

# INTERTEK TESTING SERVICES

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## RF Exposure

The equipment under test (EUT) is a Keyfob which has Bluetooth function. The EUT was powered by DC 3.0V (1 x CR2032 battery). For more detail information pls. refer to the user manual.

Modulation Type: GFSK

Bluetooth Version: 4.1

Antenna Type: Integral antenna

Antenna Gain: 1.5dBi

The nominal radiated output power (e.i.r.p) specified: -3.0dBm (Tolerance: +/- 3dB)

The nominal conducted output power specified: -4.5dBm (Tolerance: +/- 3dB)

According to the KDB 447498:

The maximum peak radiated emission for the EUT is 92.7dBμV/m at 3m in the frequency 2402MHz

The EIRP =  $[(FS \cdot D)^2 / 30]$  mW = -2.5dBm  
which is within the production variation.

The minimum peak radiated emission for the EUT is 90.2 dBμV/m at 3m in the frequency 2480MHz

The EIRP =  $[(FS \cdot D)^2 / 30]$  mW = -5.0dBm  
which is within the production variation.

The maximum conducted output power specified is -1.5dBm = 0.7mW

The source-based time-averaging conducted output power  
=  $0.7 \cdot \text{Duty factor}$  mW (where Duty Factor  $\leq 1$ )  
 $\leq 0.7$ mW

The SAR Exclusion Threshold Level:

=  $3.0 \cdot (\text{min. test separation distance, mm}) / \sqrt{\text{freq. in GHz}}$   
=  $3.0 \cdot 5 / \sqrt{2.480}$  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.