

Analysis Report

Report No.: 18020547HKG-001

The equipment under test (EUT) is a 915MHz transmitter (i.e. Pool Sensor) system. The sensor is operating at 915MHz and it sends the data to the main console (corresponding receiver unit) for measurement. The EUT is powered by 2 x AA batteries (3.0VDC).

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was 95.2 dBμV/m at 3m in frequency 915MHz, thus;

It below calculated field strength according to minimum SAR exclusion threshold level as follows:

The worst case of SAR Exclusion Threshold Level:
= $3.0 * (\text{min. test separation distance, mm}) / \sqrt{\text{freq. in GHz}}$
= $3.0 * 5 / \sqrt{0.915}$ mW
= 15.7 mW

According to the KDB 412172 D01:
 $\text{EIRP} = [(\text{FS} * \text{D})^2 * 1000 / 30]$

Calculated Field Strength for 15.7mW is 107.2dBuV/m @3m

Since maximum field strength plus production tolerance $\leq 107.2\text{dBuV/m @3m}$ and antenna gain is $\geq 0.0\text{dBi}$, 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.