

# Analysis Report

The Equipment Under Test (EUT) is a 2.4GHz Robot (Head Unit) for RC Controller operated at 2415-2465MHz with 1MHz Channel Spacing. The EUT is powered by 1 X 3.7V rechargeable battery. After switch on the EUT and paired with RC Controller, the RC Robot can be controlled to move forward, backward, turn right/left by the controller.

Antenna Type: Internal antenna

Antenna Gain: 0dBi

Nominal rated field strength: 92.0dB $\mu$ 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 95.0dB $\mu$ V/m at 3m in frequency 2.4GHz, thus;

The EIRP =  $[(FS * D)^2 * 1000 / 30] = 0.949\text{mw}$

Conducted power = Radiated Power (EIRP) – Antenna Gain  
So;

Conducted Power = 0.949mW.

The SAR Exclusion Threshold Level:  
=  $3.0 * (\text{min. test separation distance, mm}) / \text{sqrt}(\text{freq. in GHz}) = 3.0 * 5 / \text{sqrt}(2.465) \text{ mW}$   
= 9.55 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.