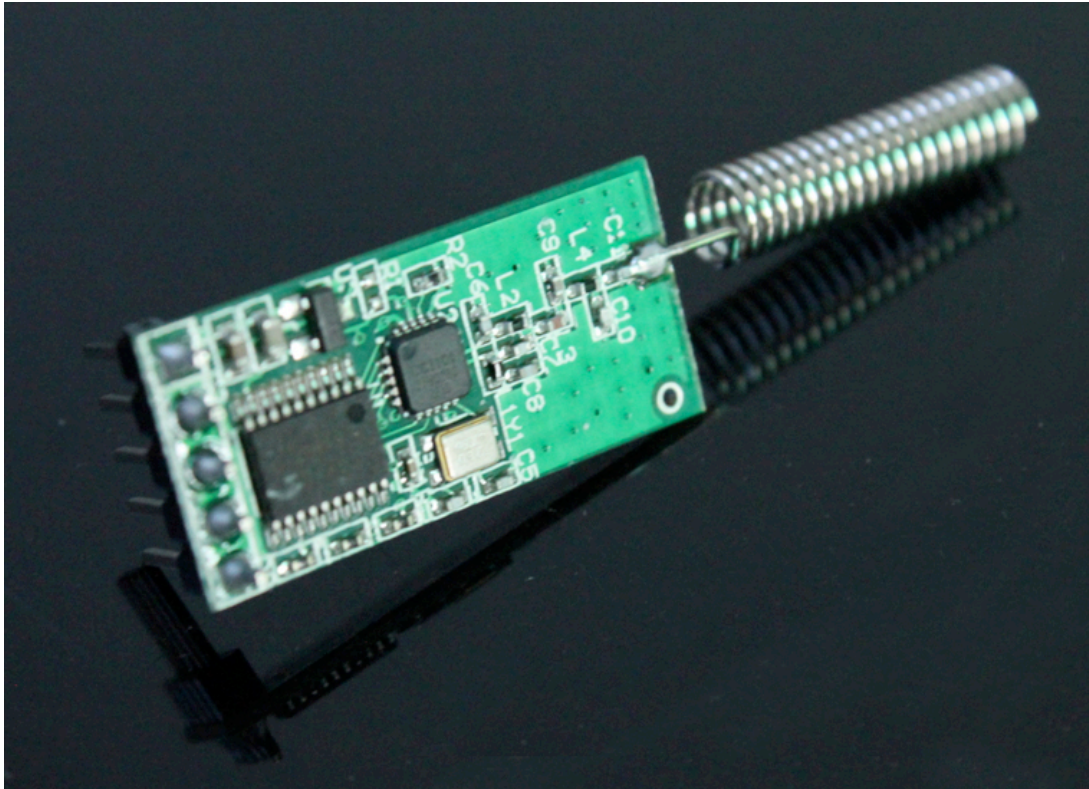


## Wireless Module Serial UART (200M Range-433 Mhz)



### **Description**

This is a serial UART wireless module, 200 m distance range and 433 Mhz frequency.

This module is very similar to zigbee but much cheaper, we call it poor man Zigbee. It is easy to use with micro-controller/Arduino through TX and RX pins, just like Zigbee and using serial commands.

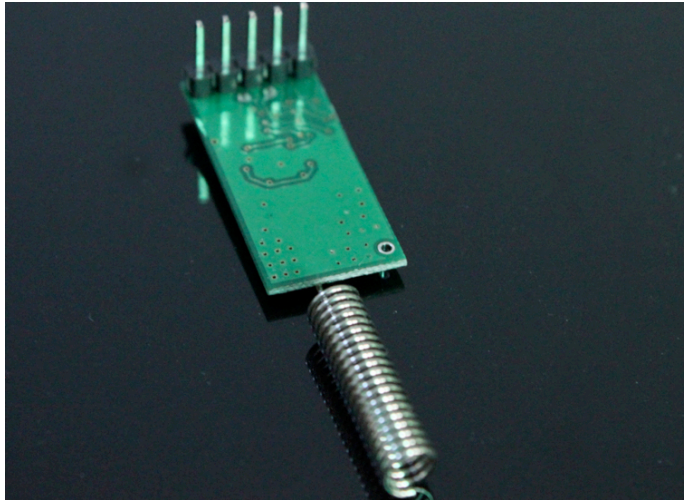
Also (like Zigbee) you can adjust the wireless module parameters (baud rate, channel, and power dBm) by connecting the module to pc usb port using our [Zigbee-USB adapter](#) and you can write the AT command using hyper-terminal

The Module is based on texas instrument CC1101 chip ([check datasheet](#)). It can work as one to many. We have worked out this wireless module with arduino and made a simple code.

## Features

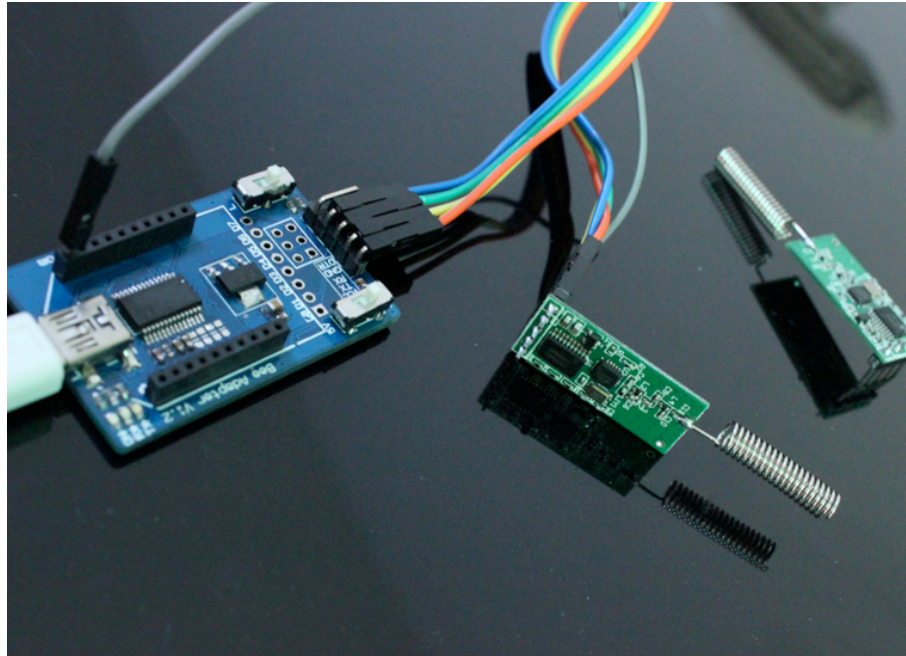
- One to many, works like walkie-talkie.
- Serial UART, Can work directly with your Micro-controller or Arduino TX/RX
- TI cc1101 wireless transceiver plus LV-TTL UART interface. 100m open space wireless range. Half duplex operation.
- Easy to use (as easy as Zigbee)
- 3.3V-5V operation.can operate directly with USB power.
- Default 9600 baud. Can operate at higher speed but with the expense of more error and shorter range. Baud rate/channel can be modified using specific AT command.
- You can change the wireless module parameters (baud rate, channel, and power dBm) by AT command
- Size:13.5×28.2mm

## Pin Definition



- 1: Power, 3.3 V to 5 V. (this pin is marked by white square)
- 2: Gnd.
- 3: RX (TTL)
- 4: TX (TTL)
- 5: PIN5 is the AT Control mode, Pull up to high or NC will make module work as normal, When connect to low, it will enter the AT Command mode. ( High level enter AT mode)

## AT Command mode (readjusting module settings)



Use [Zigbee-USB adapter](#) to connect wireless module to your pc USB port. Open the hyper-terminal and write the At command you wish to use

### Default

you can direct use two or more wireless module send data by Serial/UART. Just keep wireless module three parameter the same each other:

Baud rate: 9600

Channel : 001

Address : 000

## **1. AT**

Send this command, will return to OK characters.

Example: hair AT return OK

## **2. AT + V**

Module to return to version information.

Example: hair AT + V to return to HC-11 \_V0.0

## **3. AT + Bxxxx**

The baud rate set to XXXX. This value is 0960 0192 00384 00576 2400480 00115 200.

Ex 1: hair AT + B4800 return OK-4800

Example 2: hair AT + B115200 return OK-115200

## **4. AT + Cxxx**

Setting wireless module. From 001 to 127 can be chosen.

Example: hair AT + C058 return OK-058

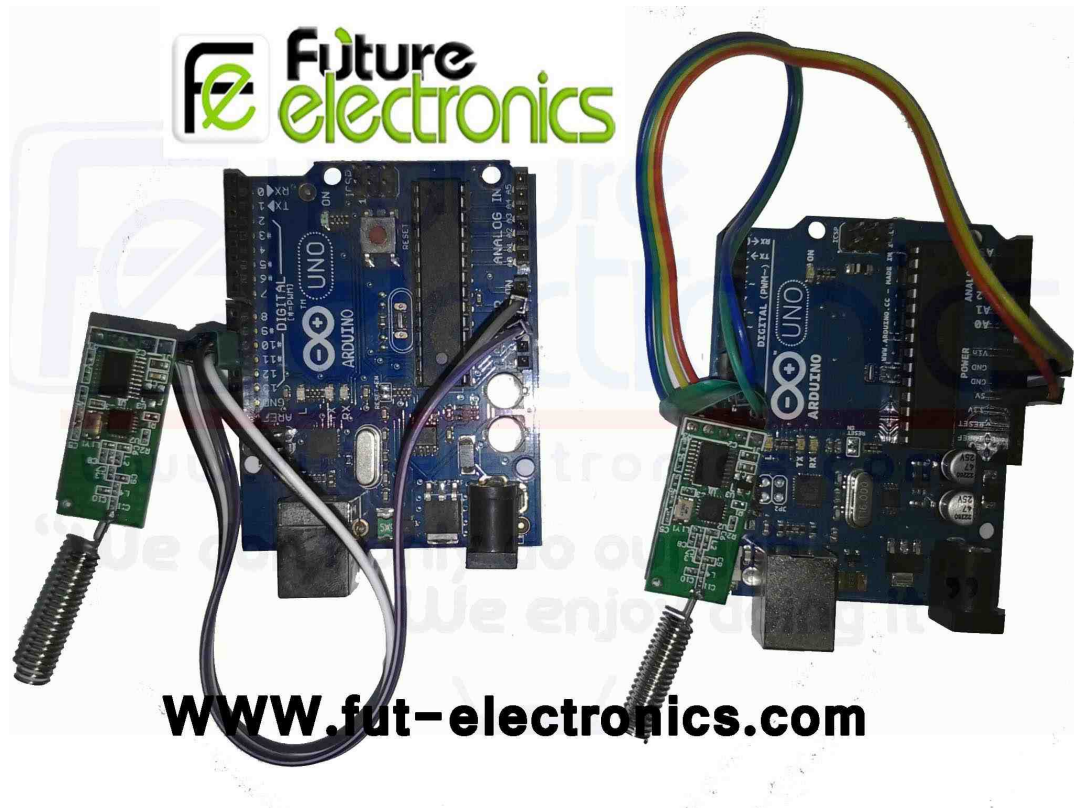
## **5. AT + Axxx**

Setting wireless module address. From 000 to 255 can be chosen.

Example: hair AT + A123 return OK-A123



## How to use with Arduino and Code



Connect wireless module Pin1 to Arduino VCC  
Connect wireless module Pin2 to Arduino GND  
Connect wireless module Pin3 (RX) to Arduino digital pin 11  
Connect wireless module Pin4 (TX) to Arduino digital pin 10  
Pin5 not connected

Code :

```
#include <SoftwareSerial.h>
```

```
SoftwareSerial mySerial(10, 11); // RX, TX
```

```
void setup()
```

```
{
```

```
  // Open serial communications and wait for port to open:
```

```
  Serial.begin(57600);
```

```
  Serial.println("Goodnight moon!");
```

```
  // set the data rate for the SoftwareSerial port
```

```
mySerial.begin(4800);  
mySerial.println("Hello, world?");  
}
```

```
void loop() // run over and over  
{  
  if (mySerial.available())  
    Serial.write(mySerial.read());  
  if (Serial.available())  
    mySerial.write(Serial.read());  
}
```