

# Analysis Report

The Equipment Under Test (EUT) is a Bluetooth projector with Bluetooth 4.2 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 connect with a Bluetooth Device for choosing pictures projected. The EUT is powered by 120V AC/ 5.9V DC adaptor or 4 x 1.5V D batteries.

The app controls the picture projected under the projector light.

Antenna Type: Internal, Integral

Antenna Type: Internal/ PCB antenna

Antenna Gain: 1.6 dBi

Nominal rated field strength is 94.6 dB $\mu$ 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 97.6dB $\mu$ V/m at 3m in frequency 2.48GHz, thus;

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

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

Conducted Power = 1.194mW.

The SAR Exclusion Threshold Level:

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

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

= 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.