

## INTERTEK TESTING SERVICES

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### RF Exposure

The Equipment under Test (EUT) is a Bluetooth Speaker model: AWSBT4-B. It is powered by DC 12V from external adapter with DC 12.0V 1.0A Output or 8 AA batteries . For more detail information please refer to the user manual.

Bluetooth Version: BT3.0

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

Antenna Type: Integral antenna.

Max Antenna Gain: 0dBi.

The nominal conducted output power specified: 0dBm  $\pm$ 3dB.

The nominal EIRP specified: -3dBm ~ 3dBm

The maximum tested e.i.r.p is -0.43dBm and the minimum tested e.i.r.p is -1.23dBm

According to the KDB 447498:

The maximum conducted output power specified is 3dBm = 2.0mW

The source- based time-averaging conducted output power  
= 2.0\* Duty Cycle mW < 2.0mW (Duty Cycle < 100%)

The SAR Exclusion Threshold Level:

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

= 3.0 \* 5 / sqrt (2.480) mW

= 9.5 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.

Transmitter Duty Cycle Calculation

Based on the Bluetooth Specification (BT version: 3.0 + EDR), the duty Cycle is dependent of packet type (DH1, DH3 and DH5).For DH5:

One hop set consists of 5 TX slot and 1 RX slot.

Duty factor = 5 / 6 = 0.833