

# INTERTEK TESTING SERVICES

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## Radiofrequency radiation exposure evaluation

The equipment under test (EUT) is a Wireless Bluetooth Audio Transmitter/ AirFly SE with Bluetooth 5.3 (Single Mode EDR) function operating in 2402-2480MHz. The EUT is powered by DC 3.7V 220mAh 0.814Wh by rechargeable battery, charging: DC 5V, 300mA by USB-C port. For more details information pls. refer to the user manual.

Antenna Type: Chip antenna

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

Antenna Gain: 2.7dBi Max

Bluetooth Version: 5.3 (Single Mode EDR)

The nominal radiated output power (e.i.r.p) specified: -3.0dBm (tolerance:  $\pm 4$ dB).

The nominal conducted output power specified: -5.7dBm (tolerance:  $\pm 4$ dB).

According to the KDB 447498 V06:

The Maximum peak radiated emission for the EUT is 96.1 dB $\mu$ V/m at 3m in the frequency 2402MHz

The EIRP =  $[(FS*D)^2 / 30]$  mW = 0.87dBm  
which is within the production variation.

The Minimum peak radiated emission for the EUT is 90.1 dB $\mu$ V/m at 3m in the frequency 2480MHz

The EIRP =  $[(FS*D)^2 / 30]$  mW = -5.13dBm  
which is within the production variation.

The maximum conducted output power specified is -1.7dBm= 0.676mW

The source- based time-averaging conducted output power  
=0.676mW

The SAR Exclusion Threshold Level:

=  $3.0 * (\text{min. test separation distance, mm}) / \text{sqrt(freq. in GHz)}$   
=  $3.0 * 5 / \text{sqrt}(2.480)$  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.