

Technical Description

The Equipment Under Test (EUT), is a portable 2.4GHz Transceiver (Ambulance Unit) for a RC Ambulance. The sample supplied operated on 27 channels, normally at 2407 - 2475MHz. The channels are shown in below table.

2407	2409	2411	2413	2415
2417	2419	2421	2423	2431
2433	2435	2437	2439	2441
2443	2445	2447	2459	2461
2463	2465	2467	2469	2471
2473	2475			

The EUT is powered by 6 x 1.5V AA batteries. The ambulance has 2 modes, the “TRY ME” mode and the on mode. For the “TRY ME” mode, after switching on the EUT, light and sound will be emitted or turned off from the ambulance based on the button pressed on the ambulance. For the on mode, the ambulance has all the functions that the “TRY ME” mode has. In addition, the ambulance will be moved forward or backward and turned left and right based on the switches pressed in the controller. Sound and light will be emitted or turned off from the ambulance based on the buttons pressed in the controller.

Antenna Type: Internal, Integral antenna, PCB antenna

Antenna Gain: 0dBi

Nominal rated field strength is 101.6dB μ V/m at 3m (Peak), 82.7dB μ V/m at 3m (Average)

Maximum allowed production tolerance: +/- 3dB

The brief circuit description is listed as follows:

For RX circuit:

1. U1 provides speaker function
2. U2 acts as module
3. U3 provides LDO function
4. U4 and U5 act as motor driver.

For module circuit:

1. U1 acts as MCU
2. Y2 acts as 16MHz Oscillator
3. L1, L2, L3, L4, C1, C2, C3, C4, C5, C6 and C8 act as antenna matching circuit.