

Analysis Report

The Equipment Under Test (EUT) is a 433MHz transmitter. The EUT is powered by 3.0VDC (1 x 3.0V CR2032 battery). After pressing the button on the EUT, it will transmit a signal to turn on the receiver (Puck Light).

Antenna Type: Internal antenna

Antenna Gain: 0dBi

Nominal rated field strength: 78.3 dB μ V/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 81.3dB μ V/m at 3m in frequency 433MHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30] = 0.04\text{mW}$

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 0.04mW.

The SAR Exclusion Threshold Level:

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

= $3.0 \cdot 5 / \sqrt{0.433.92}$ mW

= 22.77 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.