

# Analysis Report

Report No.: 16030835HKG-001

The Equipment Under Test (EUT) is a portable 2.4GHz Transceiver (Controller Unit) for a RC motorbike operating at the frequency range of 2407.350MHz-2477.350MHz with 1MHz channel spacing.

The EUT is powered by 2 \* 1.5V AA batteries. After switch on the EUT and paired with motorbike, the motorbike 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: 97.4dB $\mu$ 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 99.4dB $\mu$ V/m at 3m in frequency 2.4GHz, thus;

The EIRP =  $[(FS \cdot D)^2 \cdot 1000 / 30] = 2.613\text{mW}$

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 2.613mW.

The SAR Exclusion Threshold Level:

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

=  $3.0 \cdot 5 / \sqrt{2.477.35} \text{ mW}$

= 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.