

# INTERTEK TESTING SERVICES

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## RF Exposure

The equipment under test (EUT) is a Helmet Wireless Speaker which has Bluetooth function. The EUT was powered by the fully-charged DC 3.7V, 300mAh new rechargeable battery which was charged by USB port (DC 5V). For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna.

Antenna Gain: 0dBi.

The normal radiated output power (e.i.r.p) is: 1.0dBm (tolerance: +/- 3.0dB).

The normal conducted output power is: 1.0dBm (tolerance: +/- 3.0dB).

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

According to the KDB 447498:

The Maximum peak radiated emission for the EUT is 94.8dB $\mu$ V/m at 3m in the frequency 2480MHz

The EIRP =  $[(FS^*D)^2 / 30]$  mW = -0.43dBm  
which is within the production variation.

The Minimum peak radiated emission for the EUT is 94.3dB $\mu$ V/m at 3m in the frequency 2441MHz

The EIRP =  $[(FS^*D)^2 / 30]$  mW = -0.93dBm  
which is within the production variation.

The maximum radiated output power specified is 4dBm = 2.5mW

The source- based time-averaging conducted output power  
=  $2.5^* \text{ Duty cycle mW} < 2.5 \text{ mW} (\text{Duty cycle} < 100\%)$

The SAR Exclusion Threshold Level:

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