

V0098 HW Gymkhana Car

27.145MHz TRANSMITTER OPERATIONAL DESCRIPTION

The HW Gymkhana Car radio control transmitter is a low powered, hand held unit for controlling the movement of a toy car .The transmitter is powered by 3 volt AA batteries .It is designed to operate on a single fixed frequency in the 26.98---27.28MHz band. See the attached block diagram and schematic.

Input switches trigger integrated circuit (U1) which produces the digital control signals which will modulate the carrier signal. The carrier signal is generated by a crystal oscillate circuit comprised of a 27.145MHz crystal (Y1). The RF carrier signal is modulated by the digital control signal from U1's PIN_{RFO} . The modulated output of PIN_{RFO} is capacitively coupled (via C7)to the antenna through a "Pi" matching network comprised of C13 · C22 and T1 .The antenna is 350mm long and permanently attached.

All tuning and verifications are performed by the manufacturer and there are no adjustments that can be made by the User .No external ground is required or used with this transmitter.