

Analysis Report

Report No.: 19101306HKG-001

The equipment under test (EUT) is the Linked Decorative Fixture (wireless control lighting) which contains a transceiver operating in the 902MHz to 928MHz band. The EUT will transmit RF signal to the corresponding receivers when a person triggering the motion sensor. The EUT is powered by 120VAC.

Antenna Type: Internal integral antenna

Antenna Gain: 0dBi

Nominal rated field strength: 91.2 dB μ V/m at 3m (EIRP -4 dBm)

Maximum allowed field strength of production tolerance: +/- 3 dB

Frequency range: 905.355MHz, 911.953MHz, 923.350MHz (3 channels)

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was 94.2 dB μ V/m at 3m in frequency range between 902MHz and 928MHz, 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 (0.928) mW

= 15.6 mW

According to the KDB 412172 D01:

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

Calculated Field Strength for 15.6mW is 107.2dBuV/m @3m

Since maximum field strength plus production tolerance < = 107.2dBuV/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.