

INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is a bluetooth® speaker phone with Bluetooth function. The EUT was powered by DC 3.7V lithium battery and charged by DC 5V USB port. For more detail information pls. refer to the user manual.

Modulation Type: GFSK for BT 4.0 and GFSK, $\pi/4$ DQPSK, 8DPSK for BT 3.0+EDR.
Bluetooth Version: 4.0 and 3.0 with EDR.

Antenna Type: Integral antenna.

Antenna Gain: 0dBi.

The nominal conducted output power specified: 5dBm +/-3dB.

The nominal radiated output power (e.i.r.p) specified: 5dBm (+/- 3dB)

According to the KDB 447498:

The maximum peak radiated emission for the EUT is 102.4dB μ V/m at 3m in the frequency 2441MHz of BT 3.0+EDR

The EIRP = $[(FS^*D)^2 / 30]$ mW = 7.17dBm
which is within the production variation.

The minimum peak radiated emission for the EUT is 98.0dB μ V/m at 3m in the frequency 2480MHz of BT 4.0

The EIRP = $[(FS^*D)^2 / 30]$ mW = 2.77dBm
which is within the production variation.

The maximum conducted output power specified is 8dBm = 6.3mW

The source-based time-averaging conducted output power

= $6.3 * \text{Duty Cycle}$ mW (where Duty Cycle ≤ 1)
 ≤ 6.3 mW

The SAR Exclusion Threshold Level:

= $3.0 * (\text{min. test separation distance, mm}) / \sqrt{\text{freq. in GHz}}$
= $3.0 * 5 / \sqrt{2.480}$ 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.