

49. 860 MHz Receiver Operational Description

The 1:10 drifting king is proportional of full function radio controlled toy Vehicle It operates on 7.2 volts supplied by 7.2V Nicd battery pack It is designed to operate on a single fixed frequency in the 49.82 – 49.90 MHz band. See the attached block diagram and schematic.

The vehicle receiver receives and demodulates the AM transmitted signal from the transmitter, using a standard super-regenerative AM receiver/demodulator circuit comprised of ANT1, Q27, L2, L3, L1 and associated passive components. L2 is a tunable core slug inductor that is used to tune the receiver for maximum sensitivity. The output of the AM receiver/demodulator is AC coupled to a high input Q28 Q29 transistor magnify impedance CMOS inverter is connected to the U1 decoder IC.

A Zener regulator circuit comprised of C25, D1,C24,C23, it supplied voltage VDD for the super-regenerative radio, decoder IC.

Drive motor is controlled by the U1 decoder IC, a high power H-bridge comprised of Q1, Q2,to command relay k1,k2,ortherway digital signal controlled Q3,Q2,they will turn on Q8,implement drifting to drive motors.

The steering motor is controlled by the U1 decoder IC low power switching transistors Q5, Q6, and high power H-bridge comprised of Q20,Q21,Q18,Q19.

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