

# Analysis Report

The Equipment Under Test (EUT) is a 2.4GHz transceiver (i.e. Controller) for a RC Plane. The EUT is powered by DC12.0V (8X1.5V AA batteries). The operating frequency is 2408MHz, 2424MHz, 2442MHz and 2460MHz. After pairing with plane, the plane can be controlled to fly forward, upward/downward, turn left/right directions and any motions. Also, the EUT has a charging circuitry, the corresponding plane can be charged by the EUT.

**Antenna Type: Internal antenna**

**Antenna Gain: 0dBi**

**Nominal rated field strength: 95.0 dB $\mu$ 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 98.0dB $\mu$ V/m at 3m in frequency 2.4GHz, thus;

The EIRP =  $[(FS * D)^2 * 1000 / 30] = 1.893mW$

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

Conducted Power = 1.893mW.

The SAR Exclusion Threshold Level:

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

=  $3.0 * 5 / \text{sqrt}(2.460)$  mW

= 9.56 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.