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Circuit Description

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In receive mode

Q1 is the untuned amplidier

ic1 is thesuperheterodyne ic that contains local oscillator,mixer, and if amplifier, and signal detector , Signal to ic2 DECODE then output motor driver signal.

IC6 is motor driver ic. IC5 is battery managent ic.

Antenna and grond circuitry

This unit make use an extenal antenna, This antenna is inductively coupled.

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

energy is supplied by a 3.7v li-battery.

Background

The device described herein a wirless(RF)TOY AEROPLANE CONTROLLER TRANSMITTER

For use with the toy aeroplane controlled receiver. It has only one channel of

Operation which the usermay choose only. And is used to send button-status dataform

The controller to a wireless receiver connected with motors.

Typical opeartion

Typical opeartion would innolve the user turning on the unit to the toy game

when turned on, The unit comes up on the default channel and transmits a continuously steam data. The user can not, At will .Change to any other of the predefined channel.

Configuration

The receiver circuit has include one LC oscillator for reference frequency

Some signal through antenna let out. Tha main characteristics

Of this configuration are shown as below:

Frequency ranges 49.890MHZ

Occupied bandwidth(-26db) 1MHZ MAX

Frequency stability +/- 0.5mhz

Modulation method FM

Output power 80DBuv/m max

Reference oscillator

A 49.435mhz crystal oscillator is used to generate ths reference frequency

It has a stability of +/-10ppm

Amplifier

This RF signal no amplifier to transmit.

Microcontroller

The rx system is controlled by a small microcontroller running with internal 16mhz

Oscillator +/-5%.