Analysis Report

Report No.: 13070476HKG-001R1

The Equipment Under Test (EUT) is a portable 2.4GHz RF transceiver (Controller) for a RC Car operating at 2410.875MHz – 2464.875MHz. The EUT is powered by a 6.0 V DC source (4 x 1.5V “AA” batteries). The EUT has a forward or backward control lever and a left or right control lever.

After switching ON the EUT and the receiver of the RC Car, activating the control levers on the EUT can control the receiver moving forward, backward, left or right.

Antenna Type: Internal integral antenna
Antenna Gain: 0dBi
Nominal rated field strength: 91.7dBμV/m at 3m
Maximum allowed field strength of production tolerance: +/- 2dB

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was 93.7dBμV/m at 3m in frequency 2.4GHz, thus;

The EIRP = [(FS*D) ^2*1000 / 30] = 0.703mW

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

Conducted Power = 0.703mW.

The SAR Exclusion Threshold Level:
= 3.0 * (min. test separation distance, mm) / sqrt(freq. in GHz)
= 3.0 * 5 / sqrt (2.464875) 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.