

INTERTEK TESTING SERVICES

RF Exposure report

The Equipment Under Test (EUT) is a Bluetooth Remote Control Module, Model: SA189AW with Bluetooth version 4.0 function operating in 2402-2480MHz. The EUT is powered by DC 3.0V (2 x 1.5V 'UM-3/R6/AA' batteries) or USB operated DC 5.0V. For more detailed features description, please refer to the user's manual.

Modulation Type: GFSK

Antenna Type: Integral antenna

Antenna Gain: 3.3dBi

The nominal conducted output power specified: 0dBm (Tolerance: +/-3dB)

The maximum conducted output power for the EUT is -0.7 dBm in the frequency 2.402GHz which is within the production variation.

According to FCC Part 2.1091, this unlicensed transmitting devices is categorically excluded from routine environmental evaluation for RF exposure prior to equipment authorization or use.

The maximum conducted output power= 3.0dBm=2.0mW

The source-based time averaged maximum conducted output power
= 2.0 x Duty Cycle = 2.0mW

According to the KDB 447498, the simple calculation as below:

The SAR Exclusion Threshold Level:

= $3.0 * (\text{min. test separation distance, mm}) / \text{sqrt}(\text{freq. in GHz})$

= $3.0 * 5 / \text{sqrt}(2.480) \text{ mW}$

= 9.5 mW

Since the source-based time-averaging radiated output power is well below the SAR low threshold level, so the EUT is considered to comply with SAR requirement without testing.

Note: The EUT transmitted continuously and the duty cycle is 100%.