

## RF Exposure Evaluation Report

**Report Reference No.**.....: **MTEB25050081-H**

**FCC ID**.....: **2BNZW-LEDWHP153**

Compiled by

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Date of issue.....: **May 12,2025**

**Representative Laboratory Name.:** **Shenzhen Most Technology Service Co., Ltd.**

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Nanshan, Shenzhen, Guangdong, China.

**Applicant's name**.....: **S2B Inc.**

Address.....: 9866 7th Street Ste 110 Rancho Cucamonga, CA 91730 United  
States

**Test specification/ Standard**.....: **47 CFR Part 1.1307**

**47 CFR Part 2.1093**

TRF Originator.....: Shenzhen Most Technology Service Co., Ltd.

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**Test item description**.....: Bluetooth Controller Box for automotive RGB LED lighting products.

Trade Mark.....: TRUE MODS

Model/Type reference.....: LEDWHP153

Listed Models .....: LEDWHP15X, LEDWHP16X, LEDWHP17X, LEDWKL8XXX

Modulation Type.....: GFSK

Operation Frequency.....: From 2402MHz to 2480MHz

Hardware Version.....: V1.0

Software Version.....: V1.0

Rating.....: 12VDC

Result.....: PASS

## TEST REPORT

Equipment under Test : Bluetooth Controller Box for automotive RGB LED lighting products.

Model /Type : LEDWHP153

Listed Models : LEDWHP15X, LEDWHP16X, LEDWHP17X, LEDWKL8XXX

Remark : Use LEDWHP153 for all tests. Only the model name is different.while other designs are the same.Internal electronic components, circuit layout and wiring are consistent.

Applicant : S2B Inc.

Address : 9866 7th Street Ste 110 Rancho Cucamonga, CA 91730 United States

Manufacturer : DongGuan Yuanda Century Lighting Technology Co.,Ltd.

Address : 3/f, building D, 33 Kirinling Road, Tangxia Town, Dongguan City, Guangdong Province

<b>Test Result:</b>	<b>PASS</b>
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The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

1. Revision History

Revision	Issue Date	Revisions	Revised By
00	2025.05.12	Initial Issue	Alisa Luo

## 2. SAR Evaluation

### 2.1 RF Exposure Compliance Requirement

#### 2.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06

##### 4.3.1. Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

#### 2.1.2 Limits

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq 50$  mm are determined by:

$$\left[ \frac{\text{max. power of channel, including tune-up tolerance, mW}}{\text{min. test separation distance, mm}} \right] \cdot \left[ \sqrt{f(\text{GHz})} \right]$$
  
 $\leq 3.0$  for 1-g SAR and  $\leq 7.5$  for 10-g extremity SAR, where

$f(\text{GHz})$  is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation<sup>17</sup>

. The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is  $\leq 50$  mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is  $< 5$  mm, a distance of 5 mm is applied to determine SAR test exclusion

**2.1.3 EUT RF Exposure**

## Measurement Data

## BLE

GFSK			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power
			(dBm)
Lowest(2402MHz)	-2.09	$-2.09 \pm 1$	-1.09
Middle(2440MHz)	-3.37	$-3.37 \pm 1$	-2.37
Highest(2480MHz)	-3.05	$-3.05 \pm 1$	-2.05

Worst case: GFSK						
Channel	Maximum Peak Conducted Output Power (dBm)	Maximum tune-up Power		Calculated value	Exclusion threshold	SAR Test Exclusion
		(dBm)	(mW)			
Lowest(2402MHz)	-2.09	-1.09	0.78	0.24	3.0	Yes

.....**THE END OF REPORT**.....