

INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is a BLUETOOTH WIRELESS SPEAKER with Bluetooth function. The EUT was powered by DC 3.7V lithium battery or charged by DC 5V USB port. For more detail information pls. refer to the user manual.

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

Bluetooth Version: 2.1 with EDR.

Antenna Type: Integral antenna.

Antenna Gain: 0dBi.

The nominal conducted output power specified: -4.0dBm (+/-3dB).

The nominal radiated output power (e.i.r.p) specified: -4.0dBm (+/- 3dB)

According to the KDB 447498:

The maximum peak radiated emission for the EUT is 93.5dB μ V/m at 3m in the frequency 2402MHz.

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -1.73dBm
which is within the production variation.

The minimum peak radiated emission for the EUT is 91.8dB μ V/m at 3m in the frequency 2480MHz.

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -3.43dBm
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.