

## 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 ( $\pm 2$ dB)

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

According to the KDB 447498:

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

The EIRP =  $[(FS^*D)^2 / 30]$  mW = -2.1dBm  
which is within the production variation.

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

The EIRP =  $[(FS^*D)^2 / 30]$  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

=  $0.79 * \text{Duty factor mW}$  (where Duty Factor  $\leq 1$ )

= 0.79 mW

The SAR Exclusion Threshold Level: 
$$P_{th}(\text{mW}) = \text{ERP}_{20\text{cm}} * (d/20\text{cm})^x \quad (X = -\log_{10} \left( \frac{60}{\text{ERP}_{20\text{cm}} \sqrt{f}} \right))$$

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

$$= 2.72 \text{ mW}$$

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.