

# Analysis Report

Report No.: 17051099HKG-001

The Equipment Under Test (EUT) is a portable 2.4GHz Transmitter (Controller Unit) for a RC car operating at the frequency range of 2405-2475MHz with 1 MHz channel spacing.

The EUT is powered by 9.0VDC Alkaline battery. After switching on the EUT and being paired with car, the car can be controlled to move forward/backward and turn left/ right by the controller.

Antenna Type: Internal integral antenna

Antenna Gain: 0dBi

Nominal rated field strength: 98.6dB $\mu$ 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 101.6dB $\mu$ V/m at 3m in frequency 2.4GHz, thus;

The EIRP = [(FS\*D) <sup>2</sup>\*1000 / 30] = 4.336mW

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

Conducted Power = 4.336mW.

The SAR Exclusion Threshold Level:

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

= 3.0 \* 5 / sqrt (2.475) 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.