

INTERTEK TESTING SERVICES

Analysis Report

The equipment under test (EUT) is a 100-Watt Bluetooth CD Stereo System with Bluetooth technology operating in 2402-2480MHz. The EUT is powered by AC 120V, 60Hz. For more detail information pls. refer to the user manual.

Modulation Type: GFSK, $\pi/4$ -DQPSK and 8-DPSK

Bluetooth Version: 2.1+EDR

Antenna Type: PCB Antenna

Antenna Gain: 0dBi

The nominal conducted output power specified: 1dBm (Tolerance: +/-5dB)

The nominal radiated output power specified: 1dBm (Tolerance: +/-5dB)

According to the KDB 447498:

The maximum peak radiated emission for the EUT is 100.1dB μ V/m at 3m in the frequency 2480MHz.

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = 4.87dBm
which is within the production variation.

The minimum peak radiated emission for the EUT is 100.9dB μ V/m at 3m in the frequency 2402MHz.

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = 5.67dBm
which is within the production variation.

The maximum conducted output power specified is 6.0dBm = 3.98mW

The source-based time-averaging conducted output power
= 3.98 * Duty cycle mW \leq 3.98 mW (Duty Cycle \leq 100%)

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.