

# INTERTEK TESTING SERVICES

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## RF Exposure

The equipment under test (EUT) is a Tower Firework Speaker with Bluetooth 5.0 EDR function operating in 2402-2480MHz. The EUT is powered by DC 5V with adapter. For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna

Modulation Type:  $\pi/4$ -DQPSK

Antenna Gain: -0.58 dBi

Bluetooth Version: 5.0 EDR (Single Mode)

The nominal conducted output power specified: -8.42 dBm ( $\pm 3$ dB)

The nominal radiated output power (e.i.r.p) specified: -9 dBm ( $\pm 3$ dB)

According to the KDB 447498:

The Maximum peak radiated emission for the EUT is 89.1 dB $\mu$ V/m at 3m in the frequency 2402MHz

The EIRP =  $[(FS \cdot D)^2 / 30]$  mW = -6.13dBm

which is within the production variation.

The Minimum peak radiated emission for the EUT is 83.5 dB $\mu$ V/m at 3m in the frequency 2441MHz

The EIRP =  $[(FS \cdot D)^2 / 30]$  mW = -11.73dBm

which is within the production variation.

The maximum conducted output power specified is -5.42dBm= 0.287mW

The source- based time-averaging conducted output power

= 0.287 \* Duty factor mW (where Duty Factor  $\leq 1$ )

= 0.287mW

### **1-mW Test Exemption:**

Since the source-based time-averaging conducted output power is well below 1-mW Test Exemption, per 447498 and §1.1307(b)(3)(i)(A), the EUT is considered to comply with SAR requirement without testing and no evaluation is required.