

Circuit Description for Model 37032

IN TRANSMIT MODE

When the control knob is pressed, a signal is transmitted. The crystal controlled oscillator.

Q1 output is coupled through C4 to the base of Q2 and the Q2 is a modulator & RF AMP, the RF signal is coupled through C8 to the LOW PASS FILTER MADE UP OF C9 & L4, L4 connected to the ANTENNA.

THE MODULATION IS PROVIDED BY IC1,

ENERGY IS SUPPLIED BY 3pcs of 1.5VDC AAA Battery

IN RECEIVE MODE

Q1 IS THE Superregenerative detector

IC1 IS THE SIGNAL DECODER AND the signal amplifier

IC2 is the motor driver.

ENERGY IS SUPPLIED BY 4pcs of 1.5VDC AA Battery.

GROUND CIRCUITRY.

The unit relies on the ground trace of the printed circuit board. No external ground is provided.

BACKGROUND

The device described herein is a wireless (RF) TOY Car. Controller Transmitter for use the toy Car Controlled Receiver. It has only one channel of operation which the user may choose only. And is used to send button state data from the controller to a wireless receiver side, then the motor on the car will be started.

CONFIGURATION

The main characteristics of this configuration are shown below:

FREQUENCY RANGES	49.860MHZ	
OCCUPIED BANDWIDTH (-26DB)	<100KHZ	MAX
FREQUENCY STABILITY	+/-10 PPM	MAX
MODULATION METHOD	A M	
OUTPUT POWER	85 DBUVM	MAX

REFERENCE OSCILLATOR

TX: 49.860MHZ CRYSTAL OSCILLATOR IS USED TO GENERATE THE REFERENCE FREQUENCY.

RX: C1、 C2、 C3、 C4、 C5、 C6、 C7、 R1、 R2、 R3、 L1、 L2 and Q1 constitute 49.860MHz Superregenerative Oscillator.

ANTENNA

TX antenna is a 370MM steel wire

RX antenna is a 520MM copper wire linked to PCB which is not extendable.