

Analysis Report

The Equipment Under Test (EUT) is a portable 2.4GHz Transceiver (RC drone) operating at the frequencies of 2450, 2460, 2470 and 2475 MHz. The EUT is powered by 3.7V rechargeable battery. And it is able to be controlled to fly by the controller after successfully paired.

Antenna Type: Internal integral antenna

Antenna Gain: 0dBi

Nominal rated field strength: 89.1 dB μ V/m at 3m

Maximum allowed field strength of production tolerance: 86.0 - 91.0 dB μ V/m

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was 91.0 dB μ V/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30] = 0.378\text{mW}$

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

Conducted Power = 0.378mW.

The SAR Exclusion Threshold Level:

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

= $3.0 \cdot 5 / \text{sqrt}(2.475) \text{ mW}$

= 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.