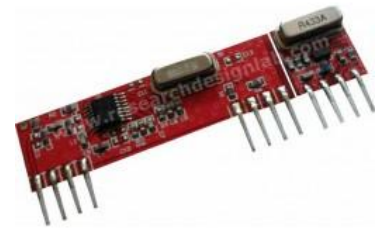


RF Module

The TX is an ASK transmitter module .The result is excellent performance in a simple-to-use .The TX is designed specifically for remote-control , wireless mouse and car alarm system operating at 315/433.92 MHz. The RX is a miniature receiver module that receives On-off keyed modulation signal and demodulated to digital signal for the next decoder stage. The result is excellent performance in a simple-to-use ,with a low external component count. The RX is designed specifically for remote-control and wireless security receiver operating at 315/434Mhz.



Features

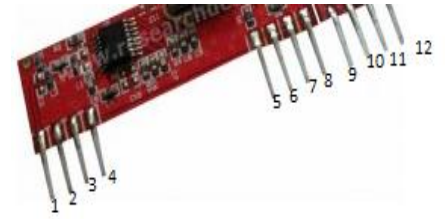
- Easy to use.
- TX:**
- Power supply and/or modulation input voltage : 2.2 to 5.5v.
 - Operating temperature: -40 to +80C.
- RX:**
- Power supply and/or modulation input voltage :.5v.
 - Operating temperature: -20 to +80C.

Applications

- Vehicle monitoring.
- Radio tags reading.
- Wireless fire protection systems.
- Digital home automation.

Pin Details

Pin	Name	Details
1	GND	Ground
2	data	data
3	NC	NC
4	Vcc	Power supply
5	Vcc	Power supply
6	GND	ground
7	GND	ground
8	ANT	antenna
9	GND	ground
10	data	data
11	Vcc	Power supply
12	ANT	antenna



Working

The RF module, as the name suggests, operates at radio frequency. The corresponding frequency range varies between 30 kHz & 300 GHz. In this RF system, the digital data is represented as variations in the amplitude of carrier wave. This kind of modulation is known as Amplitude Shift Keying (ASK). Transmission through RF is better than IR (infrared) because of many reasons. Firstly, signals through RF can travel through larger distances making it suitable for long range applications. Also, while IR mostly operates in line-of-sight mode, RF signals can travel even when there is an obstruction between transmitter & receiver. Next, RF transmission is more strong and reliable than IR transmission. RF communication uses a specific frequency unlike IR signals which are affected by other IR emitting sources.

This RF module comprises of an RF transmitter and an RF receiver. The transmitter/receiver (Tx/Rx) pair operates at a frequency. An RF transmitter receives serial data and transmits it wirelessly through RF through its antenna connected at pin4. The transmission occurs at the rate of 1Kbps - 10Kbps. The transmitted data is received by an RF receiver operating at the same frequency as that of the transmitter.

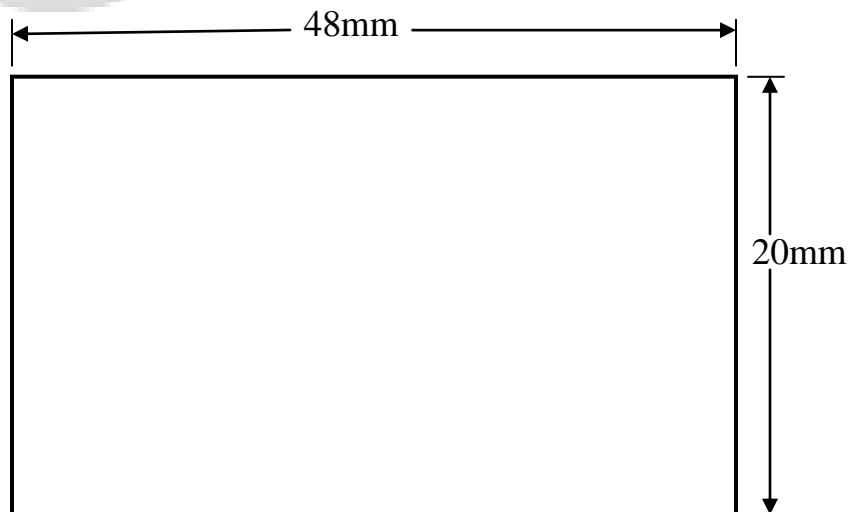
The RF module is often used along with a pair of encoder/decoder. The encoder is used for encoding parallel data for transmission feed while reception is decoded by a decoder.

Sample Application

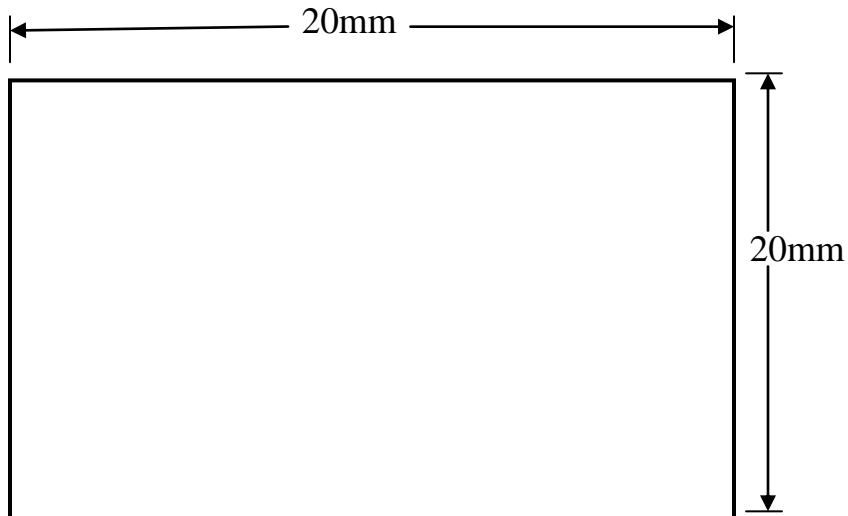
To view sample code and schematic click the below link:

<http://researchdesignlab.com/index.php/modules/rf-module-75.html>

Board Dimensions: RF Transmitter



RF Receiver



To buy this product click the below link:

<http://researchdesignlab.com/index.php/modules/rf-module-75.html>