

Analysis Report

The Equipment Under Test (EUT) is a Bluetooth version 4.0 charging bed for a RC Dog (Chip) operating from 2402-2480MHz with 2MHz channel spacing. The EUT is powered by 100-120VAC~60Hz/12.0VDC Adaptor. After switch on the EUT and paired with RC Dog, the RC Dog can be charged with the RC Dog placed above the EUT.

Antenna Type: External integral antenna
Antenna Gain: 0dBi
Nominal rated field strength: 97.5dB 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 100.5dB μ V/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS * D)^2 * 1000 / 30] = 3.366\text{mW}$

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

Conducted Power = 3.366mW.

The SAR Exclusion Threshold Level:
= $3.0 * (\text{min. test separation distance, mm}) / \text{sqrt}(\text{freq. in GHz}) = 3.0 * 5 / \text{sqrt}(2.475) \text{ mW}$
= 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.