

INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is a Portable Outdoor Bluetooth Speaker with Weather Radio with Bluetooth FHSS technology operating in 2402-2480MHz. The EUT is powered by DC 5V/1A from adapter or DC 4.5V from 3*AA or 3.7V from lithium battery. For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna

Modulation Type: GFSK

Antenna Gain: -0.58 dBi Max

The nominal conducted output power specified: -3 dBm (± 2 dB)

The nominal radiated output power (e.i.r.p) specified: -3.58dBm (± 2 dB)

According to the KDB 447498:

The maximum peak radiated emission for the EUT is 93.1 dB μ V/m at 3m in the frequency 2401.91MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -2.1dBm

which is within the production variation.

The minimum peak radiated emission for the EUT is 93.5 dB μ V/m at 3m in the frequency 2479.97MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -1.7dBm

which is within the production variation.

The maximum conducted output power specified is -1 dBm = 0.79 mW

The source- based time-averaging conducted output power

= 0.79 * Duty factor mW (where Duty Factor ≤ 1)

= 0.79 mW

The SAR Exclusion Threshold Level:

$$P_{th}(mW) = ERP_{20cm} * (d/20cm)^X \quad (X = -\log_{10} \left(\frac{60}{ERP_{20cm} \sqrt{f}} \right))$$

$$= 3060 * (0.5/20)^{1.9} \text{ mW}$$

$$= 2.72 \text{ mW}$$

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.