

# FCC Test Report

**Applicant** : Shenzhen Minsuo Industrial Co.,Ltd.

**Address** : 12th floor, Block B, Tengyao Building, No. 268  
Gushu 2nd road, Xixiang Town, Bao'an,  
Shenzhen, China

**Product Name** : CHARGER WITH RGB LIGHTS

**Report Date** : Aug. 20, 2024

**Shenzhen Anbotech Compliance Laboratory Limited**



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## TEST REPORT

Applicant : Shenzhen Minsuo Industrial Co.,Ltd.  
Manufacturer : Shenzhen Minsuo Industrial Co.,Ltd.  
Product Name : CHARGER WITH RGB LIGHTS  
Model No. : MP-299, CRGB-6/2392  
Trade Mark : N/A  
Rating(s) : Input: 9V $\overline{=}$  3A  
Wireless Output: 5W, 7.5W, 10W, 15W

Test Standard(s) : FCC Part 1.1310, 1.1307(b)

Test Method(s) : KDB 680106 D01 Wireless Power Transfer v04

The device described above is tested by Shenzhen Anbotek Compliance Laboratory Limited to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The measurement results are contained in this test report and Shenzhen Anbotek Compliance Laboratory Limited is assumed full of responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT (Equipment Under Test) is technically compliant with the FCC Part 1.1307 & KDB680106 D01 requirements.

This report applies to above tested sample only and shall not be reproduced in part without written approval of Shenzhen Anbotek Compliance Laboratory Limited.

Jul. 25, 2024

Date of Receipt

Date of Test

Jul. 25, 2024 to Aug. 14, 2024

Prepared By

Tu Tu Hong

(TuTu Hong)

Approved & Authorized Signer

Edward Pan

(Edward Pan)



Revision History

| Report Version | Description     | Issued Date   |
|----------------|-----------------|---------------|
| R00            | Original Issue. | Aug. 20, 2024 |
|                |                 |               |
|                |                 |               |



## 1. General Information

### 1.1. Client Information

|              |   |                                                                                                      |
|--------------|---|------------------------------------------------------------------------------------------------------|
| Applicant    | : | Shenzhen Minsuo Industrial Co.,Ltd.                                                                  |
| Address      | : | 12th floor, Block B, Tengyao Building, No. 268 Gushu 2nd road, Xixiang Town, Bao'an, Shenzhen, China |
| Manufacturer | : | Shenzhen Minsuo Industrial Co.,Ltd.                                                                  |
| Address      | : | 12th floor, Block B, Tengyao Building, No. 268 Gushu 2nd road, Xixiang Town, Bao'an, Shenzhen, China |
| Factory      | : | Shenzhen Minsuo Industrial Co.,Ltd.                                                                  |
| Address      | : | 12th floor, Block B, Tengyao Building, No. 268 Gushu 2nd road, Xixiang Town, Bao'an, Shenzhen, China |

### 1.2. Description of Device (EUT)

|                                                                                                                                                                                              |   |                                                                                                                        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|------------------------------------------------------------------------------------------------------------------------|
| Product Name                                                                                                                                                                                 | : | CHARGER WITH RGB LIGHTS                                                                                                |
| Model No.                                                                                                                                                                                    | : | MP-299, CRGB-6/2392<br>(Note: All samples are the same except the model number, so we prepare "MP-299" for test only.) |
| Trade Mark                                                                                                                                                                                   | : | N/A                                                                                                                    |
| Test Power Supply                                                                                                                                                                            | : | AC 120V, 60Hz for adapter                                                                                              |
| Test Sample No.                                                                                                                                                                              | : | 1-2-1(Normal Sample), 1-2-2(Engineering Sample)                                                                        |
| Adapter                                                                                                                                                                                      | : | N/A                                                                                                                    |
| <b>RF Specification</b>                                                                                                                                                                      |   |                                                                                                                        |
| Operation Frequency                                                                                                                                                                          | : | 115-205kHz                                                                                                             |
| Modulation Type                                                                                                                                                                              | : | FSK                                                                                                                    |
| Antenna Type                                                                                                                                                                                 | : | Inductive loop coil Antenna                                                                                            |
| <b>Remark:</b> 1) All of the RF specification are provided by customer. 2) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual. |   |                                                                                                                        |



### 1.3. Auxiliary Equipment Used During Test

| Title                  | Manufacturer                       | Model No. | Serial No.      |
|------------------------|------------------------------------|-----------|-----------------|
| Xiaomi 33W adapter     | Xiaomi                             | MDY-11-EX | SA62212LA04358J |
| Wireless charging load | Shenzhen Ouju Technology Co., Ltd. | CD2577    | /               |

### 1.4. Description of Test Modes

| Pretest Modes | Descriptions                     |
|---------------|----------------------------------|
| TM1           | Adapter+WTP Mode (7.5W 1% Load)  |
| TM2           | Adapter+WTP Mode (7.5W 50% Load) |
| TM3           | Adapter+WTP Mode (7.5W 99% Load) |
| TM4           | Adapter+WTP Mode (10W 1% Load)   |
| TM5           | Adapter+WTP Mode (10W 50% Load)  |
| TM6           | Adapter+WTP Mode (10W 99% Load)  |
| TM7           | Adapter+WTP Mode (15W 1% Load)   |
| TM8           | Adapter+WTP Mode (15W 50% Load)  |
| TM9           | Adapter+WTP Mode (15W 99% Load)  |
| TM10          | Standby Mode                     |

### 1.5. Test Equipment List

| Item | Equipment                            | Manufacturer | Model No. | Serial No. | Last Cal.     | Cal. Interval |
|------|--------------------------------------|--------------|-----------|------------|---------------|---------------|
| 1    | Electric and Magnetic field Analyzer | NARDA        | EHP-200A  | 180ZX10202 | Oct. 16, 2023 | 1 Year        |



### 1.6. Measurement Uncertainty

|                                                                                                                                                                                                                                 |   |                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-----------------|
| Magnetic Field Reading(A/m)                                                                                                                                                                                                     | : | +/-0.04282(A/m) |
| Electric Field Reading(V/m)                                                                                                                                                                                                     | : | +/-0.03679(V/m) |
| The measurement uncertainty and decision risk evaluated according to AB/WI-RF-F-032.<br>This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2. |   |                 |

### 1.7. Description of Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

#### FCC-Registration No.: 434132

Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No. 434132.

#### ISED-Registration No.: 8058A

Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registered and fully described in a report filed with the (ISED) Innovation, Science and Economic Development Canada. The acceptance letter from the ISED is maintained in our files. Registration 8058A.

#### Test Location

Shenzhen Anbotek Compliance Laboratory Limited.

1/F, Building D, Sogood Science and Technology Park, Sanwei community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China.

### 1.8. Disclaimer

1. The test report is invalid if not marked with the signatures of the persons responsible for preparing and approving the test report.
2. The test report is invalid if there is any evidence and/or falsification.
3. The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein.
4. This document may not be altered or revised in any way unless done so by Anbotek and all revisions are duly noted in the revisions section.
5. Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.
6. The authenticity of the information provided by the customer is the responsibility of the customer and the laboratory is not responsible for its authenticity.

The laboratory is only responsible for the data released by the laboratory, except for the part provided by the applicant.



## 2. Measurement and Result

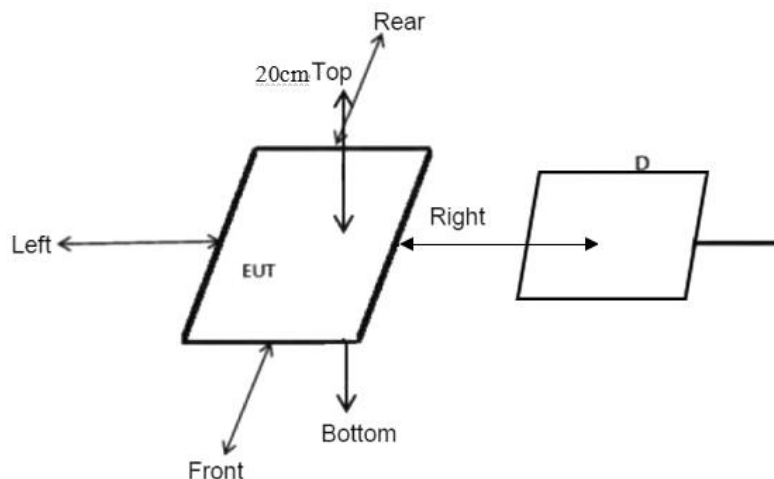
### 2.1. Limits For Maximum Permissible Exposure (MPE)

| Frequency range<br>(MHz)                                       | Electric field strength<br>(V/m) | Magnetic field strength<br>(A/m) | Power density<br>(mW/cm <sup>2</sup> ) | Averaging time<br>(minutes) |
|----------------------------------------------------------------|----------------------------------|----------------------------------|----------------------------------------|-----------------------------|
| <b>(A) Limits for Occupational/Controlled Exposures</b>        |                                  |                                  |                                        |                             |
| 0.3-3.0                                                        | 614                              | 1.63                             | *(100)                                 | 6                           |
| 3.0-30                                                         | 1842/f                           | 4.89/f                           | *(900/f <sup>2</sup> )                 | 6                           |
| 30-300                                                         | 61.4                             | 0.163                            | 1.0                                    | 6                           |
| 300-1500                                                       | /                                | /                                | f/300                                  | 6                           |
| 1500-100,000                                                   | /                                | /                                | 5                                      | 6                           |
| <b>(B) Limits for General Population/Uncontrolled Exposure</b> |                                  |                                  |                                        |                             |
| 0.3-1.34                                                       | 614                              | 1.63                             | *(100)                                 | 30                          |
| 1.34-30                                                        | 824/f                            | 2.19/f                           | *(180/f <sup>2</sup> )                 | 30                          |
| 30-300                                                         | 27.5                             | 0.073                            | 0.2                                    | 30                          |
| 300-1500                                                       | /                                | /                                | f/1500                                 | 30                          |
| 1500-100,000                                                   | /                                | /                                | 1.0                                    | 30                          |

F=frequency in MHz  
 \*=Plane-wave equivalent power density  
 RF exposure compliance will need to be determined with respect to 1.1307(c) and (d) of the FCC rules. The emissions should be within the limits at 300kHz in Table 1 of 1.1310(use the 300kHz limits for 150kHz:614V/m,1.63A/m).



## 2.2. Test Setup



Note: Measurements should be made at 20 cm surrounding the EUT and 20cm above the top surface of the EUT.

## 2.3. Test Procedure

- 1) The RF exposure test was performed in anechoic chamber.
- 2) The measurement probe was placed at required test distance which is between the edge of the charger and the geometric center of probe.
- 3) The highest emission level was recorded and compared with limit as soon as measurement of each points  
(A, B, C, D, E) were completed.(A is the right, B is the back, C is the left, D is the front, and E is the top.)
- 4) The EUT was measured according to the dictates of KDB 680106 D01 v04.

Remark; The EUT's test position A, B, C, D and E is valid for the E and H field measurements.



## 2.4. Test Result

Environmental evaluation and exposure limit according to FCC CFR 47 part 1, 1.1307(b), 1.1310

|              |       |           |      |                       |         |
|--------------|-------|-----------|------|-----------------------|---------|
| Temperature: | 23 °C | Humidity: | 51 % | Atmospheric Pressure: | 101 kPa |
|--------------|-------|-----------|------|-----------------------|---------|

E-Field Strength at 20 cm surrounding the EUT and 20cm above the top surface of the EUT

| Test Mode | Frequency Range (kHz) | Test Position A | Test Position B | Test Position C | Test Position D | Test Position E | Limits Test (V/m) |
|-----------|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------------|
| TM7       | 115-205               | 3.376           | 3.626           | 3.076           | 3.126           | 3.276           | 614               |
| TM8       | 115-205               | 1.206           | 1.306           | 1.356           | 1.406           | 1.256           | 614               |
| TM9       | 115-205               | 0.427           | 0.452           | 0.417           | 0.432           | 0.447           | 614               |
| TM10      | 115-205               | 0.348           | 0.348           | 0.398           | 0.398           | 0.348           | 614               |

H-Field Strength at 20 cm surrounding the EUT and 20cm above the top surface of the EUT

| Test Mode | Frequency Range (kHz) | Test Position A | Test Position B | Test Position C | Test Position D | Test Position E | Limits Test (A/m) |
|-----------|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------------|
| TM7       | 115-205               | 0.675           | 0.725           | 0.615           | 0.625           | 0.655           | 1.63              |
| TM8       | 115-205               | 0.241           | 0.261           | 0.271           | 0.281           | 0.251           | 1.63              |
| TM9       | 115-205               | 0.085           | 0.090           | 0.083           | 0.086           | 0.089           | 1.63              |
| TM10      | 115-205               | 0.070           | 0.070           | 0.080           | 0.080           | 0.070           | 1.63              |

Note: All modes has been tested,only the worst data was recorded in the report.



## **APPENDIX I -- TEST SETUP PHOTOGRAPH**

Please refer to separated files Appendix I -- Test Setup Photograph\_MPE

## **APPENDIX II -- EXTERNAL PHOTOGRAPH**

Please refer to separated files Appendix II -- External Photograph

## **APPENDIX III -- INTERNAL PHOTOGRAPH**

Please refer to separated files Appendix III -- Internal Photograph

----- End of Report -----

