

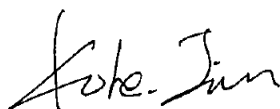
# ***RF EXPOSURE EVALUATION REPORT***

**Application No.:** GZCR2108020948AT  
**Applicant:** Dongguan Padmat Rubber Co., Ltd  
**Address of Applicant:** Zhongxing Road, Shayao Village, Shijie Town, Dongguan, Guangdong 523000, China  
**Manufacturer:** Dongguan Padmat Rubber Co., Ltd  
**Address of Manufacturer:** Zhongxing Road, Shayao Village, Shijie Town, Dongguan, Guangdong 523000, China  
**Factory:** Dongguan Padmat Rubber Co., Ltd  
**Address of Factory:** Zhongxing Road, Shayao Village, Shijie Town, Dongguan, Guangdong 523000, China  
**Equipment Under Test (EUT):**  
**EUT Name:** Soft RGB wireless charge (10W)  
**Model No.:** WC03  
**Standard(s) :** 47 CFR PART 1, Subpart I, Section 1.1310  
 47 CFR PART 2, Subpart J, Section 2.1091  
**Date of Receipt:** 2021-08-25  
**Date of Evaluation:** 2021-08-25 to 2021-09-05  
**Date of Issue:** 2021-09-07

**Evaluation Result:**

**Pass\***

\* In the configuration evaluated, the EUT complied with the standards specified above.



Kobe Jian  
EMC Laboratory Manager



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| Revision Record |         |            |          |          |
|-----------------|---------|------------|----------|----------|
| Version         | Chapter | Date       | Modifier | Remark   |
| 01              |         | 2021-08-31 |          | Original |
|                 |         |            |          |          |
|                 |         |            |          |          |

|                         |                                                                                     |  |  |
|-------------------------|-------------------------------------------------------------------------------------|--|--|
| Authorized for issue by |                                                                                     |  |  |
| Tested By               |  |  |  |
|                         | Curry Wu/Project Engineer                                                           |  |  |
| Reviewed By             |  |  |  |
|                         | Ricky Liu/Reviewer                                                                  |  |  |

## 2 Evaluation Summary

| Radio Spectrum Matter Part |                                                |                                                                                |                    |        |
|----------------------------|------------------------------------------------|--------------------------------------------------------------------------------|--------------------|--------|
| Item                       | Standard                                       | Method                                                                         | Requirement        | Result |
| RF Exposure                | 47 CFR PART 1,<br>Subpart I, Section<br>1.1310 | KDB 680106 D01<br>TCB Workshop<br>Presentation<br>November 2019 RF<br>Exposure | CFR 47 Part 1.1310 | Pass   |

**Note:**

E.U.T./EUT means Equipment Under Test.

Pass means the test result passed the test standard requirement, please find the detailed decision rule in the report relative section.

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## 4 General Information

### 4.1 Details of E.U.T.

|                      |                                                                                                                                                              |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power supply:        | Input: 5V/2A, 9V/2A<br>Output: 5W/7.5W/10W                                                                                                                   |
| Cable(s):            | USB Cable: 180cm unshielded                                                                                                                                  |
| Operation Frequency: | 110.4kHz to 145.6kHz                                                                                                                                         |
| Modulation Type:     | Load modulation                                                                                                                                              |
| Antenna Type:        | Loop antenna                                                                                                                                                 |
| Remark:              | This device has been tested the worst status of full load and the device has been tested with load at 5W, 7.5W and 10W, the worst case 10W is reported only. |

### 4.2 Description of Support Units

| Description       | Manufacturer | Model No. | Serial No.       |
|-------------------|--------------|-----------|------------------|
| Adapter           | Apple        | A1863     | REF. No.SEA16J00 |
| Mobile Phone      | Nexus        | MRA58K    | REF. No.SEA16P00 |
| iPhone 8          | Apple        | A1863     | REF. No.SEA16J00 |
| SAMSUNG Galaxy S8 | SAMSUNG      | SM-G9500  | REF. No.SEA16M01 |
| E-loading         | SGS          | N/A       | REF. No.SEA42A00 |

### ■ Measurement Uncertainty

| Test Item              | Measurement Uncertainty |
|------------------------|-------------------------|
| RF Exposure Evaluation | MF: 0.13dB, EF: 0.4dB   |

## 5 Equipments Used during Test

| RF Exposure                          |                   |          |              |            |              |
|--------------------------------------|-------------------|----------|--------------|------------|--------------|
| Equipment                            | Manufacturer      | Model No | Inventory No | Cal Date   | Cal Due Date |
| 743 Compact 3m Semi-Anechoic Chamber | ChangZhou ZhongYu | N/A      | EMC0525      | 2019-10-20 | 2022-10-19   |
| Electric and Magnetic Field Analyzer | Narada            | NBM-550  | EMC2143      | 2020-01-07 | 2022-01-06   |
| Probe                                | Narada            | EHP-50F  | EMC2143      | 2020-01-07 | 2022-01-06   |

| General used equipment |              |          |              |            |              |
|------------------------|--------------|----------|--------------|------------|--------------|
| Equipment              | Manufacturer | Model No | Inventory No | Cal Date   | Cal Due Date |
| DMM                    | Fluke        | 73       | EMC0006      | 2021-07-08 | 2022-07-07   |
| DMM                    | Fluke        | 73       | EMC0007      | 2021-07-08 | 2022-07-07   |



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## 5.1 Facility

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

- **NVLAP (Lab Code: 200611-0)**

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP/NIST). NVLAP Code: 200611-0.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

- **ACMA**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory can also perform testing for the Australian/New Zealand Regulatory Compliance Mark (RCM).

- **SGS UK(Certificate No.: 32), SGS-TUV SAARLAND and SGS-FIMKO**

Have approved SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory as a supplier of EMC TESTING SERVICES and SAFETY TESTING SERVICES.

- **CNAS (Lab Code: L0167)**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been assessed and in compliance with CNAS-CL01:2018 accreditation criteria for testing laboratories (identical to ISO/IEC 17025:2017 General Requirements) for the Competence of Testing Laboratories.

- **FCC Recognized Accredited Test Firm(Registration No.: 486818)**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been accredited and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Designation Number: CN5016, Test Firm Registration Number: 486818.

- **ISED (Registration No.: 4620B, CAB identifier: CN0052)**

SGS-CSTC Standards Technical Services Co., Ltd., has been registered by Innovation Science and Economic Development Canada for Wireless Device Testing laboratories to test to Canadian radio equipment requirements. Registration No. 4620B, CAB identifier: CN0052.

- **VCCI (Registration No.: R-12460, C-12584, G-20107 and T-11179)**

The 10m Semi-anechoic chamber, 966 Anechoic Chamber and Shielded Room of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-12460, C-12584, G-20107 and T-11179 respectively.

- **CBTL (Lab Code: TL129)**

SGS-CSTC Standards Technical Services Co., Ltd., E&E Laboratory has been assessed and fully comply with the requirements of ISO/IEC 17025:2017, the Basic Rules, IECEE 01 and Rules of procedure IECEE 02, and the relevant IECEE CB-Scheme Operational documents.

## 5.2 Deviation from Standards

None

## 5.3 Abnormalities from Standard Conditions

None



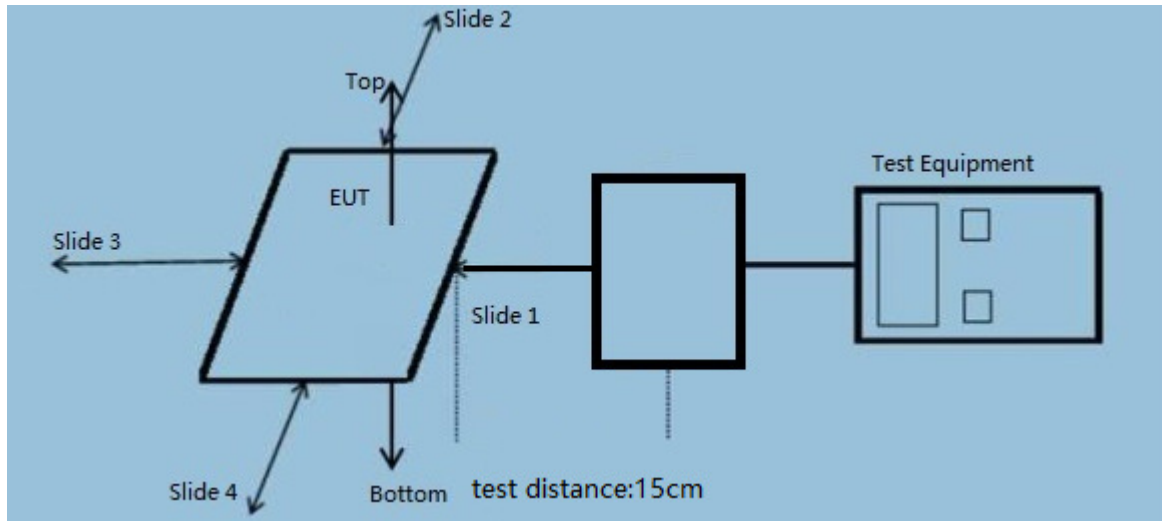
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### 5.4 Test Block Diagram



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## 6 Test Results

### 6.1 RF Exposure test

Test Requirement: 47 CFR PART 1, Subpart I, Section 1.1310  
47 CFR PART 2, Subpart J, Section 2.1091

Measurement Distance: 15cm

Limit:

| Frequency range (MHz)                                          | Electric field strength (V/m) | Magnetic field strength (A/m) | Power density (mW/cm <sup>2</sup> ) | Averaging time (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).

#### 6.1.1 E.U.T. Operation

##### Operating Environment:

Temperature: 22.3 °C Humidity: 52.9 % RH Atmospheric Pressure: 1010 mbar

This device has been tested the worst status of full load and the device has been tested with mobile phone at zero charge, intermediate charge, and full charge.



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## 6.1.2 Measurement Data

1: The max output power =10W

### Electric Field Emissions

| Operation frequency                                                    | Test Distance (cm) | Test Position | Probe Measurement Result (V/m) | Limit (V/m) | 30% Limit (V/m) | Verdict |
|------------------------------------------------------------------------|--------------------|---------------|--------------------------------|-------------|-----------------|---------|
| 125.7 kHz which is the worst case within the operation frequency range | 15                 | Side 1        | 0.74                           | 83          | 24.9            | Pass    |
|                                                                        |                    | Side 2        | 0.88                           | 83          | 24.9            | Pass    |
|                                                                        |                    | Side 3        | 0.67                           | 83          | 24.9            | Pass    |
|                                                                        |                    | Side 4        | 0.54                           | 83          | 24.9            | Pass    |
|                                                                        |                    | Top           | 0.43                           | 83          | 24.9            | Pass    |

### Magnetic Field Emissions

| Operation frequency                                                    | Test Distance (cm) | Test Position | Probe Measurement Result (A/m) | Limit (A/m) | 30% Limit (A/m) | Verdict |
|------------------------------------------------------------------------|--------------------|---------------|--------------------------------|-------------|-----------------|---------|
| 125.7 kHz which is the worst case within the operation frequency range | 15                 | Side 1        | 0.1175                         | 90          | 27              | Pass    |
|                                                                        |                    | Side 2        | 0.1274                         | 90          | 27              | Pass    |
|                                                                        |                    | Side 3        | 0.1161                         | 90          | 27              | Pass    |
|                                                                        |                    | Side 4        | 0.1203                         | 90          | 27              | Pass    |
|                                                                        |                    | Top           | 0.1045                         | 90          | 27              | Pass    |

Mobile phone has been charged at zero charge, intermediate charge, and full charge.

#### Electric Field Emissions

| Operation frequency                                                       | Test Distance<br>(cm) | Test Position | Probe Measure Result(V/m) |                     |             | 30%Limit<br>(V/m) |
|---------------------------------------------------------------------------|-----------------------|---------------|---------------------------|---------------------|-------------|-------------------|
|                                                                           |                       |               | zero charge               | intermediate charge | full charge |                   |
| 125.7 kHz<br>which is the worst case within the operation frequency range | 15                    | Side 1        | 0.77                      | 0.64                | 0.55        | 24.9              |
|                                                                           |                       | Side 2        | 0.84                      | 0.71                | 0.62        | 24.9              |
|                                                                           |                       | Side 3        | 0.70                      | 0.58                | 0.50        | 24.9              |
|                                                                           |                       | Side 4        | 0.56                      | 0.44                | 0.31        | 24.9              |
|                                                                           |                       | Top           | 0.55                      | 0.47                | 0.34        | 24.9              |

#### Magnetic Field Emissions

| Operation frequency                                                       | Test Distance<br>(cm) | Test Position | Probe Measure Result(A/m) |                     |             | 30%Limit<br>(A/m) |
|---------------------------------------------------------------------------|-----------------------|---------------|---------------------------|---------------------|-------------|-------------------|
|                                                                           |                       |               | zero charge               | intermediate charge | full charge |                   |
| 125.7 kHz<br>which is the worst case within the operation frequency range | 15                    | Side 1        | 0.1263                    | 0.1061              | 0.0844      | 27                |
|                                                                           |                       | Side 2        | 0.1227                    | 0.1109              | 0.0902      | 27                |
|                                                                           |                       | Side 3        | 0.1248                    | 0.1048              | 0.0834      | 27                |
|                                                                           |                       | Side 4        | 0.1202                    | 0.1193              | 0.1087      | 27                |
|                                                                           |                       | Top           | 0.1006                    | 0.0925              | 0.0836      | 27                |

## 7 Photographs- RF exposure Setup photos

Test with mobile phone with 15cm measurement distance

Side 1



Side 2



Side 3



Side 4



Top



- End of the Report -