

Analysis Report

The Equipment Under Test (EUT) is a Bluetooth drawing with Bluetooth 4.2 BLE only function. The Bluetooth module in the EUT is operating in the frequency range from 2402MHz to 2480MHz (39 channels with 2MHz channel spacing). The EUT can be connected a Bluetooth Device for choosing picture shown. The EUT is powered by ac power supply or 4 x 1.5V C batteries.

The direction of the track will be changed based on the phone apps operation. The app. also controls the picture shown in the LED.

Antenna Type: Internal, Integral

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Antenna Gain: 0dBi

Nominal rated field strength is 95.3 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 98.3dB μ V/m at 3m in frequency 2.402GHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30] = 2.028 \text{ mW}$

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 2.028mW.

The SAR Exclusion Threshold Level:

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

= $3.0 \cdot 5 / \sqrt{2.48} \text{ mW}$

= 9.525 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.