

Analysis Report

The Equipment Under Test (EUT) is a portable robot toy with Bluetooth 4.0 BLE only function. The Bluetooth module in the EUT is operating in the frequency range from 2402MHz to 2480MHz (40 channels with 2MHz channel spacing). The EUT can be connected with an iPhone so that it can control the DUT via the Apps. There is some sound and lighting effect.

The EUT is powered by 4 x 1.5V AAA batteries power supply.

The Model: SR4001G, KS888G and KS888B are the same as the Model: SR4001B in hardware aspect. The difference in model number serves as marketing strategy.

The models are different

in model number, item name, color, packaging and non-conductive accessories only.

For electronic filing, the brief circuit description is saved with filename: descri.pdf.

Antenna Type: Internal antenna

Antenna Gain: 0dBi

Nominal rated field strength is 88.4 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 91.4dB μ V/m at 3m in frequency 2.480GHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30]$ = 0.414mW

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 0.414mW.

The SAR Exclusion Threshold Level:

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

= $3.0 \cdot 5 / \sqrt{2.480}$ 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.