

1:8 1 BADD RIDE R/C 11080

49.860 MHz TRANSMITTER OPERATIONAL DESCRIPTION

The 1:8 1 Badd Ride R/C radio control transmitter is a low powered, hand held unit for controlling the movement of a vehicle . The transmitter is powered by a 9-volt battery. 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.

Input switches trigger an integrated circuit (U1) which produces the digital control signals that will modulate the carrier signal. The carrier signal is generated by a crystal oscillator circuit comprised of a 27.145 MHz crystal (Y1) and a npn transistor (Q2). The RF carrier signal is modulated by the digital control signal at the base of an RF amplifier stage (Q4). The modulated output of the RF amplifier stage is capacitively coupled (via C12) to the antenna through a “ pi ” matching network comprised of C13, T1 and C14. The antenna is about 18 inches length.

A LED acts as a power-on indicator.

The switch sw1 act as power on/off and channel selector.

All tuning and verifications are performed by the manufacturer and there are no external ground is required or used with this transmitter.