

INTERTEK TESTING SERVICES

Analysis Report

The equipment under test (EUT) is a M&M Bluetooth speaker with Bluetooth 3.0 with EDR function operating in 2402-2480MHz. This EUT operates on an internal DC3.7V Li-ion battery that can be recharged by the Aux port with DC5V input. For more detail information pls. refer to the user manual.

Modulation Type: GFSK, Π/4DQPSK, 8DPSK

Bluetooth Version: 3.0 with EDR function

Antenna Type: Integral antenna

Antenna Gain: 0dBi

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

The nominal conducted output power specified: 0dBm (Tolerance: +/- 3dB)

According to the KDB 447498:

The worst-case radiated emission for the EUT is 95.3dB μ V/m at 3m in the frequency 2.441GHz

= $[(FS^*D)^2 / 30]$ mW

= 0.07dBm which is within the production variation.

The minimum radiated emission for the EUT is 94.6dB μ V/m at 3m in the frequency 2.480GHz

= $[(FS^*D)^2 / 30]$ mW

= -0.63dBm which is within the production variation.

The maximum conducted output power specified is 3dBm = 2.0mW

The source- based time-averaging conducted output power

= $2.0 * \text{Duty cycle mW} (\text{Duty cycle} \leq 1)$

= 2.0 mW

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

= 9.5 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.