

INTERTEK TESTING SERVICES

Analysis Report

The equipment under test (EUT) is a Bluetooth Speaker with Bluetooth technology operating in 2402-2480MHz. The EUT is powered by DC 3.7V lithium battery which can be charged by USB port. The USB port is only use for charging purpose. For more detail information pls. refer to the user manual.

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

Bluetooth Version: 4.1+ EDR(single mode)

Antenna Type: Integral antenna

Antenna Gain: 0 dBi

The nominal radiated output power (e.i.r.p) specified: -3dBm (Tolerance: +/-5dB)

According to the KDB 447498:

The maximum radiated emission for the EUT is 92.1 dB μ V/m at 3m in the frequency 2.480GHz = $[(FS*D)^2 / 30]$ mW
= -3.1 dBm which is within the production variation

The minimum radiated emission for the EUT is 91.7 dB μ V/m for at 3m in the frequency 2.402GHz = $[(FS*D)^2 / 30]$ mW
= -3.5 dBm which is within the production variation

The maximum radiated output power specified is 2dBm = 1.58mW

The source- based time-averaging conducted output power
= 1.58 * Duty cycle mW < 1.58mW (Duty Cycle<=100%)

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.