

INTERTEK TESTING SERVICES

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 μ V/m at 3m in the frequency 2480MHz

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

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

The EIRP = $[(FS \cdot D)^2 / 30]$ 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* Duty cycle mW <2.5 mW(Duty cycle <100%)

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.