Analysis Report

The Equipment Under Test (EUT), is a portable 2.4GHz Transceiver (Car Unit) for a RC car. The sample supplied operated on 32 channels, normally at 2410 - 2470MHz. The channels are shown in below table.

2410	**2414**	**2415**	**2416**	**2417**	**2418**
2419	**2421**	**2426**	**2428**	**2429**	**2430**
2431	**2433**	**2434**	**2439**	**2441**	**2442**
2444	**2446**	**2450**	**2452**	**2454**	**2456**
2458	**2462**	**2464**	**2465**	**2466**	**2467**
2469	**2470**				

The EUT is powered by 4 x 1.5V AA 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 93.6dBµV/m at 3m (Peak), 65.7dBµV/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 68.7dBµV/m at 3m in frequency 2.470GHz.

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 * (min. test separation distance, mm) / sqrt(freq. in GHz)
= 3.0 * 5 / sqrt (2.483.5) mW
= 9.52 mW

According to the KDB 412172 D01:
EIRP = [(FS*D) ^2*1000 / 30]

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

Since maximum average field strength plus production tolerance < = 105dBuV/m @3m and antenna gain is > = 0.0dBi, 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.