

Technical Description

The Equipment Under Test (EUT), is a portable 2.4GHz Transceiver (Car Unit) for a RC Car. The sample supplied operated on 61 channels, normally at 2415 - 2475MHz. The channels are separated with 1MHz spacing.

The EUT is powered by 1 x 7.4V Lithium-ion battery. The car has 2 modes, the "TRY ME" mode, which is alternatively powered by 5 x 1.5V button cell batteries, and the on mode. For the "TRY ME" mode, after switching on the EUT, light and sound will be emitted from the car by pressing the button on the car. For the on mode, the car will be moved forward or backward and turned left and right based on the switches pressed in the controller. Light, sound and smoke will be emitted from the car based on the switches pressed in the controller.

Antenna Type: Internal, Integral antenna, wire antenna, length: 6.0cm

Antenna Gain: 0dBi

Nominal rated field strength is 74.6dB μ V/m at 3m (Peak), 50.0dB μ V/m at 3m (Average)

Maximum allowed production tolerance: +/- 3dB

The brief circuit description is listed as follows:

1. U1 (XC2345B) acts as MCU
2. Y1 acts as 16MHz Oscillator
3. C1 and L1 act as antenna matching circuit
4. Inductor, SPRAYER, MOSFET P, R7 and R8 provide ultrasonic function
5. U2 provides speaker function
6. U3A and U3B act as voltage regulator
7. U4 acts as motor driver.