

Model # 55647
Mini Shannen Skateboard

RECEIVER OPERATIONAL DESCRIPTION.

The receiver is used with an RF controlled toy.

The RF signal, modulated by amplitude, comes from a permanently attached antenna through C1 to the input of superregenerative detector, built on the base of transistor Q1 and passive components L1, L2, C2-C6, R1, R2.

The detected control signal comes to the input of decoder U1 RX2C. Passive components C7-C10, R5-R9 and R17 support functionality of decoder. R17 sets decoder internal system clock. DC outputs of decoder are connected through R11 and R12 to the bi-directional motor driver. The motor driver is formed by transistors Q8-Q13 and resistors R13-R16.

Capacitors C14-C15 are intended for reducing commutation electrical noise of motor. The circuit is powered by 4 “AA” batteries through ON/OFF switch.

Transistor Q14, Zener diode ZD, capacitors C11-C13 and resistor R3 provide stable power voltage for RF detector and decoder.