

Analysis Report

Report No.: 14030606HKG-001

The Equipment Under Test (EUT) is a 2.4GHz Bluetooth speaker with AM/FM radio and CD player. The EUT can accept line in analog audio source. The Bluetooth portion is operating between 2402MHz and 2480MHz (79 channels with 1MHz channel spacing, adaptive frequency hopping). The EUT is powered by 12VDC (8 x 1.5V "D" batteries) or 120VAC. When the EUT is switched ON in Bluetooth mode, the display will show "BT" and flashing. The corresponding Bluetooth device would be searched and connected to the EUT before playing audio. After pairing, the "BT" will stay lit.

Antenna Type: Internal integral antenna

Antenna Gain: 0dBi

Nominal rated field strength: 101.1dB μ V/m at 3m

Maximum allowed field strength of production tolerance: +3dB / - 5dB

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was 104.1dB μ V/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30] = 7.711\text{mW}$

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 7.711mW

The SAR Exclusion Threshold Level:

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

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