

Circuit Description (Remote Control)

- Transmitter -

- Remote control inputs Data Bit of Transmitter into D1 Frequency Modulator through R1, sensing EPROM (PIC16C924) by pressing one of sw1, sw2, sw M. sw S.
- At same time, EPROM activates power through Q1 and oscillates Crystal X1. Oscillating Frequency is 48.213333Mhz.
- Crystal X1 is oscillated by Q1 and L3/C6 is synthesized with 1st-over-tone $f/3$ among oscillating Frequencies, $f/3$ Frequency is 144.64Mhz.
- After $f/3$ Frequency passes through $f/3$ Frequency Filter which consists of L6/C14, it is transformed to 1st-over-tone by Q3, gaining $f/0$ Transmission Frequency. It accumulates total 3rd-over-tone, $f/0$ Frequency is 433.920Mhz.
- $f/0$ Frequency is amplified by Amplifier Q9 after it passes through $f/0$ Frequency Filter

- Receiver -

- The Receiver of Remote control receives data of 433.920Mhz through Antenna and Q7,Q8,R22,R23,L18, amplifies 433.920Mhz Frequency without Harmonic.
- This Frequency filters again Harmonic by C52,L19,C51,C50,L16.
- The Data of this Frequency is input into Intermediate Frequency (21.4Mhz) R,21,R19,Q6,R20,C44, with the Frequency(421.520Mhz) oscillated locally.
- The Data made by Intermediate Frequency is input into Receiving Interface Control IC.
- This IC is demodulated, detected and amplified, inputting FSK Data into Micro Controller (16C924)

