Analysis Report

The Equipment Under Test (EUT), is a BLE transceiver (Pad Unit) for a RC Growth Check Changing Pad. The sample supplied operated on 40 channels, normally at 2402 - 2480 MHz. The channels are separated with 2 MHz spacing.

The EUT is powered by 4 x 1.5 V AA batteries. After switching on the EUT, the charging pad will provide alarm and weighting functions based on the buttons pressed in the phone application controller.

Antenna Type: Internal integral antenna
Antenna Gain: 0dBi
Nominal rated field strength: 96.9dBμV/m at 3m
Maximum allowed field strength of production tolerance: +/- 3dB

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was 99.9dBμV/m at 3m.

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 * (min. test separation distance, mm) / sqrt(freq. in GHz)
= 3.0 * 5 / sqrt (2.483.5) mW
= 9.52 mW

According to the KDB 412172 D01:
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 > = 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.