

Analysis Report

Report No.: 13081175HKG-001

The Equipment Under Test (EUT) is a portable 2.4GHz Bluetooth speaker. The EUT can accept line in analog audio source. The Bluetooth portion is operating between 2402MHz and 2480MHz (79 channels with 1MHz channel spacing). The EUT is powered by 3.7VDC (1 x 3.7V rechargeable battery) or powered by USB port. When the EUT is switched ON in Bluetooth mode, the light will be flashing. The corresponding Bluetooth device would be searched and connected to the EUT before playing audio. After pairing, the light will stay lit. The EUT is using non-adaptive frequency hopping as declared by applicant.

Antenna Type: Internal integral antenna

Antenna Gain: 0dBi

Nominal rated field strength: 90.0dBμV/m at 3m

Maximum allowed field strength of production tolerance: +/- 8dB

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was 98.0dBμV/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30] = 1.893\text{mW}$

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

Conducted Power = 1.893mW.

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.