

Analysis Report

The Equipment Under Test (EUT) is the Wireless Christmas Concert Snowmen: Continuity 1 Base operating at 2408MHz, 2428MHz and 2450MHz only. The EUT is powered by 4.5VDC (3 X1.5V AAA batteries). It will play songs and flashing the light in time to the song. There are totally five sets snowman styles. When it is put together with other members of the band, they communicate wirelessly to flashing the light and play song with each other's songs. After powered up, the EUT will scan the ambient field strength among those three channels. Then it will select the channel with the least ambient field strength to operate.

Antenna Type: Internal antenna

Antenna Gain: 0dBi

Nominal rated field strength: 86.6 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 89.6dB μ V/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS * D)^2 * 1000 / 30] = 0.274mW$

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 0.274mW.

The SAR Exclusion Threshold Level:

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

= $3.0 * 5 / \text{sqrt}(2.450)$ mW

= 9.58 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.