

Analysis Report

Report No.: 15030169HKG-001

The Equipment Under Test (EUT) is a 2.4GHz Bluetooth 4.0 transceiver (Dinosaur), which is operating at 2402MHz to 2480MHz (40 channels with 2MHz channel spacing). The EUT is powered by 6VDC (4 X 1.5V "AA" batteries). The EUT has a power ON/OFF switch and a LED. When the EUT is switched ON, the LED will be on. Press the correct icon in the App of the Smartphone, the EUT will pair with the relating Smartphone. After pairing, the EUT can be controlled to move forward, backward, left and right by the corresponding Bluetooth device.

There is a ball with IR function also. The EUT will chase for the ball when choosing the "Ball Mode" in the App.

Antenna Type: Internal integral antenna

Antenna Gain: 0dBi

Nominal rated field strength: 93.1dB μ V/m at 3m

Maximum allowed field strength of production tolerance: +3dB / - 3dB

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was 96.1dB μ V/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30] = 1.222\text{mW}$

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

Conducted Power = 1.222mW

The SAR Exclusion Threshold Level:

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

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

= 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.