

Analysis Report

The Equipment Under Test (EUT) is a Bluetooth version 4.0 for a moodgleam wearable bracelet operating from 2402-2480MHz with 2MHz channel spacing. The EUT is powered by 1X3.7VDC rechargeable battery. After switched on the EUT and paired with smart device, the gleam on EUT can be set to different color on the application or by scanning the code on the treasure.

Antenna Type: Internal antenna

Antenna Gain: 0.5dBi

Nominal rated field strength: 94.6dB 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 97.6dB μ V/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS * D)^2 * 1000 / 30] = 1.726\text{mw}$

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 1.539mW.

The SAR Exclusion Threshold Level:

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

GHz) = $3.0 * 5 / \text{sqrt}(2.480) \text{ mW}$

= 9.53 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.