

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, $\Pi/4$ DQPSK, 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

$$= [(FS \cdot D)^2 / 30] \text{ mW}$$

= 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

$$= [(FS \cdot D)^2 / 30] \text{ mW}$$

= -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

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

$$= 2.0 \text{ mW}$$

The SAR Exclusion Threshold Level:

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

$$= 3.0 \cdot 5 / \sqrt{2.480} \text{ mW}$$

$$= 9.5 \text{ mW}$$

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.