Model # 55647
Mini Shannen Skateboard

TRANSMITTER OPERATIONAL DESCRIPTION.

The RF transmitter is intended for use with RC toys.
Transistor Q1, in association with crystal Y1 and passive components L1, R5 R6, C4 and C5, operates as 49.86 MHz oscillator of carrier RF signal.

Q1 and passive components R8, C7, C8, C9 and L2 form RF amplifier-amplitude modulator.

IC1 encodes control signals. The encoder generates pulse signals from its output (p.8) when switch SW connects p.5 (FW) or p.4 (BW) to the negative terminal of battery. These signals are applied through R7 to the input of RF modulator (base of Q2) and modulate RF carrier signal by amplitude. When SW is released (middle position), the transmitter circuit is disconnected from battery and inoperative. R1 sets IC1 system clock.
C1, C2, D1, R3 provide stable power voltage for IC1.

Passive components C10, C11, C12 and L3 match the impedances of amplifier and permanently attached straight wire antenna. Tunable inductor T1 is intended for adjustment of transmitter output power after assembling.