

Analysis Report

Report No.: 18031407HKG-001

The Equipment Under Test (EUT) is a Electric Fireplace Heater with Bluetooth Apps Control, which its operation can be controlled by a Smartphone over Bluetooth 4.0 BLE link. The EUT occupies a frequency range from 2402MHz to 2480MHz (40 channels with channel spacing of 2MHz). The EUT is powered by a 120VAC.

Antenna Type: Internal integral antenna

Antenna Gain: 0dBi

Nominal rated field strength: 92.8dB 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 95.8dB μ V/m at 3m in frequency 2.480GHz, thus;

The EIRP = $[(FS^2 * D) / 30] = 1.141\text{mW}$

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

Conducted Power = 1.141mW.

The SAR Exclusion Threshold Level:

= $3.0 * (\text{min. test separation distance, mm}) / \sqrt{\text{freq. in GHz}}$
= $3.0 * 5 / \sqrt{2.480} \text{ mW}$
= 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.