

Analysis Report

The Equipment under test is a 2.4GHz transmitter for a remote control car which operating at 2.4GHz band. The EUT is powered by a 9V battery. After switched on the EUT, the corresponding RC Car can be controlled to moving forward, backward and turn left/right directions.

The operating frequency channels as below;

2406MHz	2415MHz	2425MHz	2435MHz	2445MHz	2455MHz	2465MHz	2474MHz
2407MHz	2417MHz	2426MHz	2436MHz	2446MHz	2456MHz	2466MHz	2405MHz
2408MHz	2418MHz	2427MHz	2437MHz	2447MHz	2457MHz	2467MHz	2440MHz
2409MHz	2419MHz	2428MHz	2438MHz	2449MHz	2458MHz	2468MHz	2475MHz
2410MHz	2420MHz	2429MHz	2439MHz	2450MHz	2459MHz	2469MHz	
2411MHz	2421MHz	2430MHz	2441MHz	2451MHz	2460MHz	2470MHz	
2412MHz	2422MHz	2431MHz	2442MHz	2452MHz	2461MHz	2471MHz	
2413MHz	2423MHz	2433MHz	2443MHz	2453MHz	2462MHz	2472MHz	
2414MHz	2424MHz	2434MHz	2444MHz	2454MHz	2463MHz	2473MHz	

Antenna Type: Internal antenna

Antenna Gain: 0dBi

Nominal rated field strength: 80.2 dB μ V/m at 3m

Maximum allowed field strength of production tolerance: +/- 3dB

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was 83.2dB μ V/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30] = 0.063\text{mW}$

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 0.063mW.

The SAR Exclusion Threshold Level:

= $3.0 \cdot (\text{min. test separation distance, mm}) / \sqrt{\text{freq. in GHz}}$

= $3.0 \cdot 5 / \sqrt{2.475}$ mW

= 9.53 mW

Since the above conducted output power is well below the SAR Exclusion threshold level, so the EUT is considered to comply with SAR requirement without testing.