

Circuit Description for RC roboscorpion

Transmitter

Drawing ref : 27.145MHZ TX

U1 (TX) is a 5 functional remote encoder IC. It's work with Q1,Q2, X1 and other components combined as RF transmitter circuit. The U1 pin 14,1,4 and 5 control left , right, backward , forward and encoding signal output respectively.

Data output from pin 8 and modulate with 27.145MHz oscillator that achieved by Q1, R4, R6, C4 , C5 , X1 and L1. RF power amplifier Q2, L2, C3, C7, is use to enlarge the transmission range, the output frequency through L3 .

The unit makes use of external antenna. The antenna is inductively coupled. The unit relies on the ground tract of the printed circuit board. No external ground is provided. Energy is supply by with four 1.5 volt "AA" battery.

Q3, Q4, Q5, D1 and other components combined as timer and charging circuit.

Q3, Q4, D1, R9 and C11 is a timer circuit and Current amplifier Q5 and R15 is use to charge the battery.