

Analysis Report

The Equipment Under Test (EUT) is a 2.4GHz BT 4.0 BLE transceiver (Connect Coin Smart Tag) operating from 2402MHz to 2480MHz with 2MHz channel spacing. The EUT is powered by 3.0VDC (1 x CR2032 battery). After paired with a smart device which contains the Apps, the user can press the button in the Apps and the “Beep” sound is heard from the Coin.

Antenna Type: Internal antenna

Antenna Gain: 0dBi

Nominal rated field strength: 90.6 dB μ V/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 93.6dB μ V/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS * D)^2 * 1000 / 30] = 0.687mW$

Conducted power = Radiated Power (EIRP) – Antenna Gain
So;

Conducted Power = 0.687mW.

The SAR Exclusion Threshold Level:

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

= $3.0 * 5 / \text{sqrt}(2.480)$ mW

= 9.52 mW

Since the above conducted output power is well below the SAR Exclusion threshold level, so the EUT is considered to comply with SAR requirement without testing.