

Analysis Report

The Equipment Under Test (EUT) is a Smoking Cessation Method which is a Bluetooth controlled cigarette case to help the user to control and quit smoking. It can be paired with a smartphone and operated by mobile APP. The APP will record the smoker information and control the cigarette consumption in order to help stop smoking. The EUT can only support Bluetooth 4.0 BLE that occupies a frequency range of 2402MHz to 2480MHz (40 channels with channel spacing of 2MHz). The EUT is powered by 3.7V internal rechargeable battery and/or USB port (5VDC). The USB port is for charging purpose.

Bluetooth Portion

Modulation Type: GFSK

Antenna Type: Internal, Integral

Frequency Range: 2402MHz to 2480MHz, 2MHz channel spacing, 40 channels

Antenna Gain: 2dBi

EIRP power range: -10dBm to +2dBm

According to the KDB 447498:

Conducted Power (max)

= EIRP – Antenna gain

= 2dBm - 2dBi = 0dBm = 1.00 mW

The SAR Exclusion Threshold Level:

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

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

= 9.53 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.