

## Analysis Report

The Equipment Under Test (EUT), is a portable 2.4GHz Transceiver (Controller Unit) for a RC car. The sample supplied operated on 15 channels, normally at 2422 - 2467MHz. The channels are shown in table below.

|      |      |      |      |      |      |
|------|------|------|------|------|------|
| 2422 | 2424 | 2426 | 2430 | 2433 | 2436 |
| 2438 | 2441 | 2444 | 2447 | 2454 | 2459 |
| 2462 | 2464 | 2467 |      |      |      |

The EUT is powered by 2 x 1.5V AAA batteries. After switching on the EUT, the car will be moved forward or backward and turned left and right based on the switches pressed in the controller.

Antenna Type: Internal, Integral antenna

Antenna Gain: 0dBi

Nominal rated field strength is 101.7dBμV/m at 3m (Peak), 78.4dBμV/m at 3m (Average)

Maximum allowed production tolerance: +/- 3dB

According to the KDB 447498:

Based on the maximum average field strength of production tolerance was 81.4dBμV/m at 3m in frequency 2.422GHz.

Thus, it below calculated field strength according to minimum SAR exclusion threshold level as follows:

The worst case of SAR Exclusion Threshold Level:

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

$= 3.0 * 5 / \sqrt{2.483.5} \text{ mW}$

$= 9.52 \text{ mW}$

According to the KDB 412172 D01:

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

Calculated Field Strength for 9.52mW is 105dBuV/m @3m

Since maximum average field strength plus production tolerance  $< = 105\text{dBuV/m @3m}$  and antenna gain is  $> = 0.0\text{dBi}$ , it is concluded that maximum Conducted Power and Field Strength are well below the SAR Exclusion threshold level, so the EUT is considered to comply with SAR requirement without testing.