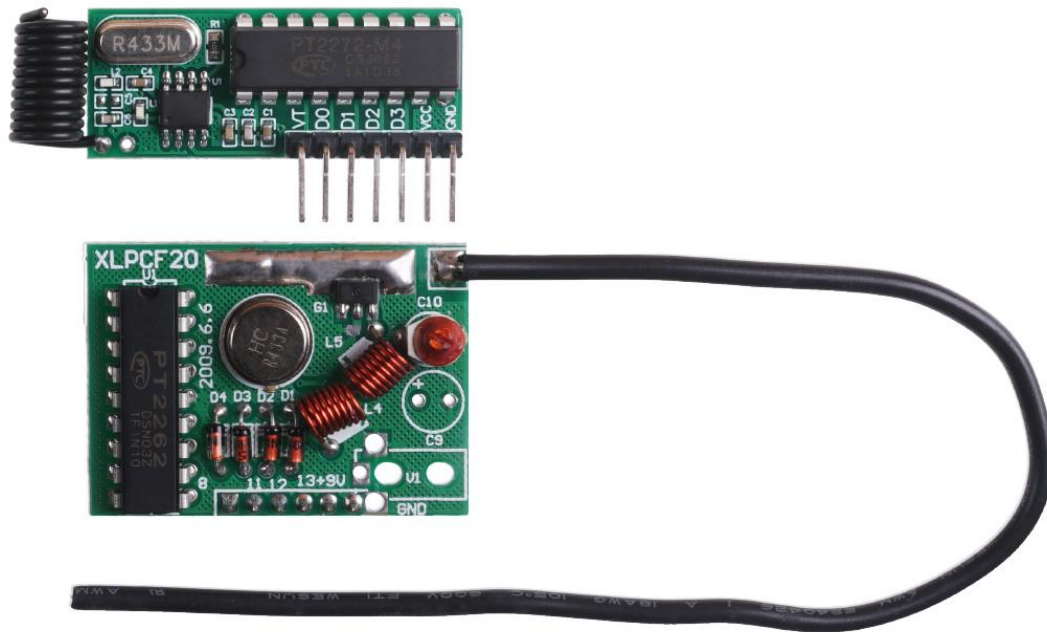


RF Transmitter and Receiver Link Kit - 315MHz/433MHz



This is an ultra-long-distance 315MHz or 433MHz radio frequency link set, with VCO and PLL technology, stable frequency and strong anti-interference ability. You can directly use it for your projects, such as wireless data transmission and remote control.

Features

- Low power consumption: 5V about 6.0mA / 3.3V about 5mA
- High receiving sensitivity: -110dBm@10kbps
- Long emission distance: 2km(Open area without interference)
- Wide temperature range: -20~75°C
- Flexible application,breadboard and PCB friendly
- Strong radiation suppression ability:no mutual interference, no influence on receiving distance.

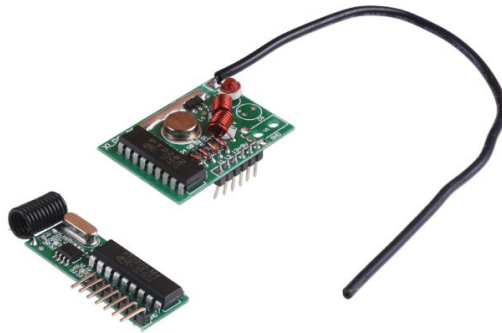
Specifications

Parameter	Value/Range
Operating voltage	Transmitter(3-9V),Receiver(3-5V)
Working current	50mA(9VDC)
Principle of work	Superhet (VCO, PLL)
Modulation	OOK/ASK
Working band	315MHz ; 433.92MHz (customize service available)
Operation Temperature	-20°C to +75°C
Bandwidth	200KHZ
Sensitivity	-110dBm (50Ω)
Modulation rate	< 10Kbps
Decoding form	PT2272
Antenna length	18cm(Tx) 、 24cm (Rx)
Emission Distance	2KM(Open area without interference)
Working Output Modes	Unlocked, interlocked, self-locked

Application Ideas

- *Automobile remote control door switch*
- *Remote control door opener*
- *Wireless security alarm*
- *Remote control curtain machine*
- *Wireless industrial controller*
- *Wireless data transmission*
- *Wireless remote control model*
- *Wireless toys control*

Hardware Overview



1. Transmitter-Pin interface: 7PIN (pitch: 2.54mm) 2. Receiver-Pin interface: 7PIN (pitch: 2.54mm) 3. Transmitting antenna (Antenna should be straightened during usage.) 4. Spring receiving antenna

Getting Started

Here, we will use an RF transceiver kit, an LED, a switch button, a development board to provide power, and some wires to achieve a simple demo of wireless control LED on and off.

- **Step 1.** Prepare RF transceiver kit, wires, breadboards or development boards, and other components related to the functions you want to implement.

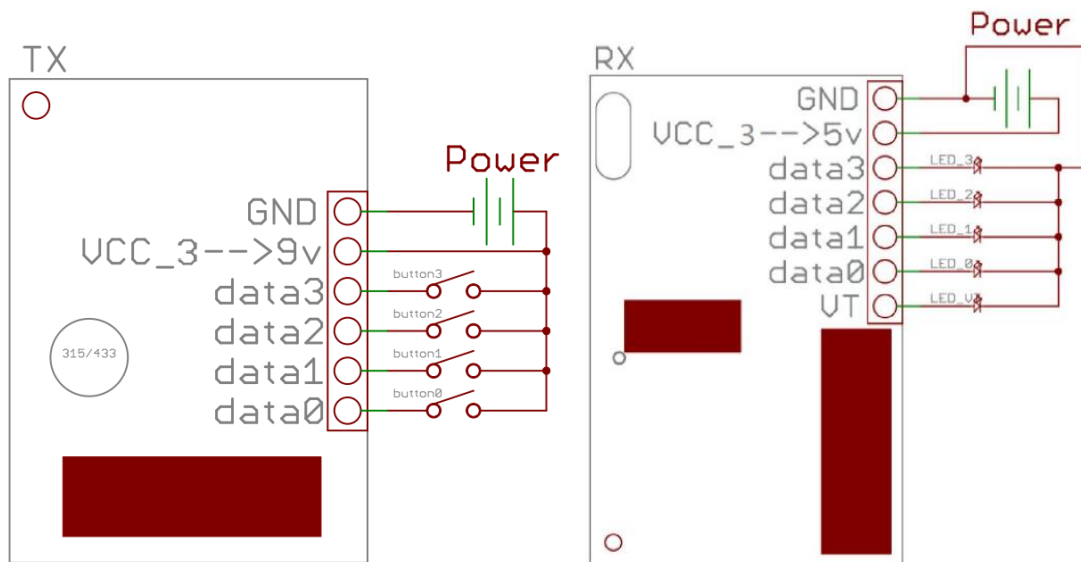
Take our simple wireless lighting control demo as an example, we will use:

Name	Value
RF transceiver kit	*1
Breadboards	*1
LED	*1
Key switch	*1
Seeeduino XIAO	*1
Wires	Some

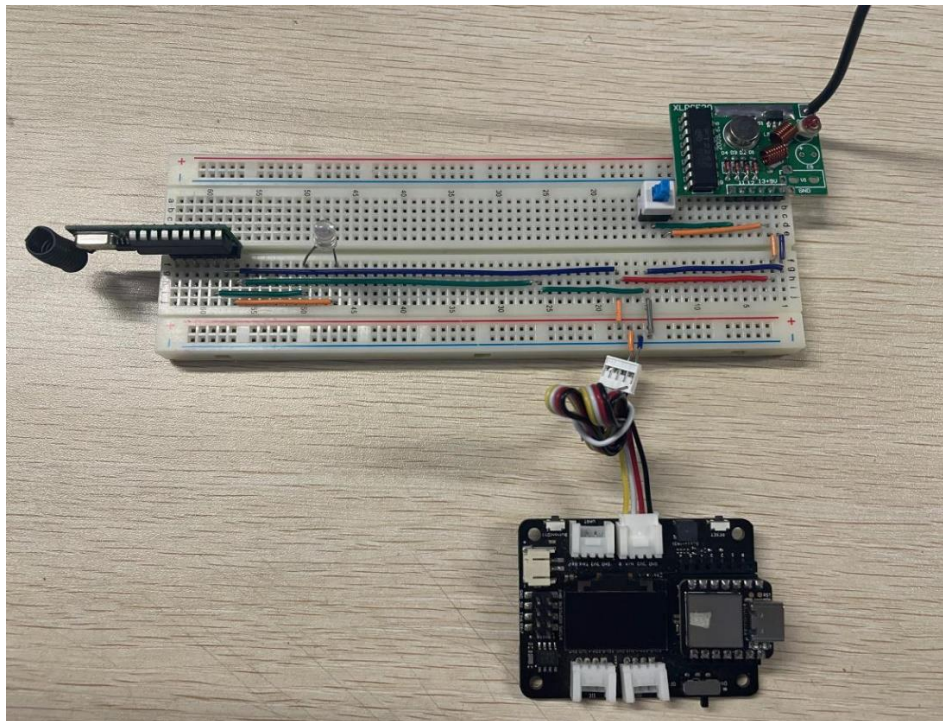
- **Step 2.** Follow the instructions below to connect the circuit system.

Note: All signal ports are used in the diagram below, but the actual circuit connection we give uss only one port.

Connection diagram

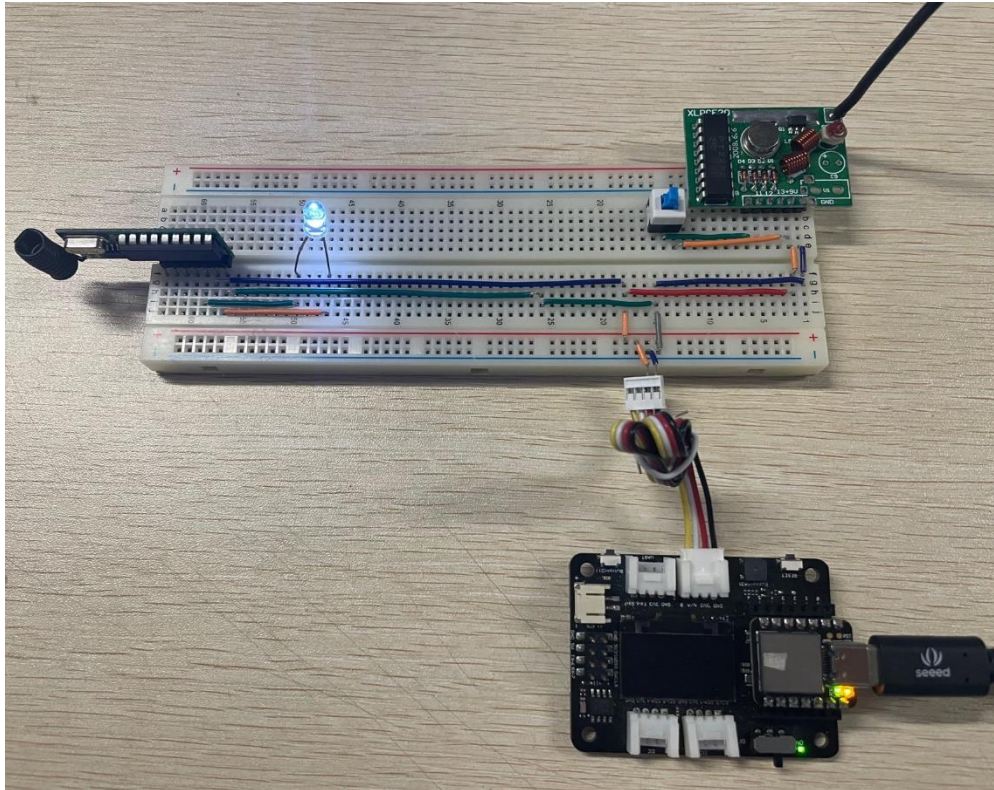


Actual circuit connection diagram



Note: In this RF wireless lighting control demo, we use the development board Seeeduno XIAO (3.3V output) as the common power supply system, and build the transmitting module and receiving module on the same board. In practice, the remote transceiver module is usually powered by their own power supply. For example, you can directly use battery pack power supply.

- **Step 3.** To supply power to the system, press the button switch.



Note: You can change the LED light in the RF wireless light control Demo to the object you want to control, and use multiple signal ports to achieve wireless control of a variety of signal systems.

You can also use the Seediino XIAO in the demo to achieve more functions, such as connecting a light sensor to make the light go on and off and the brightness of the light be controlled wirelessly according to the intensity of the light. This process can send signals without manual operation.

Resources

- **[Datasheet]** [Datasheet for PT2272 and PT2262](#)

Tech Support

Please submit any technical issue into our [forum](#).