



# MPE TEST REPORT

Report No: STS1801201W02

Issued for

Shenzhen Benarlee Technology Co., Ltd

Third floor, Building B1, Nanshan Zhiyuan, Taoyuan Street,  
Nanshan District, ShenZhen, China

|                       |  |
|-----------------------|--|
| <b>Product Name:</b>  | Wireless charger   |
| <b>Brand Name:</b>    | BenarLee   |
| <b>Model Name:</b>    | V8   |
| <b>Series Model:</b>  | V8-G,V8-R,V8-L,V8001,QI-NM80,E10,Q10,<br>V8002,V8003,V8004,V8005,V8006,V8007 |
| <b>FCC ID:</b>        | 2AOQUV8  |
| <b>Test Standard:</b> | FCC CFR 47 part 1, 1.1310  |

Any reproduction of this document must be done in full. No single part of this document may be reproduced without permission from STS, All Test Data Presented in this report is only applicable to presented Test sample.





TEST RESULT CERTIFICATION

Applicant's name : Shenzhen Benarlee Technology Co., Ltd
Address : Third floor, Building B1, Nanshan Zhiyuan, Taoyuan Street, Nanshan District, ShenZhen, China

Manufacture's Name : Shenzhen Benarlee Technology Co., Ltd
Address : Third floor, Building B1, Nanshan Zhiyuan, Taoyuan Street, Nanshan District, ShenZhen, China

Product description

Product Name .....: Wireless charger
Brand Name .....: BenarLee
Model Name.....: V8
Series Model .....: V8-G,V8-R,V8-L,V8001,QI-NM80,E10,Q10, V8002,V8003,V8004,V8005,V8006,V8007

Standards : FCC CFR 47 part 1, 1.1310

Test Procedure : 680106 D01 RF Exposure Wireless Charging Apps v02
This device described above has been tested by STS, the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.
This report shall not be reproduced except in full, without the written approval of STS, this document may be altered or revised by STS, personal only, and shall be noted in the revision of the document.
Date of performance of tests: 22 Jan. 2018 ~28 Jan. 2018

Date of Issue : 29 Jan. 2018

Test Result : Pass

Testing Engineer : Chris chen
( Chris chen )

Technical Manager : Sean she
( Sean she )

Authorized Signatory : Vita Li
(Vita Li)





| Table of Contents                          | Page     |
|--|----------|
| <b>1. SUMMARY OF TEST RESULTS</b>          | <b>5</b> |
| 1.1 TEST FACTORY                           | 5        |
| 1.2 MEASUREMENT UNCERTAINTY                | 5        |
| 1.3 GENERAL DESCRIPTION OF EUT             | 6        |
| 1.4 EQUIPMENTS LIST FOR ALL TEST ITEMS     | 7        |
| <b>2. MAXIMUM PERMISSIBLE EXPOSURE</b>     | <b>8</b> |
| 2.1 MAXIMUM PERMISSIBLE EXPOSURE           | 8        |
| 2.2 TEST PROCEDURE                         | 9        |
| 2.3 TEST SETUP                             | 9        |
| 2.4 RESULT OF MAXIMUM PERMISSIBLE EXPOSURE | 9        |





**Revision History**

| Rev. | Issue Date   | Report NO.    | Effect Page | Contents      |
|------|--------------|---------------|-------------|---------------|
| 00   | 29 Jan. 2018 | STS1801201W02 | ALL         | Initial Issue |
|      |              |               |             |               |



### 1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:  
 FCC KDB 680106 D01 RF Exposure Wireless Charging Apps v02

| FCC CFR 47   |                                   |          |        |
|--|-----------------------------------|----------|--------|
| Standard Section                                       | Test Item                         | Judgment | Remark |
| FCC CFR 47 part1,<br>1.1310 KDB680106<br>D01v02 (3)(3) | Electric Field Strength (E) (V/m) | PASS     |        |
|  | Magnetic Field Strength (H) (A/m) | PASS     |        |

#### 1.1 TEST FACTORY

Shenzhen STS Test Services Co., Ltd.  
 Add. : 1/F., Building B, Zhuoke Science Park, No.190, Chongqing Road,  
 Fuyong Street, Bao'an District, Shenzhen, Guangdong, China  
 CNAS Registration No.: L7649; FCC Registration No.: 625569  
 IC Registration No.: 12108A; A2LA Certificate No.: 4338.01;

#### 1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement  $y \pm U$ , where expanded uncertainty  $U$  is based on a standard uncertainty multiplied by a coverage factor of  $k=2$ , providing a level of confidence of approximately 95%.

| No. | Item                                     | Uncertainty             |
|-----|--|-------------------------|
| 1   | All emissions,radiated(<30M)(9KHz-30MHz) | $\pm 2.45\text{dB}$     |
| 2   | Temperature                              | $\pm 0.5^\circ\text{C}$ |
| 3   | Humidity                                 | $\pm 2\%$               |

1.3 GENERAL DESCRIPTION OF EUT

|                         |  |
|-------------------------|--|
| Product Name            | Wireless charger   |
| Trade Name              | BenarLee   |
| Model Name              | V8   |
| Series Model            | V8-G,V8-R,V8-L,V8001,QI-NM80,E10,Q10,<br>V8002,V8003,V8004,V8005,V8006,V8007 |
| Model Difference        | Only different in model name and appearance                                  |
| Equipemnt Category      | Non-ISM frequency  |
| Operating frequency     | 112.825kHz-125.685KHz  |
| Modulation Type         | ASK  |
| Power Adapter           | DC 5V  |
| Hardware version number | N/A  |
| Software version number | N/A  |

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
2. Table for Filed Antenna

| Ant | Brand    | Model Name | Antenna Type | Connector | NOTE    |
|-----|----------|------------|--------------|-----------|---------|
| 1   | BenarLee | V8         | Internal     | NA        | Antenna |

The EUT antenna is Coil Antenna. No antenna other than that furnished by the responsible party shall be used with the device.

3.
 

| Test Channel |                 |         |                 |         |                 |
|--------------|-----------------|---------|-----------------|---------|-----------------|
| Channel      | Frequency (KHz) | Channel | Frequency (KHz) | Channel | Frequency (KHz) |
| 00           | 112.825         | 01      | 119.125         | 02      | 125.685         |



## 1.4 EQUIPMENTS LIST FOR ALL TEST ITEMS

| Kind of Equipment               | Manufacturer | Type No.                        | Serial No. | Last calibration | Calibrated until |
|---------------------------------|--------------|---------------------------------|------------|------------------|------------------|
| EMF Meter                       | NARDA        | ELT-400                         | N-0342     | 2017.10.23       | 2018.10.22       |
| EMF probe                       | NARDA        | B-Field Probe                   | M-0779     | 2017.10.23       | 2018.10.22       |
| Broadband field meter NARDA NBM | 550          | Broadband field meter NARDA NBM | E-1275     | 2017.10.23       | 2018.10.22       |
| Broadband field probe NARDA EF  | 0391         | Broadband field probe NARDA EF  | D-0894     | 2017.10.23       | 2018.10.22       |



## 2. MAXIMUM PERMISSIBLE EXPOSURE

### 2.1 MAXIMUM PERMISSIBLE EXPOSURE

Limit of Maximum Permissible Exposure

| Limits for Occupational / Controlled Exposure |                                   |                                   |  |  |
|---|-----------------------------------|-----------------------------------|--|--|
| Frequency Range (MHz)                         | Electric Field Strength (E) (V/m) | Magnetic Field Strength (H) (A/m) | Power Density (S) (mW/ cm <sup>2</sup> ) | Averaging Time  E  <sup>2</sup> , H  <sup>2</sup> or S (minutes) |
| 0.3-3.0                                       | 614                               | 1.63                              | (100)*                                   | 6  |
| 3.0-30  | 1842 / f                          | 4.89 / f                          | (900 / f)*                               | 6  |
| 30-300  | 61.4                              | 0.163                             | 1.0                                      | 6  |
| 300-1500                                      |                                   |                                   | F/300                                    | 6  |
| 1500-100,000                                  |                                   |                                   | 5  | 6  |

| Limits for General Population / Uncontrolled Exposure |                                   |                                   |  |  |
|---|-----------------------------------|-----------------------------------|--|--|
| Frequency Range (MHz)                                 | Electric Field Strength (E) (V/m) | Magnetic Field Strength (H) (A/m) | Power Density (S) (mW/ cm <sup>2</sup> ) | Averaging Time  E  <sup>2</sup> , H  <sup>2</sup> or S (minutes) |
| 0.3-1.34  | 614                               | 1.63                              | (100)*                                   | 30   |
| 1.34-30   | 824/f                             | 2.19/f                            | (180 / f)*                               | 30   |
| 30-300  | 27.5                              | 0.073                             | 0.2                                      | 30   |
| 300-1500  |                                   |                                   | F/1500                                   | 30   |
| 1500-100,000  |                                   |                                   | 1  | 30   |

Note 1: f = frequency in MHz ; \*Plane-wave equivalent power density

Note 2: For the applicable limit, see FCC 1.1310, 680106 D01 RF Exposure Wireless Charging Apps v02

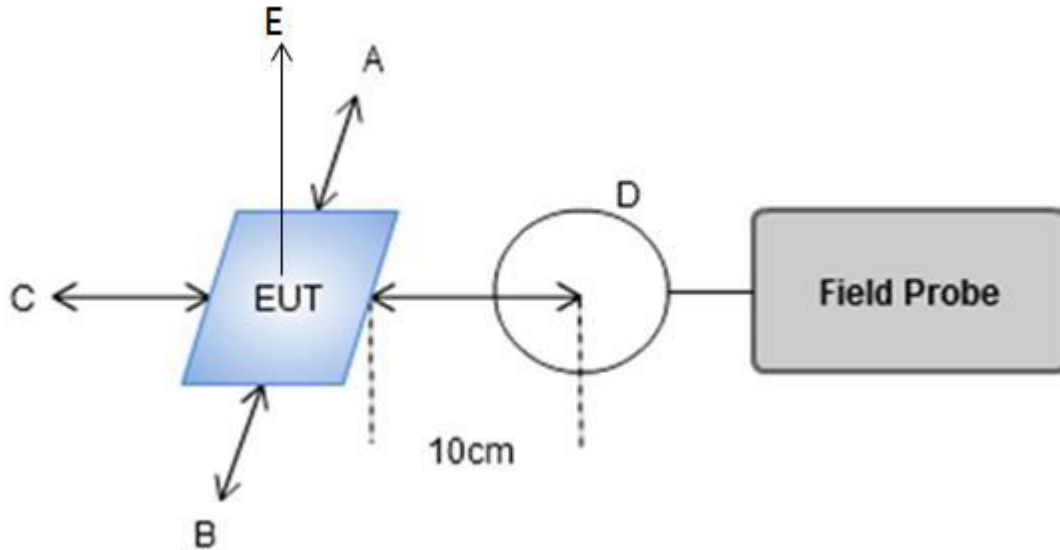
Note 3: Emissions between 100 kHz to 300 kHz should be assessed versus the limits at 300 kHz in Table 1 of Section 1.1310: 614 V/m and 1.63 A/m. A KDB inquiry is required to determine the applicable exposure limits below 100 kHz.



2.2 TEST PROCEDURE

- a. For devices designed for typical desktop applications, such a wireless charging pads, RF exposure evaluation should be conducted assuming a user separation distance of 10 cm. E and H field strength measurements or numerical modeling may be used to demonstrate compliance. Measurements should be made from all sides and the top of the primary/client pair, with the 10 cm measured from the center of the probe(s) to the edge of the device.

2.3 TEST SETUP



2.4 RESULT OF MAXIMUM PERMISSIBLE EXPOSURE

| Maximum Permissible Exposure |            |                     |               |               |
|------------------------------|------------|---------------------|---------------|---------------|
| Charging                     | Separation | Probe from EUT Side | E-field (V/m) | H-field (A/m) |
| < 1% Battery                 | 10cm       | A                   | 1.36          | 0.343         |
| < 1% Battery                 | 10cm       | B                   | 1.42          | 0.358         |
| < 1% Battery                 | 10cm       | C                   | 1.53          | 0.334         |
| < 1% Battery                 | 10cm       | D                   | 1.48          | 0.346         |
| < 1% Battery                 | 10cm       | E                   | 5.25          | 0.336         |
| Limit                        |            |                     | 614           | 1.63          |
| Margin Limit (%)             |            |                     | 0.86%         | 21.96%        |



| Maximum Permissible Exposure |            |                     |               |               |
|------------------------------|------------|---------------------|---------------|---------------|
| Charging                     | Separation | Probe from EUT Side | E-field (V/m) | H-field (A/m) |
| 50% Battery                  | 10cm       | A                   | 1.76          | 0.343         |
| 50% Battery                  | 10cm       | B                   | 1.68          | 0.358         |
| 50% Battery                  | 10cm       | C                   | 1.70          | 0.362         |
| 50% Battery                  | 10cm       | D                   | 1.66          | 0.349         |
| 50% Battery                  | 10cm       | E                   | 5.56          | 0.535         |
| Limit                        |            |                     | 614           | 1.63          |
| Margin Limit (%)             |            |                     | 0.91%         | 26.75%        |

| Maximum Permissible Exposure |            |                     |               |               |
|------------------------------|------------|---------------------|---------------|---------------|
| Charging                     | Separation | Probe from EUT Side | E-field (V/m) | H-field (A/m) |
| >99% Battery                 | 10cm       | A                   | 1.89          | 0.368         |
| >99% Battery                 | 10cm       | B                   | 1.92          | 0.377         |
| >99% Battery                 | 10cm       | C                   | 1.95          | 0.380         |
| >99% Battery                 | 10cm       | D                   | 1.90          | 0.375         |
| >99% Battery                 | 10cm       | E                   | 6.04          | 0.684         |
| Limit                        |            |                     | 614           | 1.63          |
| Margin Limit (%)             |            |                     | 0.98%         | 41.96%        |

### Test photo



※※※※※END OF THE REPORT※※※※※