

Analysis Report

Report No.: 16030835HKG-003

The Equipment Under Test (EUT) is a 2.4GHz Transceiver (Motorbike Unit) controlled by controller operating at the frequency range of 2407.350MHz- 2477.350MHz with 1 MHz channel spacing. The EUT is powered by 4 * 1.5 V AA batteries. After switch on the EUT and paired with the controller, 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: 94.2dB 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 96.2dB μ V/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS^*D)^2 * 1000 / 30] = 1.251\text{mW}$

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 1.251mW

The SAR Exclusion Threshold Level:

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

= $3.0 * 5 / \sqrt{2.477} \text{ mW}$

= 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.