

Analysis Report

The Equipment Under Test (EUT), is a portable 2.4GHz Transceiver (Plane Unit) for a RC Plane set. The sample supplied operated on 55 channels, normally at 2418 - 2472 MHz for transmitter and receiver. The channels are separated by 1MHz channel spacing.

The EUT is powered by 1 x 3.7V rechargeable battery. After switching on the EUT, the Plane will be moved upward and downward based on the switches pressed in the controller.

Antenna Type: Internal, Integral antenna

Antenna Gain: 0dBi

Nominal rated field strength is 90.2 dB μ V/m at 3m

Maximum allowed production tolerance: +/- 3dB

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was 93.2dB μ V/m at 3m in frequency 2.472GHz.

Thus, it below calculated field strength according to minimum SAR exclusion threshold level as follows:

The worst case of SAR Exclusion Threshold Level:

= 3.0 * (min. test separation distance, mm) / sqrt(freq. in GHz)

= 3.0 * 5 / sqrt (2.483.5) mW

= 9.52 mW

According to the KDB 412172 D01:

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

Calculated Field Strength for 9.52mW is 105dB μ V/m @3m

Since maximum field strength plus production tolerance <= 105dB μ V/m @3m and antenna gain is >= 0.0dBi, it is concluded that maximum Conducted Power and Field Strength are well below the SAR Exclusion threshold level, so the EUT is considered to comply with SAR requirement without testing.