

Analysis Report

Report No.: 14050713HKG-001

The equipment under test (EUT) is a transmitter for Remote door bell operating at 315MHz which is operated by a crystal. The EUT is powered by 1 x 12V 23AE battery. There are a reset button and a magnet sensor inside the EUT. The transmitter will be activated and then transmit a signal to door bell receiver once either the magnet is moving away from the magnet sensor (i.e. simulate the door being opened) or the reset button is pressed by the user. For magnet sensor portion, the transmitter will cease transmission within 5 seconds after activation. For reset button, the manually operated transmitter will automatically deactivate the transmitter within not more than 5 seconds of being released.

Antenna Type: Internal integral antenna

Antenna Gain: 0dBi

Nominal rated field strength: 84.4 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 87.4 dBμV/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30]$ = 0.165mW

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

Conducted Power = 0.165mW.

The SAR Exclusion Threshold Level:

= $3.0 \cdot (\text{min. test separation distance, mm}) / \sqrt{\text{freq. in GHz}}$

= $3.0 \cdot 5 / \sqrt{0.315}$ mW

= 26.73 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.