

# Analysis Report

FCC ID: A2HRTS7131B

The Equipment Under Test (EUT) is a Home Theatre Sound Bar. It can accept analog input sources (RCA aux-in and 3.5mm phone jack line-in), SPDIF digital audio input (optical TOSLINK) and wireless Bluetooth device. 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 built-in passive loudspeakers. The EUT is powered by an AC/DC adaptor. (Input: 120VAC 50/60Hz ; Output: 13VDC 1.8ADC).

Bluetooth :  
2402MHz – 2480MHz, 79 channels, 1MHz spacing

Antenna Type: Internal integral antenna  
Antenna Gain: 0dBi

Operating mode	Nominal Radiated Field Strength	Production Tolerance	Modulation Type
Bluetooth	97.2 dBµV/m at 3m	+3/-3dB	GFSK

According to the KDB 447498:

For Bluetooth:

Based on the Maximum allowed field strength of production tolerance was 100.2dBµV/m at 3m in frequency 2.480GHz, thus;

The EIRP =  $[(FS \cdot D)^2 \cdot 1000 / 30] = 3.14mW$

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 3.14mW.

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.