

Analysis Report

Report No.: 17061133HKG-001

The Equipment Under Test (EUT) is a app-controlled 2.4GHz Transceiver (BLE Doll Unit) operating at a frequency range of 2402-2480MHz with 2MHz channel spacing.

The EUT is powered by 6.0 VDC (4x1.5V AA batteries). After switching on the EUT and being paired with the mobile app, the EUT can be controlled to move forward, backward and turn left/ right by mobile app.

Antenna Type: Internal integral antenna

Antenna Gain: 0dBi

Nominal rated field strength: 95.1dB 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 98.1dB μ V/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30] = 1.937\text{mW}$

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 1.937mW.

The SAR Exclusion Threshold Level:

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

= $3.0 \cdot 5 / \text{sqrt}(2.402)$ mW

= 9.68 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.