

# Analysis Report

Report No.: 16030910HKG-001

The Equipment Under Test (EUT) is a portable 2.4GHz Transceiver (Controller Unit) for a RC car operating at the frequency range of 2408-2460MHz that contains 5 occupied channels, which are 2408MHz, 2418MHz, 2430MHz, 2442MHz and 2460MHz. The EUT is powered by 3 \* 1.5V AA batteries. After switch on the EUT and paired with car, the car can be controlled to move forward and turn left/ right by the controller.

Antenna Type: Internal integral antenna

Antenna Gain: 0dBi

Nominal rated field strength: 93.1dB $\mu$ V/m at 3m

Maximum allowed field strength of production tolerance: +/- 3dB

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was 96.1dB $\mu$ V/m at 3m in frequency 2.4GHz, thus;

The EIRP =  $[(FS \cdot D)^2 \cdot 1000 / 30] = 1.222\text{mW}$

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

Conducted Power = 1.222mW.

The SAR Exclusion Threshold Level:

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

=  $3.0 \cdot 5 / \text{sqrt}(2.480)$  mW

= 9.53 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.