

Analysis Report

The Equipment Under Test (EUT) is a portable 2.4 GHz Toy Car (Bluetooth V4.2 & BLE only) operating at the frequency range of 2402 – 2480 MHz with 2 MHz channel spacing. It can be connected to the smartphone via Bluetooth and can be controlled to move forward/ backward/ left/ right. The EUT is powered by a 3.7V DC rechargeable internal battery.

The Model: FRW25 is the same as the Model: FRW24 in hardware aspect as declared by client. The models are different in color only as declared by client.

Antenna Type: Internal, Integral

Antenna Type: Internal antenna

Antenna Gain: 0dBi

Nominal rated field strength is 101.0 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 104.0dB μ V/m at 3m in frequency 2.480GHz, thus;

The EIRP = $[(FS * D)^2 * 1000 / 30] = 7.536mW$

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

Conducted Power = 7.536mW.

The SAR Exclusion Threshold Level:

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

= $3.0 * 5 / \text{sqrt}(2.480) \text{ mW}$

= 9.525 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.