

# INTERTEK TESTING SERVICES

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## RF Exposure

The equipment under test (EUT) is a HI FI COMPONENT SYSTEM with Bluetooth function. The EUT was powered by AC100-240V, 50/60Hz, 22W. For more detail information pls. refer to the user manual.

Modulation Type: GFSK,  $\pi/4$ DQPSK, 8DPSK  
Bluetooth Version: 2.1+EDR

Antenna Type: Integral antenna.

Antenna Gain: 0dBi.

The nominal conducted output power specified: -3.0dBm (+/-2dB).

The nominal radiated output power (e.i.r.p) specified: -3.0dBm (+/- 2dB).

According to the KDB 447498:

The maximum peak radiated emission for the EUT is 92.4dB $\mu$ V/m at 3m in the frequency 2402MHz of Bluetooth module 1

The EIRP =  $[(FS \cdot D)^2 / 30]$  mW = -2.83dBm  
which is within the production variation.

The minimum peak radiated emission for the EUT is 90.6dB $\mu$ V/m at 3m in the frequency 2441MHz of Bluetooth module 1

The EIRP =  $[(FS \cdot D)^2 / 30]$  mW = -4.63dBm  
which is within the production variation.

The maximum conducted output power specified is -1.0dBm = 0.79mW

The source- based time-averaging conducted output power

= 0.79 \* Duty factor mW (where Duty Factor  $\leq$  1)

= 0.79 mW

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.