

INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is a Bluetooth Speaker with Bluetooth 2.1 + EDR function operating in 2402-2480MHz. This EUT is powered by a DC14.8V Rechargeable Lithium Ion Battery that can be recharged by 100-240V~50/60Hz. 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: 0dBm +/-3dB.

The nominal radiated output power (e.i.r.p) specified: 0dBm (+/- 3dB)

According to the KDB 447498:

The maximum peak radiated emission for the EUT is 95.5dB μ V/m at 3m in the frequency 2402MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = 0.27dBm
which is within the production variation.

The minimum peak radiated emission for the EUT is 93.1dB μ V/m at 3m in the frequency 2480MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -2.13dBm
which is within the production variation.

The maximum conducted output power specified is 3.0dBm = 2mW

The source-based time-averaging conducted output power
= 2 * Duty factor mW (where Duty Factor \leq 1)
= 2 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.