

INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is a MI BLUETOOTH SPEAKER MINI with Bluetooth function. The EUT was powered by the fully-charged DC 3.7V, 480mAh new rechargeable battery which was charged by USB port (DC 5V). For more detail information pls. refer to the user manual.

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

Bluetooth Version: 4.0 and 3.0, 2.1 with EDR Classic mode and 4.0 BLE mode.

Antenna Type: Integral antenna.

Antenna Gain: 2.0dBi.

The nominal conducted output power specified: -3.0dBm (+/-3dB).

The nominal radiated output power (e.i.r.p) specified: -1.0dBm (+/- 3dB)

According to the KDB 447498:

The maximum peak radiated emission for the EUT is 95.9 dB μ V/m at 3m in the frequency 2440MHz of BT 4.0 BLE mode

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = 0.7dBm
which is within the production variation.

The minimum peak radiated emission for the EUT is 92.2dB μ V/m at 3m in the frequency 2402MHz for BT 4.0 and 3.0, 2.1 with EDR Classic mode

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -3.0dBm
which is within the production variation.

The maximum conducted output power specified is 0dBm = 1.0mW

The source- based time-averaging conducted output power
= 1.0 * Duty factor mW (where Duty Factor ≤ 1)
= 1.0 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.