

INTERTEK TESTING SERVICES

Analysis Report

The equipment under test (EUT) is a Earbuds Bluetooth with Bluetooth function operating in 2402-2480MHz. The EUT is powered by DC 3.7V internal rechargeable battery and can be charged through USB interface. For more detail information pls. refer to the user manual.

Modulation Type: GFSK, $\pi/4$ DQPSK, 8DPSK

Bluetooth Version: 3.0 with EDR function

Antenna Type: Integral antenna (Gain: 0 dBi)

The nominal radiated output power (e.i.r.p) specified: 2dBm (Tolerance: +/-3dB)

The nominal conducted output power specified: 2dBm (Tolerance: +/-3dB)

According to the KDB 447498:

The maximum radiated emission for the EUT is $98.5 \text{ dB}\mu\text{V/m}$ at 3m in the frequency $2.441\text{GHz} = [(FS^*D)^2 / 30] \text{ mW}$
 $= 3.3\text{dBm}$ which is within the production variation

The minimum radiated emission for the EUT is $96.9 \text{ dB}\mu\text{V/m}$ for at 3m in the frequency $2.480\text{GHz} = [(FS^*D)^2 / 30] \text{ mW}$
 $= 1.7\text{dBm}$ which is within the production variation.

The maximum conducted output power specified is $5\text{dBm} = 3.2\text{mW}$

The source- based time-averaging conducted output power
 $= 3.2 * \text{Duty cycle mW} \leq 3.2 \text{ mW}$ (Duty Cycle $\leq 100\%$)

The SAR Exclusion Threshold Level:

$= 3.0 * (\text{min. test separation distance, mm}) / \text{sqrt(freq. in GHz)}$
 $= 3.0 * 5 / \text{sqrt}(2.480) \text{ mW}$
 $= 9.5 \text{ mW}$

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.