

Analysis Report

Report No.: 16020486HKG-001

The Equipment Under Test (EUT) is a portable 2.4GHz Transceiver (Controller Unit) for a RC plane operating at the frequency range of 2407-2477MHz including 26 channels, which are (2407.00, 2408.00, 2409.00, 2410.00, 2411.00, 2413.00, 2435.00, 2436.00, 2438.00, 2440.00, 2441.00, 2442.00, 2443.00, 2444.00, 2445.00, 2467.00, 2468.00, 2469.00, 2470.00, 2471.00, 2472.00, 2473.00, 2474.00, 2475.00, 2476.00 and 2477.00MHz).

The EUT is powered by 6 * 1.5V AA batteries. After switch on the EUT and paired with plane, the plane 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: 97.1dB μ V/m at 3m

Maximum allowed field strength of production tolerance: 94 dB μ V/m - 100 dB μ V/m

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was 100dB μ V/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30] = 3.0\text{mW}$

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 3.0mW.

The SAR Exclusion Threshold Level:

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

= $3.0 \cdot 5 / \text{sqrt}(2.477) \text{ mW}$

= 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.