

Expository Statement/Description

The Beetle Transmitter (FCC ID:AEK992227) is a 27.145 MHz R/C transmitter. The transmitter uses a telescopic antenna approximately 10 ½ inches in length.

The RF section contains the RF carrier oscillator section and an amplifier section. The RF carrier frequency is generated using Q1 (N-P-N transistor) in conjunction with a crystal (X1=27.145 MHz) configured in an oscillator circuit. The RF amplifier circuit consists of one transistor (Q2) matched to the antenna via a pi circuit comprised of C6, C7, L3 and C8.

The modulation, baseband control signals, are generated within the LSI (Large Scale Integration) IC, IC1. Except for the control switches (commands for vehicle movement), IC1 conditions all commands and modulates the carrier (RF) by injecting the baseband signal into the input of the RF amplifier.

The transmitter operates using one 9.0 VDC battery. The transmitter does not need or use external grounding for operation.