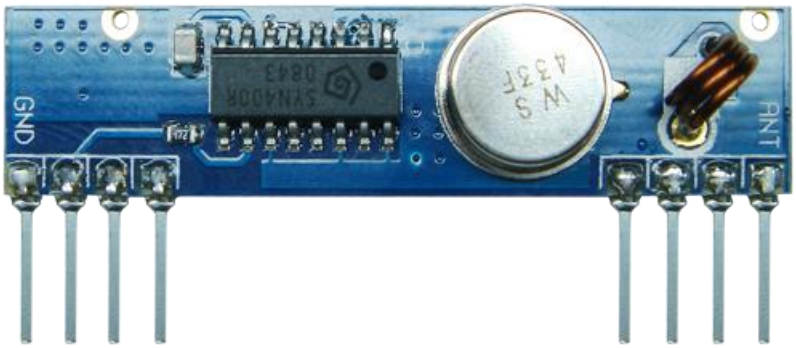
RWS-434N

WENSHING®©

V1.01

433.92MHz ASK RF Receiver Module



Data Sheet Revision History

Version	Date	Changes
V1.01	Mar 28, 2009	First Edition

➢ Key Feature

- Lost cost 433.92MHz Receiver Module
- Build-in AGC
- Low Working Voltage 3.5V~5.5V
- Low Current 5.7mA
- High Sensitive -116dBm

➢ Application

- Security System
- Wireless Remote Control Car
- Wireless Remote Control Robot
- Automatic Power Switch Control

➢ Electrical Specification

Parameter	Specification			Unit	Condition
	Min	Typ	Max		
Frequency Range		433.92		MHz	
Receiver Sensitivity	-116		-114	dBm	
Data Rate	0.058		12	KBaud	
Supply Voltage, VDD	3.5		5.5	V	DC
Current	5.7		7.3	mA	
Operating Temperature	-20		+85	°C	

➢ Function Introduction

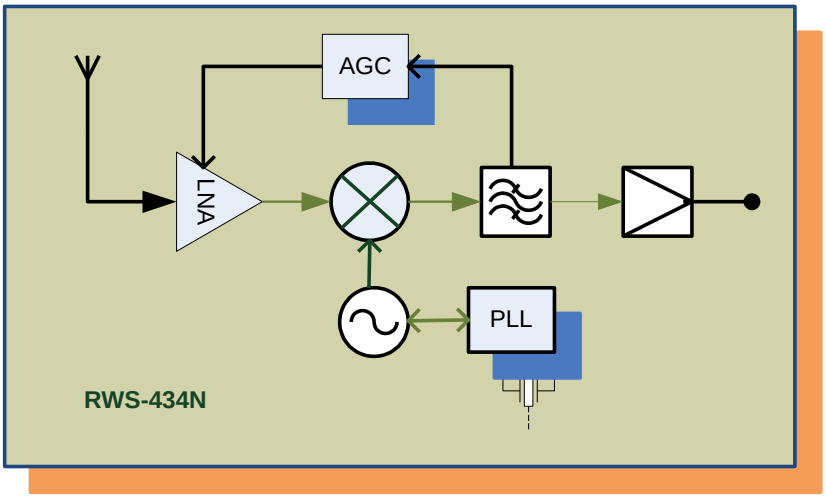
This wireless high-frequency receiver module RWS-434N is through WENSHING R&D team assembled many years of experience to develop this high sensitivity OOK receive module. Lost cost, high stable also can provide the best RF solution in the market.

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 433.9MHz and receiver structure is superheterodyne, 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.

➢ Internal Block Diagram

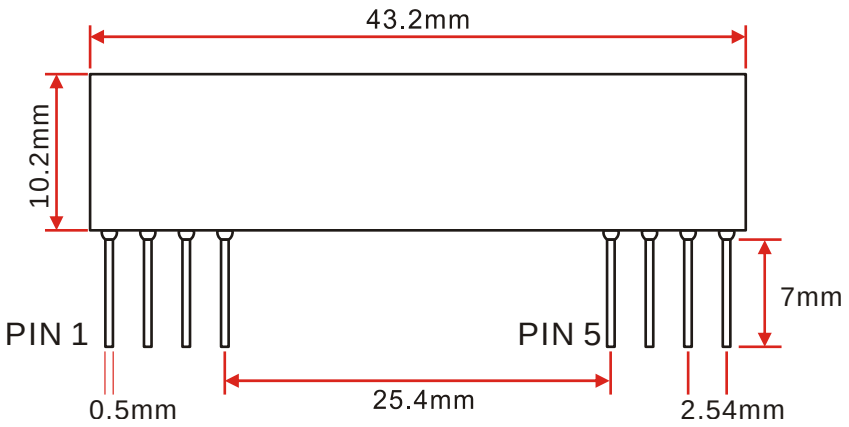


➢ Pin Assignment

Pin No.	1	2	3	4	5	6	7	8
Pin Name	ANT	GND	GND	VCC	VCC	NC	DATA	DGND
Description	RF Input	RF GND	RF GND	Power Supply V+	Power Supply V+		Digital DATA Output	Power Supply GND

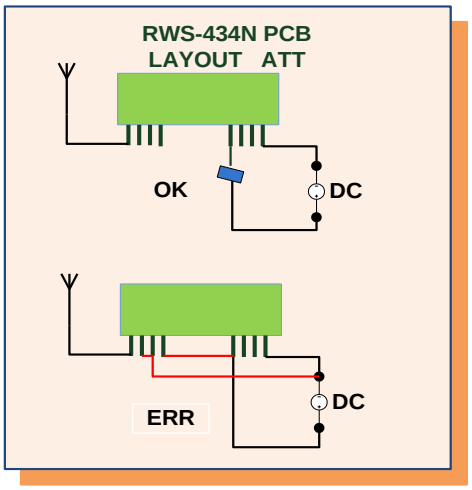
➢ Size

(unit: mm)

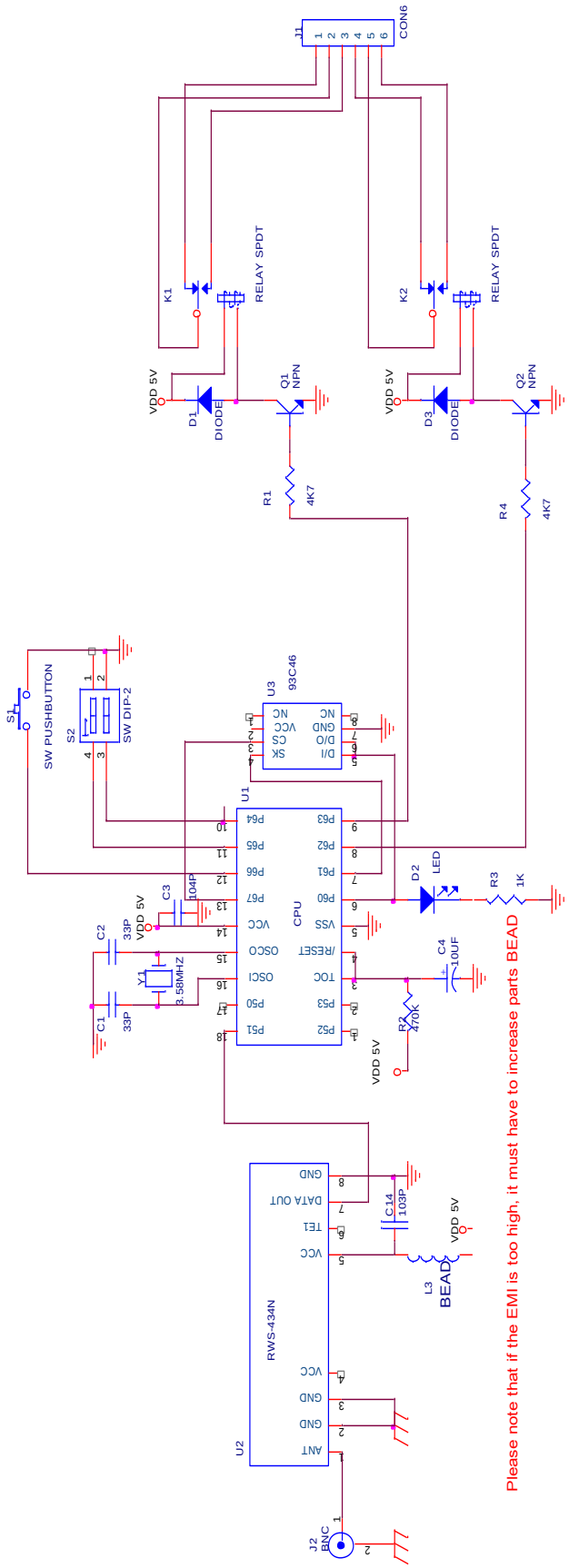


➢ LAYOUT Notice

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



Please note that if the EMI is too high, it must have to increase parts BEAD