RF Exposure

The equipment under test (EUT) is a HIGH DEFINITION SOUNDBAR with Bluetooth function. The EUT was powered by AC 120V, 60Hz. For more detail information pls. refer to the user manual.

Modulation Type: GFSK for BT 4.0 and GFSK, π/4DQPSK, 8DPSK for BT 3.0+EDR.
Bluetooth Version: 4.0 and 3.0 with EDR.

Antenna Type: Integral antenna.
Antenna Gain: 0dBi.
The nominal conducted output power specified: 3dBm +/-4dB.
The nominal radiated output power (e.i.r.p) specified: 3dBm (+/- 4dB)

According to the KDB 447498:

The maximun peak radiated emission for the EUT is 101.9dBμV/m at 3m in the frequency 2480MHz of BT 4.0The EIRP = [(FS*D) ^2 / 30] mW = 6.67dBm
which is within the production variation.

The minimum peak radiated emission for the EUT is 95.4dBμV/m at 3m in the frequency 2441MHz of BT 3.0+EDR
The EIRP = [(FS*D) ^2 / 30] mW = 0.17dBm
which is within the production variation.

The maximun conducted output power specified is 7dBm = 5.01mW
The source- based time-averaging conducted output power
= 5.01 * Duty Cycle mW (where Duty Cycle≤1)
≤ 5.01 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 source-based time-averaging conducted output power is well below the SAR low threshold level, so the EUT is considered to comply with SAR requirement without testing.