

INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is a SoundFloe with Bluetooth function. The EUT is powered by DC 7.4V lithium battery or DC 5V from USB port through the AC adapter or PC. For more detail information pls. refer to the user manual.

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

Bluetooth Version: 4.0 without BLE function

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 102.6dB μ V/m at 3m in the frequency 2480MHz.

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = 7.37dBm

which is within the production variation.

The minimum peak radiated emission for the EUT is 101.9dB μ V/m at 3m in the frequency 2402MHz.

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = 6.67dBm

which is within the production variation.

The maximum conducted output power specified is 8.0dBm = 6.31mW

The source- based time-averaging conducted output power

= 6.31 * Duty factor mW (where Duty Factor ≤ 1)

= 6.31 mW

The SAR Exclusion Threshold Level:

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

= $3.0 \cdot 5 / \sqrt{2.480}$ 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.