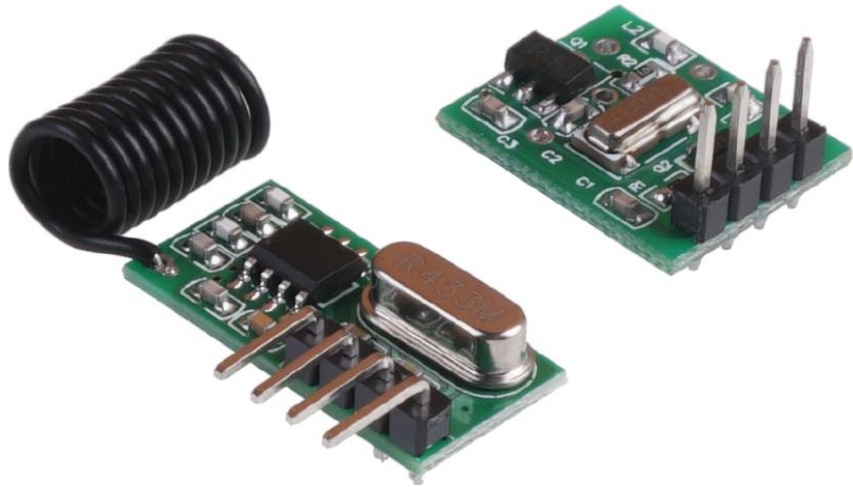


## Superheterodyne wireless transceiver module-433MHz

SKU 114992733

This is a complete wireless transmitting and receiving kit, which can be applied to simple data wireless transmission, wireless remote control, anti-theft alarm system, etc. The kit is composed of ASK transmitter and receiver modules with superior performance and low cost. The carrier frequency is 433MHz.



## PRODUCT DETAILS

### Features

- Low power consumption: 3.3V about 3.8mA / 5V about 4.2mA ( 315MHz)
- High receiving sensitivity: -109dBm@10kbps
- Wide temperature range: -40~85°C
- Flexible application,breadboard and PCB friendly
- Strong radiation suppression ability:no mutual interference, no influence on receiving distance.

### Description

This is a complete wireless transmitting and receiving kit, which can be applied to simple data wireless transmission, wireless remote control, anti-theft alarm system, etc. The kit has a simple structure and flexible application, and can be directly applied to the design and experimental development of various products.

The popular link is like this: MCU -> Encoder -> Transmitter ----- Receiver -> Decoder -> MCU.You can use this kit to build a system with other main control equipment, such as Arduino,Seeeduno XIAO, to implement applications such as wireless security alarms, remote control tools, and so on.

The following is the introduction of the transmitter and receiver respectively.

### **[Transmitter]**

In the wireless transceiver kit, the wireless transmitter module model is APF03, and its working voltage range is 3-12v. It adopts OOK modulation mode, which has the advantages of fast modulation rate and long transmission rate.

OOK (on-off keying) is binary switching keying. The modulation principle is to control the passage of the carrier by controlling the opening and closing of the switching device through the binary sequence, so as to load the binary signal onto the carrier. It is a low-cost and most easily implemented modulation method, which is widely used in various occasions.

### **[Receiver ]**

In addition, the model of the decoding wireless receiving module is RXB28, and the working frequency is 315MHz or 433.92MHz. The recommended power supply input is 5V. At this time, when the operating frequency is 315MHz, the current can be as low as 4.2mA, and the power consumption is very low.

The receiving structure of this module is a superheterodyne method, receiving OOK wireless signal. After receiving the signal, it will directly output the COMS signal to the external IC for decoding. It has good local oscillator radiation suppression capability and can work with multiple receiving modules.

### **Application**

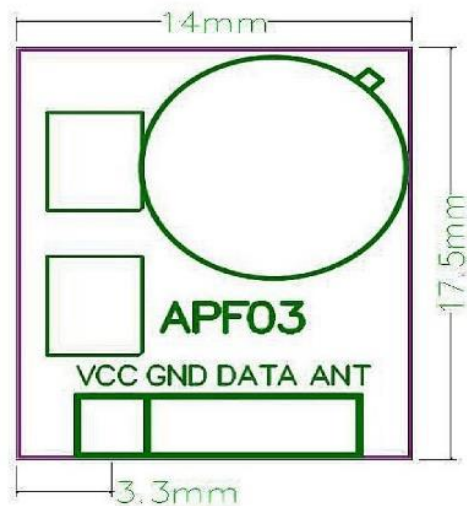
- Car remote control door switch (RKE)
- Remote access control
- Wireless security alarm
- Remote control curtain machine
- Wireless industrial controller
- Wireless data transmission
- Wireless remote control robot

## Specification

Parameter	Description
Working voltage	Transmitter(3-12V),Receiver(3.3-5V)
Working current	Transmitter : $\max \leq 35\text{mA}(12\text{V}) \cdot \min \leq 2\text{mA}(3\text{V})$ Receiver : $\max \leq 4.5\text{mA}(5.5\text{V}) \cdot \min \leq 3.8\text{mA}(3.3\text{V})$
Principle of work	Superhet ( VCO, PLL )
Modulation	OOK/ASK
Working band	315MHz ; 433.92MHz (customize service available)
Sensitivity	-109dBm (50Ω)
Modulation rate	< 10Kbps
Decoding form	IC decoding
Temperature range	-40~85°C

## Product drawings and pin information

### Transmitter

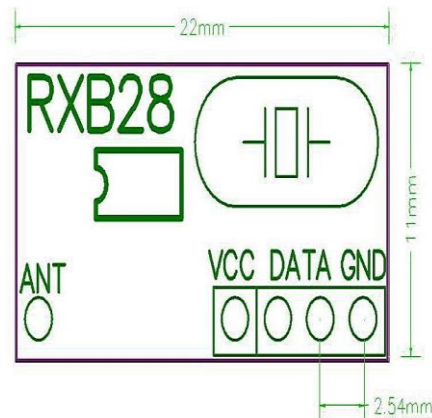


The pins are arranged from left to right as follows:

Pin	Name	Function declaration
1	VCC	Positive pole
2	GND	Negative pole
3	DATA	Signal pin
4	ANT	Antenna pin

The transmitter module has a small volume and a standard 2.54 spacing for convenient installation.

### Receiver



The pins are arranged from left to right as follows:

Pin	Name	Function declaration
1	ANT	Antenna pin
2	VCC	Positive pole
3	DATA	Signal output
4	DATA	Signal output
5	GND	Negative pole

## Technical Details

Dimensions	50mm x29mm x9mm
Weight	G.W 5g
Battery	Exclude

## Part List

Transmitter module	1
Receiver module	1

## ECCN/HTS

HSCODE	8517709000
USHSCODE	8517180050
UPC	841454112822

