

## Analysis Report

The Equipment Under Test (EUT), is a portable 2.4GHz Transceiver for a Bluetooth 5.0 navigation device. The sample is BLE only and operates at 1Mbps. The sample supplied operated on 40 channels, normally at 2402 - 2480MHz. The channels are separated with 2MHz spacing.

The EUT is powered by 1 x 3.7V Rechargeable battery. After switching on the EUT, it will show indicators and information on screen based on the switches pressed in the App.

Antenna Type: Internal, Integral antenna  
Antenna Gain: 0dBi  
Nominal rated field strength is 83.3dB $\mu$ V/m at 3m  
Maximum allowed production tolerance: +/- 3dB

According to the KDB 447498:

Based on the maximum field strength of production tolerance was 86.3dB $\mu$ V/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:  
=  $3.0 * (\text{min. test separation distance, mm}) / \sqrt{\text{freq. in GHz}}$   
=  $3.0 * 5 / \sqrt{2.4835}$  mW  
= 9.52 mW

According to the KDB 412172 D01:  
EIRP =  $[(\text{FS} * \text{D})^2 * 1000 / 30]$

Calculated Field Strength for 9.52mW is 105dB $\mu$ V/m @3m

Since maximum average field strength plus production tolerance  $\leq$  105dB $\mu$ V/m @3m and antenna gain is  $\geq$  0.0dBi, 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.