

# Analysis Report

The Equipment Under Test (EUT) is a 2.4GHz Bluetooth Headphone with Speaker. The EUT can accept analog audio (AUX-in) and Bluetooth wireless audio when paired with a Bluetooth devices. The audio signal is amplified and driving either headphone or internal loudspeaker. The EUT is powered by a 3.7V internal rechargeable battery that can be charged via Micro-USB port. The EUT is operated in Bluetooth 3.0 only as declared by the applicant.

Model: FLIPSBT may come in color variations but are electrically and mechanically the same. The only difference is the color.

The antenna used in the EUT is internal, integral.

2.4GHz Bluetooth Module:

Modulation Type: GFSK

Antenna Type: Integral, Internal

Frequency Range for Bluetooth 3.0: 2402MHz - 2480MHz, 1MHz channel spacing, 79 channels

Nominal field strength is 94.0dB $\mu$ V/m @ 3m

Production Tolerance of field strength is +/- 3dB

Antenna gain is 0dBi

According to the KDB 447498:

For Bluetooth:

Based on the Maximum allowed field strength of production tolerance was 97dB $\mu$ V/m at 3m in frequency 2.480GHz, thus;

The EIRP =  $[(FS \cdot D)^2 \cdot 1000 / 30] = 1.504\text{mW}$

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 1.504mW.

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.