Analysis Report

The Equipment Under Test (EUT) is a 2.4GHz Bluetooth 2.1 + EDR transceiver speaker. The EUT is power by a 3.7VDC rechargeable battery. The Bluetooth module in the EUT is operating in the frequency range from 2402MHz to 2480MHz (79 channels with 1MHz channel spacing). After pairing, the audio signal can be fed to the speaker. Also there is an Aux in for audio input.

Antenna Type: Internal antenna
Antenna Gain: 0dBi
Nominal rated field strength: 95.6 dBμV/m at 3m
Maximum allowed field strength of production tolerance: 89.2 to 99.2 dBμV/m at 3m

According to the KDB 447498:

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

The EIRP = [(FS*D) ^2*1000 / 30] = 2.50mW

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

Conducted Power =2.50mW.

The SAR Exclusion Threshold Level:
= 3.0 * (min. test separation distance, mm) / sqrt(freq. in GHz)
= 3.0 * 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.