

MODEL NO. CR-210

FCC STANDARD

CIRCUIT DESCRIPTION

FRS Band FM Mode Transceiver.

The main characteristic of the FRS band transceiver presented as below is the simplicity, but in the same time giving a good performance and minimum components. The FM receiver is based on the FM IF-Amp IC LS3361 (U2). This IC have IF amp, double conversion, FM demodulator & squelch control inside. Rx starting from the antenna switch of D1 & D2 to RF Front Amp. (Q4), Mixer Amp. (Q6). The Rx signal is amplified & mixed by Q6 then foreword to the U2 pin 16 & demodulated out from the U2 pin 14, so the very weak demodulated signal will amplifier by the Audio Amp. IC UTC8602 (U1) & output to the Speaker.

The FM transmitter OSC is starting of the X'tal (Y1) & Variable cap diode (D3) working in a range of 462MHz using Y1 which select the sixth harmonic. IC (U3) is RF power amplifier. That operation voltages at dc 5V & currents dc 40mA. The X'tal (Y1) also determining and stabilizing the main frequency. Suppress the spurious radiation control by C1, C2, C3, C4, C6, & L1, L2. The limiting modulation & limiting Power control by Q7 & U1. The voice pick-up from the Microphone then amplifier by U2 & modulated of TX RF carrier. So the modulated TX carrier will amplifier by Q1, Q2 & U3 then transmitted out to the antenna port.