

# INTERTEK TESTING SERVICES

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## Analysis Report

The equipment under test (EUT) is a speaker with Bluetooth FHSS technology operating in 2402-2480MHz. The EUT is powered by DC 7.4V lithium battery and charged by AC/DC adapter (AC/DC Adapter with AC120V/60Hz input, DC9V, 2.5A output). For more detail information pls. refer to the user manual.

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

Bluetooth Version: 4.1+EDR (without BLE)

Antenna Type: Integral antenna

Antenna Gain: 0 dBi

The nominal conducted output power specified: -9.0dBm (Tolerance: +/-5dB)

The nominal radiated output power (e.i.r.p) specified: -9.0dBm (Tolerance: +/-5dB)

According to the KDB 447498:

The maximum conducted emission for the EUT is -11.21dBm at the frequency 2.402GHz which is within the production variation

The minimum conducted emission for the EUT is -13.16dBm for at the frequency 2.480GHz which is within the production variation

The maximum conducted output power specified is -4.0dBm = 0.4mW

The source- based time-averaging conducted output power  
=  $0.4 \times \text{Duty cycle mW} \leq 0.4 \text{ mW}$  (Duty cycle  $\leq 100\%$ )

The SAR Exclusion Threshold Level:

=  $3.0 \times (\text{min. test separation distance, mm}) / \sqrt{\text{freq. in GHz}}$

=  $3.0 \times 5 / \sqrt{2.480} \text{ mW}$

= 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.