

Analysis Report

The Equipment Under Test (EUT) is a portable 2.4GHz Transceiver (Plane Unit) for a RC Plane operating at 2411.2MHz to 2465.2MHz with 1MHz channel spacing. The EUT is powered by 1 X 3.7V rechargeable battery. After switch on the EUT and paired with controller, the EUT can be controlled to fly forward, backward, turning left/right direction and rolling by the corresponding controller. To charge the internal battery in the Plane, plug the charging connector from the controller into the charging jack on the Plane for starting the charge process.

Antenna Type: Internal integral antenna

Antenna Gain: 4dBi

Nominal rated field strength: 83.8dB μ 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 86.8dB μ V/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS * D)^2 * 1000 / 30] = 0.144mW$

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

Conducted Power = 0.057mW.

The SAR Exclusion Threshold Level:

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

GHz) = $3.0 * 5 / \text{sqrt}(2.4652) mW$

= 9.55 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.