

# **1. Introduction**

- a. Four RC cars can be played individually in same frequency band
- b. Using Timing sharing for data transmission
- c. Using 4 different ID to distinguish from 4 different RC cars
- d. 4 functions including forward, backward, left and right

## **2. TX (49MHz)**

TX is supplied by a 9V battery and regulate 5V to the IC GPRC11A-005C. There is a four position selector S5 to select different ID for the TX. In the TX, there are four function keys S1, S2, S3 & S4 to control the RC car (left, right, backward & forward). The modulating signal from IOC1 of GPRC11A-005C will be modulated by carrier frequency 49.86MHz. The modulated signal will be amplified and pass through Q2 & matching network to antenna. The matching network consists of L3, C10 & L4.

## **3. RX (49MHz)**

RX is supplied by AAx3 batteries to the IC GPRC11A-006C. There is a four position selector

J1 to select different ID for the RC car. The modulated signal is received by the antenna and demodulated. The demodulated signal will be amplified through Q2 & Q3 to GPRC11A-006C for decoding. The outputs will control two motors driving left & right and forward & backward respectively.]