

Analysis Report

The Equipment Under Test (EUT) is a Gameaugmented Reality Laser with Bluetooth 4.0 BLE only function. The Bluetooth module in the EUT is operating in the frequency range from 2402MHz to 2480MHz (40 channels with 2MHz channel spacing). The EUT can be connected with a smartphone so than it can control the vibration of the DUT via the Apps.

The EUT is powered by 3 x 1.5V LR44 batteries.

The Model: E3014 is the same as the Model: E3015 in hardware aspect. The difference in model number serves as marketing strategy.

The models are different in model number, item name, color, packaging and non-conductive accessories only.

Antenna Type: Internal antenna

Antenna Gain: 0dBi

Nominal rated field strength is 92.0 dB μ V/m at 3m

Maximum allowed production tolerance: +/- 3dB

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was 95.0dB μ V/m at 3m in frequency 2.480GHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30] = 0.95\text{mW}$

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

Conducted Power = 0.95mW .

The SAR Exclusion Threshold Level:

$$\begin{aligned} &= 3.0 * (\text{min. test separation distance, mm}) / \sqrt{\text{freq. in GHz}} \\ &= 3.0 * 5 / \sqrt{2.480} \text{ mW} \\ &= 9.53 \text{ mW} \end{aligned}$$

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.