

# Analysis Report

Report No.: 17010219HKG-001

The Equipment Under Test (EUT) is a Bluetooth Remote which is the RF wireless remote controller for the OD-11 Wireless Speaker. The EUT can only support Bluetooth 4.0 BLE that occupies a frequency range of 2402MHz to 2480MHz (40 channels with channel spacing of 2MHz). The EUT is powered by 3VDC (2 X size "AAA" batteries).

Bluetooth Portion

Modulation Type: GFSK

Antenna Type: Internal, Internal

Frequency Range: 2402MHz to 2480MHz, 2MHz channel spacing, 40 channels

Antenna Gain: 3dBi

Normal rated field strength: 93.0 dB $\mu$ V/m @ 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 96.0 dB $\mu$ V/m at 3m in frequency 2.4GHz, thus;

The EIRP =  $[(FS \cdot D)^2 \cdot 1000 / 30] = 1.2 \text{ mW}$

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

Conducted Power = 0.6 mW.

The SAR Exclusion Threshold Level:

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

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

= 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.