RF Exposure

The equipment under test (EUT) is a Bluetooth Noise Cancelling Headphone which has Bluetooth function. The EUT was powered by the fully-charged DC 3.7V rechargeable battery which was charged by USB port (DC 5V). For more detail information pls. refer to the user manual.

Modulation Type: GFSK, π/4DQPSK, 8DPSK
Bluetooth Version: 4.1
Antenna Type: Integral antenna
Antenna Gain: 0.5dBi
The nominal radiated output power (e.i.r.p) specified: 2dBm (Tolerance: +/- 3dB)
The nominal conducted output power specified: 1.5dBm (Tolerance: +/- 3dB)

According to the KDB 447498:

The maximun peak radiated emission for the EUT is 97.2dBμV/m at 3m in the frequency 2402MHz
The EIRP = [(FS*D) ^2 / 30] mW = 2.0dBm
which is within the production variation.

The minimum peak radiated emission for the EUT is 96.8dBμV/m at 3m in the frequency 2440MHz
The EIRP = [(FS*D) ^2 / 30] mW = 1.6dBm
which is within the production variation.

The maximun conducted output power specified is 4.5dBm = 2.82mW
The source- based time-averaging conducted output power
= 2.82 * Duty factor mW (where Duty Factor≤1)
≤2.82mW

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 source-based time-averaging conducted output power is well below the SAR low threshold level, so the EUT is considered to comply with SAR requirement without testing.