



## CTC Laboratories, Inc.

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# Maximum Permissible Exposure Evaluation

FCC ID: 2AY37-S-BS

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) Radiation as specified in §1.1307(b)

### EUT Specification

|                            |                                                                                                                                                                                                                                |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Name:              | Wisdom Car Smart Atomized Air Freshener                                                                                                                                                                                        |
| Trade Mark:                | Baseus                                                                                                                                                                                                                         |
| Model/Type reference:      | IPBM82-26 S(BS)                                                                                                                                                                                                                |
| Listed Model(s):           | /                                                                                                                                                                                                                              |
| Frequency band (Operating) | <input type="checkbox"/> BT/EDR: 2.402GHz ~ 2.480GHz<br><input checked="" type="checkbox"/> BLE: 2.402GHz ~ 2.480GHz<br><input type="checkbox"/> WLAN: 2.412GHz ~ 2.462GHz<br><input type="checkbox"/> Others:                 |
| Device category            | <input type="checkbox"/> Portable (<5mm separation)<br><input type="checkbox"/> Mobile (>20cm separation)<br><input checked="" type="checkbox"/> Fixed (>20cm separation)<br><input type="checkbox"/> Others ____              |
| Exposure classification    | <input type="checkbox"/> Occupational/Controlled exposure (S=5mW/cm <sup>2</sup> )<br><input checked="" type="checkbox"/> General Population/Uncontrolled exposure (S=1mW/cm <sup>2</sup> )                                    |
| Antenna diversity          | <input checked="" type="checkbox"/> Single antenna<br><input type="checkbox"/> Multiple antennas<br><input type="checkbox"/> Tx diversity<br><input type="checkbox"/> Rx diversity<br><input type="checkbox"/> Tx/Rx diversity |
| Antenna gain: (Max)        | 1dBi                                                                                                                                                                                                                           |
| Evaluation applied         | <input checked="" type="checkbox"/> MPE Evaluation<br><input type="checkbox"/> SAR Evaluation                                                                                                                                  |

### Limits for Maximum Permissible Exposure (MPE)

| Frequency Range(MHz)                                  | Electric Field Strength(V/m) | Magnetic Field Strength(A/m) | Power Density(mW/cm <sup>2</sup> ) | Average Time |
|-------------------------------------------------------|------------------------------|------------------------------|------------------------------------|--------------|
| (A) Limits for Occupational/Control Exposures         |                              |                              |                                    |              |
| 300-1500                                              | --                           | --                           | F/300                              | 6            |
| 1500-100000                                           | --                           | --                           | 5                                  | 6            |
| (B) Limits for General Population/Uncontrol Exposures |                              |                              |                                    |              |
| 300-1500                                              | --                           | --                           | F/1500                             | 6            |
| 1500-100000                                           | --                           | --                           | 1                                  | 30           |

Friis transmission formula:  $P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot R^2)$

Where

$P_d$  = Power density in mW/cm<sup>2</sup>

$P_{out}$  = output power to antenna in mW

$G$  = gain of antenna in linear scale

$\pi$  = 3.1416

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R= distance between observation point and center of the radiator in cm

Pd the limit of MPE  $1\text{mW}/\text{cm}^2$ . If we know the maximum gain of the antenna and total power input to the antenna, through the calculation, We will know the distance where the MPE limit is reached.

#### Measurement Result

| Band        | Frequency (MHz) | Antenna Gain (dBi) | Maximum Power (dBm) | Tune up tolerance (dBm) | Max. Tune up Power (dBm) | Power Density at 20cm ( $\text{mW}/\text{cm}^2$ ) | Limit ( $\text{mW}/\text{cm}^2$ ) |
|-------------|-----------------|--------------------|---------------------|-------------------------|--------------------------|---------------------------------------------------|-----------------------------------|
| BLE (1Mbps) | 2440            | 1                  | 4.85                | $5 \pm 1$               | 6                        | 0.00100                                           | 1.000                             |
| BLE (2Mbps) | 2480            | 1                  | 4.61                | $5 \pm 1$               | 6                        | 0.00100                                           | 1.000                             |

Note:

For a more detailed features description, Please refer to the RF Test Report.

\*\*\*\*\*THE END\*\*\*\*\*