

Receiver Operational Description

The RC Buggies is TWO function radio controlled toy car. It operates on 4.5v volts supplied, it is designed to operate on a single fixed frequency in the 49.860 MHz band. Please see the attached block diagram and schematic.

The vehicle receiver receives and demodulates the AM transmitted signal from the transmitter, by using a standard super-regenerative configuration. The AM receiver/demodulator circuit comprised of ANT1 Q1, L1, L3, L2 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 Q2 amplifier, D1 filter and shape the data.

The forward motion is triggered by Q3, while base pin of Q3 at low level, the motor is driving by high power H-bridge comprised of Q9, Q7, Q6. The forward rotate motion is also triggered by Q3, while its base voltage level is high, that means the transistor is turn on, the motor is driving by high power H-bridge comprised of Q4, Q5, Q8.

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.