

Analysis Report

The Equipment Under Test (EUT) is a BLE Toy - Deadpool which operates at frequency range of 2402MHz to 2480MHz. There are total 40 channels with 2MHz channel spacing. The EUT is powered by 6.0VDC (4 X 1.5V size “C” batteries). When the EUT pairs with a smartphone, the user can run play mode to interactive with Deadpool.

Antenna Type: Internal, Integral antenna

Antenna Gain: 2dBi

Nominal rated field strength is 88.2 dBμV/m at 3m

Maximum allowed production tolerance: +/- 6dB

According to the KDB 447498:

Based on the maximum field strength of production tolerance was 94.2dBμV/m at 3m in frequency 2.402GHz.

Thus, it below calculated field strength according to minimum SAR exclusion threshold level as follows:

The worst case of SAR Exclusion Threshold Level:

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

= $3.0 * 5 / \sqrt{2.483.5}$ mW

= 9.52 mW

According to the KDB 412172 D01:

$\text{EIRP} = [(FS * D)^2 * 1000 / 30]$

Calculated Field Strength for 9.52mW is 105dBuV/m @3m

Since maximum field strength plus production tolerance < = 105dBuV/m @3m and antenna gain is =2 .0dBi, it is concluded that maximum Conducted Power and Field Strength are well below the SAR Exclusion threshold level, so the EUT is considered to comply with SAR requirement without testing.