Analysis Report

The Equipment Under Test (EUT) is a 2.4GHz Transceiver (Controller Unit) for a RC helicopter operating at 2402 to 2477.5MHz with 0.5MHz channel spacing. The EUT is powered by 4 X 1.5V AA batteries. After switch on the EUT and paired with plane, the plane can be controlled to fly forward, backward, turning left/right direction and transform by the controller. Also, the EUT has charging cable to charge the internal battery inside the Plane Unit.

Antenna Type: Internal antenna
Antenna Gain: 0dBi
Nominal rated field strength: 97-100dBμV/m at 3m

According to the KDB 447498:

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

The EIRP = [(FS*D) ^2*1000 / 30] = 3.000mW

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

Conducted Power =3.000mW.

The SAR Exclusion Threshold Level:
= 3.0 * (min. test separation distance, mm) / sqrt(freq. in GHz) = 3.0 * 5 / sqrt (2.4775) 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.