

Analysis Report

Report No.: 14060973HKG-001

The equipment under test is a 2.4GHz transceiver of Bluetooth 4.0 for game band which is operated at 2402 ~2480MHz with 2MHz channel spacing. The device is powered by a 3.7V internal rechargeable battery pack. Once paired with mobile, the EUT can transfer the points to app for game playing. The non-replaceable internal rechargeable battery shall be charged via USB cable.

Antenna Type: Internal integral antenna

Antenna Gain: 0dBi

Nominal rated field strength: 101.4dB 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 104.4dB μ V/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30] = 8.263\text{mW}$

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 8.263mW.

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.