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Circuit Description

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In transmit mode
When power on, the control stick moved position value become A encode signal is transmitted.
Q1 and crystal for osilator and modulation,Q2 is rf amp,Q3 is rf amp then signal through filter
send by antenna。

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.
energry is supplied by A 9.6VDC 006P alkaline 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 transmitted rf circutiry consists of a crystal controlled oscillator,
Follow by rf amplifier & filter and antenna.Tha main characteristics
Of this configuration are shown as below:

Frequency ranges	49.890MHZ
Occupied bandwidth(-26db)	<100KHZ MAX
Frequency stability	+/- 10PPM
Modulation method	FM
Output power	80DBuv/m

Reference oscillator
A 16.630MHZ crystal oscillator is used to generate ths reference frequency
It has a stability of +/-10ppm

Amplifier
Ths Oscillator is followed by 2stage amplifiers（one stage is resonance amp）.These final output is 80dbuv/m max

Microcontroller
The tx system iscontrolled by a small microcontroller running with 4mhz +/-5%

Oscillator
The rx system is controlled by a small microcontroller running with internal 16mhz
Oscillator +/-5%.