Analysis Report

The Equipment Under Test (EUT) is a portable Bluetooth karaoke with Bluetooth 4.2 disable BLE function. The Bluetooth module in the EUT is operating in the frequency range from 2402MHz to 2480MHz (79 channels with 1MHz channel spacing). The EUT can be connected with a Bluetooth Device for music playing. The EUT is powered by 3 x AA batteries.

The Model: 1800-32 is the same as the Model: 1800-32-WS in hardware aspect. The difference in model number serves as marketing strategy. The models are different in package only.

Antenna Type: Internal antenna
Antenna Gain: 0dBi
Normal rated field strength is 94.4 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 97.4dBμV/m at 3m in frequency 2.4GHz, thus;

The EIRP = [(FS*D) ^2*1000 / 30] = 1.65mW

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

Conducted Power =1.65mW.

The SAR Exclusion Threshold Level:
= 3.0 * (min. test separation distance, mm) / sqrt(freq. in GHz)
= 3.0 * 5 / sqrt (2.480) mW
= 9.52 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.