

Analysis Report

Report No.: 17061743HKG-001

The Equipment Under Test (EUT) is a portable 2.4GHz Transceiver (Robot) operating at the frequency range of 2402-2480MHz with 2 MHz channel spacing.

The EUT is powered by 3.7V Rechargeable battery. And it is able to be connected to the app installed in smart phone via BLE and be controlled to move and transform by the app. EUT is also able to produce sound during the operation.

Antenna Type: Internal integral antenna

Antenna Gain: 0dBi

Nominal rated field strength: 91.5dBμV/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 94.5dBμV/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30] = 0.846\text{mW}$

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

Conducted Power = 0.846mW.

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.