# Analysis Report

FCC ID: BWY-MHA50

The Equipment Under Test (EUT) is a Portable Decoding Amplifier, equipped with a Bluetooth module. After pairing the EUT to the Bluetooth devices (e.g. Apple iphone or Android smartphone), user can play audio signal via Bluetooth wireless link. The Bluetooth module in the EUT is operating in the frequency range from 2402MHz to 2480MHz (79 channels with 1MHz channel spacing). The audio signal is amplified and fed to the external headphone. The EUT can accept USB Digital Audio Signal playback coming from devices using iOS Mobile (Apple) or Android Operating System. It also allows USB connection to a Computer using Windows or MAC Apple's OS (PC connectivity). The EUT is powered by 3.7V internal rechargeable battery and/or USB port (5VDC). The 3.7V internal battery is charged via USB port. The applicant declared that Bluetooth 4.0 BLE feature is not supported by the EUT.

**2.4GHz Bluetooth portion**
Antenna Type: Internal, Integral
Antenna Gain: 2dBi

Bluetooth 3.0
Modulation Type: GFSK
Frequency Range: 2402MHz to 2480MHz, 1MHz channel spacing, 79 channels

EIRP range is 0dBm to 5dBm

According to the KDB 447498:

Conducted Power (max) = EIRP – Antenna gain
= 5 dBm – 2 dBi
= 3 dBm (2 mW)

The SAR Exclusion Threshold Level:
= 3.0 * (min. test separation distance, mm) / sqrt(freq. in GHz)
= 3.0 * 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.