

INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is a Speaker with Bluetooth 5.1(EDR) function operating in 2402-2480MHz. The EUT is powered by DC 3.7V by battery or DC5.0 by adaptor. Once use the aux in cable into the EUT, the wireless function will be disabled. For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna

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

Antenna Gain: -0.58dBi

Bluetooth Version: 5.1(EDR single model)

The normal peak radiated output power (e.i.r.p) is: -16.0dBm (tolerance: +/- 3dB).

The normal peak conducted output power is -15.42dBm (tolerance: +/- 3dB).

According to the KDB 447498 V06:

The Maximum peak radiated emission for the EUT is 78.5dB μ V/m at 3m in the frequency 2402MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -16.73dBm

which is within the production variation.

The Minimum peak radiated emission for the EUT is 76.8dB μ V/m at 3m in the frequency 2480MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -18.43dBm

which is within the production variation.

The maximum conducted output power specified is -12.42dBm= 0.057mW

The source- based time-averaging conducted output power
=0.057mW

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.