

Analysis Report

The Equipment Under Test (EUT) is a Bluetooth Version 4.0 BLE Education Toy. The EUT is powered by 4 X 1.5V AA batteries. After switch on the EUT connected with iPad Application through Bluetooth, user can place the alphabet accessories on the EUT then the alphabet will be shown on the iPad.

Antenna Type: External integral antenna

Antenna Gain: 0dBi

Nominal rated field strength: 74.8dB 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 77.8dB μ V/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30] = 0.018\text{mW}$

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 0.018mW.

The SAR Exclusion Threshold Level:

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

= $3.0 \cdot 5 / \sqrt{2.480} \text{ mW}$

= 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.