

# INTERTEK TESTING SERVICES

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## RF Exposure

The equipment under test (EUT) is a Cassette Boombox Black with Bluetooth FHSS technology operating in 2402-2480MHz. The EUT is powered by AC120V, 60Hz by AC power cord or DC 9V from 6 C size batteries. For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna

Modulation Type: GFSK, p/4-DQPSK and 8-DPSK

Antenna Gain: -0.59dBi Max

Bluetooth Version: 5.1 (Single Mode BR/EDR)

The nominal conducted output power specified: -2 dBm ( $\pm 2$ dB)

According to the KDB 447498 07:

The maximum conducted output power for the EUT is -1.52dBm in the frequency 2.480GHz which is within the production variation.

The minimum conducted output power for the EUT is -1.90dBm in the frequency 2.480GHz which is within the production variation.

The maximum conducted output power specified is 0 dBm = 1.000mW

The maximum ERP specified is 0dBm - 2.15dB - 0.59dBi = -2.74dBm = 0.53mW

The SAR Exclusion Threshold Level:

$$\begin{aligned} P_{th}(\text{mW}) &= ERP_{20\text{cm}} * (d/20\text{cm})^x \quad (X = -\log_{10}\left(\frac{60}{ERP_{20\text{cm}}\sqrt{f}}\right)) \\ &= 3060 * (0.5/20)^{1.9} \text{ mW} \\ &= 2.72 \text{ mW} \end{aligned}$$

Since max. conducted output power and effective radiated power (ERP) is well below the SAR low threshold level, so the EUT is considered to comply with SAR requirement without testing.