Analysis Report

Report No.: 16060119HKG-001

The Equipment Under Test (EUT) is a Zigbee Remote Switch. The EUT can operate with Zigbee Lightening equipment(provide by client).The Zigbee portion occupies frequency range of 2405MHz to 2475MHz (14 channels with channel spacing of 5MHz).
Any button press cause a fixed magnet to move along coil which generates electricity. The EUT is powered by this bit of power.

Antenna Type: Internal integral antenna
Antenna Gain: 0dBi
Nominal rated field strength: 98.1dBμV/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 101.1dBμV/m at 3m in frequency 2.4GHz, thus;

The EIRP = [(FS*D) ^2*1000 / 30] = 3.865mW

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

Conducted Power = 3.865mW.

The SAR Exclusion Threshold Level:
= 3.0 * (min. test separation distance, mm) / sqrt(freq. in GHz)
= 3.0 * 5 / sqrt (2.475) mW
= 9.05 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.