

Analysis Report

The Equipment Under Test (EUT) is a 2.4GHz Bluetooth 3.0 speaker. The EUT is powered by 3 x 1.5V AAA 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 Bluetooth Device (iPhone, iPad or Android Phone), the audio signal can be fed to the speaker. Also there is a build-in mic for hands-free calling

Antenna Type: Internal antenna

Antenna Gain: 0dBi

Nominal rated field strength: 100.7 dBμV/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 103.7dBμV/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30] = 7.033mW$

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 7.033mW.

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 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.