

Analysis Report

Report No.: 13070476HKG-002R1

The Equipment Under Test (EUT) is a portable 2.4GHz RF transceiver (Vehicle) of a RC Car system of a RC Car operating at 2410.875MHz – 2464.875MHz MHz. The EUT is powered by a 9.0 V DC source (6 x 1.5V AA batteries). The EUT has an ON/OFF switch.

After switching ON the EUT and the transmitter of the RC Car, the EUT can be controlled to move forward, backward left and right by the transmitter.

Antenna Type: Internal integral antenna

Antenna Gain: 0dBi

Nominal rated field strength: 101.9dB μ V/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 103.9dB μ V/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30] = 7.364\text{mW}$

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 7.364mW.

The SAR Exclusion Threshold Level:

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

= $3.0 \cdot 5 / \text{sqrt}(2.464875)$ 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.