

# Analysis Report

The Equipment Under Test (EUT) is a Car for a RC Car Set, the EUT contains a 2.4GHz module, which operating frequency is 2408MHz. The EUT can be controlled by the corresponding Transmitter (Controller) moving forward, backward, left and right and it is powered by 1 x 9.9V Lithium rechargeable battery.

**Antenna Type: Internal antenna**

**Antenna Gain: 0dBi**

**Nominal rated field strength is 96.6 dB $\mu$ V/m at 3m**

**Maximum allowed production tolerance: +/- 3dB**

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was **99.6dB $\mu$ V/m** at 3m in frequency 2.408GHz, thus;

The EIRP =  $[(FS \cdot D)^2 \cdot 1000 / 30] = 2.74\text{mW}$

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = **2.74mW**.

The SAR Exclusion Threshold Level:

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

$= 3.0 \cdot 5 / \sqrt{2.465} \text{ mW}$

$= 9.67 \text{ mW}$

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.