

Analysis Report

Report No.: 17061042HKG-001

The Equipment Under Test (EUT) is a portable 2.4GHz radio with speaker (Bluetooth) operating at the frequency range of 2402-2480MHz with 1 MHz channel spacing.

The EUT is powered by 4*1.5V AA battery or charging by PC. It can be connected to the smartphone via Bluetooth as a play device. The EUT can also support AM or FM radio function.

Antenna Type: Internal integral antenna

Antenna Gain: 0dBi

Nominal rated field strength: 88.2dBμV/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 91.2dBμV/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30]$ = 0.395mW

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

Conducted Power = 0.395mW.

The SAR Exclusion Threshold Level:

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

= $3.0 \cdot 5 / \sqrt{2.480}$ 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.