

Analysis Report

The Equipment Under Test (EUT) is a 2.4GHz Bluetooth 3.0 doll. The EUT is powered by 3 x 1.5V AA batteries. The Bluetooth module in the EUT is operating in the frequency range from 2402MHz to 2480MHz (79 channels with 1MHz channel spacing). After pairing with ios/Android devices and the Apps installed, you can play the mini game with the doll through the devices.

Antenna Type: Internal antenna

Antenna Gain: 0dBi

Nominal rated field strength: 94.8 dBμV/m at 3m

**Maximum allowed field strength of production tolerance:
89.2dBμV/m to 99.2 dBμV/m at 3m**

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was 99.2 dBμV/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30] = 2.50\text{mW}$

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

Conducted Power = 2.50mW.

The SAR Exclusion Threshold Level:

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

$= 3.0 \cdot 5 / \sqrt{2.480} \text{ mW}$

$= 9.53 \text{ mW}$

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.