

INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is a WIRELESS BOOKSHELF SPEAKER with BT 5.0 BR+EDR function operating in 2402-2480MHz, and with AUX In /Line In playing function with LED Lamp indication. The EUT is powered by DC 15V via AC/DC adapter Input 100-240V~, 50/60Hz, Output 15Vdc, 2.4A.. For more detail information pls. refer to the user manual.

Modulation Type: GFSK, $\pi/4$ -DQPSK, 8DPSK
Bluetooth Version: 5.0 (Single Mode BR+EDR)

Antenna Type: Integral antenna.

Antenna Gain: 1.9dBi.

The nominal conducted output power specified: -6dBm (+/-3dB).

The nominal radiated output power (e.i.r.p) specified: -4.1dBm (+/-3dB).

According to the KDB 447498:

The maximum peak radiated emission for the EUT is 92.18dB μ V/m at 3m in the frequency 2480MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -3.05dBm
which is within the production variation.

The minimum peak radiated emission for the EUT is 88.70dB μ V/m at 3m in the frequency 2441MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -6.53dBm
which is within the production variation.

The maximum conducted output power specified is -3dBm = 0.5mW

The source-based time-averaging conducted output power
= 0.5 * Duty factor mW (where Duty Factor \leq 1)
= 0.5 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.