Analysis Report

The equipment under test (EUT) is a transmitter for remote doorbell operating at 315MHz which is operated by a crystal. The EUT is powered by a 3VDC Lithium button cell battery. The EUT contains a "SYNC" button and a magnet sensor. The transmitter will be activated and then send transmit a signal to doorbell while the magnet is moving away from the magnet sensor (i.e. simulate the door being opened). The "SYNC" button is used for the setup between the transmitter and the doorbell. For the magnet sensor portion, the transmitter will cease transmission within 5 seconds after activation. For the "SYNC" button, the manually operated transmitter will automatically deactivate the transmitter within not more than 5 seconds of being released.

Antenna Type: Internal antenna
Antenna Gain: 0dBi
Nominal rated field strength: 74.9 dBμV/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 77.9dBμV/m at 3m in frequency 315MHz, thus;

The EIRP = [(FS*D) ^2*1000 / 30] = 0.018mW

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

Conducted Power =0.018mW.

The SAR Exclusion Threshold Level:
= 3.0 * (min. test separation distance, mm) / sqrt(freq. in GHz)
= 3.0 * 5 / sqrt (0.315) mW
= 26.7 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.