

# INTERTEK TESTING SERVICES

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## RF Exposure

The equipment under test (EUT) is a 36`` 2.1 SOUND BAR with Bluetooth 4.2 (Single Mode EDR) function operating in 2402-2480MHz. The EUT is powered by AC 120V/60Hz. For more detail information pls. refer to the user manual.

Modulation Type: GFSK,  $\pi/4$ -DQPSK and 8-DPSK  
Bluetooth Version: 4.2 (Single Mode EDR)

Antenna Type: Integral antenna.

Antenna Gain: 1dBi Max

The nominal conducted output power specified: -1dBm (+/-3dB).

The nominal radiated output power (e.i.r.p) specified: 0dBm (+/- 3dB).

According to the KDB 447498:

The maximum peak radiated emission for the EUT is 94.4dB $\mu$ V/m at 3m in the frequency 2441MHz

The EIRP =  $[(FS * D)^2 / 30]$  mW = -0.83dBm  
which is within the production variation.

The minimum peak radiated emission for the EUT is 92.3dB $\mu$ V/m at 3m in the frequency 2480MHz

The EIRP =  $[(FS * D)^2 / 30]$  mW = -2.93dBm  
which is within the production variation.

The maximum conducted output power specified is 2dBm = 1.6mW

The source-based time-averaging conducted output power  
= 1.6 \* Duty factor mW (where Duty Factor  $\leq$  1)  
= 1.6mW

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.