

Profile Plane #K8888

49.860MHz RECEIVER OPERATIONAL DESCRIPTION

The Profile Plane is a full function RF remote control toy plane. It uses a 3.7 volts LiPo battery as power supply. It is designed to operate on a single fixed frequency in 49.82 MHz - 49.90MHz band. Refer to the attached block diagram and schematic.

The modulated RF signal which transmits from the transmitter including the code signal is received by the Profile Plane's permanently external antenna. The electrical signal is amplified selectively by a super regenerative circuit. (Q5,L1,,L3.L5,C3,C5,C13,C13,C14)The demodulate signal is coupled into an integrated circuit(U3)by R4 and C15,which the signal is amplified further and decoded, Five pins of U3 output the code to drive IC(U2),The PIN_{PWML} and PIN_{PWMR} of U2 are used for driving the MOSFET(Q3,Q4) to control the direction of two motors.

The function of the integrated circuit(U1) is regulating the circuit voltage.

All tuning and verifications are performed by the manufacturer and there are no adjustments that can be made by the user. No external ground is required or used with this receiver.