

L0506 Rollergirl

49MHz TRANSMITTER OPERATIONAL DESCRIPTION

The L0506 Rollergirl

radio control transmitter is a low powered, hand held unit for controlling the movement of a toy Rollergirl .The transmitter is powered by a 3-volt battery .It is designed to operate on a single fixed frequency in the 49.86MHz band. See the attached block diagram and schematic.

R1 and associated components act as power supply.

Input switches (SW1~SW4) trigger integrated circuit (U1 SPRC205) which produces the digital control signals and these signals modulate the carrier signal .The carrier signal is generated by a crystal oscillator / amplifier circuit comprised of a 49.86MHz crystal (X1). The modulated output from pin RFO of U1 is capacitive coupled (via C9)to the antenna through a “Pi” matching network comprised of C8·C7 and L4 .The antenna is 12 inches length and permanently attached.

The manufacturer performs all tuning and verifications and there are no adjustments that can be made by the user. No external ground is required or used with this transmitter.