Operation Description

R/C transmitter:
Operation: 9V battery Drawing Ref.: Radio Control Vehicle (49.860MHz Transmitter) U1 (TX2) is a
5 functional remote encoders IC, it is work with transistor Q1, Q2 and other components is unified
takes the RF transmitter circuit. IC Pin 14, 1, 4 and 5 control left, right, back, forward and encoding
signal output respectively. Data output from Pin 8 and modulate with 49.860MHz oscillator that
achieved by Q1, Y1, R3, R6, C5, and L1. RF power amplifier Q2, L2, C7, C6, R4 is the use to
expansion transmission scope, the output frequency through LC filter C3, C4 and L3, elimination
harmonic frequency that the signal which transmits by aerial E1.
R/C receiver:
Operation: 9V AA Size battery x 6pcs Drawing Ref.: Radio Control Vehicle (49.860MHz Receiver)
Super-regenerative receiver use a special type of detector, in a straight regenerative circuit, input
signal couples to the detector, and some of the output signal feedback to its input, in phase. This
repeatedly amplifies the input signal. The result is very high gain in a single stage. Q1 provides RF
gain and helps prevent the receiver from radiating its signal out the antenna. The data signal obtained
by detector then couples to RX2 (U1) pin 14 through the LPF circuit (R10, C10). The IC provides two
high effective amplifiers and enhances signal input recognition capacity to enhance remote control
distance. The signal input to the decoding circuit by pin3, the control function through the pin 6, 7, 10,
11 to driving the motor circuit.