Analysis Report

Report No.: 15070578HKG-001

The Equipment Under Test (EUT) is a Bluetooth Battery Analyzer, which sense the condition of the Lead acid battery in a vehicle and transmit the information to Smartphone over Bluetooth 4.0 BLE link. The EUT occupies a frequency range from 2402MHz to 2480MHz (40 channels with channel spacing of 2MHz). The EUT is powered by a 12V Lead acid battery.

Antenna Type: Internal integral antenna
Antenna Gain: 4dBi
Nominal rated field strength: 88.8dBμV/m at 3m
Maximum allowed field strength of production tolerance: +/- 4dB

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was 92.8dBμV/m at 3m in frequency 2.4GHz, thus;

The EIRP = [(FS*D) ^2*1000 / 30] = 0.572mW

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

Conducted Power = 0.228mW.

The SAR Exclusion Threshold Level:
= 3.0 * (min. test separation distance, mm) / sqrt(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.