Analysis Report

Report No.: 13090468HKG-001

The Equipment Under Test (EUT) is a portable plug and play replaceable 2.4GHz RF transceiver module for the remote control helicopter or plane. The EUT operates at frequency range from 2404MHz to 2479MHz with 3MHz channel spacing. The 2.4GHz RF module is powered by a 4.8V rechargeable battery pack. The EUT has a one set battery/data input pin and four sets signal pins which are connect with battery pack with sensor and connect with servo motor respectively.
After switch on the EUT and paired up with the corresponding controller (transceiver), the servo motor of EUT can be controlled to run in different speed. Also, the information of temperature can be detected by sensor, then the EUT can collect data and send them back to the corresponding controller.

Antenna Type: Internal integral antenna
Antenna Gain: 1.7dBi
Nominal rated field strength: 88.7dBμV/m at 3m
Maximum allowed field strength of production tolerance: +/- 5dB

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was 93.7dBμV/m at 3m in frequency 2.4GHz, thus;

The EIRP = [(FS*D) ^2*1000 / 30] = 0.703mW

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

Conducted Power = 0.475mW.

The SAR Exclusion Threshold Level:
= 3.0 * (min. test separation distance, mm) / sqrt(freq. in GHz)
= 3.0 * 5 / sqrt (2.479) 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.