

Analysis Report

The Equipment Under Test (EUT) is a portable 2.4GHz Transceiver (RC drone controller) operating at the frequencies of 2450, 2460, 2470 and 2475 MHz.

The EUT is powered by 3*1.5V AAA battery. And it is able to control the drone to fly after the controller and the drone are successfully paired.

Antenna Type: Internal integral antenna

Antenna Gain: 0dBi

Nominal rated field strength: 98.8 dBμV/m at 3m

Maximum allowed field strength of production tolerance: 95-100 dBμV/m

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was 100 dBμV/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:

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

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

= 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.