Input
2	GND	RF GND
3	GND	RF GND
4	Vcc	Power Supply V+
5	Vcc	Power Supply V+
6	NC	--
7	DATA	Digital DATA Output
8	DGND	Power Supply GND

### ➤ Block Diagram

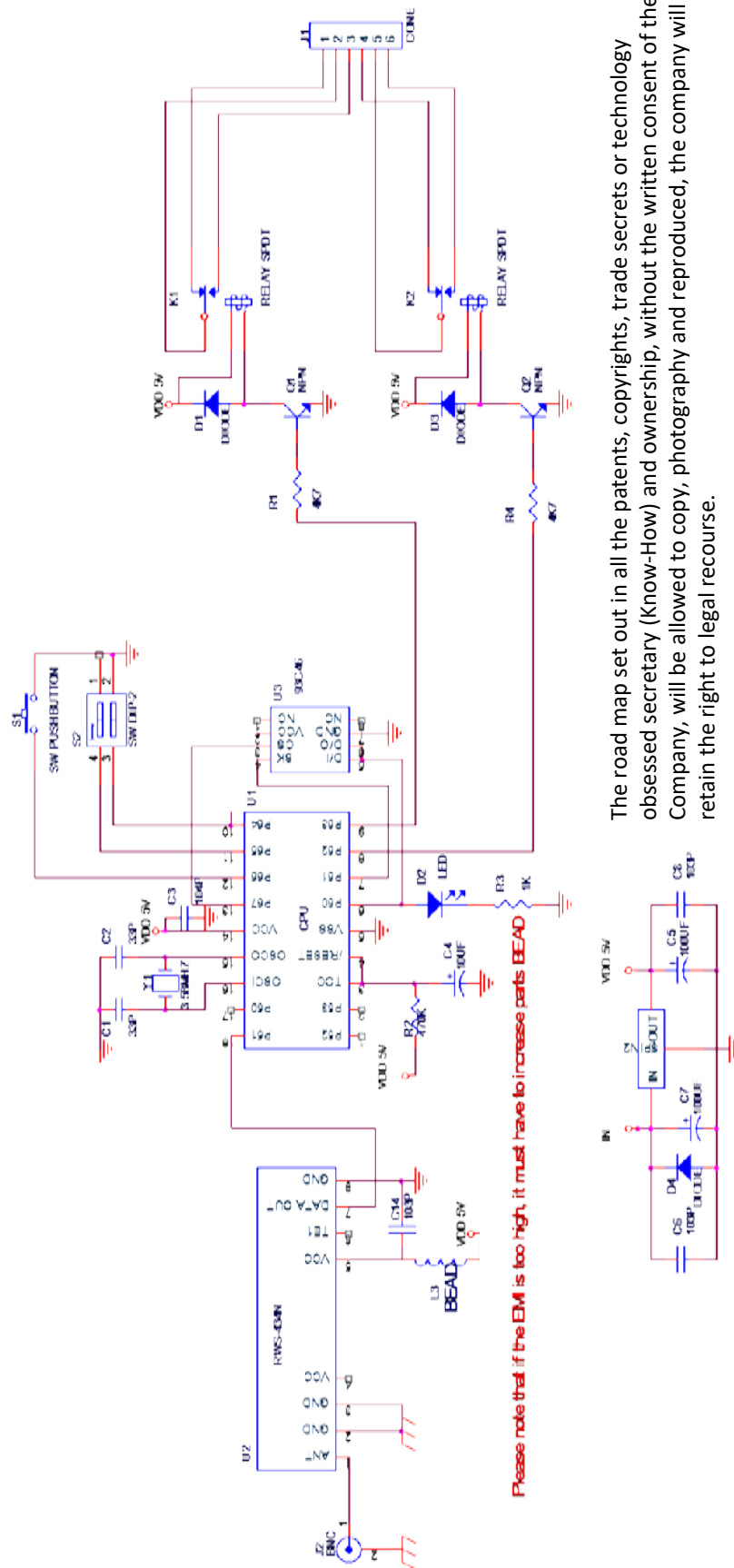


### ➤ LAYOUT Notice

Power supply is by 5PIN VCC and 8PIN GND provide electronic. Do not let DGND connect with RF GND to prevent MCU EMI interfere RF received signal. Please check example of design.



## ➤ Application Circuit



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