

## INTERTEK TESTING SERVICES

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### RF Exposure

The Equipment under Test (EUT) is a control unit for the NEW JAWBREAKER operating at 2.4GHz band. It is powered by DC 9.0V (6 x 1.5V AA batteries). For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna.

Antenna Gain: 0dBi.

The normal radiated output power (e.i.r.p) is: -15.0dBm (tolerance: +/- 3.0dB).

The normal conducted output power is: -15.0dBm (tolerance: +/- 3.0dB).

Modulation Type: GFSK.

According to the KDB 447498:

The Maximum peak radiated emission for the EUT is 81.4dB $\mu$ V/m at 3m in the frequency 2445MHz

The EIRP = [(FS\*D) ^2 / 30] mW = -13.8dBm

which is within the production variation.

The Minimum peak radiated emission for the EUT is 77.9dB $\mu$ V/m at 3m in the frequency 2402MHz

The EIRP = [(FS\*D) ^2 / 30] mW = -17.3dBm

which is within the production variation.

The maximum radiated output power specified is -12.0dBm = 0.063mW

The source- based time-averaging conducted output power

= 0.063\* Duty cycle mW <0.1 mW(Duty cycle <100%)

The SAR Exclusion Threshold Level:

= 3.0 \* (min. test separation distance, mm) / sqrt(freq. in GHz)

= 3.0 \* 5 / sqrt (2.475) 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.

The duty cycle is simply the on-time divided by the period:

The duration of one cycle = 1.5072 ms

Effective period of the cycle = 355.07  $\mu$ s=0.35507 ms

DC = 0.35507ms / 1.5072 ms = 0.2356 or 23.56%

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FCC ID: Z3CWECCANTOYS